



Partnering
for
progress

Financial highlights

Financial highlights

For the years ended 31 December

USD millions, unless otherwise stated	2020	2021	Change in %
Group			
Net income/loss attributable to common shareholders	-878	1 437	-
Gross premiums written	42 951	46 658	9
Premiums earned and fee income	40 770	42 726	5
Earnings per share in CHF	-2.97	4.52	-
Shareholders' equity	27 135	23 568	-13
Return on equity in % ¹	-3.1	5.7	
Return on investments in %	3.5	3.2	
Net operating margin in % ²	-1.1	5.1	
Number of employees ³	13 189	13 985	6
Property & Casualty Reinsurance			
Net income/loss attributable to common shareholders	-247	2 097	-
Gross premiums written	21 512	23 246	8
Premiums earned	20 832	21 926	5
Combined ratio in %	109.0	97.1	
Net operating margin in % ²	0.1	11.6	
Return on equity in % ¹	-2.8	22.5	
Life & Health Reinsurance			
Net income/loss attributable to common shareholders	71	-523	-
Gross premiums written	15 067	16 071	7
Premiums earned and fee income	13 883	14 868	7
Net operating margin in % ²	2.9	-2.1	
Return on equity in % ¹	0.9	-8.6	
Corporate Solutions⁴			
Net income/loss attributable to common shareholders	-467	578	-
Gross premiums written	6 185	7 492	21
Premiums earned	5 019	5 343	6
Combined ratio in %	115.5	90.6	
Net operating margin in % ²	-10.7	13.5	
Return on equity in % ¹	-19.7	22.3	

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 For Corporate Solutions, 2020 has been revised to reflect the results of elipsLife, which as of 1 January 2021 is reported as part of Corporate Solutions following the disbandment of the Life Capital Business Unit at the end of 2020.

Swiss Re's Annual Report Contents

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.

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Financial Year

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Swiss Re reported net income of USD 1.4 billion for 2021, driven by strong performance of its property and casualty businesses.

The global economy and financial markets

Year in review

The world economy made a strong cyclical recovery from the COVID-19 crisis in 2021. Vaccination rollouts, economic reopening and policy stimulus – particularly in advanced markets – generated surging demand. However, fresh waves of the virus and renewed restrictions in several countries later in the year reinforced the uneven nature of the worldwide recovery. For example, German GDP growth contracted again in the fourth quarter.

Global economy

The world economy expanded by 5.6% in 2021 after a pandemic-induced contraction of 3.5% in 2020. The US economy (5.7%) bounced back stronger than the Euro area (5.2%). China, the only major economy to escape economic contraction in 2020 (+2.3%), expanded by 8.1% in 2021. Other emerging markets also recovered, with India estimated to have grown by 9.2% and Brazil by 4.7%.

Inflation surged in many countries in 2021, excluding China. Price pressures were fueled by supply-demand imbalances, rising energy prices and the statistical “bounce back” from the low base in price levels in 2020.

The protracted supply-side issues also weighed on global economic growth in the second half of 2021. In the fourth quarter, natural gas prices skyrocketed to all-time highs in Europe and Brent crude oil rose to a three-year high of \$86 per barrel. Cost pressures also began to shift into slower moving but harder to reverse price categories, such as rents and wages.

Interest rates

Central banks began to rein in ultra-accommodative monetary policy in 2021, albeit moderately, amid rising inflation and recovering labour markets. The US Federal Reserve (Fed) started tapering its asset purchase programme from November 2021, and several other central banks in advanced and emerging markets began to raise interest rates in 2021, notably the Bank of England (BoE). In contrast, the European Central Bank (ECB) maintained its ultra-accommodative monetary policy stance and even temporarily ramped up asset purchases for a part of 2021.

Long-term government bond yields ended 2021 higher than a year earlier in response to the global economic recovery and rising inflation expectations (see Table on next page). However, German and Swiss long-term bond yields were still in negative territory throughout the year. Chinese yields were the key exception and moved lower in 2021, with the 10-year yield closing lower by almost 0.4 percentage points at 2.8%.

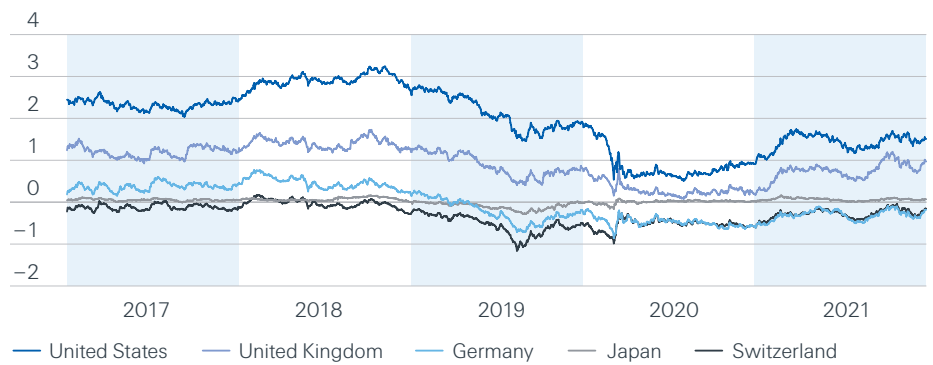
1.5%

US 10-year Treasury bond yield
Year-end 2021

-0.2%

German 10-year Bund yield
Year-end 2021

Interest rates for 10-year government bonds 2017–2021



Source: Refinitiv, Swiss Re Institute

Economic indicators 2020–2021

	USA		Eurozone		UK		Japan		China	
	2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
Real GDP growth ¹	-3.4	5.7	-6.4	5.2	-9.4	7.5	-4.5	1.9	2.2	8.1
Inflation ¹	1.2	4.7	0.3	2.6	0.9	2.6	0.0	-0.3	2.5	0.9
Long-term interest rate ²	0.9	1.5	-0.6	-0.2	0.2	1.0	0.0	0.1	3.2	2.8
USD exchange rate ^{2,3}	-	-	122	114	137	135	0.97	0.87	15.3	15.7

¹ Yearly average

² Year-end

³ USD per 100 units of foreign currency

Source: Refinitiv, Swiss Re Institute

Stock market performance

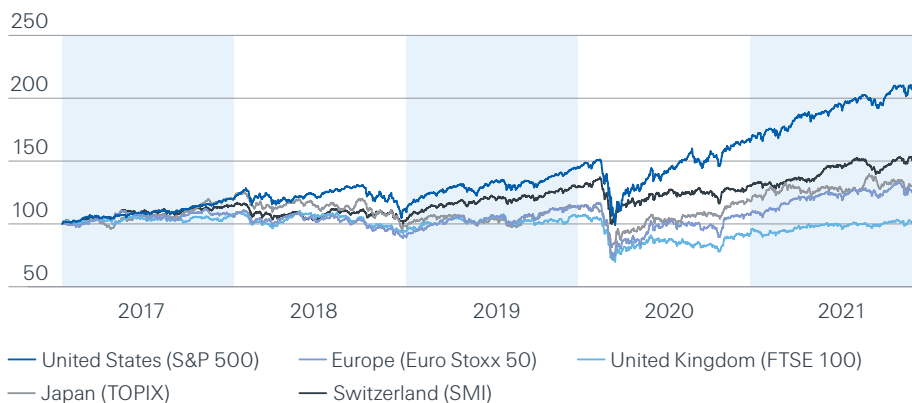
Stock markets had a strong year across developed economies, yielding above-average returns. The US S&P 500 index gained 27%, Europe’s STOXX 600 index gained 22%, and Switzerland’s SMI index gained 20% (see stock markets chart). All three of these stock indices also reached new record levels in 2021, as did some other stock indices like Germany’s DAX and France’s CAC 40. The economic rebound, strongly recovering corporate earnings and a supportive monetary and fiscal policy environment fueled the strong rally.

The performance of emerging market stock markets was more mixed in 2021. The MSCI EM stock index closed the year down -4.6%. The key underperformer was China, with the Shanghai Shenzhen CSI 300 Index down -5.2% over the year due to various headwinds from regulatory tightening, property sector deleveraging, and the “zero COVID-19” strategy.

Currency movements

Other than some weakening in the second quarter, the US dollar appreciated against most currencies throughout 2021 amid expectations of a more hawkish Fed following higher than expected inflation. The US dollar ended the year 7.4% higher against the euro, which was also reinforced by the relatively more dovish ECB, interest rate differential and a slower European economic recovery, as the region faced renewed COVID-19 restrictions and lockdowns at the beginning and end of last year, unlike the US. The US dollar appreciated to a lesser extent against the Swiss franc and British pound (by +3.1% and +1.0%, respectively).

Stock markets 2016–2021



Source: Refinitiv, Swiss Re Institute

Outlook

Year ahead economic outlook

After a strong bounce back in economic activity last year, real GDP growth rates are set to slow significantly this year. Inflation rates are expected to stay very elevated in 2022 amid high energy prices, protracted supply-side constraints and broadening price pressures. Over the longer term, inflation is expected to be structurally higher post-COVID-19, particularly in the US, while Swiss Re sees comparatively lower inflation risks in the euro area and China.

Policy conditions are tightening, with a notable fiscal drag expected especially this year in the US. On monetary policy, Swiss Re expects the Fed to complete tapering asset purchases in March and to hike several times in 2022, joining other central banks in raising interest rates. Swiss Re also expects quantitative tightening (QT) to occur earlier and faster in 2022. The ECB is also planning to exit its ultra-accommodative policy, but will do so more gradually.

Swiss Re expects long-term government bond yields to increase in 2022. That said, the long-term structural drivers of low interest rates are likely here to stay. These include high debt levels, demographics, and other structural characteristics such as economic inequality.

Long-term outlook: the three “Ds”

The world has seen a cyclical recovery, however structural problems remain. Swiss Re believes more inclusive and sustainable growth is needed and has identified three key trends that will affect the resilience of the economy’s longer-term path. These are the three “Ds” (divergence, digitalisation, decarbonisation)¹.

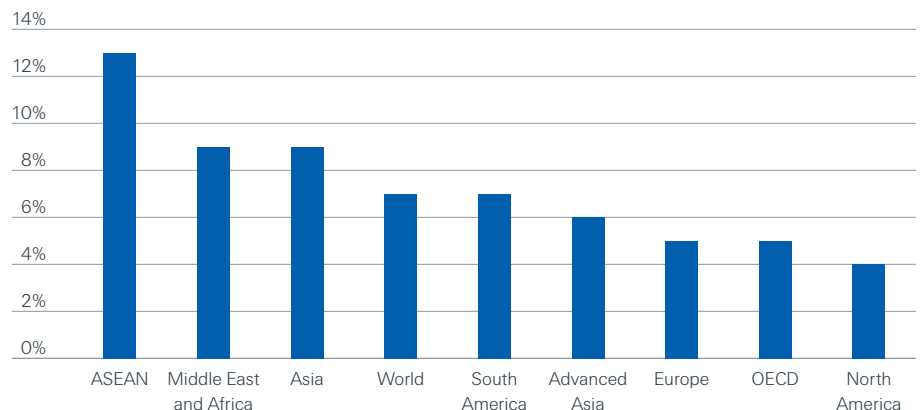
Divergence: The growing divergence within and across countries in economic recovery, economic inequality and socio-economic opportunity is a key concern. These divergences make the overall global recovery uneven and fragile. For example, countries with lower vaccination rates were more exposed to virus resurgences in 2021. Looking ahead, Swiss Re expects stronger emphasis on inclusive growth as well as taxation and regulation as policymakers seek to confront divergences in societies and economies.

Digitalisation: Inclusive digital transformation is needed to “future proof” the economy. Digitalisation is a promising path to higher productivity growth, which has declined since the global financial crisis. Higher productivity growth would raise living standards and increase the natural rates of interest. This would allow

policymakers more room for monetary manoeuvre and strengthen the resilience of economies.

Decarbonisation: The influence of climate change is on the rise. This will increasingly set economies back through physical risks, such as property damage, disruption to trade and lost productivity. Swiss Re estimates that the world stands to lose around 11% of GDP under a scenario of 2°C warming by 2050.² Achieving the Paris Agreement target would reduce the economic losses and be the best possible outcome (see chart below on estimated mitigated GDP loss). Rapid decarbonisation is therefore imperative. However, the ongoing energy crisis illustrates the complexity of managing this green transition. This reinforces the need for an even greater acceleration in alternative green and renewable energy supplies. Insurers can support this transition as providers of risk transfer capability and knowledge, as well as through long-term investments in green infrastructure. This would also unlock new opportunities and jobs in the real economy.

Mitigated GDP loss by mid-century if Paris Agreement target is met, versus 2°C rise



Source: Swiss Re Institute, 2021

Note: The figure is based on simulations of the severe economic impacts from climate change. It shows the difference between the 2°C scenario and the Paris scenario, as % of GDP in a world without climate change.

¹ *sigma: Turbulence after lift-off: global economic and insurance market outlook 2022/23*, Swiss Re, November 2021

² *The economics of climate change: no action not an option*, Swiss Re, April 2021.

Primary non-life

3 800

Market size in USD billions

Estimated global premium income in 2021

3%

Market growth

Estimated global premium growth in 2021

Market overview

The global non-life industry generated around USD 3 800 billion of premium income in 2021, with health insurance accounting for about 48% of the market. Non-life insurance ranges from personal lines business such as health, motor and household to standardised commercial liability and property lines. It also includes sophisticated tailor-made covers like specialty and industrial risk insurance.

Market performance

Swiss Re estimates that global non-life premiums expanded by around 3% in real terms in 2021, after a small increase of 1.5% in 2020, the first year of the pandemic. As inflation in 2021 was notably higher than in 2020, the real numbers understate the significant change seen in nominal growth terms. Swiss Re estimates that in nominal terms, non-life premiums were up about 7% in 2021, after a 3% gain in 2020. The strong nominal outcome in 2021 came in spite of the headwinds from the lingering effects of the pandemic.

The return to long-term trend growth of around 3% annually in 2021 came against the backdrop of a strong but uneven global economic recovery, and differing growth dynamics for the major lines of business. Premiums in commercial P&C insurance lines, including workers compensation, grew the most, up by 4% in real terms on the back of the continued rate hardening in commercial lines and the economic recovery.

For global health insurance, Swiss Re estimates real premium growth of 4% in 2021, driven by a strong US economy and stable demand from the advanced markets. In emerging markets with often less well-developed public health systems, higher risk awareness will likely increase demand for health-related insurance covers. In China, government initiatives are supporting demand. For personal lines business, Swiss Re projects less strong global premium growth of 2%. A main factor here will be weak demand for motor insurance in advanced markets, alongside an estimated 7% drop in premium volumes in China due to de-tariffication rate cuts.

By region, non-life premiums in the advanced regions grew by 3% in real terms in 2021, driven by strength in commercial business, but weakness in motor insurance in North America and EMEA. The motor segment saw strong price competition in 2021 after significant underwriting gains in 2020. There was a resumption in growth in the emerging markets in 2021 with premiums up 6% in real terms after a sluggish 2020. Emerging Asia and Latin America exhibited a broad-based recoveries, with region non-life premiums up 6% and 5% respectively. Emerging EMEA lagged once again, with premium volumes up around 3%.

Pricing in non-life insurance commercial lines strengthened again in 2021, with an upswing across lines of business and by region. There were strong price increases in property (9% in the third quarter) and in financial and professional liability (FinPro) (+32%) lines in almost all regions. For property, rates have been mainly driven by natural catastrophe-related covers, and in FinPro by rising D&O claims. Prices in casualty showed 6% improvements, driven mainly by gains in the US and Europe, while Asia and Latin America remained sluggish.

Swiss Re estimates the overall profitability of the non-life insurance sector, measured by return on equity (ROE), at 6% in 2021, down from an already low 7% in 2020. The 2021 performance is mostly driven by lower underwriting results as earnings in motor returned to trend after a huge lockdown-driven gains in 2020.

Outlook

Swiss Re forecasts above-trend real non-life premium growth of 4% in 2022. Sentiment in commercial lines business points to continued hard market momentum in 2022, reflecting strong demand and inflation-induced higher claims developments. Improvements in sector profitability will largely depend on underwriting performance, pointing to the need for more rate increases and underwriting discipline.

Reinsurance non-life

220

Market size in USD billions
Estimated global premium income in 2021

5%

Market growth
Estimated global premium growth in 2021

Market overview

Global non-life reinsurance premiums in 2021 totaled about USD 220 billion, with 23% coming from ceding companies in emerging markets.

Market performance

Swiss Re estimates that global premiums in non-life reinsurance grew by around 5% in real terms in 2021. The expansion was driven by strength in commercial lines, which accounts for most of the demand from primary insurers. Reinsurance prices were higher for both non-proportional and proportional contracts. Demand from advanced markets grew by 5%, while emerging markets expanded by 4% in real terms.

In terms of profitability, the P&C reinsurance sector registered ROE of around 12% in 2021, the first year of a double-digit outcome since 2017, after four years of sub-par average ROE of around 5%. Preliminary data indicate a sector combined ratio of around 97% for 2021, an improvement from 105% in 2020 and 101% in 2019.

Reinsurers' underwriting results in 2021 were impacted by three main factors. On the positive side, the underlying, catastrophe adjusted underwriting result improved as reinsurance price hardening continued and even gained momentum at the January 2021 renewals, where about 50–60% of contracts were renewed. The absence of major COVID-19 claims in 2021 also offered support, as the non-life re/insurance industry quickly adapted underwriting procedures and policies to the new pandemic situation. In 2020, COVID-19 related claims accounted for nine percentage points of the sector combined ratio.

On the negative side, natural catastrophe activity was above-average throughout 2021 and full year insured losses are anticipated at more than USD 110 billion for the industry. This would make 2021 the fourth-costliest year on record for the insurance industry after 2005, 2011 and 2017. Among the costliest events were winterstorm Uri in Texas, Hurricane Ida which made landfall in Louisiana and also led to severe flash floods and tornadoes in the mid-Atlantic and northeastern regions, and the severe floods in Germany and Belgium. Swiss Re estimates natural catastrophes will add around 10% to the industry's 2021 combined ratio.

The sector's capital base remains very strong, allowing reinsurers to fulfill their role as the backbone of the primary insurance industry and to support societal resilience. Global sector capital grew by around 3% in nominal terms during 2021. There was a slowdown in traditional reinsurance capital growth to 3% in 2021 from 7% in 2020 and 11% in 2019. This was countered by a 3% gain in the alternative capital base, after two years of retrenchments and sluggish results. The main driver for the improving alternative capital sector in 2021 was the record-high issuances of cat bonds.

Market outlook

For the next renewal round in 2022, Swiss Re expects a further increase of reinsurance prices. This is consistent with the primary non-life market sentiment and reflects high insured losses from natural catastrophes. Premium income for the reinsurance industry is forecast to grow by 5–7% in 2022 and 2023, driven by higher exposures and higher prices.

Primary life

3 100

Market size in USD billions

Estimated global premium income in 2021

5%

Market growth

Estimated global premium growth in 2021

Market overview

The global life insurance industry generated about USD 3 100 billion in premium income in 2021 of which 22% came from emerging markets. Around 80% of premium income in life insurance is derived from savings and retirement products.

Market performance

Swiss Re estimates that global life insurance premiums grew by 5% in real terms in 2021. Increased consumer risk awareness in the wake of COVID-19 has raised demand for protection products, while improved stock market performance and base effects will support a stronger rebound in savings business in 2021. Besides rising risk awareness, a recovery in group business and increased digital interaction also supported growth in 2021.

Overall real premium growth in advanced markets was 6%, however, this growth was unevenly distributed between the US, advanced EMEA and advanced Asia Pacific. Premium growth was above-trend in both advanced EMEA and Asia-Pacific excluding China. In the US, premium growth will likely be subdued compared to 2020. The strong demand in 2020 was driven by an increase in stable-value group annuity premiums in the early stages of the COVID-19 pandemic. The demand for stable-value products receded in 2021.

China had a transitional year in 2021 with life insurance premiums estimated to have declined in real terms. Sales of life policies dropped due to a significant shrinkage in the number of life insurance sales agents, and a revision of the definition of critical illness (CI) and pricing directives of associated products.

Emerging markets excluding China recovered strongly, with above-trend real life premium growth estimated at 7% in 2021. In emerging Asia (excluding China), Swiss Re estimates premiums to have grown by 7% 2021, supported by economic revival, rising risk awareness, use of digital distribution channels and liberalisation of life sector business. Latin America is benefiting from a strong increase in demand for all life and health-related business, with the first half of 2021 stronger than anticipated in several countries.

Overall profitability of the global life insurance sector, as measured by GAAP ROE of major listed life insurance companies, improved in the first half of 2021 from 2020. Stronger stock markets and slightly higher 10-year government bond yields should support insurers' investment returns this year. That said higher mortality, low interest rates and tightening bond spreads continued to present a challenge to earnings in 2021.

Life insurers are adjusting their product portfolios to cope with persistently low interest rates, for instance by moving more towards biometric risk and away from guarantees in investment-based products. Insurers are moving quickly to fee-based product offerings.

Market outlook

Swiss Re expects real premium growth to remain above trend in 2022 and 2023 with 3% growth for each year. Protection-type products should see strong demand, supported by higher risk awareness, a recovery in group business and increased digital interaction. Swiss Re expects savings business to grow moderately in 2022 and 2023, reflecting a recovery in employment and household incomes. Downside risk to both segments may come from new COVID-19 variants that lead to lockdowns and above-average mortality among insured populations.

Reinsurance life

110

Market size in USD billions
Estimated global premium income in 2021

4%

Market growth
Estimated global premium growth in 2021

Market overview

Global life and health reinsurance business generated premium income of around USD 110 billion in 2021. More than two-thirds of this is attributable to the US, Canada, the UK and China. Ceding companies from emerging markets accounted for 23% of global demand. Life reinsurers are increasingly diversifying away from traditional mortality business.

Market performance

Swiss Re estimates that global life and health reinsurance premiums grew by 4% in real terms in 2021. Expansion was unevenly distributed between segments and was stronger in the emerging than advanced markets. Medical expense reinsurance premiums from emerging markets were up more than 11% in real terms, mainly driven by China, India, and the UAE. Globally, premiums in this segment were up 7% in real terms, contrasting strongly with more sluggish demand for mortality reinsurance.

Against this background, life reinsurers have sought to increase revenues through large, individual risk transfer transactions that help primary insurers stabilise income and/or bolster their balance sheets. The introduction of risk-based capital regimes has prompted much of this activity. Another area of growth has been longevity risk transfer. The 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 associated longevity risk inherent in these lines.

The operating margin of the life reinsurance sector fell to around 3% of revenues in 2021, down from 3.5% in 2020 and from 7–8% achieved between 2015 and 2019. The underwriting performance was again significantly impacted by elevated mortality claims due to COVID-19. The contribution from investments improved slightly in the first nine months of 2021.

Market outlook

Continued recovery in primary insurance should support growth in life and health reinsurance revenues, including a recovery in traditional business. In real terms, Swiss Re forecasts global life and health reinsurance premiums to increase by around 3% in 2022 and by 4% in 2023. While India and China will continue to be the main drivers, it is expected that growth will remain above trend in other emerging markets, advanced Europe and advanced Asia-Pacific as well.

Summary of financial statements

Income statement

USD millions	2020	2021	Change in %
Revenues			
Gross premiums written	42 951	46 658	9
Net premiums written	39 827	43 220	9
Change in unearned premiums	494	-753	-
Premiums earned	40 321	42 467	5
Fee income from policyholders	449	259	-42
Net investment income – non-participating business	2 988	3 373	13
Net realised investment gains/losses – non-participating business	1 730	537	-69
Net investment result – unit-linked and with-profit business	-2 187	63	-
Other revenues	37	40	8
Total revenues	43 338	46 739	8
Expenses			
Claims and claim adjustment expenses	-19 838	-17 181	-13
Life and health benefits	-13 929	-14 992	8
Return credited to policyholders	1 760	-431	-
Acquisition costs	-8 236	-8 228	-
Operating expenses	-3 597	-3 505	-3
Total expenses before interest expenses	-43 840	-44 337	1
Income/loss before interest and income tax expense/benefit	-502	2 402	-
Interest expenses	-588	-571	-3
Income/loss before income tax expense/benefit	-1 090	1 831	-
Income tax expense/benefit	266	-394	-
Net income/loss before attribution of non-controlling interests	-824	1 437	-
Income/loss attributable to non-controlling interests	-54	-	-
Net income/loss attributable to common shareholders	-878	1 437	-

Changes in equity

USD millions	2020	2021	Change in %
Total shareholders' equity as of 1 January	29 251	27 135	-7
Net income/loss attributable to common shareholders	-878	1 437	-
Dividends	-1 765	-1 855	5
Change in unrealised gains/losses on securities, net of tax	608	-2 956	-
Change in foreign currency translation, net of tax	39	-461	-
Purchase/sale of treasury shares and share based payments	-174	9	-
Adjustment for pension and other post-retirement benefits, net	42	259	-
Other changes in equity	12	-	-
Total shareholders' equity as of 31 December	27 135	23 568	-13
Non-controlling interests	123	110	-11
Total equity as of 31 December	27 258	23 678	-13

Summary balance sheet

USD millions	2020	2021	Change in %
Assets			
Fixed income securities	83 018	86 985	5
Equity securities	4 899	3 978	-19
Other investments	16 231	16 693	3
Short-term investments	16 082	8 462	-47
Investments for unit-linked and with-profit business	463	468	1
Cash and cash equivalents	5 470	5 051	-8
Deferred acquisition costs	8 230	8 142	-1
Acquired present value of future profits	928	836	-10
Reinsurance recoverable	5 892	6 482	10
Other reinsurance assets	26 660	29 407	10
Goodwill	4 021	3 970	-1
Other	10 728	11 093	3
Total assets	182 622	181 567	-1
Liabilities and equity			
Unpaid claims and claim adjustment expenses	81 258	84 096	3
Liabilities for life and health policy benefits	22 456	22 196	-1
Policyholder account balances	5 192	5 147	-1
Other reinsurance liabilities	19 552	21 761	11
Short-term debt	153	862	-
Long-term debt	11 584	10 323	-11
Other	15 169	13 504	-11
Total liabilities	155 364	157 889	2
Shareholders' equity	27 135	23 568	-13
Non-controlling interests	123	110	-11
Total equity	27 258	23 678	-13
Total liabilities and equity	182 622	181 567	-1



2021 marked an important turning point for Swiss Re. We have worked hard to strengthen business performance, with a rigorous focus on portfolio quality and underwriting excellence. Our 2021 results are a testament to these efforts, and we are convinced our performance will continue to improve.”

Christian Mumenthaler
Group Chief Executive Officer



Group results

Swiss Re reported net income of USD 1.4 billion for 2021, driven by strong performance of its property and casualty businesses.

Strategy and priorities

2021 marked an important turning point for Swiss Re. Despite major COVID-19 impacts and a high occurrence of large natural catastrophe events throughout the year, the Group rebounded to a USD 1.4 billion profit.

All businesses worked hard to strengthen business performance, with a rigorous focus on portfolio quality and underwriting excellence. Swiss Re's 2021 results are a testament to these efforts.

Swiss Re's property and casualty businesses both excelled in 2021, substantially increasing profitability and meeting their respective normalised¹ combined ratio targets.

Property & Casualty Reinsurance (P&C Re) achieved a normalised combined ratio of 94.7% in 2021, in line with its target of less than 95% for the full year. At the same time, Corporate Solutions' normalised

combined ratio was 95.0%, well below the full-year target of less than 97%.

The property and casualty businesses continue to benefit from favourable pricing trends. This was once again exemplified in the January 2022 renewals, where P&C Re achieved a price increase² of 4% in this renewal round. This fully offset more conservative loss assumptions, which reflect a prudent view on inflation and other changes in exposure.

Life & Health Reinsurance (L&H Re) incurred substantially higher COVID-19-related claims and reserves of almost USD 2 billion in 2021. Despite the persistent impact of COVID-19, L&H Re continued to strengthen its underlying business.

Excluding COVID-19 losses, L&H Re further improved its underlying net income, which increased by 26% year on year to USD 1.1 billion.

¹ Normalised combined ratio assumes average large natural catastrophe loss burden and excludes prior-year reserve development as well as the COVID-19 impact.

² Price change defined as change in premiums net of commissions / claims; price change assumes constant portfolio mix.

iptiQ has successfully grown and continues to develop a global team focused on supporting existing and new partners. The pandemic is accelerating the shift towards digital insurance channels and embedded insurance, resulting in a strong pipeline of new opportunities for iptiQ. In addition, iptiQ is well-positioned to take advantage of the increasing sophistication and digitalisation of the retail insurance value chain.

Supported by the increased underlying earnings power of the business, favourable market outlook and continued cost discipline, Swiss Re published new ambitious financial targets for the Group. Swiss Re targets to increase its US GAAP Group return on equity (ROE) to 10%³ in 2022 and to 14%⁴ in 2024, as it focuses on driving profitable growth across all businesses. In addition, Swiss Re maintains its economic net worth (ENW) per share growth target of 10% per annum.

For 2022, Swiss Re expects the performance of its property and casualty businesses to continue to improve, reaping the benefits of the Group's sustained focus on portfolio quality in combination with increasing prices. P&C Re targets a normalised combined ratio of less than 94% for 2022, while Corporate Solutions aims for a reported combined ratio of less than 95%.

L&H Re continues to offer attractive business development opportunities, although it is likely to remain impacted by the COVID-19 pandemic in 2022. Taking this into account, L&H Re targets a net income of approximately USD 300 million for the year.

Performance

Swiss Re reported a net income of USD 1.4 billion in 2021, considerably rebounding from a net loss of USD 878 million in 2020. This result was achieved as the Group absorbed large natural catastrophe losses of USD 2.4 billion across its businesses as well as total COVID-19-related claims of USD 2.0 billion. The vast majority of the COVID-19 losses originated in the L&H Re business, while impacts on the property and casualty

businesses were minimal. Excluding the impacts of COVID-19, Swiss Re's net income was USD 3.0 billion, which is an increase of 39%.

The net operating margin⁵ for the year 2021 was 5.1%, compared with -1.1% for 2020.

COVID-19 losses decreased to USD 2.0 billion in 2021 from USD 3.9 billion in 2020. The vast majority of the COVID-19 losses were attributable to the L&H Re business, while the impact on the property and casualty businesses was minimal in 2021.

In 2021, P&C Re reported a net income of USD 2.1 billion, compared with a net loss of USD 247 million in 2020. The 2021 result reflects the improved quality of the portfolio and rate increases, as well as favourable investment results.

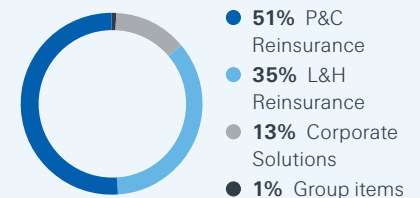
The business absorbed large natural catastrophe losses of USD 2.1 billion in 2021, mainly relating to Hurricane Ida and the floods in Europe in the third quarter, as well as the US winter storm Uri in the first quarter. The net operating margin was 11.6%, compared with 0.1% in the prior year.

L&H Re reported a net loss of USD 523 million, down from a net income of USD 71 million in 2020, as the business incurred substantially higher COVID-19-related claims and reserves of almost USD 2 billion. These losses were primarily driven by the heightened COVID-19-related mortality rates in the US and reflected the spike in infection rates at the beginning of the year as well as during the third and fourth quarters.

Excluding COVID-19, L&H Re improved its net income to USD 1.1 billion for 2021. This reflects a significant increase from USD 855 million (excluding COVID-19) for 2020, primarily driven by the good underwriting performance across all regions, favourable investment results and positive one-off effects from in-force management actions.

Net premiums and fees earned by business segment, 2021

Total: USD 42.7 billion



³ Group ROE target for 2022 includes current expectations of COVID-19 losses.

⁴ As of 2024, Swiss Re Group will report under IFRS. Current modelling indicates that the equivalent IFRS target will be higher than 14%.

⁵ 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".

3.4

**Net investment income
in USD billion, 2021**

(2020: USD 3.0 billion)

3.2%

**Group return on
investments, 2021**

(2020: 3.5%)

L&H Re's net operating margin, excluding the pre-tax impact of COVID-19 losses, was 10.0% in 2021, compared with 9.4% in 2020. The result was supported by a strong investment result with a return on investments (ROI) of 3.2%. The net operating margin was -2.1% in 2021 and 2.9% in 2020.

Corporate Solutions reported net income of USD 578 million in 2021, compared with a net loss of USD 467 million in 2020, as the Business Unit continued to benefit from the implemented strategic actions. Large natural catastrophe losses amounted to USD 345 million, mainly relating to US winter storm Uri, Hurricane Ida and the central US tornadoes in December 2021 as well as large man-made losses of USD 249 million.

Shareholders' equity for the Group, excluding non-controlling interests, decreased to USD 23.6 billion as of 31 December 2021, compared with USD 27.1 billion at the end of December 2020. This reflected unrealised losses on fixed income securities of USD 3.0 billion and a payment to shareholders of USD 1.9 billion for the 2020 regular dividend, partially offset by the net income for 2021. Group ROE was 5.7% for 2021, compared with -3.1% for the prior year. Excluding the impacts of COVID-19, ROE was 11.6%.

Earnings per share for 2021 were USD 4.97 or CHF 4.52, up from USD -3.04 or CHF -2.97 for 2020. Book value per share stood at USD 81.56 or CHF 74.30 at the end of 2021, compared with USD 93.90 or CHF 83.00 at the end of 2020. Book value per share is based on shareholders' equity and excludes non-controlling interests.

Business performance

Swiss Re continued to grow all its businesses, increasing net premiums earned and fee income for the Group by 4.8% compared with the previous year to USD 42.7 billion in 2021. At constant foreign exchange rates, premiums and fees increased by 2.3%.

Gross premiums written increased by 8.6% to USD 46.7 billion in 2021, mainly reflecting price improvements, large transactions and favourable foreign exchange developments.

P&C Re's net premiums earned grew by 5.3% to USD 21.9 billion, supported by continued price improvements, disciplined underwriting as well as favourable foreign exchange developments. At constant exchange rates, premiums earned increased by 3.3%. The P&C Re combined ratio improved to 97.1% in 2021 from 109.0% in the prior year, mainly driven by significantly lower COVID-19 losses.

L&H Re's net premiums earned and fee income increased by 7.1% to USD 14.9 billion at improved margins in 2021, up from USD 13.9 billion in the prior year. This was supported by large transactions and favourable foreign exchange developments. At constant exchange rates, premiums earned and fee income increased by 3.7%.

Corporate Solutions' net premiums earned increased to USD 5.3 billion from USD 5.0 billion in the prior year. This was driven by further rate increases in the context of the continued focus on underwriting quality, selective new business growth as well as an improved customer and broker distribution franchise. Favourable foreign exchange developments further helped offset the impact of the previous portfolio pruning actions. Corporate Solutions achieved risk-adjusted price increases of 12%⁶ for the year. At constant exchange rates, net premiums earned increased by 4.4% year on year.

⁶ Risk-adjusted price increases for Corporate Solutions in 2021 exclude elipsLife.

The Corporate Solutions combined ratio significantly improved to 90.6% in 2021 from 115.5% in 2020, reflecting disciplined underwriting, strict expense management, continued rate increases and COVID-19-related reserve releases in 2021.

iptiQ continued to show significant growth, with gross premiums written for 2021 of USD 723 million. This represents a 95% increase compared with 2020. All markets developed positively and contributed to this growth, in particular the EMEA property and casualty business since its successful launch in 2020.

In addition to growing revenues, iptiQ recorded USD 53 million of adjusted gross income⁷ for 2021. This represents an increase of 39% compared with the previous year.

iptiQ had over 1.6 million in-force policies at the end of 2021. Compared with 2020, this represents an increase of 144%. iptiQ's net loss of USD 247 million continues to reflect investments into building the iptiQ businesses and impacts from COVID-19 of USD 13 million for the year.

Currently, iptiQ writes property and casualty business in Europe and has life and health operations covering Europe, the US and Australia. Globally, iptiQ works with 51 distribution partners, representing a net increase of 11 compared with end of year 2020.

Investment result and expenses

The Group's non-participating investment portfolio decreased from USD 125.7 billion at the end of 2020 to USD 121.2 billion in 2021, reflecting the impact of rising interest rates.

The ROI was 3.2% for 2021, compared with 3.5% for 2020. The strong investment result, though lower than in the prior year, was driven by recurring income and significant equity valuation gains. The Group continues to manage its investment portfolio with a focus on delivering sustainable income.

The Group's non-participating net investment income was USD 3.4 billion in 2021, compared with USD 3.0 billion in 2020. The increase was mainly driven by private equity valuations and listed equity dividends. The Group's recurring income yield was 2.2% in 2021, compared with 2.4% in 2020, reflecting turnover into lower yields.

The Group reported non-participating net realised gains of USD 0.5 billion in 2021, compared with USD 1.7 billion in 2020. The decrease is mainly due to reduced gains from sales of fixed income securities.

Acquisition costs for the Group were stable and amounted to USD 8.2 billion in 2021.

Operating expenses were USD 3.5 billion in 2021, compared with USD 3.6 billion in 2020. Interest expenses were USD 571 million in 2021, slightly down from USD 588 million in 2020.

The Group reported a tax charge of USD 394 million on a pre-tax income of USD 1.8 billion for 2021, compared to a tax benefit of USD 266 million on a pre-tax loss of USD 1.1 billion for 2020. This translates into an effective tax rate in the current and prior-year reporting periods of 21.5% and 24.4%, respectively. The tax rate in 2021 was 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.

⁷ This excludes COVID-19 and natural catastrophe-related losses of USD 15 million. Calculated as Income/loss before interest and income tax expense adjusted for operating expenses, other overheads and investment gains/losses; gross of reinsurance.



Reinsurance stood firmly in partnership with our clients in an extraordinary year. Our business delivered a strong financial performance in a volatile market environment.”

Moses Ojeisekhoba
CEO Reinsurance



Reinsurance

Property & Casualty Reinsurance (P&C Re) reported a strong profit, reflecting enhanced portfolio quality. Life & Health Reinsurance (L&H Re) improved underlying profitability and absorbed significant COVID-19 impacts.

Overview

In 2021, the Reinsurance business improved its financial performance while supporting clients and working to make the world more resilient.

P&C Re achieved its normalised¹ combined ratio target of less than 95% for the year and delivered a strong net income of USD 2.1 billion, absorbing USD 2.1 billion in natural catastrophe losses. In L&H Re, the impacts of COVID-19 resulted in a reported net loss of USD 523 million for 2021. Excluding COVID-19, the business improved its underlying net profit to USD 1.1 billion from USD 855 million in 2020, resulting in an underlying return on equity (ROE) of 15.7%.

Across both life and non-life, Reinsurance supported clients in solving strategic issues through a record number of tailored capital management transactions. At the same time, the solutions offering, which includes innovative technology and data-based tools and analytics, continues to expand in response to increased client needs. For example, there was significant growth of the US flood offering – closing a large protection gap. Magnum, one of the flagship L&H automated underwriting solutions, achieved unprecedented expansion in 2021 and grew its number of clients by a record 21% year on year.

¹ Normalised combined ratio assumes average large natural catastrophe loss burden and excludes prior-year reserve development as well as the COVID-19 impact.

Making the world more resilient

In 2021, the Reinsurance business supported over 3 500 clients with over USD 26 billion of claims payments.

The main concern for L&H Re clients was excess mortality caused by the further spread of COVID-19, especially the Delta variant. For COVID-19 alone, L&H Re booked USD 2.0 billion in claims and reserves.

Across its business, over 237 million family members, loved ones and caregivers could count on L&H Re to provide them with protection, financial support and security.

On the P&C side, Reinsurance supported its clients, absorbing large natural catastrophe losses of USD 2.1 billion, driven by increased frequency and severity of secondary perils caused by climate change – such as floods, droughts, and wildfires – especially in Europe and North America.

Looking forward: A strategy that works

Reinsurance continues to live its purpose of making the world more resilient and remains committed to its strategy of partnering with clients across the three proven pillars: core, transactions, and solutions. Reinsurance will drive innovation in risk knowledge and create greater opportunities for efficiency across these strong foundations.

In the core business, clients seek more income and capital protection from traditional reinsurance products as they grow their own businesses.

L&H Re will continue to serve its clients with capacity and risk transfer in attractive areas such as longevity and mortality, where increased awareness of higher risks is driving demand. For example, the pandemic is elevating the need for mortality products, while rising life expectancies globally require more solutions for financial protection after retirement.

On the P&C side, a large part of the Reinsurance capacity focuses on natural catastrophes, where higher frequency and severity of losses are causing primary insurance companies to seek more protection. Reinsurance also supports clients' needs in casualty and specialty lines.

Swiss Re's natural catastrophe business is robust and the premium income over the last decade has been strong enough to cover claims and absorb volatility for our clients while providing attractive long-term returns for our shareholders. Moving forward, Swiss Re will continue to carefully factor in climate change and other macro risk drivers in its sound pricing models. Reinsurance's clients can also draw upon the Group's deep risk knowledge and data-driven underwriting approach to better understand existing and emerging risks.

The Business Unit has dedicated transaction teams who provide customised reinsurance structures. These tailored transactions help clients when they seek strong growth, target an acquisition or undergo a transition in their portfolio or strategy.

In addition, Reinsurance continues to invest in its innovative solutions offering based on advancements in technology and analytical tools. The suite of digital and technology-based platforms helps clients grow, improve profitability in underwriting and operate more efficiently. For example, it has enabled clients with near real-time wildfire and flood monitoring, climate scenarios or post-event damage assessment. In the automotive space, solutions leverage telematics and behavioural economics for autonomous and electric vehicles, advanced commercial auto and shared mobility.

Summary

Swiss Re's Reinsurance Business Unit is well-positioned to deploy its capital at attractive returns and to continue its successful financial performance. It remains committed to its outstanding partnerships with clients and stakeholders and a proven strategy of core, transactions and solutions. The ambition is to close protection gaps and make the world more resilient. This involves helping clients making relevant, affordable insurance protection available to a growing number of customers.

Reinsurance will drive innovation in risk knowledge and create greater opportunities for efficiency for its clients while remaining committed to sustainability across its operations, investment portfolio and underwriting.

Property & Casualty Reinsurance

Property & Casualty Reinsurance (P&C Re) reported a net income for 2021 of USD 2.1 billion, a significant rebound from a net loss of USD 247 million in 2020. This turnaround was supported by portfolio actions that led to a more resilient and balanced book. Rate increases, positive prior-year development as well as strong investment results contributed further. COVID-19-related losses amounted to USD 106 million, significantly below 2020 levels due to dedicated portfolio actions.

Large natural catastrophe losses amounted to USD 2.1 billion for 2021, including Hurricane Ida and the floods in Europe, as well as the US winter storm Uri. P&C Re's large natural catastrophe losses remained below the premiums earned for this class of business. Large man-made losses amounted to USD 291 million for 2021. Prior-year development was favourable as natural catastrophe reserve releases were larger than the proactive reserving actions on casualty claims inflation. This contrasts to the 2020 results, which were impacted by a lower natural catastrophe loss burden but significant unfavourable prior-year developments in casualty.

The investment portfolio performance resulted in a strong return on investments (ROI) of 3.3% for 2021, supported by favourable private equity valuations, market value gains on equity and gains from sale of real estate.

Premiums

Net premiums earned grew by 5.3% to USD 21.9 billion, benefitting from continued price improvements, disciplined underwriting as well as favourable foreign exchange developments. Gross premiums written increased by 8.1% to USD 23.2 billion in 2021.

Property & Casualty Reinsurance results

USD millions	2020	2021	Change in %
Revenues			
Gross premiums written	21 512	23 246	8
Net premiums written	20 636	22 381	8
Change in unearned premiums	196	-455	
Premiums earned	20 832	21 926	5
Net investment income	1 178	1 613	37
Net realised investment gains/losses	683	542	-21
Other revenues	26	20	-23
Total revenues	22 719	24 101	6
Expenses			
Claims and claim adjustment expenses	-16 403	-14 773	-10
Acquisition costs	-5 104	-5 359	5
Operating expenses	-1 200	-1 162	-3
Total expenses before interest expenses	-22 707	-21 294	-6
Income before interest and income tax expense			
	12	2 807	-
Interest expenses	-321	-296	-8
Income/loss before income tax expense	-309	2 511	-
Income tax expense/benefit	62	-413	-
Net income/loss before attribution of non-controlling interests	-247	2 098	
Income/loss attributable to non-controlling interests		-1	
Net income/loss attributable to common shareholders	-247	2 097	-
Claims ratio in %	78.7	67.4	
Expense ratio in %	30.3	29.7	
Combined ratio in %	109.0	97.1	

Combined ratio

The P&C Re combined ratio improved markedly to 97.1% for 2021 from 109.0% in 2020. Increased margins and significantly lower COVID-19-related losses were the main cause for the turnaround. On a normalised¹ basis, P&C Re achieved a combined ratio of 94.7%, in line with the full-year target of less than 95% for the full year.

Administrative expense ratio²

The administrative expense ratio decreased to 5.3% in 2021, compared with 5.8% in 2020. This improvement resulted from growing the business at a constant expense basis.

Lines of business

The property combined ratio improved significantly to 92.2% in 2021, compared with 109.4% a year earlier. Portfolio management actions reduced frequency loss exposure in a year of heavy loss activity, while prior-year reserve releases added to the positive result. Large losses were mainly due to Hurricane Ida and the European floods as well as US winter storm Uri.

The casualty combined ratio was 104.7% in 2021, compared with 111.8% in 2020. Prior-year development significantly improved as a result of the dedicated focus on reserve level adequacy. 2020's result included COVID-19-related losses of 3.2 percentage points and an adverse prior-year experience.

¹ Normalised combined ratio assumes average large natural catastrophe loss burden and excludes prior-year reserve development as well as the COVID-19 impact.

² Operating expenses divided by premiums earned.

The specialty combined ratio improved to 86.1% in 2021, compared with 98.7% in 2020, supported by favourable claims experience in marine and engineering.

Investment result

The ROI was 3.3% for 2021 compared with 3.0% in 2020, with an increase in the investment result of USD 294 million.

Net investment income increased by USD 394 million to USD 1 437 million for 2021 compared with the prior year, driven mainly by private equity valuations.

Net realised gains were USD 549 million for 2021 compared with USD 649 million for the prior year. The decrease was mainly due to fewer realised gains on sales within the fixed income portfolio, partially offset by market value gains on equity securities.

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

Shareholders' equity

Shareholders' equity increased to USD 9.5 billion as of 31 December 2021, compared with USD 9.2 billion as of 31 December 2020. The net income contributed to the increase in shareholders' equity and is more than compensating the lower unrealised gains.

Outlook

The casualty reinsurance portfolio focuses on profitability and selective growth across all regions, while navigating a marketplace with increasing ceding commissions, a dynamic inflation environment and decreasing cessions in some markets. Margin is improving across the casualty portfolio, fuelled by disciplined risk taking, rate increases and prudent terms and conditions.

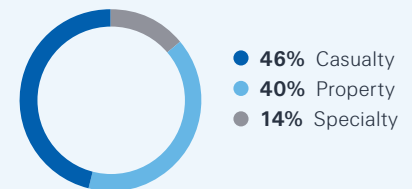
Growth from transactions and solutions continues to provide a solid pipeline of new opportunities which meet Reinsurance's return requirements.

For property lines, loss-hit regions are seeing significant price increases, which are somewhat offset by increased loss models, yet still present good opportunities for growth in the areas that Swiss Re targets. In loss-free areas, price increases have been more modest, yet sufficient to absorb increased inflation expectations and generate attractive new business. Swiss Re remains disciplined in avoiding business with poor structures and contract wordings.

Specialty lines, especially cyber, engineering and credit & surety, show positive momentum and Swiss Re continues to capitalise on its leading franchise in these lines with selected growth.

Thanks to the successful January renewals and the continued positive market momentum, P&C Re now targets a normalised combined ratio of less than 94% for 2022.

Premiums earned by line of business, 2021
Total: USD 21.9 billion



Life & Health Reinsurance

Life & Health Reinsurance

L&H Re reported a net loss of USD 523 million for the full year 2021, including a substantial impact from COVID-19-related losses which amounted to USD 2.0 billion. These losses were primarily driven by the heightened COVID-19-related mortality rates in the US and reflected the spike in infection rates at the beginning of the year as well as during the third and fourth quarters.

Excluding the after-tax impact of COVID-19-related losses, net income increased to USD 1.1 billion in 2021, compared with USD 855 million in the previous year. This reflects the good underwriting performance across all regions, favourable investment results and positive one-off effects from in-force management actions.

The return on equity (ROE) was -8.6%, reflecting the after-tax impact of COVID-19-related losses. Excluding this, the ROE was 15.7%, well above 10.4% in 2020, due to a significantly higher underwriting performance for the year as well as a lower average equity base in 2021.

Premiums

Net premiums earned and fee income increased by 7.1% to USD 14.9 billion at improved margins in 2021, compared with USD 13.9 billion in 2020. This was supported by large longevity transactions and favourable foreign exchange developments. Gross premiums written in 2021 increased by USD 1.0 billion, or 6.7%, to USD 16.1 billion in 2020.

Net operating margin

The net operating margin, excluding the pre-tax impact of COVID-19-related losses, was 10.0% in 2021, compared with 9.4% in 2020.

Life & Health Reinsurance results

USD millions	2020	2021	Change in %
Revenues			
Gross premiums written	15 067	16 071	7
Net premiums written	13 657	14 584	7
Change in unearned premiums	68	104	53
Premiums earned	13 725	14 688	7
Fee income from policyholders	158	180	14
Net investment income – non-participating business	1 140	1 044	-8
Net realised investment gains/losses – non-participating business	445	302	-32
Net investment result – unit-linked and with-profit business	-32	63	-
Other revenues	4	3	-25
Total revenues	15 440	16 280	5
Expenses			
Life and health benefits	-12 204	-13 648	12
Return credited to policyholders	5	-94	-
Acquisition costs	-1 999	-2 014	1
Operating expenses	-786	-864	10
Total expenses before interest expenses	-14 984	-16 620	11
Income/loss before interest and income tax expense	456	-340	-
Interest expenses	-367	-286	-22
Income/loss before income tax expense	89	-626	-
Income tax expense	-18	103	-
Net income/loss attributable to common shareholders	71	-523	-
Management expense ratio in %	5.2	5.4	
Net operating margin in %	2.9	-2.1	

Management expense ratio

The management expense ratio was 5.4%, an increase from 5.2% in the prior year, primarily driven by a reallocation of internal costs and investments into strategic growth initiatives.

Lines of business

Earnings before interest and income tax expenses (EBIT) for the life business decreased to USD -1.1 billion in 2021 from USD -168 million in 2020. The result included significant COVID-19-related losses of USD 2.0 billion, primarily driven

by heightened mortality, particularly in the US. This compares to COVID-19-related losses of USD 0.9 billion reported in 2020. Excluding this impact, the underlying result benefitted from improved experience across all regions as well as from in-force management actions.

EBIT for the health business was USD 459 million in 2021, compared with USD 221 million in the prior year. The result benefitted from lower COVID-19 losses as well as from strong underwriting performance across regions.

Investment result

The ROI was 3.2% for 2021, compared with 3.7% for 2020, with a decrease in the investment result of USD 227 million.

Net investment income of USD 972 million for 2021 was below the prior year, reflecting the impact of the low-yield environment on the fixed income portfolio. The recurring income yield was 2.8% for 2021, compared with 3.0% for 2020.

Net realised gains were USD 278 million for 2021, compared with USD 438 million in 2020. The prior year included significant gains from sales of fixed income, while the current year included higher equity market valuation gains and lower impairments.

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 4.8 billion as of 31 December 2021, compared with USD 7.4 billion as of 31 December 2020, reflecting lower unrealised gains and dividend paid to the Group during the year.

ROE, excluding the after-tax impact of COVID-19-related losses, was 15.7%.

Outlook

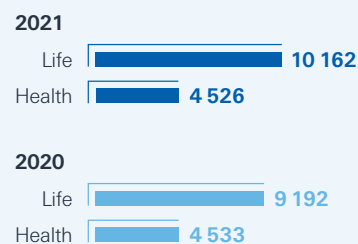
The pandemic has led to disruption in sales and claims activity for insurers. However, the expected increase in life and health treaty reinsurance new business is emerging, driven by increased customer awareness, with greater growth expected in emerging markets. Cession rates on normal core business are expected to remain broadly stable in major markets, while premiums are increasing as a response to COVID-19-related losses.

While interest rates are still low, recent increases benefit long-term business. 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.

L&H Re continues to offer attractive business development opportunities, although it is likely to remain impacted by the COVID-19 pandemic in 2022. Taking this into account, L&H Re targets a net income of approximately USD 300 million for the year.

Premiums earned by line of business, 2021

Total: USD 14.7 billion





In 2021, Corporate Solutions saw the rewards of the actions taken to turn the business around. The results demonstrate that we are well-positioned in a positive market environment.”

Andreas Berger
CEO Corporate Solutions



Corporate Solutions

Corporate Solutions reported strong net income and surpassed its normalised¹ combined ratio target for 2021.

Strategy and priorities

Corporate Solutions reported strong net income of USD 578 million in 2021. This result was achieved as the Business Unit continued to benefit from the implemented strategic actions taken to transform the business back into a consistent earnings contributor to the Swiss Re Group, with disciplined underwriting, strict expense management and continued rate increases. Corporate Solutions successfully absorbed large natural catastrophe losses and man-made claims. The Business Unit achieved a normalised combined ratio of 95.0%, surpassing its goal of less than 97% for 2021.

In December 2021, Swiss Re agreed to sell elipsLife, while maintaining exposure to the attractive employee benefits risk pool through a long-term reinsurance partnership. The sale allows Corporate Solutions to focus on continuing the strong performance of its core commercial insurance business.

Performance

Corporate Solutions reported a net income of USD 578 million for 2021, up from a COVID-19-driven net loss of USD 467 million for 2020. The significant net profit improvement of USD 1.0 billion follows the successful turnaround in 2020 and is supported by a strong prior-year development, in particular in property.

This significant improvement was achieved as the Business Unit continued to benefit from the implemented strategic actions. The business successfully absorbed large natural catastrophe losses of USD 345 million, mainly relating to Uri, Hurricane Ida and the tornadoes that affected the central US in early December, as well as large man-made losses of USD 249 million.

The net operating margin was 13.5%, compared with –10.7% for the prior year. Return on equity (ROE) was very strong at 22.3% for the year.

The investment performance also contributed to the result, with the investment result of USD 225 million, slightly below 2020 levels.

Premiums

Gross premiums written increased by 21.1% to USD 7.5 billion in 2021, with business written across all geographies at more adequate price levels. Corporate Solutions achieved risk-adjusted price increases of 12%², as well as higher volume on elipsLife business.

Net premiums earned were USD 5.3 billion in 2021, an increase of 6.5% year on year. This was driven by further rate increases in the context of the continued focus on underwriting quality, selective new business growth as well as an improved customer and broker distribution franchise. Favourable foreign exchange developments further helped offset the impact of the previous portfolio pruning actions.

Combined ratio

Corporate Solutions' combined ratio improved to 90.6% in 2021 from 115.5% in 2020. This was the result of disciplined underwriting, strict expense management, continued rate increases and positive prior-year development.

¹ Normalised combined ratio assumes average large natural catastrophe loss burden and excludes prior-year reserve development as well as the COVID-19 impact.

² Risk-adjusted price increases for Corporate Solutions in 2021 exclude elipsLife.

The normalised combined ratio was 95.0%, surpassing the normalised combined ratio target of less than 97% for 2021. This reflects the ongoing benefits of disciplined underwriting, strict expense management and continued rate increases.

Lines of business

The property combined ratio for 2021 improved to 80.9% from 128.8% in the prior year. The improvement was driven by favourable prior-year development and achieved rate increases, partially offset by large natural catastrophe losses and higher large man-made loss activity. The previous period was impacted by COVID-19 losses.

The casualty combined ratio decreased to 103.6% in 2021, compared with 108.1% in 2020. Both periods were impacted by large man-made losses, mainly from prior accident years. The improvement in the current period was driven by the benefits of the management actions taken in 2019 and 2020.

The specialty combined ratio for 2021 improved by 33.6 percentage points to 76.3%, reflecting profitable business performance and favourable prior-year development. The previous period was impacted by COVID-19-related losses mainly on the credit & surety portfolio.

elipsLife's combined ratio improved by 11.5 percentage points to 99.6% for 2021, driven by a successful renewal season and slightly favourable prior-year development.

Investment result

The return on investment (ROI) was 2.0% for 2021, compared with 2.3% in 2020, with an investment result of USD 225 million, a decrease of USD 18 million compared with 2020.

Net investment income decreased by USD 34 million to USD 136 million for 2021 compared with 2020, mainly due to the impact of the low-yield environment on the fixed income and short-term investment portfolio.

Net realised gains were USD 89 million in 2021, compared with USD 73 million in 2020, reflecting market value gains on equity securities, partially offset by fewer realised gains on sales of fixed income securities.

Corporate Solutions results

USD millions	2020	2021	Change in %
Revenues			
Gross premiums written	6 185	7 492	21
Net premiums written	4 785	5 717	19
Change in unearned premiums	234	-374	-
Premiums earned	5 019	5 343	6
Net investment income	156	121	-22
Net realised investment gains/losses	56	115	105
Other revenues	5	12	-
Total revenues	5 236	5 591	7
Expenses			
Claims and claim adjustment expenses	-3 433	-2 374	-31
Life and health benefits	-899	-924	3
Acquisition costs	-680	-690	1
Operating expenses	-783	-851	9
Total expenses before interest expenses	-5 795	-4 839	-16
Income/loss before interest and income tax expense	-559	752	-
Interest expenses	-32	-26	-19
Income/loss before income tax expense	-591	726	-
Income tax expense/benefit	130	-149	-
Net income/loss before attribution of non-controlling interests	-461	577	-
Income/loss attributable to non-controlling interests	-6	1	-
Net income/loss attributable to common shareholders	-467	578	-
Claims ratio in %	86.4	61.8	
Expense ratio in %	29.1	28.8	
Combined ratio in %	115.5	90.6	

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 in derivative form reported net realised gains of USD 20 million in 2021, compared with net realised losses of USD 8 million in 2020, reflecting a return to profitable business performance while the previous period was adversely impacted by mild winter temperatures in Europe.

Shareholders' equity

Shareholders' equity increased to USD 2.8 billion at the end of 2021 due to the net income for the year, partly offset by the unrealised investment losses. The return on equity (ROE) was 22.3% in 2021, compared with -19.7% in 2020.

Outlook

Corporate Solutions will target a reported combined ratio of less than 95% in 2022.

Corporate Solutions' future path is centred around capturing profitable growth while leveraging distinctive competitive strengths with a focused portfolio strategy that will build resilience in all market cycles. This will be further supported by strategic investments to capture existing market opportunities and expand through innovative risk solutions, international programmes and data/digital solutions and services that help address customer pain points and industry inefficiencies.

The commercial insurance market experienced continued price gains in 2021, although at a reduced pace compared to 2020. Corporate Solutions expects rate increases to continue during 2022. As pricing deficiencies close and capital re-enters the market – which is already happening in some niche areas – rates may come under pressure. However, underlying loss trends, particularly around loss severity, should remain a source of upward pressure on rates.

COVID-19 created a large amount of uncertainty in underlying market profitability and, ultimately, premium trends.



Swiss Re's strong underwriting results stemmed from determined actions and steering the portfolio to a more attractive risk profile."

Thierry Léger

Chairman Swiss Re Institute & Group Chief Underwriting Officer



Swiss Re Institute

Underwriting performance in 2021

The Group delivered strong underwriting results in 2021, driven by the excellent underlying performance of Swiss Re's businesses in a challenging environment.

Both Property and Casualty Reinsurance (P&C Re) and Corporate Solutions achieved their target normalised¹ combined ratios and, based on their strong technical underwriting results, made a significant contribution to Group net income. P&C Re achieved an excellent normalised combined ratio of 94.7%, meeting its target of less than 95% for the full year. Corporate Solutions reported a normalised combined ratio of 95.0%, surpassing its target of less than 97%.

Large natural catastrophe losses once again marked the year. Events such as Hurricane Ida in August, the floods and hailstorms in Europe in June and July, US winter storm Uri in February, as well as other natural catastrophes, resulted in global insured losses of more than USD 110 billion for the industry. For P&C Re and Corporate Solutions businesses, the impact from COVID-19 diminished significantly.

Despite these significant loss events for the industry, Swiss Re's premiums earned for this class of business have been significantly higher than the losses from natural catastrophes. This is the result of determined actions in Swiss Re's underwriting and steering the portfolio mix to a more attractive risk-return profile. Even though rates improved in 2021, a significant share of this business segment did not meet Swiss Re's return targets and Swiss Re has reduced underwritten exposure to Property aggregates for 2021 by more than USD 2 billion, resulting in a reduced exposure to 2021 natural catastrophe claims.

In casualty, Swiss Re has de-risked the casualty portfolio in North America, reducing treaty exposure to large corporate risk by over 60% since 2020 in view of continued social inflation trends and the worsening inflationary environment.

For specialty, Swiss Re has grown the attractive engineering and marine portfolios, while continuing to carefully manage exposure to credit & surety.

Life and Health Reinsurance (L&H Re) delivered a return on equity (ROE) of -8.6% and was again significantly impacted by

continued excess COVID-19 mortality claims in the in-force book. While the US winter 2020/21 wave resulted in slightly higher overall excess mortality, the wave in the third and fourth quarters of 2021 featured higher excess mortality among the working age population and included large single claims.

Excluding COVID-19 losses, L&H Re's underlying business performance was strong both for the in-force and new business books. The segment achieved an ROE, excluding COVID-19 losses, of 15.7%. This was primarily driven by a good underwriting performance and careful capital deployment across all regions. Swiss Re further grew its mortality book and carefully managed the exposure to health, especially critical illness.

Swiss Re continues to adjust its risk appetite for more extreme mortality and disability risks and reflects the increased exposure in its pricing assumptions for new business.

iptiQ continued to successfully grow its business in L&H (US and EMEA) and in P&C in EMEA. iptiQ's gross income was impacted by excess mortality, including COVID-19 and, to a lesser extent, floods in Europe.

¹ Normalised combined ratio assumes average large natural catastrophe loss burden and excludes prior-year reserve development as well as the COVID-19 impact.

Outlook 2022 and beyond

Key themes for the industry in 2022 are shaping around contract clarity, economic and social inflation, sustainability, climate change and cyber.

Contract clarity

The COVID-19 crisis has once again highlighted the need to focus on insurance and reinsurance contracts. The more complex the risk scenarios are, the higher the need to have clear alignment between the parties on the content of their contracts. It is critical that wordings reflect the intent of underwriters and that these open discussions between the contracting parties happen before the inception of the contract. The goal is to reduce ambiguities and exposure to unwanted risks, especially those that are novel or present a heightened level of complexity.

Economic and social inflation

The higher inflationary environment is the number one near-term macroeconomic risk for the insurance industry. Swiss Re expects the magnitude of the rise in economic inflation in 2022, particularly in advanced markets, to erode nominal growth of 6.5–7.5% in non-life premiums for the industry globally. Currently, Swiss Re's claim trends do not generally follow the headline inflation movements, which are also peaking. Nevertheless there is an observable rise in compensation in selected areas. Globally, the personal auto loss frequency has neared pre-pandemic levels as more people have been driving again, while severity has risen more quickly with the spike in costs for used cars, replacement parts and rentals – in particular in the US. The inflationary outlook is dependent on supply chains and excess demand normalising again after the withdrawal of the exceptional government stimulus measures put in place to combat the pandemic.

Elevated social inflation trends especially in the US are likely to continue. The COVID-19 crisis is likely to amplify rather than alleviate the societal factors in play, such as educational and health inequality that is leading to a hardening of the public sentiment and attitudes towards insurers' interpretation of coverage levels and limits. Re/insurance pricing adequacy and cautious limit deployment are essential for the industry to get ahead of higher claims activity.

Sustainability and climate change

Swiss Re aims to achieve net zero in its underwriting by 2050. So far, the primary focus has been on a gradual reduction in underwriting coal, gas and oil business.

In 2021, Swiss Re went one important step further and became a founding member of the Net-Zero Insurance Alliance (NZIA), convened by the UN Environment Programme's Principles for Sustainable Insurance Initiative (PSI). Swiss Re has taken the lead of the metrics workstream for insurance underwriting, supporting the development of an insurance industry standard for carbon accounting and target setting protocols, to meet the net-zero 2050 goal.

Despite the challenges, there will be opportunities. In the coming 30 years, massive global investments will be required to transition society to net zero. Swiss Re expects the total primary P&C Re insurance premiums from the renewable energy market to increase by 40–90% from 2020 to 2030. In the transition to net zero, insurance can make a significant contribution and be a real partner for industry and society.

After a benign period for the industry from 2012 to 2016, the underwriting years 2017 to 2021 mark a return to the normal pattern of annually growing natural catastrophe claims for the industry. Alongside climate change, economic growth, urbanisation, and urban sprawl are key drivers for this expansion. Approximately 50% of this risk pool, or approximately USD 35 billion per annum, stems from secondary perils. Despite volatility, natural catastrophe risk as a growing risk pool remains attractive for Swiss Re.

In a rapidly changing risk landscape, cutting-edge risk views and disciplined underwriting remain key to structuring and selecting business that meets Swiss Re's profit hurdles. In 2021, climate change and urbanisation effects have been further embedded into Swiss Re's selected natural catastrophe risk models: for example, with the inclusion of pluvial flooding.

Cyber

Accelerated digitalisation fostered by the pandemic also means greatly increased cyber risks for individuals, businesses and society at large. The unprecedented rise in ransomware over the past couple of years resulted in increased claims and deteriorating cyber claims ratios. The insurance market reacted decisively in 2021 by focusing on risk quality and portfolio management, as well as improving pricing and terms and conditions.

Swiss Re estimates the global cyber insurance market to stand at USD 8 billion. Much of the recent growth came through much-needed rate increases rather than rising exposure. The growth outlook for this risk pool is attractive, for the industry and Swiss Re. Nevertheless, Swiss Re accesses this market in a highly disciplined way and maintains an underweight market position.

Swiss Re is committed to building a sustainable and profitable cyber insurance market, offering solutions and sizeable capacity for well-managed and transparently ceded risks, while prudently managing accumulation.

Profitable growth opportunities

The current re/insurance cycle offers many opportunities for Swiss Re to grow at profitable terms. In Reinsurance, there is increased demand from insurers to cover earnings volatility, for balance sheet protection and for optimising their insurance portfolio mix across P&C and L&H. Swiss Re expects growth in its core business and through selected attractive transactions. Corporate Solutions is expected to continue to benefit from the increasing risk awareness, a reinforced focus on terms and conditions and upwards pricing trends in most markets and segments.

Swiss Re expects continued rate hardening into 2022. Underwriting excellence and discipline are key success factors in these uncertain and volatile times. All Swiss Re's businesses are well-positioned to benefit from improving market conditions and it expects to grow the portfolio at profitable terms, keeping a conservative risk profile.



Asset Management delivered a strong result for the Group by actively managing the portfolio while prioritising the preservation of sustainable income.”

Guido Fürer
Group Chief Investment Officer



Group Investments

Financial markets and investment strategy

Financial markets in 2021 were shaped by the economic recovery, healthy corporate earnings, inflation and an accommodative monetary-fiscal policy mix, as well as the ongoing COVID-19 pandemic.

While equity markets continued to reach new record highs during the final quarters of the year, a combination of more persistent inflation, signalling of impending monetary policy tightening from central banks (notably from the Federal Reserve and the Bank of England) and the emergence of the Omicron COVID-19 variant led to increasing bouts of market volatility.

Swiss Re's investment performance was strong in 2021, benefitting from successful investment decisions on top of positive financial markets. The higher allocation to risk assets contributed to the strong result, with private market investments providing additional income. Episodes of elevated financial market volatility also allowed Swiss Re to actively manage the portfolio, which further enhanced the investment performance, as did the continued focus on ESG criteria on a risk-adjusted basis.

In terms of key market developments, US 10-year Treasury yields rose to an intra-year high above 1.7% in late March as the yield curve steepened amid rising inflation and a still cautious Federal Reserve. However, as the year progressed, the Treasury yield curve flattened due to the expectations of tighter monetary policy.

Investment grade corporate credit spreads tightened further and reached a new post-pandemic low in June; they have widened again somewhat since then, not least in light of the change in monetary policy stance. Swiss Re was well-positioned for this environment, maintaining a high-quality stance on the asset class and being conscious of the risk-return profile offered in light of historically high valuations reached in June.

Finally, equity markets capped off another stellar year with the S&P 500 (+27%) ending December near its record high as investors looked through surging Omicron caseloads to focus on the relatively lower hospitalisation rates. This led to significant market value gains in the equity portfolio, in both public and private exposure.

Investment result

The investment result was driven by recurring income and significant equity valuation gains. The Group's non-participating investment portfolio decreased from USD 125.7 billion at the end of 2020 to USD 121.2 billion at the end of 2021, reflecting the impact of rising interest rates. The ROI was 3.2% for 2021, compared with 3.5% for 2020. The strong investment result, though lower than in the prior year, was driven by recurring income and significant equity valuation gains. The Group continues to manage its investment portfolio with a focus on delivering sustainable income.

The Group's non-participating net investment income was USD 3.4 billion in 2021, compared with USD 3.0 billion in 2020. The increase was mainly driven by private equity valuations and listed equity dividends. The Group's recurring income yield was 2.2% in 2021, compared with 2.4% in 2020, reflecting turnover into lower yields.

The Group reported non-participating net realised gains of USD 0.5 billion in 2021, compared with USD 1.7 billion in 2020. The decrease is mainly due to reduced gains from sales of fixed income securities.

Outlook

Swiss Re expects global real economic growth to significantly slow down in 2022 from the record pace of 5.6% in 2021. Meanwhile, inflation is set to decline from its multi-decade high but will remain elevated, despite the expected tightening in monetary policy. This global picture suggests a more prudent outlook for financial markets with generally full asset valuations.

The investment portfolio remains broadly diversified across asset classes and underlying sectors in both public and private markets, with a high-quality tilt. Subject to market conditions, Swiss Re will continue to increase its allocation to private markets, which will further enhance overall portfolio diversification.

Swiss Re also intends to expand its exposure to thematic investing; this will allow it to capture shifting value pools in the economy and effectively allocate long-term capital to industry segments that are going through innovative disruption. In addition, Swiss Re will continue its strategic efforts to enable outperformance, including our leadership in ESG and roadmap to a net-zero investment portfolio, and the application and integration of new technology across the investment process.

Finally, Swiss Re will also continue to actively manage the investment portfolio and positioning throughout the year.

3.4

Net investment income in USD billions, 2021
(2020: USD 3.0 billion)

3.2%

Group return on investments 2021
(2020: 3.5%)

2.2%

Group recurring income yield 2021
(2020: 2.4%)

Share performance

Swiss Re shares

Swiss Re had a market capitalisation of CHF 28.7 billion on 31 December 2021, 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 84.33. An intra-day high of CHF 94.96 was achieved on 29 March 2021. On 20 September 2021, the shares experienced an intra-day low of CHF 77.26. The year-end share price was CHF 90.26.

During 2021, the STOXX Europe 600 Insurance index (SXIP) increased by 15.3% and the broader index of Swiss blue chips (SMI) increased by 20.3%. The Swiss Re share price increased by 8.3%.

Share trading

The average on-exchange daily trading volume for 2021 was 0.9 million shares. Trading volume peaked at 3.5 million shares on 20 April 2021.

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 regular 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.

Dividends are typically paid out of current earnings and Swiss Re pays its dividend annually. Shares are 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 are 19 and 21 April.

Dividends

The Board of Directors proposes a regular dividend of CHF 5.90 per share for 2021. The dividend paid for 2021 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 2022 for a new share buyback programme. www.swissre.com/investors/shares/share_buyback/

Index representation

In addition to its relevant industry indices, Swiss Re is also represented in various 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, FTSE4Good, Euronext Vigeo Europe 120, Bloomberg Gender Equality Index, MSCI World ESG Leaders and MSCI World Socially Responsible (2021) index families. In July 2021, Swiss Re received a AAA rating on the MSCI ESG assessment.

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 (Valorenummer)	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 31 December 2021	Index weight (in %)
Swiss/blue chip indices	
SMI	2.02
SPI	1.43
Insurance indices	
STOXX Europe 600 Insurance	4.85
Bloomberg Europe 500 Insurance	5.21
FTSEurofirst 300 Insurance	7.65
Dow Jones Insurance Titans 30	2.15
Sustainability indices	
Dow Jones Sustainability Europe	0.57
Dow Jones Sustainability World	0.21
FTSE4Good Global	0.07
Bloomberg Gender Equality	0.20

Swiss Re share price and trading volume in 2021



- 1 Annual results 2020 (19 February)
- 2 Annual report 2020 (18 March)
- 3 Ex dividend date (20 April)
- 4 Dividend payment (22 April)
- 5 Q1 results 2021 (30 April)
- 6 H1 results 2021 (30 July)
- 7 9M results 2021 (29 October)

Key share statistics 2016–2021

As of 31 December	2016	2017	2018	2019	2020	2021
Shares outstanding ¹	360 072 561	349 452 281	338 619 465	327 404 704	317 497 306	317 497 306
of which Treasury shares and shares reserved for corporate purposes	34 093 834 ²	34 866 516 ³	38 575 324 ⁴	36 749 762 ⁵	28 520 907	28 544 112
Shares entitled to dividend	325 978 727	314 585 765	300 044 141	290 654 942	288 976 399	288 953 194

CHF unless otherwise stated

Dividend paid per share	4.60	4.85	5.00	5.60	5.90	5.90
Dividend yield ⁶ (in %)	4.77	5.32	5.55	5.15	7.08	6.54
Earnings per share ⁷	10.55	1.02	1.34	2.46	-2.97	4.52
Book value per share ⁸	107.64	103.37	91.72	97.46	83.00	74.30

Price per share year-end	96.50	91.25	90.12	108.70	83.34	90.26
Price per share year high (intra-day)	97.85	98.50	98.80	110.45	117.05	94.96
Price per share year low (intra-day)	79.00	81.65	84.20	88.90	52.68	77.26
Daily trading volume (in CHF millions)	120	129	126	120	147	84
Market capitalisation ⁹ (in CHF millions)	34 747	31 888	30 516	35 589	26 460	28 657
ADR price at year-end (in USD)	23.76	23.38	22.84	28.12	23.69	24.78

¹ Nominal value of CHF 0.10 per share.² Includes 5.5m shares repurchased under the share buy-back programme launched on 4 November 2016, which concluded on 9 February 2017.³ Includes 6.3m shares repurchased under the share buy-back programme launched on 3 November 2017, which concluded on 16 February 2018.⁴ Includes 10.1m shares repurchased under the share buy-back programme launched on 7 May 2018, which concluded on 15 February 2019.⁵ Includes 9.9m shares repurchased under the share buy-back programme launched on 6 May 2019, which concluded on 18 February 2020.⁶ Dividend divided by year-end share price of the corresponding year.⁷ Calculated by dividing net income by the weighted average number of common shares outstanding.⁸ Based on shareholders' equity (excluding convertible perpetual capital instruments) divided by the number of external common shares entitled to dividend.⁹ Based on shares outstanding.

Economic Value Management

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Swiss Re's 2021 economic result reflected a strong underlying underwriting performance and favourable contribution from investment activities.



Decisive portfolio management led to a strong underlying business performance in 2021.”

John R. Dacey
Group Chief Financial Officer



EVM performance

The economic result in Reinsurance and Corporate Solutions reflected a strong underwriting and investment performance, partially offset by COVID-19-related claims and large losses.

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 3.8 billion in 2021, compared to USD –434 million in 2020. On a risk-adjusted basis, Swiss Re reported an EVM profit of USD 2.1 billion in 2021, compared to an EVM loss of USD 3.6 billion in 2020.

2.1

**EVM profit
in USD billions, 2021**
(2020: USD –3.6 billion)

10.7%

ENW per share growth
over-the-cycle target: 10%
(2020: –0.1%)

3.8

**Total contribution to ENW
in USD billions, 2021**
(2020: USD –434 million)

Group performance

The EVM profit of USD 2.1 billion in 2021 reflected strong new business performance from Reinsurance and Corporate Solutions, despite large losses. This was supported by favourable developments on previous years' business from Property & Casualty Reinsurance (P&C Re) and Corporate Solutions as well as a strong performance from investment activities. This was partially offset by COVID-19-related losses in Life & Health Reinsurance (L&H Re) and an unfavourable contribution from Group items.

The EVM profit on new business was USD 1.4 billion in 2021, compared to USD 9 million in 2020. The 2021 result was driven by improved portfolio quality in P&C Re, transactional business growth in L&H Re and strong underwriting performance in Corporate Solutions. This was partially offset by continued investments in the open book businesses and overhead expenses in Group items.

The EVM loss from previous years' business amounted to USD 205 million in 2021, compared to an EVM loss of USD 4.3 billion in 2020. The result mainly reflected the impacts of COVID-19-related losses and adverse assumption updates in L&H Re, partially offset by reserve releases and other favourable developments in P&C Re and Corporate Solutions.

Investment activities generated an EVM profit of USD 872 million in 2021 compared to a profit of USD 683 million in 2020. The 2021 result reflected outperformance across alternative investments and equities as well as a positive contribution from credit investments. The 2020 result was driven by favourable interest rates impact on a net duration position and strong real estate investment performance.

ENW per share growth amounted to 10.7% in 2021, which is above the over-the-cycle target of 10%.

Key information

USD millions, unless otherwise stated	2020	2021	Change in %
EVM profit	–3 590	2 058	–
Total contribution to ENW	–434	3 762	–
Economic net worth (ENW)	33 652	35 374	5
Economic net worth per share in USD	116.45	122.42	5
Economic net worth per share growth, % ¹	–0.1	10.7	
Profit margin – new business, %	0.0	3.9	
Profit margin – previous years' business, %	–16.1	–0.7	
Profit margin – investments, %	5.9	8.9	

¹ENW 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 profit of USD 2.6 billion in 2021, compared to a loss of USD 2.0 billion in 2020. Strong EVM profit on new business of USD 580 million was driven by improved portfolio quality, partially compensated by large natural catastrophe losses. The casualty business achieved better margins due to sustained focus on disciplined underwriting. EVM profit on previous years' business was USD 855 million due to reserve releases for natural catastrophe and man-made losses, partially offset by proactive reserving on casualty claims inflation and US winter storm Uri losses. Favourable changes in capital costs due to diversification benefits as a result of the higher share of property in the portfolio mix further supported the result. Investment activities generated an EVM profit of USD 1.2 billion in 2021, compared to a loss of USD 91 million in 2020. The 2021 profit reflected strong performance across alternative investments (both private equity and real estate) and listed equities, supported by rising interest rates on a net short duration position. The 2020 loss resulted from declining interest rates on a net short duration position, partially compensated by strong real estate investment performance.

L&H Re reported an EVM profit of USD 116 million in 2021 compared to a loss of USD 207 million in 2020. EVM profit on new business of USD 1.3 billion reflected strong transactional business growth primarily in the US but also in the UK, as well as further profitable growth of core business across all regions. EVM loss on previous years' business of USD 1.4 billion included a significant impact from COVID-19-related losses of USD 1.2 billion, mainly reflecting mortality developments in the US. In addition, the result included adverse impacts from various assumption updates, while experience was slightly positive. Investment activities generated an EVM profit of USD 206 million in 2021, compared to USD 551 million in 2020. The 2021 profit reflected a positive contribution from credit investments, partially offset by a negative impact from rising interest rates on a net long duration position. The 2020 EVM profit was driven by favourable interest rates impact on a net long duration position.

Corporate Solutions reported an EVM profit of USD 835 million in 2021 compared to a loss of USD 902 million for 2020. EVM profit on new business of USD 230 million was driven by continued price momentum, growth in target areas and strong renewals, partially offset by large natural catastrophe losses, mainly Hurricane Ida and central US tornadoes as well as large man-made losses. Insurance in derivative form reported a profit of USD 13 million in 2021. EVM profit on previous years' business was USD 535 million, mainly driven by reserve releases in property from recent accident

years, releases on COVID-19 reserves built in 2020, and positive impacts of volume updates and lower capital costs. This more than compensated for large natural catastrophe losses, in particular US winter storm Uri, as well as large man-made losses in property and liability. Investment activities generated an EVM profit of USD 70 million in 2021, compared to a profit of USD 1 million in 2020. The 2021 profit reflected favourable equity performance and a positive contribution from credit investments.

Group items reported an EVM loss of USD 1.5 billion in 2021, compared to a loss of USD 328 million in 2020. The EVM loss on new business was USD 729 million in 2021, mainly driven by overhead expenses and capital costs on excess capital, as well as continued investment into building the iptiQ business, partially offset by trademark licence fee income from the business segments. The EVM loss on previous years' business was USD 195 million, mainly driven by unfavourable updates in the underwriting run-off businesses and increased overhead expenses. Investment activities generated an EVM loss of USD 582 million in 2021, compared to a profit of USD 413 million in 2020, reflecting underperformance from Principal Investments.

Business segments – key information

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Total
2020¹						
EVM profit	-1 975	-207	-902	-178	-328	-3 590
Total contribution to ENW	-714	820	-622	-7	89	-434
Profit margin – new business, %	-2.7	4.6	-7.9	n/a	n/a	0.0
Profit margin – previous years' business, %	-12.7	-14.6	-42.0	4.1	n/a	-16.1
Profit margin – investments, %	-3.8	13.2	0.2	n/a	9.2	5.9

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions		Group items	Total
2021						
EVM profit	2 612	116	835		-1 506	2 058
Total contribution to ENW	3 391	657	920		-1 206	3 762
Profit margin – new business, %	3.7	7.9	7.2		n/a	3.9
Profit margin – previous years' business, %	7.5	-9.9	26.3		n/a	-0.7
Profit margin – investments, %	39.2	5.8	11.3		-22.2	8.9

¹ Comparative information for 2020 has been adjusted to reflect the disbandment of Life Capital.

EVM financial information

EVM income statement

For the years ended 31 December

USD millions, unless otherwise stated	2020	2021
Underwriting result		
Gross premiums and fees	60 449	69 207
Gross premiums and fees growth rate, %	3.6	14.5
Premiums and fees	58 641	67 104
Premiums and fees retention rate, %	97.0	97.0
Premiums and fees growth rate, %	2.7	14.4
Claims and benefits	-43 488	-44 926
Commissions	-8 827	-14 309
Other	-44	70
Gross underwriting result – new business	6 282	7 939
Expenses	-3 731	-4 067
Net underwriting result – new business	2 551	3 872
Taxes	-573	-742
Capital costs	-1 970	-1 740
EVM profit – new business	9	1 391
EVM profit – previous years' business	-4 282	-205
EVM profit – underwriting	-4 274	1 186
Investment result		
Mark-to-market investment result	8 409	-150
Benchmark investment result	-6 143	2 483
Gross outperformance (underperformance)	2 265	2 333
Other	123	118
Expenses	-241	-258
Net outperformance (underperformance)	2 147	2 192
Taxes	-469	-470
Capital costs	-994	-850
EVM profit – investments	683	872
EVM profit	-3 590	2 058
Cost of debt	-259	-284
Release of current year capital costs	2 443	2 644
Additional taxes	972	-655
Total contribution to ENW	-434	3 762
Profit margin – new business, %	0.0	3.9
Profit margin – previous years' business, %	-16.1	-0.7
Profit margin – investments, %	5.9	8.9

EVM balance sheet

As of 31 December

USD millions	2020	2021
Assets		
Investments	123 601	119 488
Cash and cash equivalents	5 458	5 046
In-force business assets	318 440	330 999
Retrocession assets	26 848	29 580
Other assets	2 818	3 180
Total assets	477 165	488 293
Liabilities		
In-force business liabilities	384 141	392 822
Retrocession liabilities	21 900	24 996
Provision for capital costs	11 800	11 161
Future income tax liabilities	3 510	4 255
Debt	14 817	13 606
Other liabilities	7 345	6 078
Total liabilities	443 513	452 919
Economic net worth	33 652	35 374
Total liabilities and economic net worth	477 165	488 293

Statement of economic net worth

For the years ended 31 December

USD millions	2020	2021
Economic net worth as of 1 January	36 138	33 652
Change in EVM methodology	-492	
Restated economic net worth as of 1 January	35 646	33 652
Total contribution to ENW	-434	3 762
Dividends and share buyback	-1 956	-1 855
Other, including foreign exchange on economic net worth	395	-185
Economic net worth as of 31 December	33 652	35 374
Common shares outstanding as of 31 December	288 976 399	288 953 194
Economic net worth per share in USD as of 31 December	116.45	122.42

Business segments – EVM income statement

For the year ended 31 December

USD millions, unless otherwise stated	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Life Capital	Group items	Consolidation	Total
2020 ¹							
Underwriting result							
Gross premiums and fees	23 853	29 754	6 050		1 643	-851	60 449
Gross premiums and fees growth rate, %	-1.3	9.2	1.0	n/a	14.7		3.6
Premiums and fees	22 886	29 565	4 826		1 364		58 641
Premiums and fees retention rate, %	95.9	99.4	79.8	n/a	83.0		97.0
Premiums and fees growth rate, %	-2.8	8.6	-2.3	n/a	-4.3		2.7
Claims and benefits	-15 749	-23 461	-3 358		-919		-43 488
Commissions	-5 595	-2 377	-581		-273		-8 827
Other	14	-13	-34		-11		-44
Gross underwriting result – new business	1 555	3 714	852		161	0	6 282
Expenses	-1 397	-912	-922	1	-500		-3 731
Net underwriting result – new business	158	2 802	-70	1	-339	0	2 551
Taxes	-133	-559	10		110		-573
Capital costs	-458	-1 197	-137	-21	-157		-1 970
EVM profit – new business	-433	1 046	-197	-21	-386	0	9
EVM profit – previous years' business	-1 451	-1 804	-707	34	-354	0	-4 282
EVM profit – underwriting	-1 884	-758	-904	14	-741	0	-4 274
Investment result							
Mark-to-market investment result	2 763	2 891	459	1 237	1 059		8 409
Benchmark investment result	-2 331	-1 872	-406	-1 380	-154		-6 143
Gross outperformance (underperformance)	432	1 019	53	-144	905	0	2 265
Other	73	29	12	8	1		123
Expenses	-99	-68	-15	-23	-37		-241
Net outperformance (underperformance)	405	981	50	-159	870	0	2 147
Taxes	-97	-202	-10	31	-191		-469
Capital costs	-399	-228	-39	-63	-266		-994
EVM profit – investments	-91	551	1	-191	413	0	683
EVM profit	-1 975	-207	-902	-178	-328	0	-3 590
Cost of debt	-40	-71	36	-32	-151		-259
Release of current year capital costs	854	826	181	137	445		2 443
Additional taxes	447	273	64	66	123		972
Total contribution to ENW	-714	820	-622	-7	89	0	-434
Profit margin – new business, %	-2.7	4.6	-7.9	n/a	n/a	n/a	0.0
Profit margin – previous years' business, % ²	-12.7	-14.6	-42.0	4.1	n/a	n/a	-16.1
Profit margin – investments, %	-3.8	13.2	0.2	n/a	9.2	n/a	5.9

¹ Comparative information for 2020 has been adjusted to reflect the disbandment of Life Capital.² The overall previous years' business profit margin for the Reinsurance Business Unit was -13.7%.

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						
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	46	-3	49	-22		70
Gross underwriting result – new business	2 748	3 614	1 407	171	0	7 939
Expenses	-1 415	-919	-1 000	-733		-4 067
Net underwriting result – new business	1 333	2 695	407	-562	0	3 872
Taxes	-321	-473	-88	140		-742
Capital costs	-432	-911	-89	-307		-1 740
EVM profit – new business	580	1 310	230	-729	0	1 391
EVM profit – previous years' business	855	-1 400	535	-195	0	-205
EVM profit – underwriting	1 434	-90	765	-924	0	1 186
Investment result						
Mark-to-market investment result	892	-531	-62	-449		-150
Benchmark investment result	1 185	1 061	191	46		2 483
Gross outperformance (underperformance)	2 076	529	129	-403	0	2 333
Other	75	28	12	2		118
Expenses	-118	-74	-16	-50		-258
Net outperformance (underperformance)	2 034	484	125	-450	0	2 192
Taxes	-420	-97	-27	73		-470
Capital costs	-437	-181	-28	-205		-850
EVM profit – investments	1 178	206	70	-582	0	872
EVM profit	2 612	116	835	-1 506	0	2 058
Cost of debt	-155	-53	-34	-43		-284
Release of current year capital costs	1 026	979	144	495		2 644
Additional taxes	-92	-384	-27	-152		-655
Total contribution to ENW	3 391	657	920	-1 206	0	3 762
Profit margin – new business, %	3.7	7.9	7.2	n/a	n/a	3.9
Profit margin – previous years' business, % ¹	7.5	-9.9	26.3	n/a	n/a	-0.7
Profit margin – investments, %	39.2	5.8	11.3	-22.2	n/a	8.9

¹ The overall previous years' business profit margin for the Reinsurance Business Unit was -2.1%.

Business segments – EVM balance sheet

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
2020 ¹						
Assets						
Investments	72 541	41 946	10 852	11 205	-12 943	123 601
Cash and cash equivalents	2 941	1 625	679	213		5 458
In-force business assets	20 967	280 433	4 241	13 988	-1 189	318 440
Retrocession assets	2 589	21 872	7 633	182	-5 428	26 848
Other assets	5 694	4 741	1 098	4 739	-13 454	2 818
Total assets	104 732	350 616	24 503	30 328	-33 014	477 165
Liabilities						
In-force business liabilities	73 095	280 803	19 999	16 078	-5 834	384 141
Retrocession liabilities	919	20 367	1 317	87	-790	21 900
Provision for capital costs	1 206	10 022	257	315		11 800
Future income tax liabilities	-886	5 121	-437	-288		3 510
Debt	5 774	16 353	538	2 754	-10 602	14 817
Other liabilities	15 872	3 428	572	3 261	-15 788	7 345
Total liabilities	95 981	336 094	22 245	22 208	-33 014	443 513
Economic net worth	8 751	14 522	2 259	8 120	0	33 652
Total liabilities and economic net worth	104 732	350 616	24 504	30 328	-33 014	477 165

¹ Comparative information for 2020 has been adjusted to reflect the disbandment of Life Capital.

Business segments – EVM balance sheet

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
2021						
Assets						
Investments	71 393	39 393	11 473	9 156	-11 928	119 488
Cash and cash equivalents	1 938	2 002	854	253		5 046
In-force business assets	23 223	290 588	4 502	13 597	-911	330 999
Retrocession assets	2 587	24 375	7 447	256	-5 086	29 580
Other assets	6 971	5 488	1 535	3 373	-14 188	3 180
Total assets	106 112	361 847	25 812	26 636	-32 113	488 293
Liabilities						
In-force business liabilities	73 562	288 801	19 881	15 707	-5 130	392 822
Retrocession liabilities	1 105	23 128	1 518	112	-867	24 996
Provision for capital costs	786	9 911	166	298		11 161
Future income tax liabilities	-471	5 232	-201	-305		4 255
Debt	5 262	15 650	538	2 546	-10 391	13 606
Other liabilities	13 748	4 890	728	2 438	-15 725	6 078
Total liabilities	93 992	347 613	22 629	20 797	-32 113	452 919
Economic net worth	12 120	14 234	3 182	5 838	0	35 374
Total liabilities and economic net worth	106 112	361 847	25 812	26 636	-32 113	488 293

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
2021					
Economic net worth as of 1 January¹	8 751	14 522	2 259	8 120	33 652
Total contribution to ENW	3 391	657	920	-1 206	3 762
Dividends		-500		-1 355	-1 855
Other, including foreign exchange on economic net worth	-22	-446	4	279	-185
Economic net worth as of 31 December	12 120	14 234	3 182	5 838	35 374

¹ Opening balance has been adjusted to reflect the disbandment of Life Capital.

Business segments – reconciliation to US GAAP

As of 31 December

USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Total
2020¹					
US GAAP shareholders' equity	9 168	7 381	2 427	8 159	27 135
Discounting	1 220	-981	-160	-71	8
Investments and debt	2 401	-2 378	-19	669	674
Reserving basis					
US GAAP margins		24 658		981	25 639
Other	-135	912	579	-1 006	351
Recognition differences	117	-955	-121	-45	-1 004
Goodwill and other intangibles	-1 978	-1 884	-320	-527	-4 708
Taxes	-721	-2 312	107	97	-2 830
Capital costs	-1 108	-9 964	-229	-315	-11 615
Other	-213	46	-7	178	3
Total EVM valuation adjustments	-417	7 141	-168	-39	6 517
Economic net worth	8 751	14 522	2 259	8 120	33 652
2021					
US GAAP shareholders' equity	9 505	4 813	2 751	6 499	23 568
Discounting	2 849	-1 083	105	-94	1 778
Investments and debt	2 506	-1 582	12	489	1 426
Reserving basis					
US GAAP margins		26 965		968	27 934
Other	664	757	845	-1 122	1 143
Recognition differences	47	-821	-67	-35	-877
Goodwill and other intangibles	-1 918	-1 862	-314	-576	-4 670
Taxes	-857	-3 063	-71	-24	-4 016
Capital costs	-705	-9 855	-142	-297	-10 998
Other	30	-36	64	29	87
Total EVM valuation adjustments	2 615	9 421	431	-661	11 806
Economic net worth	12 120	14 234	3 182	5 838	35 374

¹ Comparative information for 2020 has been adjusted to reflect the disbandment of Life Capital.

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)
<https://www.swissre.com/Library/measuring-economic-performance-solvency-at-swiss-re.html>

EVM sensitivities

USD billions	Change in 2021 EVM new business profit	Change in economic net worth as of 31.12.2021
Financial market shocks:		
25% decrease in equity values	-2.0	-2.0
25% decrease in property values	-1.6	-1.6
50bps increase in credit spreads	n/a	-1.6
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	0.5
Set reference rates equal to government rates plus 50bps	n/a	2.5
Set reference rates equal to government rates plus 100bps	n/a	4.8
Mortality and morbidity rates reduced by 5%:²		
Mortality	0.3	4.3
Longevity	-0.2	-0.7
Morbidity	0.1	1.4
Future mortality improvements:		
Linearly reduce mortality improvements to 0% p.a. 5 years earlier than the base assumption	n/a	-0.6

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

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Swiss Re improves profitability despite COVID-19 impacts, reflecting the remarkable performance of its property and casualty businesses.



We are in a strong position to continue to support our clients and deploy our capital.”

John R. Dacey

Group Chief Financial Officer



Swiss Re's very strong capital position provides the resilience that underpins profitable growth.

The Group's capital position remains very strong with a Group SST ratio of 223% as of 1 January 2022, compared with a 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 223% as of 1 January 2022, which is within 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 has been unprecedented 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.

Based on the Group's capital strength, the Board of Directors proposes a 2021 regular dividend of CHF 5.90 per share. In accordance with the Group's capital management priorities, the Board of Directors has not proposed a public share buyback programme for 2022.



//
Swiss Re's financial strength and leadership in sustainability provide a strong base to support profitable growth."

Patrick Raaflaub
Group Chief Risk Officer

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 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 2022, Swiss Re's total risk increased to USD 22.7 billion (compared to USD 22.4 billion in SST 2021), driven by higher financial market risk, partially offset by lower insurance risk. These shifts led to a slight increase in diversification at risk category level.

The decrease in property and casualty risk is mainly driven by the inflation model change, the depreciation of major currencies against the US dollar and higher interest rates. These effects are partially offset by an increase in natural catastrophe risk.

Lower life and health risk mainly reflects the impact of higher interest rates and the depreciation of major currencies against the US dollar. The overall decrease is further supported by higher relief from new retrocession agreements and the diversification impact of new longevity business.

Financial market risk increased, mainly driven by the reduction of investment hedges, higher equity valuations and additional investments in private equity.

Credit risk remained stable, as the reduction of hedges and addition of corporate bonds was largely offset by foreign exchange and interest rate movements.

Financial strength and capital management

Swiss Re’s capital position remains very strong, demonstrating resilience to large losses and market volatility.

Solid capitalisation enabling market opportunities

Swiss Re’s policy of ensuring superior capitalisation at all times has meant that even after five consecutive years with large insurance 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 maintaining the regular 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.

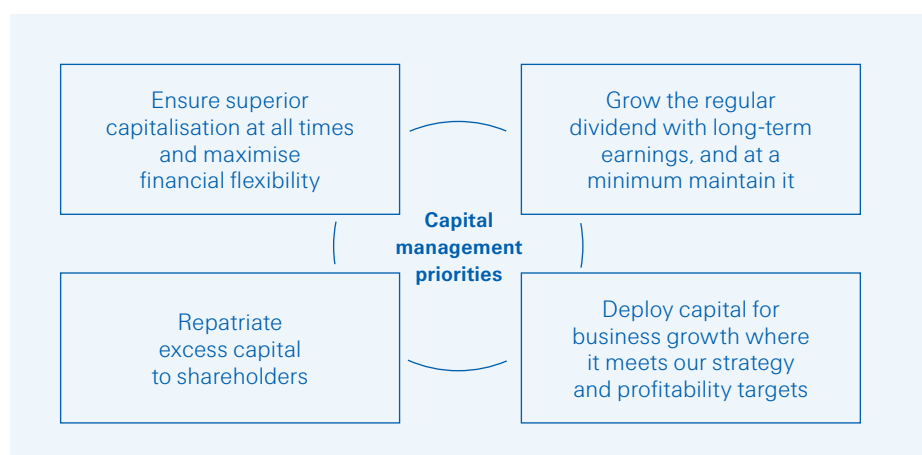
The below subsections describe Swiss Re’s capitalisation according to the SST and the financial strength ratings.

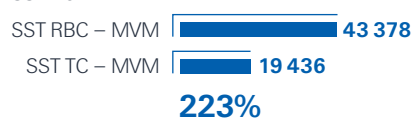
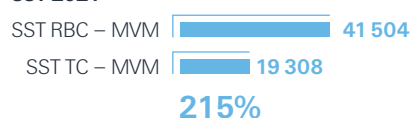
Swiss Solvency Test (SST)

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 2022 report will be filed with FINMA in April 2022. Accordingly, the information presented below is based on currently available information and may differ from the final Group SST 2022 figures.



SST 2022

SST 2021


223%
SST ratio
 (2022)

Swiss Re Group maintained its very strong capital position throughout 2021 despite COVID-19 impacts. The Group SST 2022 ratio increased to 223%, 8pp higher than in SST 2021 and around the mid-point of its 200–250% target range.

The increase was mainly driven by positive underwriting and investment contributions as well as higher interest rates. These effects were partially offset by paid dividends and the reduction of investment hedges, as well as higher natural catastrophe risk.

Swiss Re Group SST Ratio

USD millions	SST 2021	SST 2022	Change
SST risk-bearing capital – market value margin	41 504	43 378	1 874
SST target capital – market value margin	19 308	19 436	128
SST ratio	215%	223%	8pp

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 increase in SST NAV to USD 50.3 billion was mainly driven by positive underwriting and investment contributions, partially offset by paid dividends.

SST risk-bearing capital

USD millions	SST 2021	SST 2022	Change
SST net asset value	48 804	50 263	1 460
Deductions	–2 433	–2 455	–22
SST core capital	46 370	47 808	1 438
Supplementary capital	6 914	6 421	–493
SST risk-bearing capital	53 284	54 229	945
Market value margin	11 780	10 851	–929
SST risk-bearing capital – market value margin	41 504	43 378	1 874

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

- The Property & Casualty Reinsurance positive underwriting contribution was mainly driven by improved margins and portfolio quality. Reserves releases for natural catastrophe losses including US hurricanes and wildfires, weather-related events in Australia as well as typhoons in Asia and man-made losses further improved the result. This was partially offset by large natural catastrophe losses such as Hurricane Ida, European July floods and June hailstorm, US winter storm Uri, as well as riots in South Africa and proactive reserving actions on casualty claims inflation.
- The positive underwriting contribution from Life & Health Reinsurance was mainly driven by strong transactional business growth primarily in the US but also in the UK, as well as further profitable growth of core business across all regions. This was partially offset by a significant impact from COVID-19-related losses, mainly reflecting mortality developments in the US. In addition, the Life & Health Reinsurance underwriting contribution reflected unfavourable impacts from various assumption updates, including mortality improvements, while experience remained slightly positive.
- Corporate Solutions positive underwriting contribution was mainly driven by continued price momentum, growth in target areas and strong renewals, as well as by reserve releases in property, and releases on COVID-19 reserves. This more than compensated for large natural catastrophe losses, mainly Hurricane Ida, central US tornadoes, US winter storm Uri as well as large man-made losses.
- The Group items negative underwriting contribution was mainly driven by increased overhead expenses, as well as the continued investment into building the iptiQ business and unfavourable updates in the underwriting run-off business.

The positive investment contribution was mainly driven by outperformance across alternative investments and equities as well as a positive contribution from credit investments. This was partially offset by a negative contribution from Principal 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 2022, subject to AGM 2022 approval) as well as deferred taxes on real estate.

Supplementary capital is recognised as risk bearing under SST. The change in SST supplementary capital was due to market value movements.

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.

SST Target Capital

USD millions	SST 2021	SST 2022	Change
Total risk	22 353	22 739	385
Other impacts	8 735	7 548	-1 187
SST target capital	31 088	30 287	-801
Market value margin	11 780	10 851	-929
SST target capital – market value margin	19 308	19 436	128

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

Since SST 2021, one major model change has been implemented. It was approved by FINMA in October 2021:

- Inflation risk – The model was improved to capture risk more comprehensively, including the mitigation effect of contractual clauses, diversification with other risks and inclusion of additional exposures. The overall impact is an increase of the Group's SST ratio.

The risk exposure basis for SST is a projection for the period from 1 January 2022 to 31 December 2022 and is based on the economic balance sheet as of 31 December 2021 and adjustments to reflect 1 January 2022 business shifts.

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

SST target capital declined to USD 30.3 billion, mainly driven by the decrease in market value margin (included in Other impacts), partially offset by higher total risk (see Risk assessment p. 67 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.

USD 11.2bn

Distribution to Shareholders
cumulative 2018–2022E

External dividends to shareholders

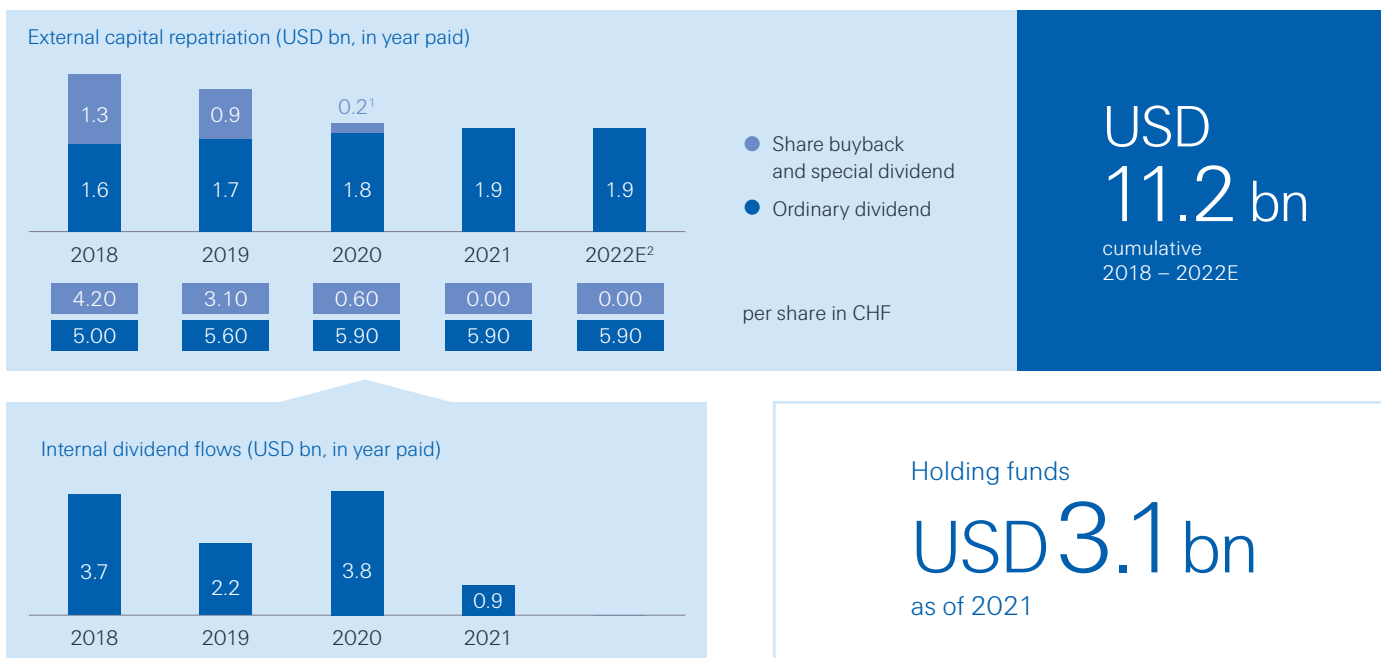
Based on the Group’s very strong capital position and positive market outlook, the Board of Directors proposes a regular dividend of CHF 5.90 per share for the 2021 financial year, maintaining the dividend per share paid for the 2020 financial year.

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.

Excellent track record of capital repatriation



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 2022 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 23 November 2021, 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 16 December 2021, 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 22 July 2021, 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 2021	Financial strength rating	Outlook	Last update
Standard & Poor's	AA-	Negative	23 November 2021
Moody's	Aa3	Stable	16 December 2021
A.M. Best	A+	Stable	22 July 2021

USD 2.7bn

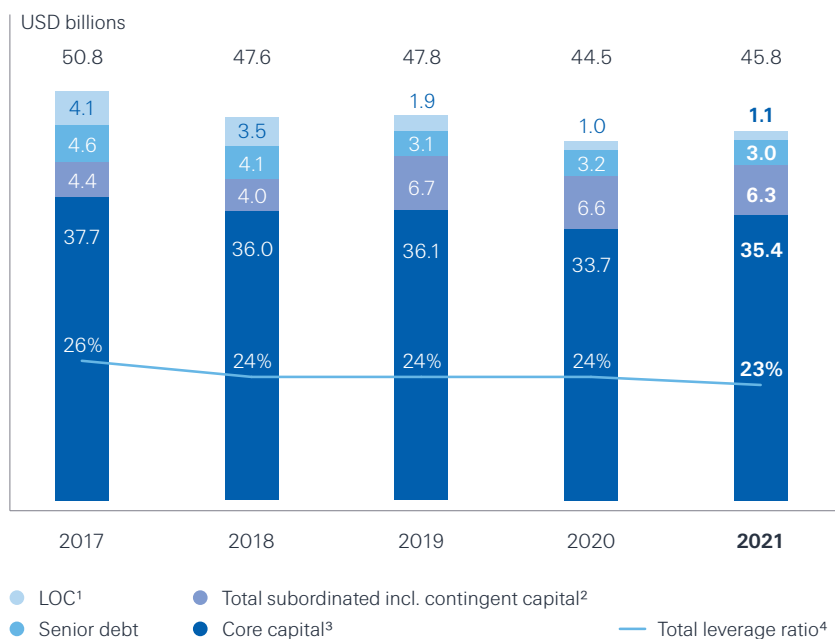
Additional pre-funded
subordinated debt available
on demand

Funding activities

The Group’s high financial flexibility is underpinned by its prudent approach to leverage and strong access to diversified sources of funding.

As of 31 December 2021, the Group’s total leverage ratio was 23% driven by a continued focus on senior debt reduction. In 2021, Swiss Re did not issue any senior or subordinated debt. Swiss Re continues to have available the USD 2.7bn off-balance sheet pre-funded subordinated debt facilities for use on demand for any reason, including support for business growth and management of upcoming redemptions.

Financial flexibility strengthened through reduced 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 on-balance sheet senior and subordinated debt and contingent capital, including utilised LOCs, divided by total capitalisation.

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;
- funding is charged and credited at an appropriate market rate through Swiss Re's internal transfer pricing;
- 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 the management of financial market risk.

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 29.7 billion as of 31 December 2021, compared with USD 26.7 billion as of 31 December 2020.

Based on the internal liquidity stress tests described above, Swiss Re estimates that SRZ holds surplus liquidity after dividends to Swiss Re Ltd. In 2021, the amount of surplus liquidity decreased. This was largely driven by positive net operating cash flows and the reorganisation of the legal entity structure, more than offset by the changes in the investment portfolio, mark-to-market movements as well as changes in foreign exchange rates.

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. Consequently, the framework is applied at Group level and cascaded to all legal entity levels.

The risk management 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 governance documentation, including Group Risk Policy
- Key risk management principles
- Risk culture and behaviour
- Organisation of risk management, including responsibilities at Board and executive level
- Risk control framework
- Risk appetite framework, including limits

Swiss Re applies a differentiated governance approach at the 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

Risk governance documentation

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.

Fundamental roles for delegated risk-taking

Risk-taking activities are typically subject to three lines of control. The first line comprises the day-to-day risk control activities performed by risk takers in the business as well as in Group functions, including proactive identification of risks, as well as establishing and operating an effective control system.

Independent oversight performed by functions such as Risk Management and Compliance 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. This approach is designed to achieve a strong, coherent and Group-wide risk culture built on the principles of ownership and accountability.

Risk Governance documentation hierarchy



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 key 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-relevant information in decision-making
- Risk governance and accountability of risk control activities as well as transparent flow of risk information
- Embedding of risk management skills and competencies

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.

Risk culture is directly linked to Swiss Re's performance management, which is based not only on business results but also on behaviours. Swiss Re's compensation framework aims to foster compliance and support sensible risk-taking. Swiss Re also has a range of incentive programmes that reflect the long-term nature of its business by rewarding sustained performance rather than short-term results. This helps to align shareholder and employee interests.

Swiss Re's compensation principles and framework are captured within the Swiss Re Group Compensation Policy. The Group's Finance and Risk Committee conducts a regular risk assessment for all changes to this policy.

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 defines basic risk management principles and the risk appetite framework, including the Group's risk appetite and risk tolerance; in addition, it approves the Group's risk strategy. The Group Board mainly performs risk oversight and governance through three committees:

- **Finance and Risk Committee** – defines the Group Risk Policy, reviews risk capacity limits, monitors adherence to risk tolerance, and reviews top risk issues and exposures.
- **Investment Committee** – reviews the financial risk analysis methodology and valuation related to each asset class and ensures that the relevant management processes and controlling mechanisms are in place.
- **Audit Committee** – oversees internal controls and compliance procedures.

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

The Group CRO is appointed as the principal independent risk controller of Swiss Re. He is a member of the Group Executive Committee and reports directly to the Group CEO as well as to the Board's Finance and Risk Committee. The Group CRO also advises the Group Executive Committee, the Chairman or the respective Group Board 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 reinsurance company and 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 thus forms an integral part of Swiss Re's business model and risk management framework. The 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.

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

Group Executive Committee

- Develops and implements risk management framework
- Sets and monitors risk capacity limits
- Some responsibilities delegated to Group CRO and major legal entities

Group CRO

- Principal independent risk controller
- Heads the Risk Management function
- Member of Group Executive Committee
- Reports to Board and Group CEO

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

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 businesses, with dotted lines to the business level CEO. Reinsurance Risk Management performs Group-level accumulation control for P&C and L&H risks in addition to its business level 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 supported 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, rules and the Code of Conduct. It also assists the Group Board, Group 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:

- **Risk tolerance and appetite assessment 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 (risk appetite and tolerance).
- **Risk identification** – ensures that all risks to which Swiss Re is exposed are transparent in order to make them controllable and manageable.
- **Risk measurement** – enables Swiss Re to understand the magnitude of its risks and to set quantitative controls that limit its risk-taking.
- **Risk limit framework** – allows Swiss Re to control its risk-taking decisions and total risk accumulations, including the passive risk it is exposed to through its operations.
- **Risk reporting** – creates internal risk transparency and enables Swiss Re to meet external disclosure requirements.

In addition, Risk Management performs the following risk control activities:

- **Model and tool assurance** – ensures that models or tools used for costing, valuation and risk capital determination are based on sound scientific concepts, have been implemented and calibrated correctly, and produce accurate results.
- **Valuation assurance** – assesses the quality of valuations for financial instrument prices and reserves.
- **Insurance risk reviews** – assess the quality of decision-making in the taking of insurance risks by performing independent evaluations of underwriting, costing, pricing and claims handling.

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 COSO (the Committee of Sponsoring Organizations of the Treadway Commission). It is applied on multiple organisational levels, including Group, functions, regions and legal entities.

Risk transfer

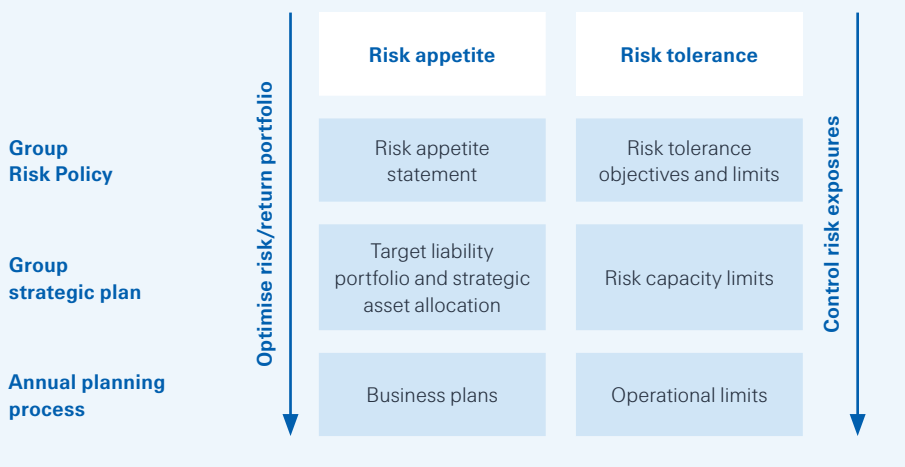
To efficiently manage capital across the Group and ensure that risk-taking in individual legal entities is well diversified, the Group employs internal retrocession and funding agreements. These serve to improve the fungibility of capital and consequently Group-wide diversification. In addition, the 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.

In addition, Swiss Re uses financial market derivative instruments as well as financial market securities to hedge financial market

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.



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.

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 includes 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 limit is subject to a mitigation plan that is monitored by the Group’s Finance and Risk Committee.

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 Group 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.

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 2022, total risk increased to USD 22.7 billion driven by higher financial market risk, partially offset by lower insurance 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.

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 (see Swiss Re's risk landscape, p. 68).

Property and casualty risk is mainly driven by underlying risks inherent in the business Swiss Re underwrites, in particular natural catastrophe risk, non-life claims inflation, costing and reserving, and man-made risk. The main drivers of life and health insurance risk are mortality trend and lethal pandemic 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 increased to USD 22.7 billion driven by higher financial market risk, partially offset by lower insurance risk. These shifts led to a slight increase in diversification at risk category level.

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

USD millions	SST 2021	SST 2022	Change	cross reference information
Property and casualty	12 895	12 426	-469	see page 70
Life and health	11 852	11 128	-725	see page 71
Financial market	10 594	12 418	1 824	see page 72
Credit ¹	3 186	3 198	12	see page 73
Diversification	-16 174	-16 431	-257	
Total risk	22 353	22 739	385	

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 category level, which is 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

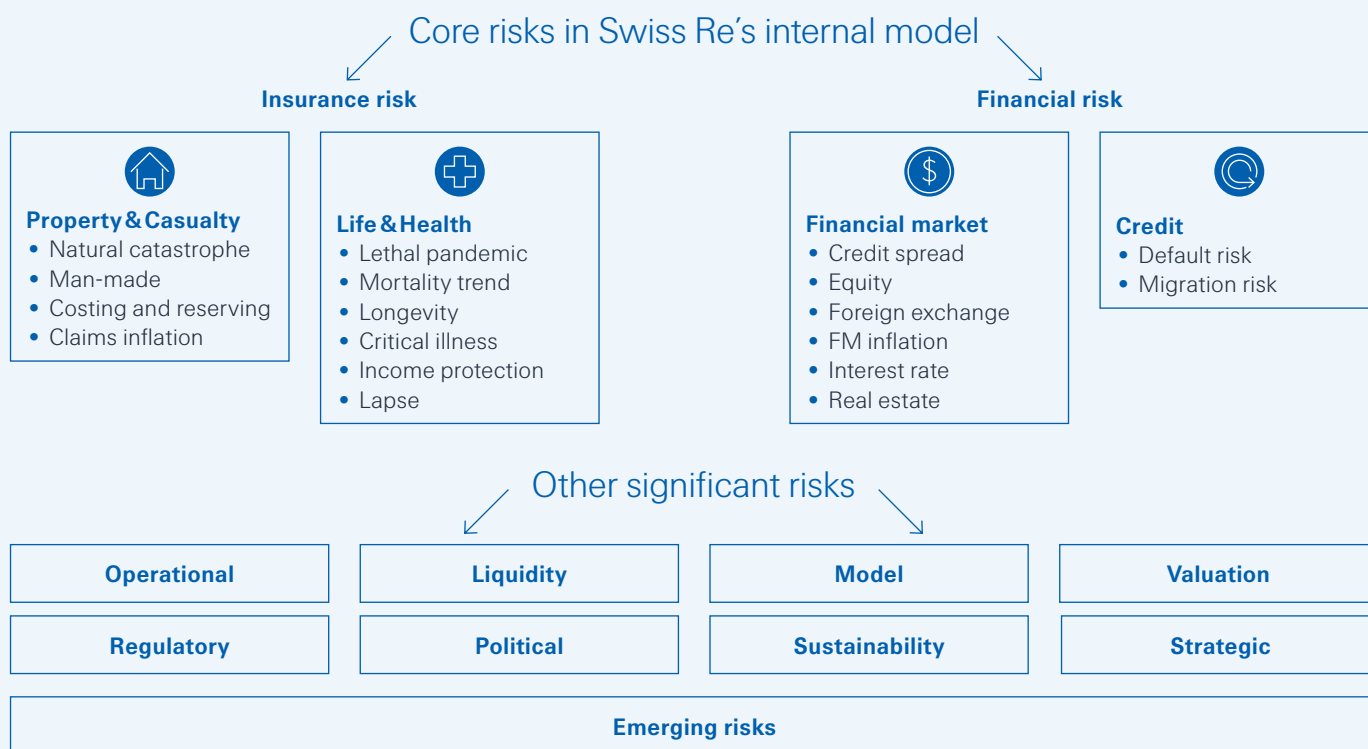
USD billions	SST 2021	SST 2022	Change in %
99% VaR¹	17.2	17.4	1%
99.5% VaR¹	20.1	20.4	2%

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 – increase to USD 17.4 billion and USD 20.4 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 60.



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 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 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 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:

- *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.
- *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.
- *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.
- *Regulatory risk* arises from changes to insurance regulations and supervisory regimes as well as from interactions with regulatory authorities and supervisory regimes 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.
- *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.
- *Sustainability risk* comprises the environmental, social and governance risks that may arise from individual business transactions or the way Swiss Re conducts its operations.
- 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.
- 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.
- 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 underwriting 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 the entity level, underwriting and capacity limits are assigned that are used 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

–4%

Change since SST 2021



Risk developments

The decrease in property and casualty risk is mainly driven by the inflation model change, the depreciation of major currencies against the US dollar and higher interest rates. These effects are partially offset by an increase in natural catastrophe risk, mainly reflecting higher Atlantic hurricane exposure.

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 Group 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 2022
Atlantic hurricane	6 798
Californian earthquake	4 977
Japanese earthquake	3 774
European windstorm	2 703
Lethal pandemic	3 632

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 2022, the largest natural catastrophe exposure for Swiss Re Group derives from the Atlantic hurricane scenario with a USD 6.8 billion loss. The lethal pandemic loss is estimated to be at USD 3.6 billion.

Life and health risk

–6%
Change since SST 2021



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. The overall decrease is further supported by higher relief from new retrocession agreements and the diversification impact of new longevity business. These effects are partially offset by new business in Asia and the US, resulting in higher exposure to critical illness and mortality trend risk.

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 mortality, life (mortality trend and longevity combined), lethal pandemic, 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 (eg 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 Group Executive Committee establishes the

principal risk limits for aggregate 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

+17%
Change since SST 2021



Risk developments

Financial market risk increased, mainly driven by the reduction of investment hedges, higher equity valuations and additional investments in private equity, partially offset by sales in listed equity 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 2022
Interest rates +50bps	10pp
Interest rates -50bps	-13pp
Credit spreads +50bps	-6pp
Credit spreads -50bps	6pp
Equity values +25%	2pp
Equity values -25%	-3pp
Real estate values +25%	6pp
Real estate values -25%	-6pp

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	SST 2022
Credit default ¹	2 310

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

0%
Change since
SST 2021



Risk developments

Credit risk remained stable, as the impact from the reduction of hedges and the addition of corporate bonds was largely offset by the impact of foreign exchange and interest rate movements.

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, it is responsible for regularly monitoring corporate counterparty credit quality and exposures, and for compiling watch lists of cases that merit close attention. These reports are presented and discussed with those responsible for the relevant business line 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 Group 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, mitigation strategies are required for all risks that are outside of operational risk limits in order to bring them within 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 defined by the Information Security Forum. The results of the assessment are shared with senior management and integrated into Swiss Re's Group-wide cybersecurity programme. This programme focuses on five key areas: security culture, critical information, technology defence, incident response and supplier governance.

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.

Swiss Re has adapted to increased remote working without any significant increase in operational or compliance failings as a result of this change in operating model. Strong communication and collaboration across teams, and between business and risk functions, continues to assure an adequate level of operational resilience is maintained.

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.

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 and Tool Assurance Framework. 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 all 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 national 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 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.

There is ongoing regulatory attention on enhancing sustainability disclosure. Forward-looking climate risk assessments – such as scenario analyses or stress testing – are gaining traction. These regulatory initiatives differ in scope, methodology and key assumptions. Swiss Re supports such measures and continues to advocate for a harmonised and gradual implementation of these requirements in line with international standards and recommendations, such as those of the Financial Stability Board Task Force on Climate-related Financial Disclosure (TCFD). Swiss Re continues in its efforts to discourage regulatory fragmentation and ensure that requirements are appropriate.

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.

With markets more stable following the pandemic shock, supervisors, regulators, standard-setters and other actors have

significantly ramped up efforts in the digital policy space. COVID-19 has accelerated discussions around operational resilience, cybersecurity rules and third-party provider concentration risks. Swiss Re follows these topics closely and monitors their potential impact.

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.

In addition to identifying and assessing the impact of political risk on its business, the Group seeks to raise awareness of political risk issues within the industry and among the broader public, through active dialogue with clients, the media and other stakeholders. The Group also builds relationships that expand its access to information and intelligence, and allow Swiss Re to further enhance its 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.

Swiss Re continues to operate in the UK mainly through the UK branches of three Luxembourg entities. Following the UK's exit from the EU, one of Swiss Re's UK branches is authorised as a third-country branch by the UK's regulators, the Prudential Regulation Authority and Financial Conduct Authority. The other two UK branches are operating under the UK's Temporary Permissions Regime which, subject to certain conditions, allows third country branches to conduct insurance and reinsurance business in the UK until licences are granted by UK regulators.

Applications for licenses for these two third country branches have been submitted and Swiss Re is in regular contact with the UK's Prudential Regulatory Authority and Financial Conduct Authority to progress these applications.

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 Sustainability Risk Framework to identify and address sustainability risks across Swiss Re's business activities. The framework 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 experts in Swiss Re's Group Sustainability Risk team, which is also responsible for maintaining the Sustainability Risk Framework. In addition, this unit supports Swiss Re's management and business strategy through tailored risk assessments and risk portfolio reviews. It fosters risk awareness through internal training and facilitates development of innovative solutions to address sustainability

issues. Finally, it represents and advocates Swiss Re's position on selected sustainability risk topics to external stakeholders.

Swiss Re is a founding signatory to the UN Principles for Sustainable Insurance (UN PSI) and is currently a board member of this initiative. The UN PSI provide a global framework for managing environmental, social and governance challenges. Swiss Re has been actively contributing to the initiative for several years.

As a signatory to the Paris Pledge for Action and the UN Global Compact Business Ambition for 1.5°C, Swiss Re is supporting the transition to a low-carbon economy and is committed to achieving net-zero emissions for its insurance and investment portfolios by 2050, as well as for own operations by 2030.

To support this ambitious goal, Swiss Re launched in 2021 the UN-convened Net-Zero Insurance Alliance as a founding member. The CEOs of the founding members also joined the COP26 Race to Zero campaign and became part of the Glasgow Financial Alliance for Net Zero (GFANZ), bringing together existing and new net-zero finance initiatives into one sector-wide strategic forum. Swiss Re's CEO also co-chairs the Alliance of CEO Climate Leaders, the largest such alliance in the world committed to delivering concrete climate solutions and innovations.

Other important steps to achieve the net-zero target are the updated Thermal Coal and Oil&Gas policies. In 2021, Swiss Re extended the Thermal Coal Policy to treaty business. The updated policy introduces specific exposure thresholds effective from 2023 and sets a long-term reduction path to reach a total phase-out of thermal coal by 2030 for OECD countries and by 2040 for the rest of the world. In July 2021, the updated Oil&Gas policy entered into force, excluding the world's 5% most carbon-intensive oil and gas companies.

Swiss Re has joined the Taskforce on Nature Related Financial Disclosures (TNFD) which was launched in June 2021. The industry-led initiative aims to replicate the success of the Taskforce on Climate-related Financial Disclosure (TCFD), with the goal to provide a framework for organisations to report on evolving nature and biodiversity-related risks.

Reflecting the Group's strong overall commitment to sustainability, Swiss Re continued to be included in leading sustainability indexes and rankings such as FTSE4Good, Euronext Vigeo World 120, Ethibel Excellence Global, Bloomberg Gender-Equality Index, ISS ESG Prime and ISS QualityScore and the Dow Jones Sustainability Index. For more information on Swiss Re's sustainability practices, see the 2021 Sustainability Report.

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

In recent years, the number of people diagnosed with mental health issues has been rising, and so have related healthcare costs and disability claims. Severe depression is of particular concern due to the risk of causing inability to work, higher suicide rates and increased likelihood for physical health impairment. 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 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.

Climate change – Moving to a low-carbon future

To meet the objectives of the Paris Agreement, global warming needs to stay well below 2°C compared to pre-industrial levels. To achieve this, the target is to reduce greenhouse gas emissions to net zero by 2050. A rapid transition to a low carbon economy is required. The changes are needed across all industries and entail an entire cluster of new risks which need to be understood, assessed and mitigated. Swiss Re, and the insurance industry in general, regularly assesses the changing risk landscape and can help accelerate this transition through risk transfer products and as a long-term investor.

Potential business impact

The insurance sector is exposed to transition risks which may arise as a result of policy, legal, technology and market changes that are required to facilitate the transition to a low-carbon economy. For insurers and reinsurers, investment risks arising from this transition are mainly linked to the potential re-pricing of carbon-intensive financial assets, and the speed at which any such re-pricing might occur.

To a lesser extent, insurers and reinsurers may also need to adapt to potential impacts on insurance resulting from, for example, reductions in insurance premium volumes from carbon-intensive sectors or coverage of new technologies without established loss histories, which may increase uncertainties in lines of business such as property and engineering.

Mitigation measures

Swiss Re is taking proactive measures to reduce potential business impacts on its investment and insurance portfolios, for example, reducing exposure to assets with the potential to be stranded in carbon-intensive energy infrastructure. Swiss Re is phasing out thermal coal in its investment portfolio by 2030 and for underwriting in OECD countries by 2030 and in the rest of the world by 2040. As a leader in the underwriting of renewable energy risk, Swiss Re is actively adapting existing products, as well as developing new risk transfer solutions. A new focus area for the future will be the risk cluster related to innovations in carbon removal which will be an integral part of reaching net zero.

Reliability of energy supplies

Long-lasting outage or deficiency of energy supplies can 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. As an example of such an assessment, Swiss Re considered direct and indirect underwriting loss potentials from a long-duration power blackout in the US triggered by a solar storm.

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 of this risk cluster through the CRO Forum Emerging Risk Initiative.

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

Corporate governance

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Swiss Re's corporate governance ensures accountability and clear allocation of responsibilities. It fosters transparency and facilitates the assessment of the quality of Swiss Re's organisation and business.



Swiss Re's corporate governance supports a balanced approach to accountability, shared values and strengths."

Sergio P. Ermotti

Chairman of the Board of Directors



Overview

Corporate governance trends

Swiss Re closely monitors corporate governance developments and trends globally and adapts its corporate governance accordingly. Swiss Re is convinced that solid, efficient and fit for purpose corporate governance is key for success.

In 2021, several trends have come to the forefront on the social agenda. The ongoing global pandemic is clearly paramount. There is also a greater call from all levels of society for large corporations to justify their overall social and economic purpose. These trends are forcing companies and their leaders to rearticulate their values, strategy, board role and management actions.

Over the past years, there has been a much greater focus on environmental, social and governance (ESG) issues, in particular on climate, diversity and inclusion. The focus on ESG is leading to increasing momentum towards greater transparency in corporate reporting and board level accountability, particularly in proactively addressing ESG issues and managing the associated risks.

Demonstrating leadership in these areas can be a differentiating factor.

Swiss Re is one of the industry leaders in ESG areas. In 2021, the Group continued to implement the Group Sustainability Strategy, with a focus on reinforcing Swiss Re's efforts to make the world more resilient and sustainable. From a corporate governance perspective, Swiss Re has established a well-defined governance framework to guide how to implement, enhance and monitor the Group Sustainability Strategy.

Pages 83–85 provide more information on Swiss Re's governance approach to ESG.

Governance changes in 2021 and as of 2022

Board of Directors and Group Executive Committee

New Chairman of the Board of Directors

At the Annual General Meeting (AGM) 2021, Swiss Re's shareholders elected Sergio P. Ermotti as the new Chairman of the Board of Directors. Mr Ermotti is a non-executive and independent Chairman. He was initially elected to the Board of Directors in 2020.

Board of Directors composition

Walter B. Kielholz resigned as Chairman and a member of the Board of Directors effective as of the AGM 2021. The AGM re-elected all other Board members. There were no further changes to the Board composition during 2021.

Group Executive Committee (Group EC)

On 1 July 2021, Cathy Desquesses was appointed Group Chief Human Resources Officer (Group CHRO) and a member of the Group EC, succeeding Nigel Fretwell, who had retired on 30 June 2021. Anette Bronder, former Group Chief Operating Officer (Group COO), stepped down from the Group EC on 17 December 2021 and left Swiss Re.

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 succeeds Russell Higginbotham, who has been appointed CEO Reinsurance Solutions.

Effective 1 January 2022, Group Operations has been reorganised: the Group EC no longer comprises a Group COO role. Corporate Services (CS) have been assigned to the responsibility of the Group CHRO (newly: Group CHRO & Head CS), and Digital & Technology to the Group CDTO.

Governance structure and organisation

New Governance and Nomination Committee

At the end of October 2021, the Board of Directors simplified its governance by disbanding both the Chairman's and Governance Committee and the Nomination Committee by replacing them with the new Governance and Nomination Committee. This Committee, chaired by the Chairman of the Board of Directors, addresses corporate governance matters, reviews environmental, social and governance (ESG) topics and ensures that they are embedded at all levels in the Group. It also supports the Board of Directors with the succession planning at both Board and Group EC level.

Simplification of the Group's legal entity structure

On 25 September 2020, Swiss Re announced a further streamlining of the Group's governance structure with the aim to pool the business and risks across all Business Units/Division iptiQ to increase the Group's capital efficiency while keeping accountability and responsibilities intact. Effective 1 July 2021, Swiss Reinsurance Company Ltd (SRZ) has become the main direct wholly owned operating subsidiary of Swiss Re Ltd. SRZ in turn holds separate holding companies for the Business Units Reinsurance and Corporate Solutions, as well as for the Division iptiQ. Under the new structure, the Group EC also assumes management responsibility for SRZ. It is supported by the new Asset and Liability Committee (ALCO) and the new Group Underwriting Committee (GUC).

Outlook for 2022

Board succession planning

Removal of the implicit age limit

The implicit age limit of 70 years for Board membership will be removed in order to avoid age discrimination. This also allows for the best talents to be attracted and retained for the Board of Directors going forward. The implicit age limit will no longer be applied in the Board succession planning process.

Introduction of 12-year tenure limit

The Board of Directors will propose an amendment to the Articles of Association at the AGM 2022 to introduce a 12-year tenure limit, applicable for all current and new Board members, as of the AGM 2022.

Gender diversity

Diversity – and in particular gender diversity – is of the utmost importance to the Board of Directors for its composition. Therefore, gender diversity is a top priority for new appointments. At the AGM 2022, the Board of Directors will provide a formal commitment to reach female representation at the Board level of 30% or more by the AGM 2023.

Nominations Chairman and Board of Directors

In line with the newly proposed tenure limit, Raymond K.F. Ch'ien will not stand for re-election at the AGM 2022. The Board of Directors proposes the Chairman as well as all remaining Board members for re-election at the AGM 2022.

Board of Directors and Group EC compensation

Please refer to the Compensation Report beginning on page 118 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 125–126) as well as for loans granted to them (pages 129 and 136) and for provisions of the Articles of Association relating to these matters (page 125).

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 (SRL) and the Group. These responsibilities are non-transferable and rest with the entire Board of Directors. It has established five Board committees that support the Board in fulfilling its duties.

Delegation of management

The Board of Directors has delegated the management of SRL 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 (SRZ)

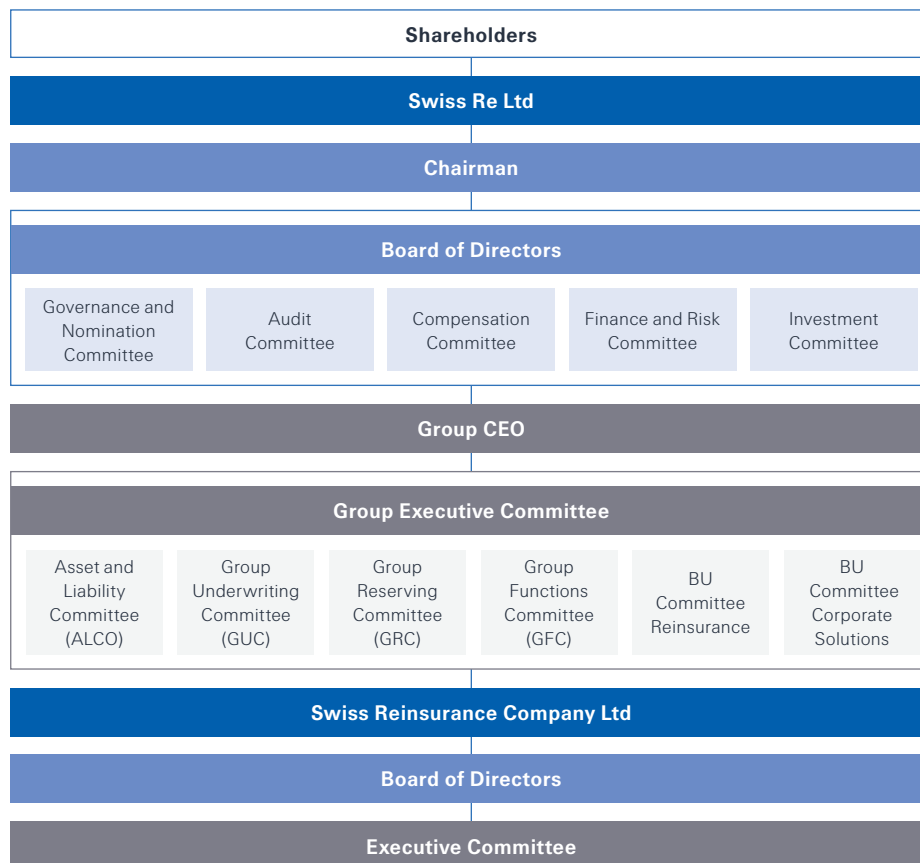
SRZ is Swiss Re's main operating carrier. The SRL and the SRZ Boards of Directors are comprised of identical members. SRZ is managed by the Group EC in its capacity as the legal entity's Executive Committee.

Governance documents

Swiss Re's corporate governance is laid out in various documents:

- The **Code of Conduct** provides key principles that guide responsible decision-making and achieving results using the highest ethical standards. It is built on the **five Swiss Re Corporate Values: Integrity, Team Spirit, Passion to Perform, Agility and Client Centricity**.
- The **Corporate Governance Guidelines** set out Swiss Re's harmonised governance principles and standards, ensuring a consistent and tailored corporate governance approach across the Group.
- The **Articles of Association** define the legal and organisational framework of SRL.
- The **Bylaws** define SRL's and the Group's governance framework and include the responsibilities of the Board of Directors and the Group EC and their members. As part of the Bylaws, the **Board committee charters** outline the duties and responsibilities of the Board committees.

Swiss Re's corporate governance



Swiss Re's corporate governance documents are available on Swiss Re's website.

 **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

Adherence to regulation

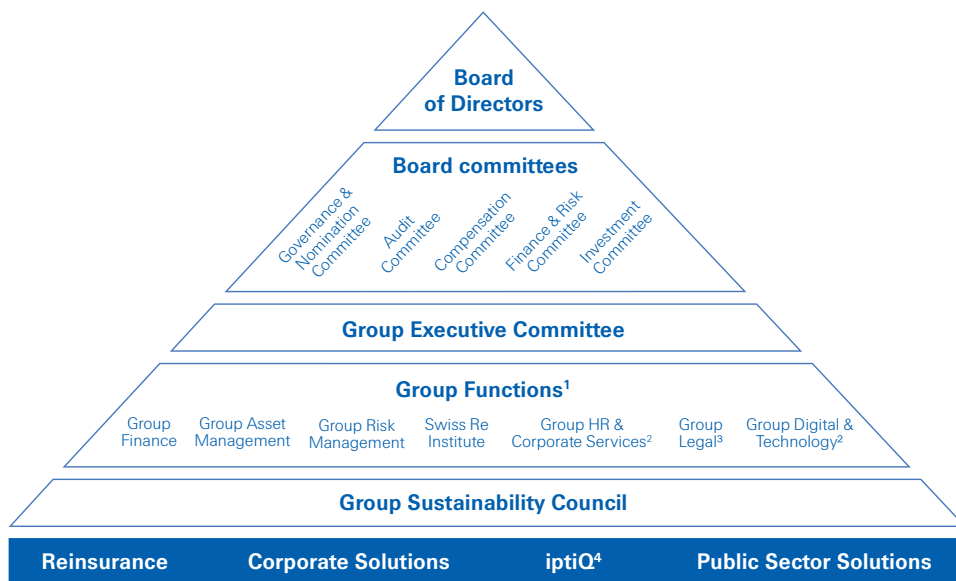
Swiss Re's corporate governance adheres to:

- SIX Swiss Exchange's Directive on Information Relating to Corporate Governance (including its annex) dated 18 June 2021
- Swiss Code of Best Practice for Corporate Governance (Swiss Code) dated 28 August 2014, issued by *economiesuisse*, the Swiss business federation
- 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

Sustainability governance

Swiss Re's sustainability- and climate-related governance

Swiss Re has a well-defined governance framework to implement, enhance and monitor its Group Sustainability Strategy. 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.
² Group Operations was reorganised effective 1 January 2022. Corporate Services was assigned to the Group CHRO (newly: Group CHRO & Head Corporate Services). Digital & Technology was assigned to the new Group Function Group Digital & Technology, headed by the Group CDTO.
³ Group Legal became a Group Function effective 1 January 2022. Since then, the Group CLO reports directly to the Group CEO. Previously, the position reported with a dual reporting line to the Group CEO and the Group COO.
⁴ The Division iptiQ has been in place since 1 January 2021.

Shareholder engagement

Investors are increasingly focused on how climate change and other sustainability topics are impacting long-term value creation. As a result, addressing these sustainability and other non-financial issues in an open exchange with shareholders and other stakeholders is becoming increasingly 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 sustainability-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 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, tenure and independence as well as on the compensation framework. In 2021, 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 150 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

Involvement of the Board of Directors

The Board of Directors and its Board committees have responsibilities related to sustainability, which include but are not limited to the following:

	Sustainability-related key responsibilities	Sustainability-related key focus areas 2021
Board of Directors	At Swiss Re's highest governance level, 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.	The Board of Directors oversaw the progress of Swiss Re's sustainability-related initiatives. It approved the Group Sustainability Report 2020 and acknowledged the UK Modern Slavery Act transparency statement for 2020.
Governance and Nomination Committee	Regularly reviews the Group's Sustainability Strategy, approves the Group's sustainability framework and oversees its implementation; oversees the Group's corporate citizenship, its approach to broader ESG topics and sustainability 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.	The Governance and Nomination Committee kept itself informed on sustainability trends, as well as progress on new Swiss Re sustainability-related initiatives and projects. It acknowledged the progress on implementing sustainability in Swiss Re's various business dimensions. It discussed the approach to and implementation of sustainability-related KPIs at Swiss Re. The Committee also reviewed sustainability topics which are important for investors.
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.	The Audit Committee discussed the importance of consistent and accurate sustainability reporting across the Swiss Re Group to mitigate reputational and regulatory risks.
Compensation Committee	Establishes and reviews the compensation framework, guidelines and performance criteria. Performance criteria include sustainability- and climate-related topics.	Building upon prior years' progress, the Compensation Committee continued to monitor the integration of sustainability considerations in the compensation framework. Key aspects included gender pay equity and sustainability in incentive-setting. It also focused on changes that will reinforce a pay for performance culture in the compensation framework.
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.	The Finance and Risk Committee reviewed the impact of climate change on the various underwriting portfolios with a focus on natural catastrophes and secondary perils for natural catastrophe insurance, and climate change litigation for Casualty. They also assessed new risk transfer opportunities that climate change provides and the associated underwriting risks.
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.	The annual update to the Investment Committee on sustainability included an outline of Swiss Re's Responsible Investing Strategy, which also consists of its refined climate action. The Committee received an update on key achievements in 2020, highlighting the Engagement framework for listed equity and forward-looking indicators. The focus areas of responsible investing in 2021 were climate action, as well as related transparency and disclosure.

Board of Directors ESG session

During an education session on ESG in February 2022, the Board of Directors was provided with an update on Sustainability. The session covered the following topics:

- Swiss Re's long track record of sustainability since 1979 and its credible steps towards net-zero emissions
- Sustainability as a major 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 its commitment to reach net-zero emissions by 2050 across its entire business
- Swiss Re's sustainability KPIs going forward
- Swiss Re's ESG risk framework on all business transactions and investments
- Journey towards net-zero in underwriting, working with UN-convened Net-Zero Insurance Alliance (NZIA)
- Swiss Re's responsible investing approach supporting the transition towards a low-carbon economy
- Driving sustainable operations and commitment to net-zero operations by 2030
- Swiss Re's sustainability governance framework and way forward to maintain Swiss Re's leading position

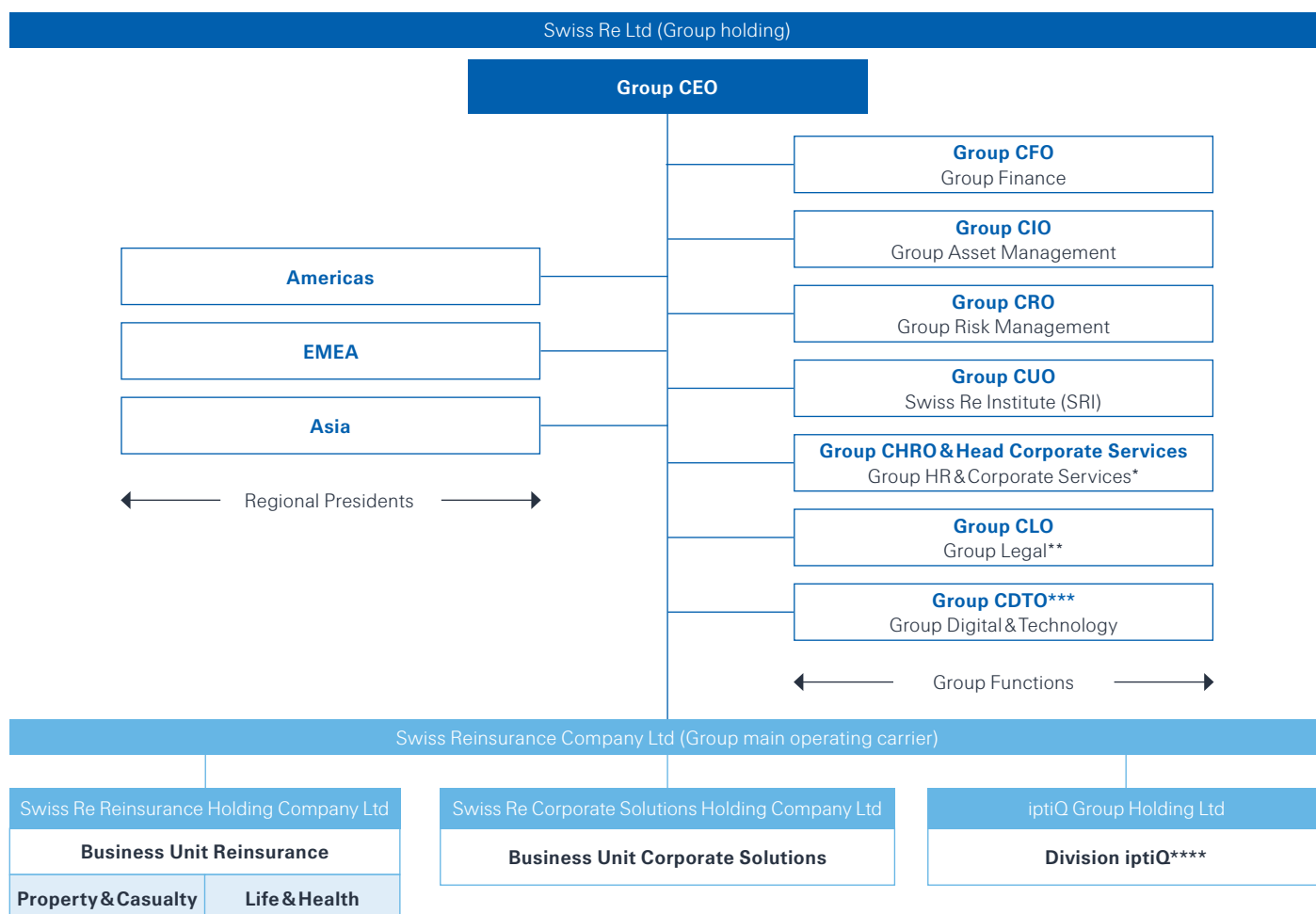
Involvement of the Group EC

The Group EC and its members have responsibilities related to sustainability, which include but are not limited to the following:

	Sustainability-related key responsibilities	Sustainability-related key focus areas 2021
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.	The Group EC approved the Group's Sustainability Key Performance Indicators (KPIs). It further discussed and approved the enhanced ESG Risk Framework, with a particular focus on biodiversity, oil & gas, and carbon steering. The Group EC expanded the Diversity and Inclusion theme and activities to also encompass "Equity", meaning equal treatment for all employees. During COP26, the Group EC engaged with the Strategic Council to discuss the challenges of climate change and the implications of governments', investors' and clients' respective net-zero strategies.
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.	The Group CEO oversaw the further advancement of the Group's Sustainability KPIs. He was engaged as co-Chair of the WEF Alliance of CEO Climate Leaders and represented the Alliance at COP26 in Glasgow. He also led the Alliance's action group on carbon removal which educates on the critical role of carbon removal. In addition, the Group CEO promoted the topic of mental health, in particular by signing the Leadership Pledge on Mental Health.
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.	The Group CRO led the enhancement of the ESG Risk Framework, with a particular focus on biodiversity, oil & gas, and carbon steering. He also oversaw the monitoring and implementing of various sustainability-related regulatory requirements and respective reporting. The Group CRO led the further development of the Group Sustainability KPIs.
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 responsible investing, and is informed of sustainability updates through various channels, including the Asset Management Investment Committee.	The Group CIO oversaw the integration of a consistent ESG approach across the investment process. He committed to specific investment-related climate targets, including a carbon intensity reduction target of 35% for the corporate bond and listed equity portfolios by 2025 with base year 2018. He was also a member of the Net-Zero Asset Owner inaugural Alliance Steering Committee, which supports a broad-based transition to a low carbon economy.
Group Chief Financial Officer (Group CFO)	Is responsible for Swiss Re's investor relations and public disclosures, including the Annual Report, which includes Swiss Re's climate-related financial disclosures (TCFD).	The Group CFO focused on maintaining a high level of engagement on sustainability topics with analysts, investors and credit rating agencies. Our continued effort led to holding a leading position in external ESG ratings.
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.	The Group CUO represents Swiss Re as a founding member of the UN-convened Net-Zero Insurance Alliance (NZIA). Additionally, Swiss Re is leading NZIA's working group comprising leading insurance and reinsurance companies to develop a global standard to measure and disclose insured greenhouse gas emissions, in collaboration with Partnership for Carbon Accounting Financials (PCAF).
Group Chief Human Resources Officer & Head Corporate Services (Group CHRO & Head CS)	Is responsible for the Corporate Real Estate & Services 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 CO2 emissions as well as the commitment to reach net-zero CO2 emissions in Swiss Re's operations by 2030 with a sustainable and diverse workforce driven by our People Strategy 2025.	The Carbon Steering Levy was introduced in January 2021, increasing the previous internal carbon price from USD 8 to USD 100 per tonne of CO2. The new NetZeroYou2 Programme encourages Swiss Re's employees to take emission-cutting actions. Swiss Re signed the Leadership Pledge for Mental Health, which encompasses six actions that we pledge to take to promote better mental health in the workplace.
Group Sustainability Council (GSC)	The Group EC has established the GSC, an advisory body 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.	The GSC was involved in preparing the Sustainability KPIs as well as in assessing year-end sustainability performance. The GSC endorsed, among others, a sustainability engagement strategy, Swiss Re's carbon removal purchasing strategy and respective governance, Swiss Re's membership in the NZIA and Swiss Re's NetZeroYou2 Programme for employees. The GSC reviewed Swiss Re's position in major sustainability ratings. It further discussed opportunities in the carbon (removal) markets. Another point of discussion was the sustainability in underwriting initiative, where the GSC provided guidance for implementation.

Group structure and shareholders

Operational Group structure



* Group Operations was reorganised effective 1 January 2022 and no longer exists as a Group Function. Corporate Services (CS) was assigned to the responsibility of the Group CHRO & Head CS.
 ** Group Legal became a Group Function effective 1 January 2022. The Group CLO reports to the Group CEO. Previously the position had a dual reporting line to the Group CEO and the Group COO.
 *** The Group Chief Digital & Technology Officer (Group CDTO) was appointed effective 1 January 2022. She succeeds the Group COO who stepped down from the Group EC effective 17 December 2021. The Group CDTO heads the new Group Function Group Digital & Technology.
 **** Division iptiQ has been in place since 1 January 2021.

Swiss Re Ltd

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

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 32–33 of this Financial Report. No other Group companies have shares listed. More information on the Group companies is provided in Note 21 to the Group financial statements on pages 293–295.

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

More information on shares

Please refer to pages 32–33 of this Financial Report for more information on the Swiss Re Ltd shares, such as the price performance and trading volume in 2021, Swiss Re's dividend policy and dividends as well as an overview of the key share statistics since 2014.

Significant shareholders

The following table provides a summary of the disclosure notifications of major shareholders who as of 31 December 2021 held more than 3% of voting rights:

Shareholder	Number of shares	% of voting rights and share capital	Creation of the obligation to notify
BlackRock, Inc.	16 477 986	5.19	10 November 2021

For the detailed disclosure notification and further notifications received, including with regards to shares held by Swiss Re Ltd, please visit: www.swissre.com/disclosureofshareholdings
The table does not disclose shares held by Swiss Re Ltd.

Shareholder structure

Registered – unregistered¹ shares

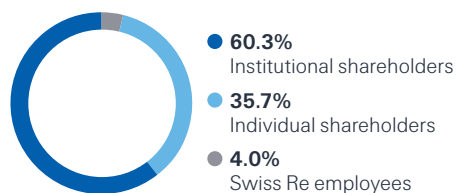
As of 31 December 2021	Shares	in %
Registered shares ²	170 373 404	53.7
Unregistered shares ²	118 579 790	37.3
Shares held by Swiss Re	28 544 112	9.0
Share buy-back programme	0	0.0
Total shares issued	317 497 306	100.0

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 2021



Registered shares with voting rights by shareholder type

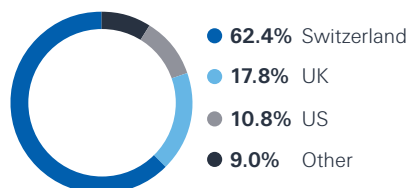
As of 31 December 2021	Shareholders	in %	Shares	in %
Individual shareholders	92 977	89.8	60 690 125	35.7
Swiss Re employees	6 874	6.6	6 888 995	4.0
Total individual shareholders	99 851	96.4	67 579 120	39.7
Institutional shareholders	3 738	3.6	102 794 284	60.3
Total	103 589	100.0	170 373 404	100.0

Registered shares with voting rights by size of holding

As of 31 December 2021	Shareholders	in %	Shares	in %
Holdings of 1–2 000 shares	96 960	93.6	35 160 925	20.7
Holdings of 2 001–200 000 shares	6 555	6.3	58 490 730	34.3
Holdings of > 200 000 shares	74	0.1	76 721 749	45.0
Total	103 589	100.0	170 373 404	100.0

Registered shareholdings by country

As of 31 December 2021



Registered shares with voting rights by country

As of 31 December 2021	Shareholders	in %	Shares	in %
Switzerland	89 549	86.4	106 285 648	62.4
UK	885	0.9	30 381 208	17.8
US	1 370	1.3	18 432 734	10.8
Other	11 785	11.4	15 273 814	9.0
Total	103 589	100.0	170 373 404	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

Capital

On 31 December 2021, 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 2021.


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. No shares were issued out of conditional capital during 2021.

For more information on the conditional and authorised capital, please refer 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 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 these 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 2021, shareholders had registered 170 373 404 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 demand, 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 so 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 have been granted in 2021. 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.

	31 December 2020			31 December 2021		
	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 2021, 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 12 to the Group financial statements on page 274 of this Financial Report. Assuming all of the notes were exchanged at the request of noteholders, 4 888 331 registered shares of Swiss Re Ltd would have to be delivered (corresponding to 1.54% 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 17 to the Group financial statements on page 287 of this Financial Report. Assuming maximum vesting of all share awards granted as of 31 December 2021, 3 163 891 registered shares of Swiss Re Ltd would have to be delivered (corresponding to 0.9965% of the existing share capital).

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

Board of Directors

The Board of Directors is ultimately responsible for the success of Swiss Re.

Members of the Board of Directors

As of 31 December 2021, the Board of Directors consisted of the following members:

Name	Nationality	Age	Initial election
Sergio P. Ermotti, Chairman (since 2021)	Swiss	61	2020
Renato Fassbind, Vice Chairman (since 2012), Lead Independent Director (since 2014)	Swiss	66	2011
Raymond K.F. Ch'ien	Chinese	69	2008 ¹
Karen Gavan	Canadian	60	2018
Joachim Oechslin	Swiss	51	2020
Deanna Ong	Singaporean	50	2020
Jay Ralph	American, Swiss	62	2017
Joerg Reinhardt	German	65	2017
Philip K. Ryan	American	65	2015
Sir Paul Tucker	British	63	2016
Jacques de Vaucleroy	Belgian	60	2017
Susan L. Wagner	American	60	2014
Larry Zimpleman	American	70	2018

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.

The following member of the Board of Directors did not stand for re-election at the AGM on 16 April 2021:

Name	Nationality	Age	Initial election
Walter B. Kielholz ²	Swiss	70	1998 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.

² Walter B. Kielholz was nominated Honorary Chairman.

Board responsibilities

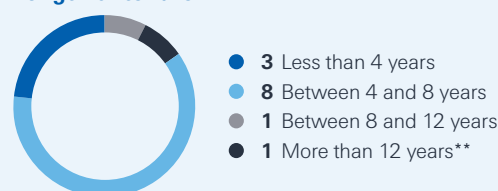
The Board of Directors has the ultimate responsibility for the success of Swiss Re within a framework of effective and prudent controls. It is responsible for the overall direction, supervision and control of Swiss Re Ltd and the Group and the Group EC as well as for supervising compliance with applicable 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*



* Term of office of individual Board member, count between AGM and AGM. Valuation date: AGM 2022.

** This Board member will not stand for re-election at the AGM 2022.

Board of Directors key focus areas 2021

- Strategy: emphasised importance of operating as One Swiss Re with Reinsurance as core business
- Underwriting: reviewed key underwriting priorities to increase earning resilience of the Group
- Performance: reinforced performance culture while addressing business goals and assessing individual performance
- Corporate governance: reviewed and provided guidance on the streamlining of the Group's legal structure for capital and tax optimisation, improvement of operational efficiency and governance simplification
- COVID-19: supported management in COVID-19-related challenges with respect to employees' needs, operations and the business



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 of Ermenegildo Zegna N.V.*



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



Raymond K.F. Ch'ien

Board member
non-executive and independent

Board committee memberships

- Compensation Committee, member
- Investment Committee, member

Group internal Board mandate

- Swiss Re Asia Pte. Ltd, member

Professional experience

Raymond K.F. Ch'ien was Group Managing Director of Lam Soon Hong Kong Group from 1984 to 1997. From 1999 to 2011, he was Chairman of CDC Corporation, a software development company, and from 2003 to 2015 Chairman of MTR Corporation Limited, which operates a major public transport network in Hong Kong. Further, Raymond K.F. Ch'ien was Chairman of the Board of Directors of Hang Seng Bank Ltd from 2007 to 2021. From 1997 to 2020, Raymond K.F. Ch'ien also served as an independent non-executive Director of Hongkong and Shanghai Banking Corporation Limited.

Educational background

- PhD in Economics, University of Pennsylvania, USA

External mandates

- Board member of China Resources Power Holdings Company Ltd*
- Honorary President of the Federation of Hong Kong Industries



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

* Listed company



Joachim Oechslin

Board member
non-executive and independent

Board committee memberships

- Finance and Risk Committee, member
- 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 continues 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 membership

- Audit 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



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 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
- Treasurer and member of the Georgia O’Keeffe Museum 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. 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

* Listed company



Philip K. Ryan

Board member
non-executive and independent

Board committee memberships

- Audit Committee, member
- Finance and Risk Committee, chair

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.*
- Operating Partner at MKB Growth Equity
- Member of the Advisory Board of NY Green Bank
- Member of the Smithsonian National Board



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).

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

* Listed company



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 Quintes Holding
- Board member of Colt Technology Services Group plc, Fidelity International Limited, Eight Roads Holdings Limited and Zabka Polska SA
- Board member of the Simón 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
- Finance and Risk 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

* Listed company



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 an 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 stepped down 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 Board of Trustees of the Iowa Clinic

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



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 economisesuisse 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.

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

Election and term of office

Members of the Board of Directors, the Chairman and the members of the Compensation Committee are elected individually by the AGM for a term of office until completion of the next AGM.

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. The same member can have both roles. 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 2021 and show the overall and individual meeting attendance of the Board members.

 **Bylaws**
www.swissre.com/bylaws

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 kept 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 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 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 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. 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 100–101 for an overview of the Board committees' responsibilities, members and key focus areas in 2021. 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

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. For an overview on the key responsibilities of the Board of Directors please refer to the Swiss Re website.

 **Board responsibilities**
www.swissre.com/boardresponsibilities

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 (please refer to page 103 for further information).

The Bylaws clearly allocate responsibilities to each of the Board of Directors, the Board committees, the Group EC, the Group CEO and individual Group EC members.

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.

Board of Directors and Board committees meetings in 2021, overall meeting attendance

Meetings	Number	Average duration	Attendance	Invitees in advisory capacity ¹ , in addition to Board members
Board of Directors	12 meetings ²	3½ hours	100%	Group EC members ³ , Group Company Secretary
Governance and Nomination Committee⁴	2 meetings	1½ hours	100%	Group CEO, Group CHRO & Head Corporate Services, Group Company Secretary
Chairman's and Governance Committee⁴	4 meetings	2 hours	100%	Group CEO, Group Company Secretary
Nomination Committee⁴	0 meetings ⁵		n/a	n/a
Audit Committee	8 meetings	2¾ hours	97.8%	Group CEO, Group CFO, Group CLO, Group Chief Compliance Officer, Head Group Internal Audit, Chief Accounting Officer, lead auditors of external auditor, Group Company Secretary
Compensation Committee	6 meetings ⁶	2¾ hours	97.5%	Group CEO, Group CHRO & Head Corporate Services, Global Head Reward, advisors ⁷
Finance and Risk Committee	6 meetings	4¼ hours	100%	Group CEO, Group CFO, Group CRO, Group CUO, Group CIO, Group COO, Group CLO, Group Treasurer, CEO Reinsurance, CEO Corporate Solutions, Group Company Secretary
Investment Committee	6 meetings	2¾ hours	99.5%	Group CEO, Group CFO, Group CRO, Group CIO, Head Financial Risk Management, Group Treasurer, CFO Asset Management, Group Company Secretary

¹ All invitees are requested to attend all meetings.

² In addition, one decision 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 6 Board meetings in 2021, and selected members were invited to 5 further Board meetings. The Group EC members attend Board committees meetings as indicated in this table. The attendance rate of the Group EC members at Board and Board committees meetings was 96.4% in 2021 (the attendance rate represents the total actual attendance time of all members at all meetings in the year under review, 2021, in relation to the corresponding target attendance time).

⁴ The Chairman's and Governance Committee and the Nomination Committee were disbanded on 28 October 2021. The Governance and Nomination Committee was established and constituted on the same day.

⁵ One decision by circular resolution.

⁶ In addition, five decisions by circular resolution.

⁷ The law firm Niederer Kraft Frey Ltd (NKF) and the firms Mercer and PricewaterhouseCoopers Ltd (PwC) provided support and advice for compensation issues during the reporting year. A representative of NKF participated in five committee meetings in 2021, a representative of Mercer in three meetings and a representative of PwC in three meetings as of September 2021. NKF, Mercer and PwC have further mandates with Swiss Re.

Overall meeting
attendance 2021

99.5%

Individual Board and Board committees meeting attendance

Board member	Meeting attendance 2021*	
Sergio P. Ermotti**	16/16	100%
Renato Fassbind	32/32	100%
Raymond K.F. Ch'ien	23/24	99.3%
Karen Gavan	26/26	100%
Joachim Oechslin	24/24	100%
Deanna Ong	20/20	100%
Jay Ralph	24/24	100%
Joerg Reinhardt	19/20	96.8%
Philip K. Ryan	30/30	100%
Sir Paul Tucker	24/24	100%
Jacques de Vaucleroy	30/30	100%
Susan L. Wagner	30/30	100%
Larry Zimpleman	25/26	97.2%
Walter B. Kielholz***	5/5	100%

* 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, 2021, 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.

*** Chairman up to the AGM 2021.

Board committees

Governance and Nomination Committee*

Members in 2021	Meeting attendance	
Sergio P. Ermotti, Chair	2/2	100%
Renato Fassbind	2/2	100%
Joerg Reinhardt	2/2	100%
Jacques de Vaucleroy	2/2	100%
Susan L. Wagner	2/2	100%

Chairman's and Governance Committee*	Meeting attendance	
Sergio P. Ermotti, Chair**	2/2	100%
Walter B. Kielholz, Chair**	2/2	100%
Renato Fassbind	4/4	100%
Philip K. Ryan	4/4	100%
Jacques de Vaucleroy	4/4	100%
Susan L. Wagner	4/4	100%

Nomination Committee*	Meeting attendance	
Renato Fassbind, Chair	0	n/a
Joerg Reinhardt	0	n/a
Jacques de Vaucleroy	0	n/a
Susan L. Wagner	0	n/a

* The Chairman's and Governance Committee and the Nomination Committee were disbanded on 28 October 2021. The Governance and Nomination Committee was established on the same day.

** Sergio P. Ermotti took over as chair from Walter B. Kielholz after the AGM 2021.

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 2021

- Oversaw Swiss Re's sustainability principles and kept itself informed on Swiss Re's sustainability priorities and stakeholder feedback
- Closely monitored development of non-financial topics in corporate governance (ESG, sustainability) and its impact on reporting
- Monitored implementation of the Group's new legal structure and its implications for Swiss Re's governance framework
- Further deepened dialogue with shareholders and developed approach with respect to stakeholder mapping (stakeholder impact analysis)
- Supported a smooth transition in the change of the Chairmanship, also vis-à-vis the Group EC
- Oversaw Board Governance and proposed to Board of Directors the removal of the implicit age limit of 70 years and the introduction of tenure limit of 12 years for all current and new Board members
- Started the process for mid-term Board succession planning with gender diversity as the top priority for new appointments

Audit Committee

Members in 2021	Meeting attendance	
Renato Fassbind, Chair	8/8	100%
Karen Gavan	8/8	100%
Deanna Ong	8/8	100%
Philip K. Ryan	8/8	100%
Larry Zimbleman	7/8	89%

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: 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 2021

- Change in reporting basis: oversaw status and progress as well as key deliverables and budget of the IFRS project to ensure Swiss Re is ready to adopt IFRS as of 1 January 2024
- Transition of external audit: led the audit transition from PwC to KPMG by overseeing key transition procedures in order to achieve a smooth handover
- Finance Transformation: oversaw key progress areas, current focus and longer-term deliverables of the Global Finance Transformation (GFT) Programme to achieve the target finance landscape and to ensure IFRS delivery
- Simplification of Group structure: led the successful completion of streamlining the legal entity structure of the Swiss Re Group to improve capital efficiency by merging Swiss Re Corporate Solutions Ltd and Swiss Re Life Capital Ltd into Swiss Reinsurance Company Ltd per 1 July 2021

Compensation Committee

Members in 2021	Meeting attendance	
Jacques de Vaucleroy, Chair	6/6	100%
Raymond K.F. Ch'ien	6/6	100%
Renato Fassbind	6/6	100%
Karen Gavan	6/6	100%
Joerg Reinhardt	5/6	88%

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 2021

- Compensation Framework and Compensation Plan design:
 1. 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) applying pay for performance principles at the business and individual level.
 2. Reviewed, assessed and agreed changes to the Compensation Framework with a focus on the Incentive framework
- Legal and regulatory developments: monitored legal and regulatory developments, including continued compliance with the Ordinance against Excessive Compensation at Public Corporations
- Compensation Report: redesigned the Compensation Report, including implementation of a revised structure and transparency improvements

Articles of Association (Article 19)

www.swissre.com/articles

Finance and Risk Committee

Members in 2021	Meeting attendance	
Philip K. Ryan, Chair	6/6	100%
Joachim Oechslin	6/6	100%
Jay Ralph	6/6	100%
Sir Paul Tucker	6/6	100%
Susan L. Wagner	6/6	100%
Larry Zimpleman	6/6	100%

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 2021

- Assessed impact of inflation on non-life claims and monitored risk mitigation efforts
- Reviewed developments and risk monitoring framework for long-duration exposure in life and health
- Continued to be updated on cyber risk developments and cyber security infrastructure
- Monitored claims trends and large loss reporting
- Reviewed emerging risk trend

Investment Committee

Members in 2021	Meeting attendance	
Susan L. Wagner, Chair	6/6	100%
Raymond K.F. Ch'ien	5/6	97%
Joachim Oechslin	6/6	100%
Jay Ralph	6/6	100%
Sir Paul Tucker	6/6	100%
Jacques de Vaucleroy	6/6	100%

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.

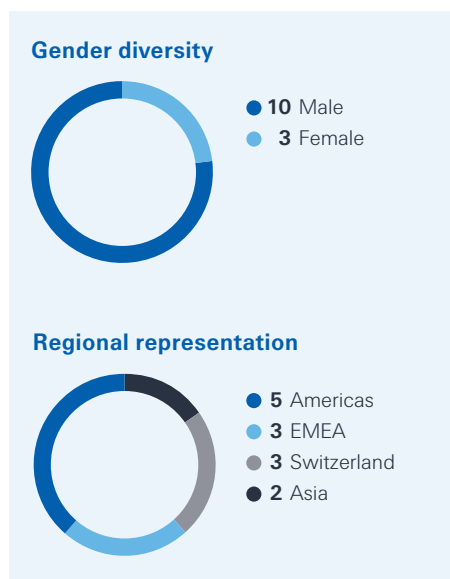
Key focus areas 2021

- Monitored macro and market developments
- Reviewed SAA positioning, risk usage and performance in the context of financial markets and business developments
- Continued to oversee the integration of ESG in the investment process

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. The principles of gender and age diversity, inclusion, diversity of nationality, race and ethnicity, regional representation, transparency and the avoidance of conflicts of interest therefore play an important role in the composition of the Board of Directors.



Independence

The Bylaws require that at least three-quarters of the Board members are independent. Swiss Re defines independence in line with best practice corporate governance standards. All Board members meet the independence criteria. For further details please refer to the Bylaws (Article 3.2). 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 19 to the Group financial statements on page 291 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).

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 a sound and independent decision-making. The Board aims to assemble a balance of knowledge in various key areas as well as managerial expertise. The mandate also demands significant commitment and availability.

Succession planning

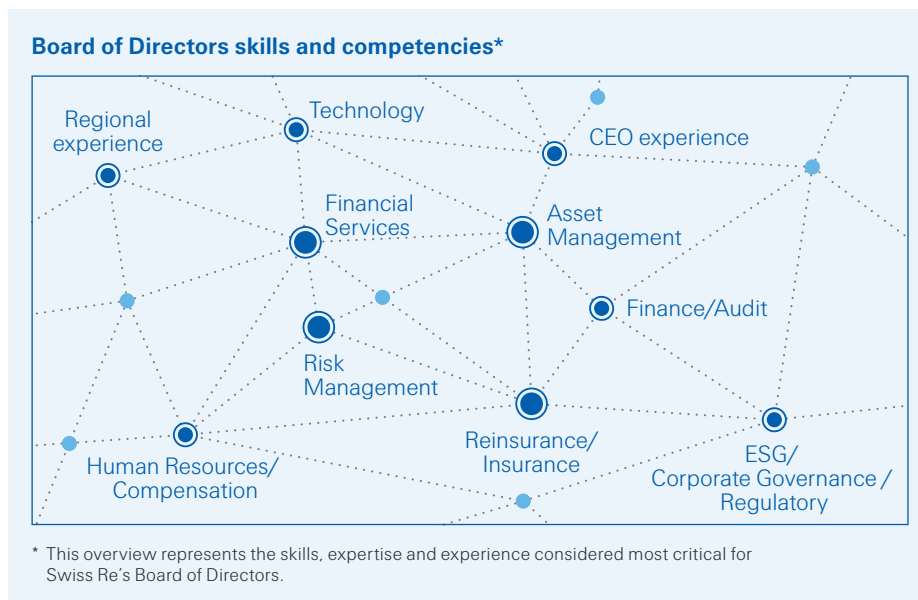
The Governance and Nomination Committee supports the Board of Directors with the succession planning at both Board and Group EC level. It regularly reviews the qualifications and skills represented in the Board and aligns them with best practice developments, stakeholder demands and changing business 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 ensures 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 evaluates its work and the performance of the Chairman. It conducts the self-assessment on the basis of questionnaires, which deal with the Board's composition, organisation and processes, the Board's responsibilities, accomplishments as well as the focus areas and goals of the year under review. The Board discusses these topics and defines take-aways which are incorporated in the goals for the upcoming year. In addition, each Board committee annually conducts a self-assessment along the same lines. The Board also incorporates these findings in its succession planning process as outlined on the left.

Board members' training

In an ever-changing world, keeping abreast of new developments and advancing knowledge 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 1–1 sessions with key executives and experts on specific topics of interest and value. In 2021, the Board focused on learning more about the capital and funding framework and related developments including evaluating alternative capital solutions, as well as gaining insights into the P&C reserving methodology around large losses. 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.



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 99 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 50–77 of the Financial Report 2021 (for Risk Management in particular pages 61–66).

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 to protect 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 reviewed by an external, independent party who provide their 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.

Executive Management

Under the leadership of the Group CEO, the Group Executive Committee is responsible for the management of Swiss Re Ltd and the Group.

Members of the Group Executive Committee

The Group Executive Committee (Group EC) consisted of the following 12 members as of 31 December 2021:

Name	Nationality	Age	Function	Appointed in current role	Member of the Group EC since (if different from appointment in current role)
Christian Mumenthaler	Swiss	52	Group Chief Executive Officer	July 2016	January 2011
Urs Baertschi	Swiss, German	46	CEO Reinsurance Europe, Middle East and Africa (EMEA)/Regional President EMEA	September 2019	
Andreas Berger	German	55	CEO Corporate Solutions	March 2019	
John R. Dacey	American	61	Group Chief Financial Officer	April 2018	November 2012
Cathy Desquesses	French	49	Group Chief Human Resources Officer & Head Corporate Services	July 2021	
Guido Furer	Swiss	58	Group Chief Investment Officer	November 2012	
Hermann Geiger	German, Swiss	58	Group Chief Legal Officer	January 2009	July 2019
Russell Higginbotham	British	54	CEO Reinsurance Asia/ Regional President Asia	July 2019	September 2018
Jonathan Isherwood	British	55	CEO Reinsurance Americas/ Regional President Americas	April 2020*	August 2020
Thierry Leger	Swiss, French	55	Group Chief Underwriting Officer	September 2020	January 2016
Moses Ojeisekhoba	Nigerian, British	55	CEO Reinsurance	July 2016	March 2012
Patrick Raaflaub	Swiss, Italian	56	Group Chief Risk Officer	September 2014	

* Appointment as Regional President Americas effective August 2020.

The following Group EC members stepped down during 2021:

Name	Nationality	Age	Function	Stepped down
Nigel Fretwell	British	59	Group Chief Human Resources Officer	30 June 2021
Anette Bronder	German	55	Group Chief Operating Officer	17 December 2021

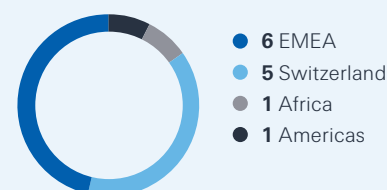
Group EC responsibilities

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



Counting 13 Group EC members (including Group COO or Group CDTO respectively).

Group EC key focus areas 2021

- Underwriting quality: ensured underwriting discipline and prudent risk selection in a changing risk landscape
- COVID-19: steered the Group through the second year of the ongoing pandemic, adapting to change and addressing needs of employees
- Group structure: drove simplification of the Group's legal structure to increase capital efficiency while keeping accountability and responsibilities intact
- Financial reporting basis: ensured IFRS transition progress, including choice of accounting policy and parameterization, to assure Swiss Re is on track for adoption of IFRS as of 1 January 2024



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 and the Swiss American Chamber of Commerce
- Member of the Pan-European Insurance Forum, the IMD Foundation Board, 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 a 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 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



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 a 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.*

* 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 on 1 June 2021, and was appointed Group Chief Human Resources Officer and member of the Group Executive Committee on 1 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 a 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 Board of Directors FWD Group Ltd
- Member of the Board of Directors FWD Ltd
- Member of the Advisory Board of the Department of Banking and Finance, University of Zurich, Switzerland
- Member of the Board of Trustees of G&B Schwyzer-Winiker Stiftung



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 as a 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



Russell Higginbotham

Chief Executive Officer Reinsurance Asia/Regional President Asia

Professional experience

Russell Higginbotham started his career in 1986 at a UK life insurer and, in 1991, joined Munich Re as a Senior Marketing Analyst. He joined Swiss Re in 1994 and served in various roles in the Life & Health Reinsurance development and strategy teams. Between 2002 and 2005, he was Life & Health Country Manager for Japan and subsequently for South Korea. In 2006, he moved to Sydney and served as Chief Executive Officer of Swiss Re's Australia and New Zealand operations. From 2010 to 2015, he assumed the role of Chief Executive Officer Reinsurance UK & Ireland, based in London, and was named Head of Life & Health Products Reinsurance in 2016. He was appointed Chief Executive Officer Reinsurance EMEA, Regional President EMEA and a member of the Group Executive Committee in September 2018. With effect from July 2019, Russell Higginbotham assumed the role of Chief Executive Officer Reinsurance Asia and Regional President Asia.

Educational background

- Bachelor's degree (Hons) in Business, University of Hertfordshire, United Kingdom
- Master's degree in Business Administration, Henley Management College, United Kingdom



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 as 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



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 a 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



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 a 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 ESG Committee of the Lloyd's Council*

* Until the end of 2021, the committee was called "ESG Advisory Group, advisory body to the Lloyd's Council"



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 a 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)



Anette Bronder

Former Group Chief Operating Officer

Anette Bronder stepped down from her position as Group Chief Operating Officer and member of the Group Executive Committee effective 17 December 2021.

Professional experience

Anette Bronder started her career at Hewlett Packard GmbH, where she held several senior management positions, including Director Software Services for Central & Eastern Europe and Director HP Consulting Germany. In 2010, she was appointed Director of Enterprise Technology at Vodafone GmbH in Germany. In 2013, she assumed worldwide responsibility for the Enterprise Delivery and Operations division of Vodafone Group and was based in London. In 2015, Anette Bronder joined T-Systems International as Managing Director Digital Division, where she oversaw the new growth areas Internet of Things, Public Cloud and Healthcare for Deutsche Telekom worldwide. In 2017, she took on additional responsibility for Deutsche Telekom's global Security Portfolio and Security Operations. Anette Bronder joined Swiss Re in June 2019 and was appointed Group Chief Operating Officer and a member of the Group Executive Committee effective July 2019.

Educational background

- Master's degree in Economics and Social Sciences, University of Stuttgart, Germany

External mandates

- Member of the Board of Directors Air Liquide S.A.*

* Listed company



Pravina Ladva

Group Chief Digital & Technology Officer
 (as of 1 January 2022)

Effective 1 January 2022, Pravina Ladva was appointed to the newly created role of Group Chief Digital & Technology Officer and a member of the Group Executive Committee.

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

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

The shareholders elect the Independent Proxy which represents their votes.

Voting rights, restrictions

Swiss Re Ltd does not have any voting rights restrictions in place (other than the limitations on nominee registrations as set out on page 88). One share entitles 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

In order 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 88). 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 Sherpany platform. Such votes are also represented by the Independent Proxy.

Shareholders' meetings

Annual General Meeting 2021

The AGM 2021 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 former Chairman, the new Chairman and the Group CEO spoke to the shareholders and a podium discussion with several members of the Group EC was held. The members also 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.

Convocation

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 whose combined holdings represent at least 10% of the share capital.

Request to place an item on the agenda

Shareholders with voting rights whose combined holdings represent 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 2022

The health of Swiss Re's shareholders and employees is of the utmost importance. The Board of Directors therefore decided to hold the AGM taking place on 13 April 2022 without the in-person presence of the shareholders. This option is provided by the Swiss Federal Council in Article 27 of its COVID-19 Ordinance 3, whose term has been extended until December 2022. Swiss Re invites all shareholders to watch the shareholder information event taking place after the AGM on the same day via webcast. Shareholders may submit questions prior to the event. Further information is provided with the invitation to the AGM as well as online.

 **Articles of Association**
www.swissre.com/articles

 **AGM**
www.swissre.com/agm2022

Changes of control and defence measures

Swiss Re Ltd's Articles of Association do not provide for an opting up or an opting out provision.

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 132.

External auditors

The shareholders elected KPMG as Swiss Re's new external auditor.

Duration of the mandate and term of the lead auditors

In line with Swiss Re Ltd's Articles of Association, the external auditor is elected annually by the shareholders. At the AGM on 16 April 2020, the shareholders elected KPMG, Zurich, as the new external auditor for SRL and the Swiss Re Group, effective for the financial year starting on 1 January 2021. KPMG fully meets the high requirements requested by 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. KPMG has taken over the mandate from PricewaterhouseCoopers Ltd (PwC), which had been Swiss Re's external auditor since 1991.

Frank Pfaffenzeller und Eric Elman have served as KPMG's lead auditors since KPMG took office. 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.

KPMG was re-elected by the AGM on 16 April 2021, for another one-year term of office.

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.

Auditor rotation 2021/transition

In the course of the financial year 2020, PwC assisted in the transition to the new external auditor KPMG. Once PwC had concluded their work on the 2020 audit, KPMG took over as Swiss Re's new external auditor effective for the financial year starting on 1 January 2021.

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 99). 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 issues. 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 2021 were as follows:

USD millions	2020*	2021
Audit fees	30.7	21.2
Non-audit fees	3.5	1.5
Audit-related assurance services	0.9	0.4
Services relating to corporate finance transactions	0.3	–
Tax-related services	0.3	0.2
Other non-audit services	2.0	0.9
Total fees	34.2	22.7

* Fees paid to PwC, Swiss Re's former external auditor. In 2021, audit-related assurance services included programme and control assessments as well as assurance mandates required by Swiss Re's regulators. Tax-related services included advice and training on tax matters, and other non-audit services covered a variety of permitted advisory services, including reviews and observations with regard to the IFRS programme.

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 current external auditor annually based on the following main 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 entire 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 and PwC (until the end of their mandate at the AGM on 16 April 2021) provided reports on selected topics at each of the Audit Committee meetings during the reporting year 2021. Please see the table below for further details.

Audit Committee Meetings 2021	External auditor	Report provided	Topics covered
19 January	PwC	Initial Audit Status Report 2020	Auditor update, including reporting on PwC's service quality and 2020 fees for audit-related, tax and non-audit services
17 February	PwC	Full-Year 2020 Audit Report	Audit conclusions 2020, including testing results of significant and elevated risk areas and major findings relating to accounting
17 March	PwC	2020 Final Board Report	Major findings regarding accounting, internal control system, execution and overall results of PwC's audit
		Synopsis of regulatory developments for insurance	Description of selected financial market regulation and other projects
		2020 EVM Conclusions Report	2020 EVM review findings, including results of PwC's testing for significant risk areas as well as major findings relating to accounting, internal control and other results
15 April	PwC	2020 US GAAP and EVM Control Reports	Summary of PwC's control findings and perspective on some other key control-related priorities
		Q1 2021 Fee Report	Summary of audit-related and other non-audit services
29 April	KPMG	Q1 2021 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters as well as end of audit transition
29 July	KPMG	Q2 2021 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters
8 September	KPMG	2021 Audit Plan	Overview of key elements of audit approach (including audit fees)
28 October	KPMG	Q3 2021 Audit Report	Report on preliminary results of interim procedures, including actuarial and other matters

Information policy

Swiss Re maintains regular, open and consistent communication with its shareholders and further stakeholders.

Communications

Swiss Re provides regular, open and transparent information to 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 and in print upon request. Furthermore, Swiss Re's Financial Condition Report and its Sustainability Report as well as the solvency reports for the regulated entities and key quarterly financial information are also available online. An annual letter to the shareholders by the Chairman outlines Swiss Re's activities and highlights of its financial performance.

Anyone interested may 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 350.

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.

Important dates in 2022

25 February	Annual results 2021
17 March	Publication of: Annual Report 2021 and 2021 EVM results, Sustainability Report 2021 as well as AGM 2022 invitation
7 April	Investors' Day
13 April	158th Annual General Meeting
5 May	Release of first quarter key financial data
29 July	Half-year results
28 October	Release of nine months key financial data

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 2021, due to COVID-19, most of these interactions continued to take place virtually.

During this year's Chairman's roadshow the Chairman engaged with more than 20 investors located in the US, Canada, UK, Germany, France and Switzerland. Corporate Secretariat and Investor Relations supported and joined all the meetings. Topics were centred around strategy, capital allocation and capital management priorities. Investors were also interested in how Swiss Re embeds sustainability into its corporate governance framework, how Swiss Re aligns compensation with shareholder interests and how it intends to further improve gender diversity at Board and Group EC level.

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.

The 2022 close periods are:

Annual results 2021

1 January – 28 February (9:00 CET)

First quarter key financial data 2022

22 March – 6 May (9:00 CET)

Half-year results 2022

17 June – 1 August (9:00 CET)

Nine months key financial data 2022

16 September – 31 October (9:00 CET)



Swiss Re Group website

www.swissre.com

All reports and further documents

www.swissre.com/financialinformation

News releases

www.swissre.com/newsreleases

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

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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 Vacleroy
Chair Compensation Committee



Report from the Compensation Committee

Dear shareholders,

I am pleased to present the 2021 Compensation Report, which outlines key compensation outcomes and decisions taken by the Compensation Committee.

Compensation Committee activities

During 2021, the Compensation Committee met six times and passed five decisions by circular resolution. The Compensation Committee’s activities included:

- Reviewing the Swiss Re incentive compensation framework to further foster a pay-for-performance culture and effectively align stakeholder interests. The review resulted in a simplified process for funding the Group Annual Performance Incentive (API) pool, with a stronger focus on financial performance. In addition, the cash-based deferral plan (Value Alignment Incentive/VAI) will be replaced by a new deferred share plan. The existing Leadership Share Plan (LSP) remains in place with more demanding targets and a broader vesting range on the relative Total Shareholder Return performance condition. These changes apply as of 2022, ie in-flight cycles are not impacted. Further details are provided in the section Group compensation framework, 2021 outcomes and 2022 changes.
- Ensuring continued strengthening of the pay-for-performance approach by further aligning reward priorities to the business strategy and encouraging performance differentiation.
- Reviewing the Swiss Re stock ownership guidelines to ensure that a part of the wealth of executives and other key employees is exposed to the same share price risk as that of shareholders. As a result of the review, the ownership requirement for the Group CEO was increased from three times to five times his annual base salary as of 2022.
- Re-evaluating the mandates for the Compensation Committee advisors and conducting a competitive proposal process. As a result, PricewaterhouseCoopers Ltd was selected as a new independent advisor.

2021 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 2021, Swiss Re's commitment to pay for performance translated into the following outcomes:

- Overall performance:** Key to annual compensation decisions was a combination of financial and qualitative factors. 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 1.4 billion and a return on equity (ROE) of 5.7%. The Group's US GAAP and economic performance significantly improved compared with 2020, despite major COVID-19-related impacts and a high occurrence of large-loss natural catastrophe events. Property & Casualty Reinsurance (P&C Reinsurance) reported strong profit and a net income of USD 2.1 billion, reflecting improved portfolio quality and rate increases, as well as favourable investment results. P&C Reinsurance grew its premiums earned by 5.3% and achieved a normalised combined ratio of 94.7%, in line with its target of less than 95.0% for the full year. Life & Health Reinsurance (L&H Reinsurance) was impacted by significant COVID-19-related losses, incurring significantly higher COVID-19-related claims in 2021. Excluding COVID-19-related losses, L&H Reinsurance improved net income by 26% to USD 1.1 billion in 2021. Corporate Solutions reported a strong net income of USD 578 million in 2021, as the Business Unit continued to benefit from decisive strategic actions implemented in the past few years and ongoing price increases. With a normalised combined ratio of 95.0% for the full year, Corporate Solutions surpassed its target of less than 97.0% in 2021.

- Annual bonus:** As the Group is still significantly impacted by COVID-19-related losses, it missed three of its four financial Key Performance Indicators relevant for the Group API. Even though performance across all qualitative KPIs was above target, the Group API pool is below target. The Compensation Committee and the Board of Directors did not exercise any upward or downward discretion.
- Deferred compensation:** The VAI 2018 (awarded 2019) performance factor for the Swiss Re Group is 93.1% based on the average 2019–2021 previous years' business performance. Further performance factors range from 76.6% to 100.5%. The main drivers were previous years' business losses which were mainly driven by reserve increases, for instance due to COVID-19-related losses and in relation to US casualty.
- Long-term incentive:** Outcomes for the Leadership Performance Plan 2019 (vesting in 2022) were below target with an average performance factor of 17.3% for the three-year performance period on the ROE condition and of 0.0% on the relative Total Shareholder Return condition. The combined performance factor reflecting the three-year performance period is outlined on page 143.

Shareholder engagement and Annual General Meeting (AGM)

The compensation framework and decisions continue to receive strong support from shareholders. At the AGM on 16 April 2021, shareholders approved all binding compensation-related motions and the 2020 Compensation Report was approved in a consultative vote.

In the course of 2021, Swiss Re engaged 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 83 and 116.

The Compensation Committee is grateful for the fruitful engagement and continues to proactively consider shareholders' and proxy advisors' expectations. As a result, the following key enhancements have been implemented for this Compensation Report:

- The Group CEO scorecard presenting the basis for how the Board of Directors determined the annual bonus outcome for the Group CEO, is disclosed.
- The Compensation Report structure has been revised to increase clarity and conciseness, and a summary of key compensation information is included.

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 2022:

- Maximum aggregate amount of compensation for the members of the Board of Directors for the term of office from the AGM 2022 to the AGM 2023.
- Maximum aggregate amount of fixed compensation and variable long-term compensation for the members of the Group EC for the financial year 2023.
- Aggregate amount of variable short-term compensation for the members of the Group Executive Committee (Group EC) for the financial year 2021.

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.

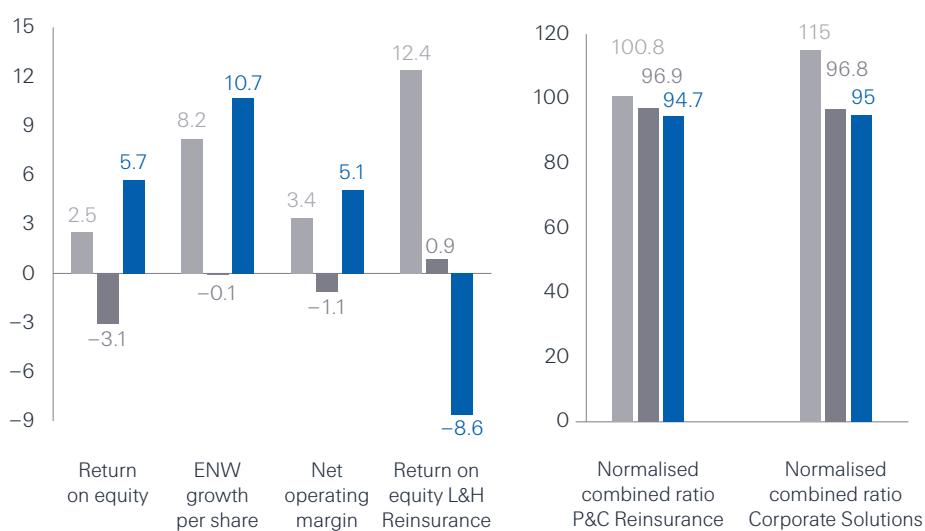
17 March 2022



Jacques de Vaucleroy
Chair Compensation Committee

Financial performance highlights

2021 key financial drivers for variable compensation outcomes



● 2019 ● 2020 ● 2021

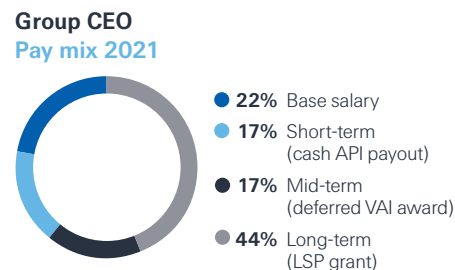
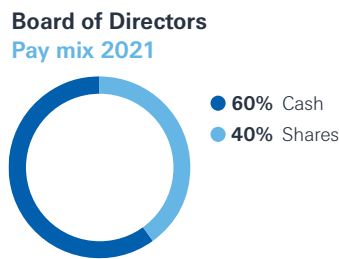
Attribution of group income to key stakeholders

USD millions (unless otherwise stated)	2019	%	2020	%	2021	%
Income before tax and variable compensation	1215	100%	-797	100%	2249	100%
Variable compensation	348	29%	347	-	418	19%
Income tax expense	140	12%	-266	-	394	18%
US GAAP net income attributable to shareholders	727		-878		1437	
of which paid out as dividend ¹	1766	145%	1855	-	1877	83%
of which share buyback	1010	83%	-	-	-	-
of which added to retained earnings within shareholders' equity	-2049	-	-2733	-	-440	-

¹ FY 2021 is estimated based on the average monthly CHF/USD FX rate as of January 2022. 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



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 (in line with Swiss market practice); 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 2021 ranged from 59–305% of total fixed compensation. For 2020, the ratio ranged from 138–246%.

Key Group EC compensation framework changes implemented for performance year 2021

Item	Change	Rationale
Annual bonus pool setting process	Enhanced the approach to assess qualitative company performance: reduced number of assessment dimensions and increased focus on quantifiable, qualitative Key Performance Indicators (KPIs) where appropriate.	Increased focus and stringency in assessment process by focusing on quantifiable KPIs.
Long-term incentive	Harmonised the vesting factors for all performance conditions: vesting ranges between 0–150% on all three plan KPIs. Introduced an additional cap: payout for negative absolute Total Shareholder Return (TSR) is capped at 100% even if Swiss Re meets or exceeds its peer group on relative TSR performance, subject to the Compensation Committee’s right to assess the circumstances and decide on the relative TSR performance multiple accordingly.	Plan simplification and pay for performance.





Say on pay and sustainability highlights

Say on pay votes at the AGM 2022

Maximum aggregate amount of compensation for the members of the Board of Directors for the term of office from the AGM 2022 to the AGM 2023.	CHF 9.9 million (AGM 2021: CHF 10.3 million)	The maximum aggregate amount reflects the changes in the 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 2023.	CHF 36.5 million (AGM 2021: CHF 36.5 million)	The maximum aggregate amount remains flat compared with the previous year as the same number of Group EC members is expected for 2023.
Aggregate amount of variable short-term compensation for the members of the Group EC for the financial year 2021.	CHF 16.0 million (AGM 2021: CHF 15.1 million)	The increase in the aggregate amount is primarily driven by a higher Group Business Performance Factor for 2021 compared with 2020.

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:

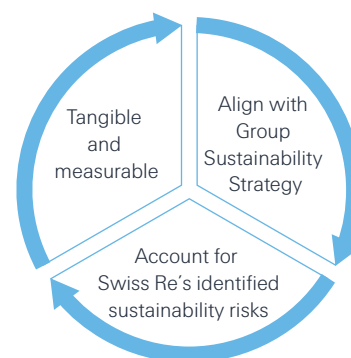
-  Sound governance around compensation decision-making and approvals to ensure appropriate checks and balances.
-  Compensation ranges defined by job family or specialisation in the local market, which ensure that compensation for employees in the same country/location is set based on consistent benchmarks.
-  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.

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 and same hierarchical level. During the most recent review conducted in April 2021, this measure did not reveal any systemic bias: globally, the adjusted pay gap between men and women stood at 1.7% on average. An inclusive and diverse workforce is critical to the success of the business. 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

Swiss Re clearly links compensation outcomes to performance against sustainability-related targets. To ensure measurability and line of sight for participants through transparency and simplicity, Swiss Re considers sustainability criteria in the annual bonus assessment where relevant. Targets are defined at the beginning of the year and performance against these is considered within the annual assessment process. As a result, sustainability-related performance impacts compensation for all employees, including the Group EC. Key considerations for the sustainability target-setting process are shown in the figure on the right.

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 78–116 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 maximum aggregate amount has to be approved by the AGM.

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).

The 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 2021, 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 2021, 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 five 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 99 and page 101) 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	Jun	Sep	Oct	Dec
Board compensation						
Board of Directors fees			•			
Benchmarking and compensation policy			•	•		
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 retains advisors to provide an external perspective. In 2021, a Request for Proposal (RFP) was conducted following a re-evaluation of the Compensation Committee’s independent advisor mandate. During the RFP, selected advisors with the required capabilities and with strong standings in the market were invited to offer their services. Following several rounds of assessments, PricewaterhouseCoopers Ltd was selected and assumed the mandate as of 1 September 2021, providing information about remuneration trends and advice on executive compensation issues. The previous advisor, Mercer, continued to provide market benchmarking during 2021. In addition, Niederer Kraft Frey Ltd provided legal advice, mainly about specific aspects of compliance, plan rules and disclosure matters regarding compensation. The advisors may also have other mandates with Swiss Re. The Compensation Committee annually reviews the external advisors’ role and mandate.

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. The Control Functions (defined as 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, the continued independence of Control Functions needs to be safeguarded. Hence, each aggregate API pool for the Control Functions and individual compensation for the Head of each 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. For further information on the benchmarking provider and the peer group, please refer to page 127 and page 132 of this Compensation Report.

Since 2018, all fees for Board of Director memberships remained flat (ie the fee for the Chairman, the Vice Chairman, the base fees as well as all committee fees). Individual fee levels vary to reflect roles, responsibilities and time commitment, for instance due to committee memberships that differ in meeting frequency or duration.

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 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.

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 2021–AGM 2022
CHF millions

■ 10.3

Maximum aggregate amount approved

■ 9.9

Amount paid/granted

Say on pay

At the AGM 2021, shareholders approved a maximum aggregate amount of compensation of CHF 10.3 million for the members of the Board of Directors for the term of office from the AGM 2021 to the AGM 2022. The compensation paid to the 13 members of the Board of Directors for their term of office from the AGM 2021 to the AGM 2022 was CHF 9.9 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 2021 year-to-date FX rates for 2021 and 2022 figures, and December 2020 year-to-date FX rates for 2020 figures, where relevant.

(1) Individual Board compensation for the term of office between AGM 2021 and AGM 2022 (in CHF thousands, approved by AGM)

	Base fees	Governance & Nomination Committee ¹	Audit Committee	Compensation Committee	Finance and Risk Committee	Investment Committee	Additional fees ²	Total ³
Members of the Board of Directors								
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee								3 800
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	225		425	50			125	825
Raymond K.F. Ch'ien, member	225			50		50	105	430
Karen Gavan, member	225		75	50			128	478
Joachim Oechslin, member	225				50	50		325
Deanna Ong, member	225		75				119	419
Jay Ralph, member	225				50	50		325
Joerg Reinhardt, member	225	30		50				305
Philip K. Ryan, member, Chair Finance and Risk Committee	225		75		300		274	874
Sir Paul Tucker, member	225				50	50		325
Jacques de Vaucleroy, member, Chair Compensation Committee	225	30		200		50	217	722
Susan L. Wagner, member, Chair Investment Committee	225	30			50	300		605
Larry Zimpleman, member	225		75		50		128	478
Total compensation for the term of office from AGM 2021 to AGM 2022⁴								9 942

¹ The Chairman's and Governance Committee and the Nomination Committee were disbanded on 28 October 2021. The Governance and Nomination Committee was established and constituted on the same day. Individual Board compensation for the term of office between AGM 2021 and AGM 2022 was not impacted by this change.
² Including Vice Chairman or subsidiary board fees (converted at 2021 average exchange rates where applicable).
³ Excluding company contributions to social security systems paid by Swiss Re in line with applicable laws.
⁴ Including an amount of approximately CHF 13 000 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 2020 and 2021 (in CHF thousands)

Members of the Board of Directors	Total 2020	Fees and allowances in cash	Fees in blocked shares	Total 2021
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee ¹	151	1 575	1 043	2 618
Walter B. Kielholz, former Chairman ²	3 808	790	507	1 297
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	826	496	330	826
Raymond K.F. Ch'ien, member ³	435	301	130	431
Karen Gavan, member ⁴	465	338	140	478
Joachim Oechslin, member	218	196	130	326
Deanna Ong, member ³	293	300	120	420
Jay Ralph, member	309	205	130	335
Joerg Reinhardt, member	306	184	122	306
Philip K. Ryan, member, Chair Finance and Risk Committee ⁴	882	635	240	875
Sir Paul Tucker, member	325	195	130	325
Jacques de Vaucleroy, member, Chair Compensation Committee ⁵	719	520	202	722
Susan L. Wagner, member, Chair Investment Committee	605	363	242	605
Larry Zimpleman, member ⁶	388	317	140	457
Total compensation for the reported financial years⁷	9 730	6 415	3 606	10 021

¹ Elected as Chairman of the Board of Directors at the AGM of 16 April 2021.
² Did not stand for re-election at the AGM of 16 April 2021.
³ Includes fees received for duties on the board of Singapore Group companies.
⁴ Includes fees received for duties on the board of US Group companies.
⁵ Includes fees for duties on the board of Luxembourg Group companies.
⁶ Includes fees for duties on the board of ReAssure Group companies from January to July 2020 and for services on the board of US Group companies as of March 2021.
⁷ 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 18 128 in 2021; not applicable for 2020). 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 459 543 in 2021 compared with CHF 418 024 in 2020). 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 refund.

No loans or credits were granted to current or former members of the Board of Directors in 2021 and no loans or credits were outstanding as of 31 December 2021. During 2021, 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 2020 were disclosed in the 2020 Compensation Report. Disclosure on compensation in 2021 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 2021, no compensation was paid to any related party.

Shares held by members of the Board of Directors

Members of the Board of Directors	2020	2021
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee ¹	874	13 006
Walter B. Kielholz, former Chairman ²	399 005	n/a
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	35 513	39 655
Raymond K.F. Ch'ien, member	18 067	16 221
Karen Gavan, member ³	4 587	6 344
Joachim Oechslin, member	1 263	2 895
Deanna Ong, member	1 166	2 672
Jay Ralph, member	4 950	6 582
Joerg Reinhardt, member	27 300	28 831
Philip K. Ryan, member, Chair Finance and Risk Committee	18 871	21 883
Sir Paul Tucker, member	7 125	8 757
Jacques de Vaucleroy, member, Chair Compensation Committee	7 511	10 046
Susan L. Wagner, member, Chair Investment Committee	17 125	20 162
Larry Zimpleman, member	3 745	5 502
Total	547 102	182 556

¹ Elected as Chairman of the Board of Directors at the AGM of 16 April 2021.

² Did not stand for re-election at the AGM of 16 April 2021. In the reporting period 2020, Walter B. Kielholz reported the purchase of 300 call options for a total of 30 000 shares, if exercised. For further details, please refer to: www.swissre.com/investors/shares/management-transactions

³ Shareholdings include 2 500 American Depositary 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.

2021	Annual base salary and benefits	Annual Performance Incentive (API)	Value Alignment Incentive (VAI)	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 ultimately paid in cash	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	Economic impact of profit/loss from previous years' business	Return on equity (ROE), Economic net worth (ENW), relative Total Shareholder Return (TSR)
Threshold and maximum opportunity	Fixed	0–200% of target, capped at three times annual base salary	50–150% of deferral amount	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 a stable grant amount. 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.

Further details on the compensation framework and its elements are provided in the section Group compensation framework, 2021 outcomes and 2022 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: three times annual base salary.
- Other Group EC members: two times annual base salary.
- Other key senior executives: one time annual base salary.

2022 change: The Compensation Committee decided that as of 2022 the Group CEO is expected to hold Swiss Re stocks equaling five times his annual base salary to create an even stronger alignment with shareholders.

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 will be included in the assessment. 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. Compliance with the stock ownership guidelines is reviewed on an annual basis and the findings are reported to the Compensation Committee, which decides on appropriate actions as needed.

During the 2021 assessment, all Group EC members fulfilled the applicable stock ownership guidelines.

Benchmarking

An external compensation advisor to the Compensation Committee conducts an annual review of the compensation of the Group EC relative to a group of reference companies (ie peer group) to ensure that market competitiveness is maintained. This peer group is regularly reviewed by the Compensation Committee to ensure its relevance. The 2021 core peer group consists of the following globally active primary insurance and reinsurance firms: AIA Group Ltd, Allianz SE, American International Group Inc, Aviva PLC, AXA SA, Chubb Limited, Hannover Rueck SE, Insurance Australia Group Ltd, MetLife Inc, Muenchener Rueckversicherungs-Gesellschaft AG, Prudential PLC, QBE Insurance Group Ltd, Reinsurance Group of America Inc, SCOR SE and Zurich Insurance Group Ltd. For further information on external advisors, please refer to page 127 of this Compensation Report.

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 113.

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, Leadership Performance Plan (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 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 89.

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	2020	2021
	Base salary	1 500	1 500
	Allowances ¹	34	34
	Funding of pension benefits ²	222	223
	Total fixed compensation	1 756	1 757
	Cash Annual Performance Incentive ³	1 155	1 183
	Value Alignment Incentive ³	1 155	1 183
	Leadership Share Plan ⁴	2 000	3 000
	Total variable compensation	4 310	5 366
	Total compensation⁵	6 066	7 123

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 has 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 2020 and 2021 include higher employer pension contributions and contributions to mitigate the effects of lower conversion rates.

³ For 2021, subject to shareholder approval at the AGM 2022. For 2020, as part of the aggregate amount of short-term variable compensation approved by the shareholders at the AGM 2021.

⁴ Disclosure reflects all awards for a reporting year, ie the 2020 value reflects the fair value of LPP awards granted in April 2020 and the 2021 value reflects the fair value of LSP awards granted in April 2021. LPP/LSP awards are 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 246 040 in 2020 and to CHF 326 719 in 2021.

Group CEO performance assessment and compensation

Performance assessment process

The Board of Directors sets the Group CEO's API against financial and qualitative Key Performance Indicators (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%)

2021 KPIs	Target/ guidance	Threshold	Maximum	Achievement	Weight	Achievement ratio	Comments
Return on equity (ROE)	8.2%	0%	12%	5.7%	35%	69.5%	<ul style="list-style-type: none"> US-GAAP target metrics impacted by continued COVID-19-related losses (USD 2.0 billion pre-tax, foremost in L&H Reinsurance) and higher than expected natural catastrophe losses. Excluding COVID-19 losses, Group ROE would have been 11.6%. EVM results reflected resilient underwriting performance despite COVID-19 and a strong investment result. Normalised combined ratios of P&C Reinsurance and Corporate Solutions outperformed targets, reflecting the execution of desired portfolio underwriting actions and the effective de-risking of underperforming treaties.
ENW growth per share	12.5%	0%	20%	10.7%	20%	85.6%	
ROE L&H Reinsurance	11%	0%	15%	-8.6%	15%	0.0%	
Normalised combined ratio P&C Reinsurance	<95%	98%	92%	94.7%	15%	107.5%	
Normalised combined ratio Corporate Solutions	<97%	100%	94%	95.0%	15%	130%	
Financial performance achievement	77% (minimum 0%, maximum 200%)						

Qualitative performance (weighted 30%)

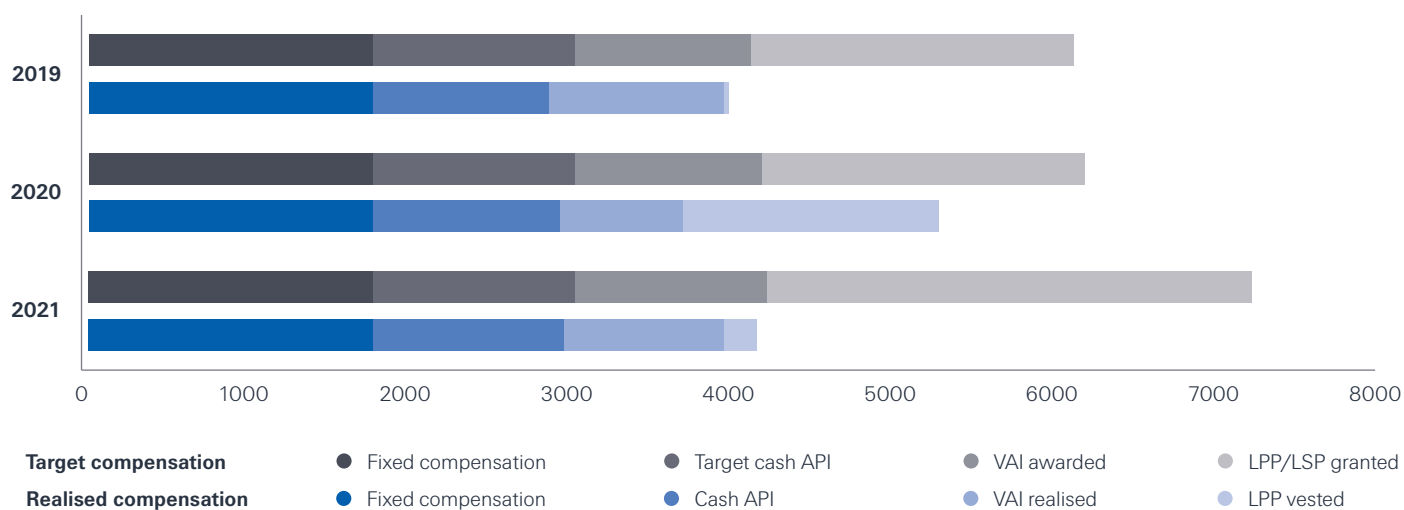
2021 KPIs	Assessment and key highlights
Strategic initiatives and clients	In 2021, the Group CEO drove significant progress on major initiatives which are key to Swiss Re's strategy and enabled innovation. Milestones included the launch of a programme to bring underwriting to the next level, important progress on building a more standardised and data-driven business and the launch of the "One Swiss Re in China" initiative, which will facilitate access to new risk pools. Furthermore, he successfully completed the turnaround in Corporate Solutions with results exceeding expectations and oversaw the strong growth of iptiQ, which established itself as a successful top player in the Insurtech world. The Group CEO also ensured that the Group maintained strong client satisfaction as reflected by above-target scores in independent surveys.
ESG	<p>He showed strong personal engagement on ESG topics and enhanced Swiss Re's profile as an active voice in public discussions, particularly on key topics such as sustainability and climate. The Group's role as a leader on ESG continues to be recognised externally, for example in the Dow Jones Sustainability Index (DJSI) survey, where Swiss Re ranked second in the insurance sector, in the MSCI index where it continued to be rated at the highest possible rating of AAA, and in the Bloomberg Gender Equality Index 2022, where it has been included for the fourth consecutive year.</p> <p>Finally, the Group CEO developed and executed on Swiss Re's performance culture and "One Swiss Re" ambitions, which have fostered a result-oriented approach and close collaboration across all parts of the organisation, and pave the way for continued success in the coming years.</p>

Qualitative performance achievement	135% (minimum 0%, maximum 200%)	
Individual scorecard factor	94.5%	Based on 70% weighting for financial performance achievement ratio and 30% weighting for qualitative performance achievement ratio.
Resulting API for the Group CEO	CHF 2 365 000	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. Details on deferred and long-term compensation outcomes for the Group elements are provided in the section Group compensation framework, 2021 outcomes and 2022 changes.

CHF thousands



CHF thousands ¹	Target				Total	Realised				Total
	Fixed compensation	Target cash API ²	VAI awarded ³	LPP/LSP granted		Fixed compensation	Cash API ⁴	VAI realised	LPP vested ⁵	
2019	1 756	1 250	1 088	2 000	6 094	1 756	1 088	1 084	26	3 954
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	200	4 129

¹ Prior-year figures have been adjusted to conform to the 2021 disclosure methodology.

² 50% of the Group CEO's total target API for the respective year (ie the portion that is not subject to deferral).

³ Actual VAI awarded for the respective year (50% of realised cash API). For 2021, subject to shareholder approval at the AGM 2022.

⁴ For 2021, subject to shareholder approval at the AGM 2022.

⁵ For 2021, the realised value is estimated based on the closing share price at year-end 2021 (CHF 90.26) since vesting will occur after the publication of this report. Prior-year figures have been restated to reflect the actual realised value based on the share price at vesting.

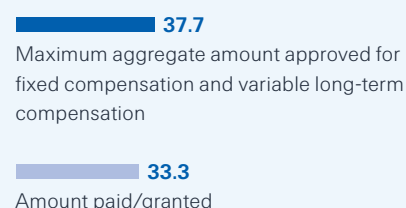
Say on pay

At the AGM 2020, shareholders approved a prospective maximum aggregate amount of CHF 37.7 million for fixed compensation and variable long-term compensation for the financial year 2021 for the members of the Group EC. The amount of fixed compensation and variable long-term compensation effectively granted to the Group EC members during the financial year 2021 amounted to CHF 33.3 million. This 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 (this appointment was not known at the time of the AGM 2020). Details are provided in the table below.

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 2020 figures cover payments to 15 individuals who held a Group EC position at any point in 2020 (including the Group CEO), of whom 12 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.

Group EC compensation

Financial year 2021
CHF millions



Compensation for members of the Group EC including the Group CEO

CHF thousands ¹	15 members	14 members
	2020	2021
Base salaries	12 848	12 493
Allowances ²	734	2 794
Funding of pension benefits ³	2 808	2 712
Total fixed compensation⁴	16 390	17 999
Cash Annual Performance Incentive ^{4, 5}	8 187	8 697
Value Alignment Incentive ^{4, 5}	6 908	7 331
Leadership Performance Plan/Leadership Share Plan ⁶	13 250	14 874
Total variable compensation	28 345	30 902
Total fixed and variable compensation	44 735	48 901
Compensation due to members leaving ⁷	308	407
Total compensation⁸	45 043	49 308

Audited

¹ Foreign currency conversions calculated using December 2021 year-to-date FX rates for 2021 figures and December 2020 year-to-date FX rates for 2020 figures (where relevant).

² Benefits or allowances, eg housing, schooling, lump sum expenses, relocation expenses and taxes, child and similar allowances. The increase in allowances is primarily driven by tax equalisation payments for two Group EC members on international assignments. Also included is an amount of CHF 19 233 for 226 matching shares received by Group EC Members participating in Swiss Re's Global Share Participation Plan in 2021 (in 2020 CHF 21 421 for 276 matching shares). In addition, a cash replacement award in the amount of CHF 178 000 is included. The replacement award 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 has 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 2020 and 2021 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 2021, subject to shareholder approval at the AGM 2022. For 2020, based on shareholders' approval at the AGM 2021 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.

⁶ Disclosure reflects all awards for a reporting year, ie the 2020 value reflects the fair value of LPP awards granted in April 2020 and the 2021 value reflects the fair value of LSP awards granted in April 2021. Any awards granted during the respective year and then forfeited at a later point in that same year are not included. LPP/LSP awards are split equally into three underlying PSU components. Also included is an equity replacement award in the value of CHF 1 773 910. The replacement award 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.

⁷ For individuals leaving the Group EC during or before 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).

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 1 953 251 in 2020 and CHF 2 559 951 in 2021.

Group EC performance assessment and compensation

The members of the Group EC are assessed based on Swiss Re’s performance, which directly impacts their compensation. Further, their compensation is affected by the Business Unit and individual performance as assessed by the Group CEO. The Compensation Committee reviews the effectiveness of the Group’s performance management process and compensation proposals for the Group EC members. During 2021, performance translated into pay outcomes as follows:

- **Performance assessment process:** Performance is assessed against a set of quantitative and qualitative objectives. Objectives are agreed at the beginning of the year and are aligned with the Group’s strategy. The assessment of Swiss Re’s performance follows the same three-step approach and KPIs as applicable to all employees (outlined on pages 138–139 of this Compensation Report). For the Group CEO, an individual scorecard is applied (see page 133 of this Compensation Report).
- **Group EC performance outcomes:** The Group made significant progress in all relevant areas of the business aligned with

the Group’s strategy and ambitions for performance culture. The results are reflective of the work of the Group EC to strengthen business performance and improve underwriting quality. The improvement was based on the completion of the turnaround of Corporate Solutions, the P&C Reinsurance portfolio rebalancing, and the prudent renewal approach in 2021. The Group EC also successfully steered the Group through the second year of the ongoing pandemic, adapting to change and addressing needs of employees.

Upcoming changes

The Compensation Committee intends to revise the Group EC performance assessment process as of performance year 2022. The aim is to create a balanced scorecard to align the performance assessment of the Group EC to the practice used for the Group CEO.

2021 aggregate amount of Group EC variable short-term compensation

For 2021, 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 17.1 million compared with CHF 17.6 million in 2020.

The decrease is primarily due to the lower number of Group EC members active during the course of the year as outlined on the previous page. For the Group CEO, the target API was CHF 2.5 million (no change compared with 2020).

The proposed total API (including VAI) amount for 2021 for the Group EC (including the Group CEO) is CHF 16.0 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 2021. This represents an increase of CHF 0.9 million compared with the approved total 2020 API (including VAI) amount of CHF 15.1 million for the Group EC. The increase is primarily attributable to the higher Group Business Performance Factor (0.92 in 2021 compared with 0.84 in 2020), ie reflecting better business results. After carefully considering the performance of the Group EC in 2021, the Compensation Committee and the Board of Directors concluded that the proposed amount is proportionate given the overall business environment for the Swiss Re Group, the quantitative and qualitative achievements, and 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 2021 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 2021, 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 in 2021.
	Payments to former members of governing bodies	During 2021, payments in the total amount of CHF 0.7 million were made to ten 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 2020 and 2021, 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	2020	2021
Christian Mumenthaler, Group Chief Executive Officer	83 157	93 414
Urs Baertschi, CEO Reinsurance EMEA/Regional President EMEA	1 371	3 989
Andreas Berger, CEO Corporate Solutions	125	213
Anette Bronder, Group Chief Operating Officer ¹	135	n/a
John R. Dacey, Group Chief Financial Officer	30 346	39 234
Cathy Desquesses, Group CHRO & Head Corporate Services	n/a	0
Nigel Fretwell, former Group CHRO ²	12 436	n/a
Guido Fürer, Group Chief Investment Officer	54 203	64 888
Hermann Geiger, Group Chief Legal Officer	49 756	53 175
Russell Higginbotham, CEO Reinsurance Asia/Regional President Asia	8 546	15 966
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	51 196	55 880
Thierry Léger, Group Chief Underwriting Officer	56 343	64 891
Moses Ojeisekhoba, CEO Reinsurance	40 831	47 001
Patrick Raaflaub, Group Chief Risk Officer	24 063	32 611
Total	412 508	471 262

¹ The number of shares held on 17 December 2021 when Anette Bronder stepped down from the Group EC was 6 092.

² The number of shares held on 30 June 2021 when Nigel Fretwell stepped down from the Group EC was 15 168.

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:

Members of the Group EC	2020	2021
Christian Mumenthaler, Group Chief Executive Officer	81 031	96 418
Urs Baertschi, CEO Reinsurance EMEA/Regional President EMEA	14 134	22 537
Andreas Berger, CEO Corporate Solutions	24 858	38 586
Anette Bronder, Group Chief Operating Officer	24 858	n/a
John R. Dacey, Group Chief Financial Officer	40 517	41 347
Cathy Desquesses, Group CHRO & Head Corporate Services	n/a	4 806
Nigel Fretwell, former Group CHRO	24 689	n/a
Guido Fürer, Group Chief Investment Officer	50 645	51 683
Hermann Geiger, Group Chief Legal Officer	27 072	28 943
Russell Higginbotham, CEO Reinsurance Asia/Regional President Asia	31 402	34 646
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	28 740	30 694
Thierry Léger, Group Chief Underwriting Officer	41 647	45 222
Moses Ojeisekhoba, CEO Reinsurance	43 531	47 106
Patrick Raaflaub, Group Chief Risk Officer	40 517	41 347
Total	473 641	483 335

Audited

Group compensation framework, 2021 outcomes and 2022 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 to perform the role.
- Market value of the role in the location in which Swiss Re competes for talent.
- Skills and expertise of the individual in the role.

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

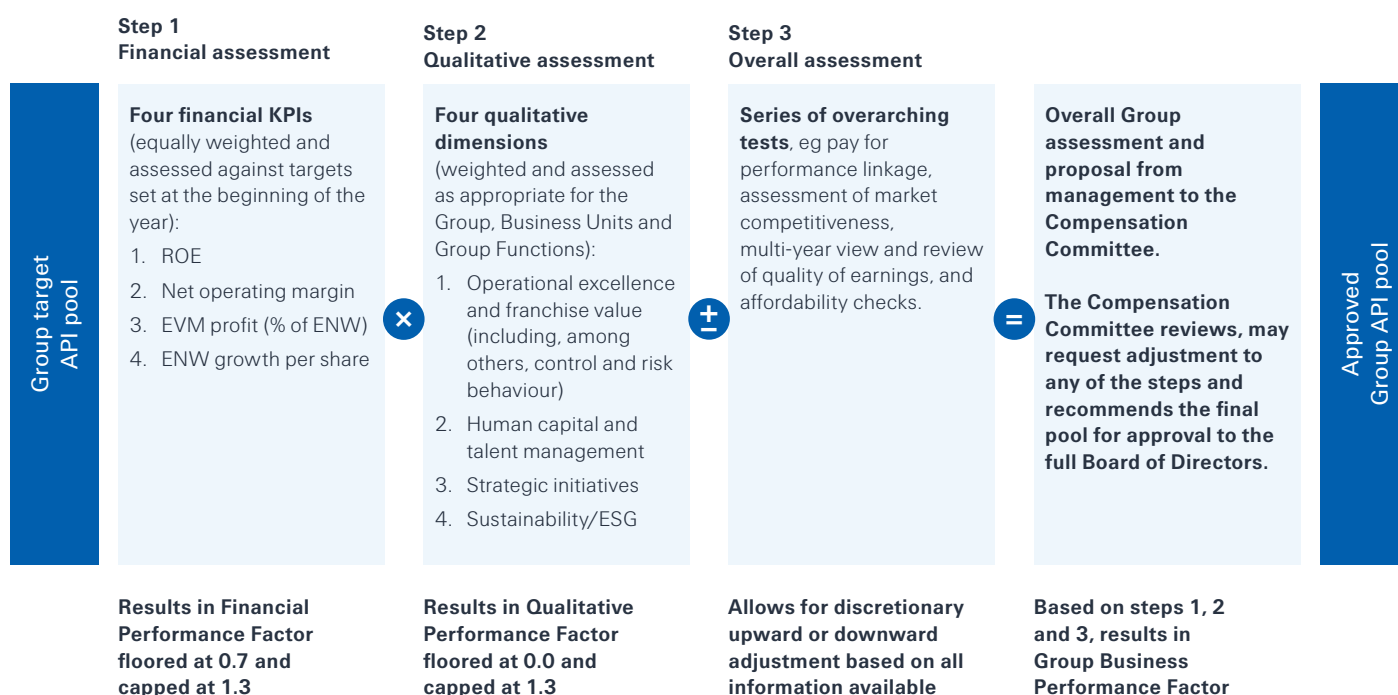
against both business and individual performance targets and for the demonstration of desired behaviours.

Funding

Swiss Re uses a three-step assessment process to determine the Group API pool as outlined in the illustration below.

The financial and qualitative performance assessment each result in a performance factor (Financial Performance Factor/FPF and Qualitative Performance Factor/QPF). A performance threshold and maximum are built into both assessments by way of a floor and cap. For the financial assessment, the floor is at 0.7 while for the qualitative assessment it is at 0.0. The cap on both assessments is at 1.3. This serves to avoid excessive upward or downward volatility in the Group API pool and is reflective of the long-tail nature of Swiss Re’s business.

Group API pool funding process



Further, this practice protects the franchise by ensuring positive but not excessive variable compensation payouts in relatively benign environments and lower but proportionate payouts in adverse environments.

The FPF and QPF are multiplied and the result can then be adjusted based on the overall assessment, whereby the Compensation Committee can apply discretion to make an upward or downward adjustment to the Group API pool recommended for approval to the Board of Directors. Discretion is only exercised in extraordinary circumstances (eg to protect the franchise or ensure business continuity), and is disclosed transparently if applied.

Combined, the three assessment steps allow for determining a Group Business Performance Factor (Group BPF) based on the following formula:

$$\text{Group BPF} = (\text{FPF} \times \text{QPF}) \pm \text{Overall Assessment Result}$$

The Group API pool is subsequently determined by multiplying the Group target API pool with the Group BPF.

Allocation

Based on financial and qualitative performance, the Group CEO splits the Group API pool into pools for the Group EC, other senior executives, and for different Business Units/Group Functions. The API for each individual employee is then determined considering their target API, business and individual performance. Individual performance is assessed against the individual's established goals and Swiss Re's behaviour expectations and corporate values. Goals, as well as expected behaviours, are aligned to Swiss Re's purpose and 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 faster adaptation to business needs. In doing so, Swiss Re ensures robust performance differentiation and transparent pay for performance.

The possible API award for individual employees ranges from zero to two times target API. When the total API level for an employee equals or exceeds a pre-defined amount, a portion is deferred into the Value Alignment Incentive (VAI). The non-deferred portion is settled in immediate cash (cash API). 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.

2021 API outcomes

Financial and qualitative performance have been assessed by the Compensation Committee and the Board of Directors against KPIs and targets set at the beginning of the year. For 2021, Swiss Re reported a US GAAP net income of USD 1.4 billion and an ROE of 5.7%, considerably rebounding from a net loss of USD 878 million in 2020. This result was achieved as the Group absorbed large natural catastrophe losses across its businesses as well as COVID-19-related claims. The vast majority of the COVID-19-related losses originated in the L&H Reinsurance business, while impacts on the property and casualty businesses were minimal. Excluding the impacts of COVID-19 losses, Swiss Re's net income increased by 39% year on year to USD 3.0 billion. Although Swiss Re continued to grow all its businesses and increased net premiums earned and fee income for the Group by 4.8% compared with the previous year, the Group is still significantly impacted by COVID-19 related claims and thus missed three out of four financial KPIs relevant for the Group API. Therefore, the FPF was calculated at 0.82. Further details on Swiss Re's financial performance can be found on pages 198–311 of this Financial Report.

On the qualitative side, strong achievements on ESG stood out, including high stakeholder engagement and an excellent ranking on the Dow Jones Sustainability Index (DJSI), where Swiss Re ranked second in the insurance sector. Further information on sustainability achievements can be found in Swiss Re's Sustainability Report. In addition, client satisfaction measured through Net Promoter Scores (NPS) remained strong and further progress has been made on diversity in senior management. Overall, qualitative performance across all KPIs was above target, resulting in a QPF of 1.12.

The Board of Directors applied no upward or downward discretion. The Group BPF was calculated at $(0.82 \times 1.12) \pm 0 = 0.92$ (against a theoretical maximum Group BPF of 2.0 and a minimum of 0).

2022 changes

The API pool funding process will be simplified, and a stronger focus will be placed on financial performance outcomes as of performance year 2022. In addition, any floor component in the Group API pool funding process will be removed while the cap limiting the upside potential will be maintained. This will further strengthen Swiss Re's pay-for-performance approach. Qualitative assessments (including ESG-related KPIs and risk and control behaviour) will continue to impact Business Unit/Group Function and individual API allocations as relevant.

Comprehensive details on the design of the 2022 Group API pool funding process will be provided in the 2022 Compensation Report to be published in 2023.

Deferred compensation: VAI

Purpose

When the total API level for an employee equals or exceeds the threshold as shown in the table below, a portion of the API is mandatorily deferred into the VAI. The higher the API granted, the greater the

deferral into the VAI. The VAI ensures that variable compensation remains at risk and adequately reflects the business outcomes that materialise over the mid-term, taking into account under- or over-reserving in the past. This supports the Group's business model by aligning a portion of short-term

variable compensation with sustainable results as the ultimate value of the VAI depends on the performance of the relevant Business Unit and the Group over the performance period.

Portion of API that is deferred into the VAI

	Deferral into VAI
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 100 000 with a minimum deferral amount of USD 5 000 at USD 100 000 and up to a maximum of 40% of total API

Design

The performance measurement calculation uses the three-year average of the published EVM previous years' business profit margin.

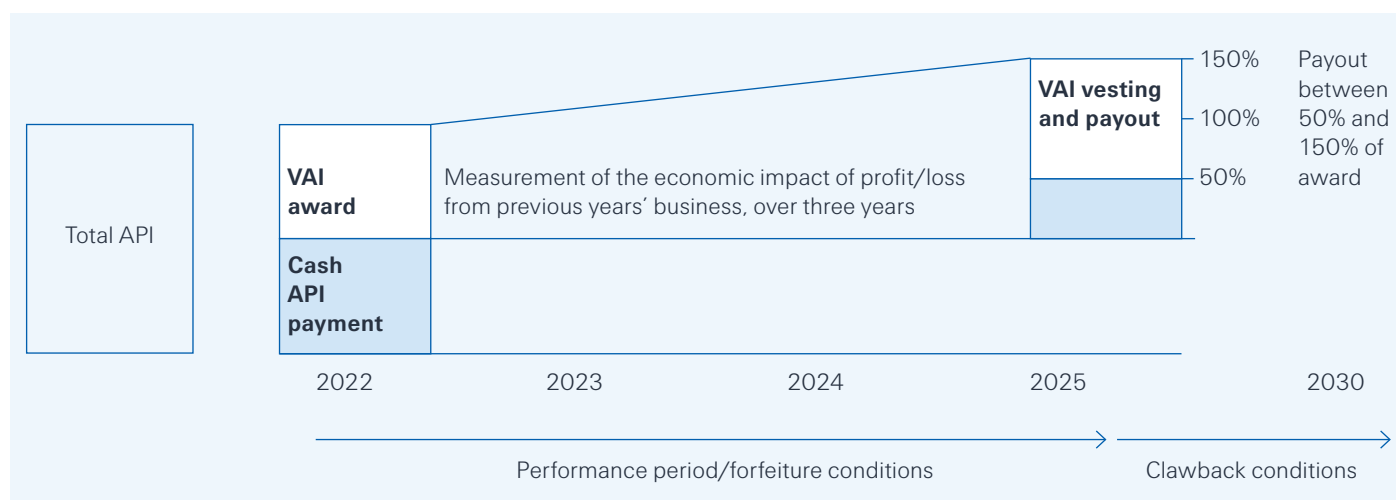
EVM is Swiss Re's proprietary integrated economic valuation and steering framework, consistently measuring performance across all businesses. EVM previous years' business profit measures the economic performance of existing contracts

in comparison to the valuation assumptions set in the past; ie under- or over-reserving in the past leads to a corresponding negative or positive EVM previous years' business performance when reserves are adjusted in the current year.

At the end of the deferral period, the VAI is settled in cash. The performance factor is a linear function, whereby payout ranges from 50–150%.

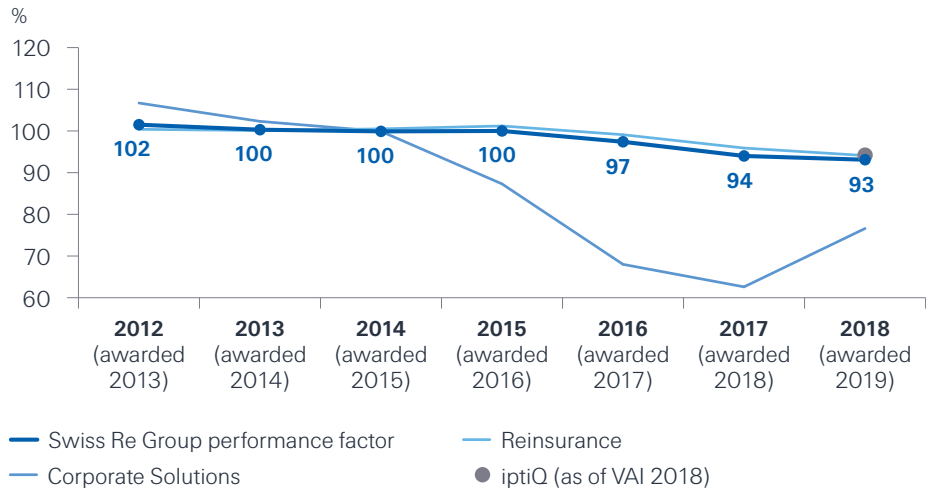
For the full three-year vesting period, forfeiture conditions apply. Additionally, clawback provisions apply in a range of events as defined in the VAI plan rules.

VAI design



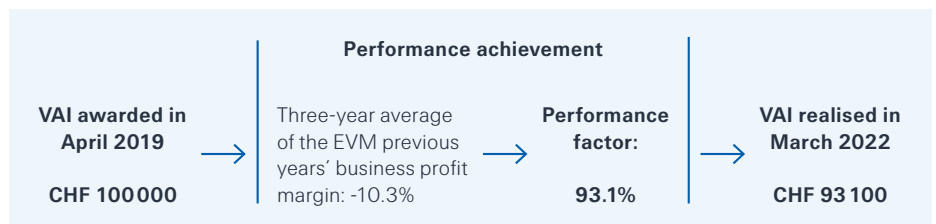
Performance outcomes for the VAI 2018

The VAI 2018 (awarded 2019) performance factor for the Swiss Re Group is 93.1% based on the average 2019–2021 previous years’ business performance. The main drivers were previous years’ business losses which were mainly driven by reserve increases. Especially, reserve increases were required for COVID-19-related losses in L&H Reinsurance in 2021 and in Reinsurance and Corporate Solutions in 2020. Further, reserve increases were required for US casualty in Corporate Solutions and P&C Reinsurance in 2019. This led to performance factors ranging from 76.6% (Corporate Solutions) to 100.5% (elipsLife).



Illustrative example of realised performance for the VAI 2018 (awarded 2019)

Granted and realised VAI are shown on the right for a grant of CHF 100 000 on the VAI 2018 (awarded 2019). For illustrative purposes, this example considers only the Group performance factor.



2022 changes

As of performance year 2022 (ie for deferred awards as of 2023), the VAI will be replaced by a new deferred share plan to better align employee and shareholder interests and to conform to market practice.

The new Deferred Share Plan (DSP) will apply to the Group CEO, other Group EC members, key executives and individuals with an API equal to or exceeding USD 150 000.

The deferral percentages will remain unchanged (as indicated in the table on the previous page). Deferral will be in the form of share units settled in shares (where legally permissible) after a three-year vesting period, making the value at vesting solely dependent on Swiss Re’s share price development. Forfeiture and clawback provisions apply.

These changes increase employees’ exposure to business performance volatility, and alignment with shareholder interests as well as Swiss Re’s long-term risk profile. In-flight VAI awards (ie awarded in 2022 and before) are not impacted by these changes.

Comprehensive details on the DSP design will be provided in the 2022 Compensation Report to be published in 2023.

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 performance year 2021

As of 2021 grants, the Leadership Performance Plan (LPP) was renamed to LSP and the design was amended globally. Key changes included a harmonisation of vesting factors for all performance conditions and the introduction of a cap in case of negative absolute Total Shareholder Return (TSR) performance even if Swiss Re meets or exceeds the relative TSR peer group performance (cap of 100% for relative TSR Performance Share Units/ PSUs). To increase alignment of employees with shareholder interests, the LSP also extends to employees below senior management who may receive Share Units (SUs) without performance conditions, or a combination of PSUs and SUs.

Design

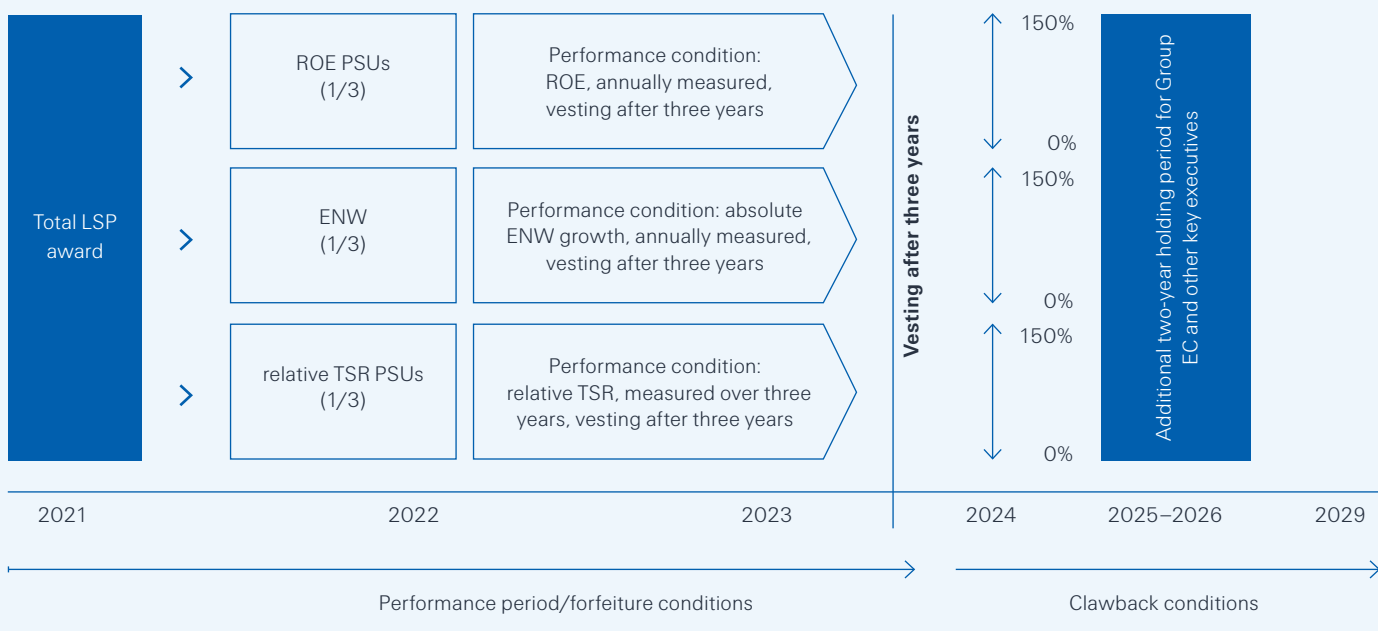
Grant levels are determined based on multiple factors including the role being performed and market benchmarks. The size of the LSP pool is reviewed each year in the context of sustainable business performance, affordability and market competitiveness, and funded as part of the Group's total variable compensation pool.

At the grant date, the award value is split equally into three underlying PSU components for senior management (including Group EC members). For other eligible employees, the award value is either split into 50% PSUs and 50% SUs or granted in 100% SUs. A valuation by a third party is used to determine the number of PSUs to be granted.

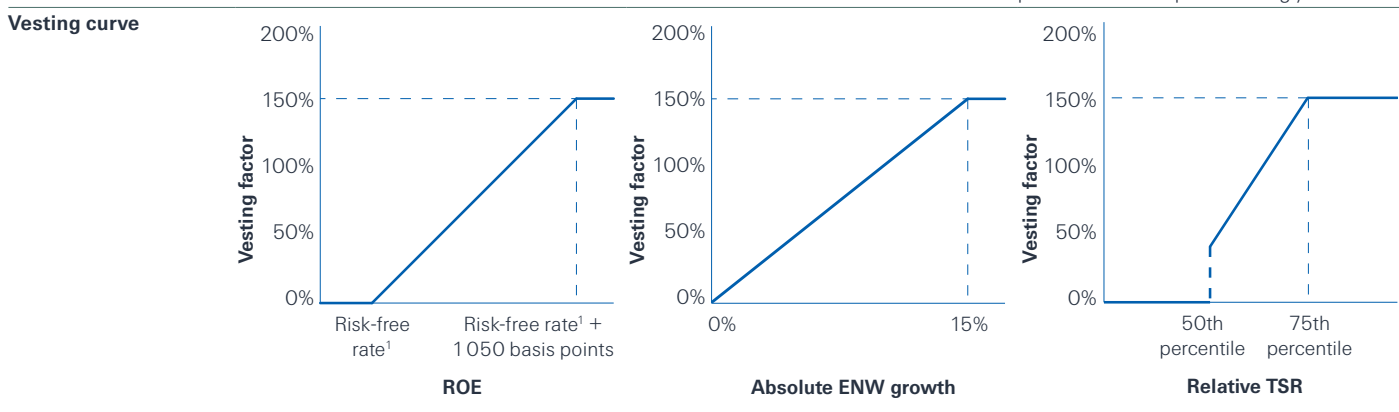
The vesting period, during which performance is measured, is three years. For LSP awards granted to Group EC members and other key executives, the duration of the LSP is five years, comprising a three-year vesting and performance measurement period and an additional two-year holding period.

At the end of the three-year 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



2021 PSU KPIs	ROE	ENW	Relative TSR
Performance period	At the end of each year, the performance is assessed and one third of the ROE PSUs is locked in but remains subject to forfeiture conditions.	At the end of each year, the performance is assessed and one third of the ENW PSUs is locked in but remains subject to forfeiture conditions.	Measured over three years.
Vesting period	Three years.	Three years.	Three years.
Threshold and maximum opportunity	0% vesting for an ROE at the risk-free rate ¹ and 150% (maximum) for an ROE at a pre-defined premium above the risk-free rate (set at the beginning of the plan period, 1 050 basis points for the LSP 2021).	Vesting is at 0% for an ENW growth of 0% and 150% (maximum) for an ENW growth of 15%.	50 % vesting at threshold (50th percentile of TSR relative to peers ²) and 150% (maximum) at the 75th percentile. Payout for negative absolute TSR is capped at 100%, subject to the Compensation Committee's right to assess the circumstances and decide on the performance multiple accordingly.



¹ The annual risk-free rate is determined as the average of 12 monthly rates for ten-year US Treasury bonds of the corresponding performance year.
² For LSP 2021: 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, Prudential PLC, QBE Insurance Group Ltd, Reinsurance Group of America Inc, RenaissanceRe Holdings Ltd, SCOR SE and Zurich Insurance Group Ltd.

2021 LSP grants

The 2021 LSP grant was based on a share price of CHF 89.90 (average closing price of 30 trading days prior to the grant date, ie 18 February 2021–31 March 2021).

Performance outcomes for the LPP 2019

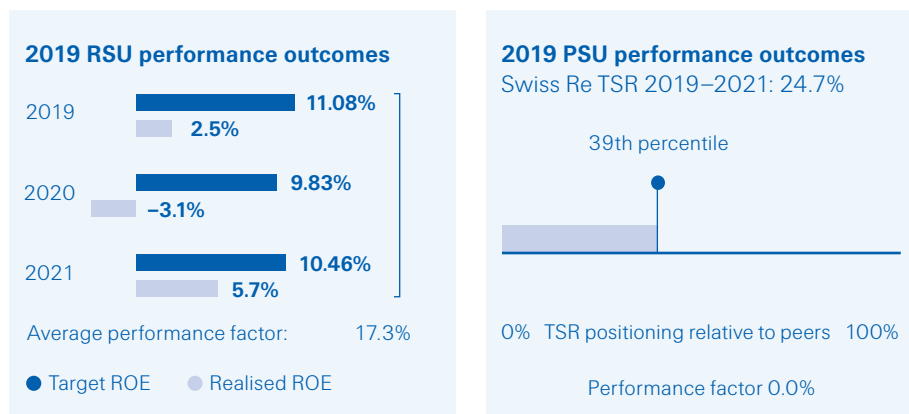
LPP 2019 awards were split equally into Restricted Share Units (RSUs) and PSUs. The RSU component is measured against

an ROE performance condition. At the end of each year, the performance is assessed and one third of the RSUs is locked in within a range of 0–100%. At the end of the three-year period, the total number of units locked may vest. For the LPP 2019, the performance on the ROE condition was below target during 2019, 2020 and 2021, resulting in an average RSU performance factor of 17.3% for the three-year period.

The PSU component for these cycles is based on relative TSR and vests within a range of 0–200%. For the LPP 2019, 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. The table below gives an overview of the achievements against targets for the previous plan years.

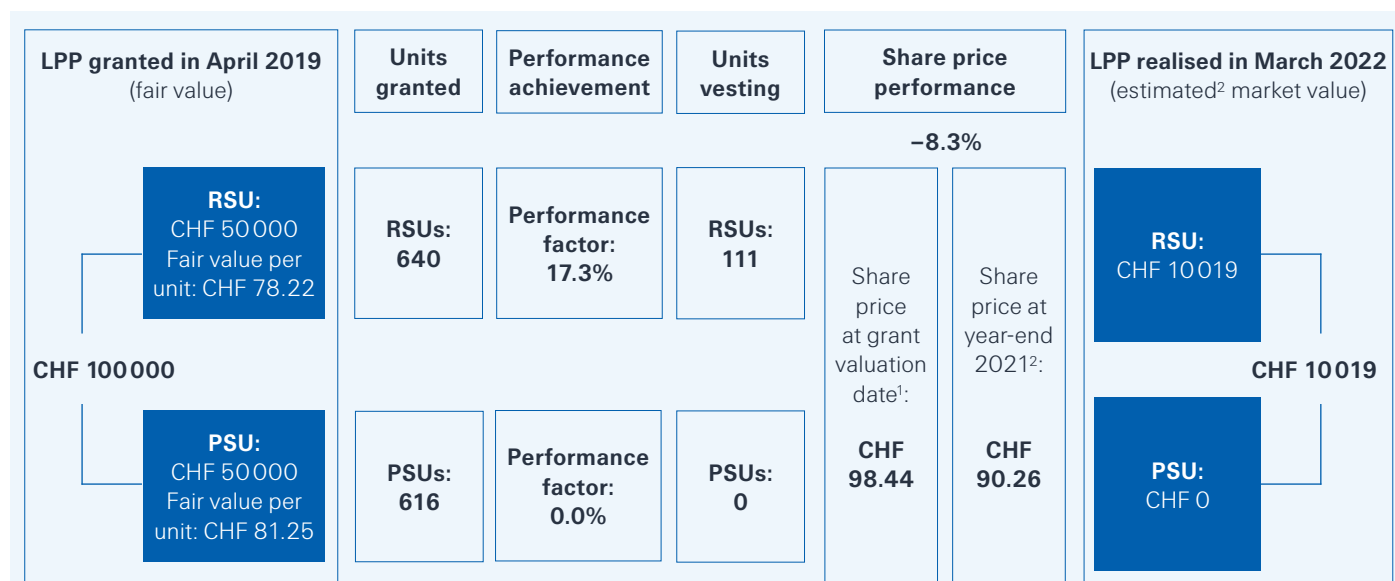
Plan year	Performance period remaining as of 31 December 2021	ROE component: performance factor for the three-year period	TSR component: performance factor for the three-year period	ENW component: performance factor for the three-year period	Combined performance factor (based on CHF 100 000 grant value, 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	–	17.3%	0.0%	not applicable	8.8%
LPP 2020	1 year		to be determined in 2023		
LSP 2021	2 years		to be determined in 2024		

LPP 2019 RSU and PSU performance outcomes



Illustrative example of realised performance for the LPP 2019–2022

A sample grant of CHF 100 000 of the LPP 2019 is shown below (simplified representation for illustrative purposes only). RSU and PSU numbers are rounded up to the nearest full number.



¹ The LPP 2019 grant was based on a grant valuation share price of CHF 98.44 (as of 22 February 2019, ie the next trading day after publication of the 2018 annual results).
² Since vesting of LPP 2019 will occur after the publication of this report, the closing share price at year-end 2021 was used to estimate the realised value.

2022 changes

For grants to be made as of 2022, the Board of Directors revised the TSR vesting curve in a proportional way, allowing payouts starting at the 35th percentile while moving maximum payouts to the 90th percentile. For the ROE performance condition, the Board of Directors introduced a more demanding target in line with the externally communicated target, which makes the LSP more challenging overall.

These changes apply to all LSP participants and no changes are made to in-flight plan cycles. Comprehensive details on the 2022 LSP design will be provided in the 2022 Compensation Report to be published in 2023.

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.

2021 VAI, LSP and GSPP termination and clawback provisions

Termination reason	VAI	LSP	GSPP
Voluntary resignation	Unvested awards are forfeited pro rata and the performance factor is capped at 100% 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.
Redundancy	Unvested awards shall vest on the regular vesting date, subject to performance.	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, subject to performance.	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, subject to performance.	Unvested awards shall vest on the regular vesting date, subject to performance.	Matching share awards shall vest immediately.
Death	Unvested awards shall vest immediately using the performance factor as presented during the latest Compensation Committee meeting.	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 2021, the Group had 13 985 regular employees worldwide (compared with 13 189 on 31 December 2020). The total compensation of the Group for 2021 amounted to CHF 2 092 million (compared with CHF 1 937 million in 2020), whereof CHF 2 028 million has been or will be paid in cash (compared with CHF 1 885 million in 2020) and CHF 64 million has been granted in share-based awards (compared with CHF 52 million in 2020).

The value of all outstanding deferred compensation for all employees at 31 December 2021 amounted to CHF 256 million (compared with CHF 228 million in 2020), whereof CHF 100 million will be payable in cash (compared with CHF 90 million in 2020) and CHF 156 million in shares (compared with CHF 138 million in 2020). The figure for outstanding deferred compensation is determined based on the value at grant for both cash-based and share-based compensation.

Both in 2021 and in 2020, a reduction of expenses amounting to CHF 6 million was recognised for compensation in previous financial years.

Category	Performance year 2020 ^{1, 2}		Performance year 2021 ^{1, 2}	
	Number of employees	Values (in CHF millions)	Number of employees	Values (in CHF millions)
Base salaries	13 189	1 289	13 985	1 380
Pensions and benefits	13 189	257	13 985	270
Cash Annual Performance Incentive ³	11 941	274	13 008	317
Value Alignment Incentive ³	598	33	801	41
Long-term variable compensation				
– Granted in units subject to performance conditions ⁴	469	50	250	35
– Granted in units not subject to performance conditions ⁵	43	2	726	29
Other payments				
– Severance payments ⁶	401	27	216	13
– Sign-on payments ⁷	150	5	203	7
Total⁸		1 937		2 092

¹ Regular employees (excludes contractors) per 31 December, compensation on actual FTE basis.

² Foreign currency conversions calculated using December 2021 year-to-date FX rates for 2021 figures and December 2020 year-to-date FX rates for 2020 figures (where relevant).

³ Includes separate cash variable compensation scheme for one line of business.

⁴ Includes LSP as well as separate share-based variable compensation scheme for one region for 2021 and LPP for 2020.

⁵ Includes SUs and Dividend Equivalent units of LSP 2021.

⁶ 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.

⁷ Based on values at vesting/payment.

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 190 million in 2020 and CHF 215 million in 2021.

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 2021, Swiss Re identified 176 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.

Category	Performance year 2020 ^{1,2}		Performance year 2021 ^{1,2}	
	Number of employees	Values (in CHF millions)	Number of employees	Values (in CHF millions)
Base salaries	155	53	163	58
Pensions and benefits	155	16	163	17
Cash Annual Performance Incentive ³	151	30	160	34
Value Alignment Incentive ³	144	15	155	18
Long-term variable compensation				
– Granted in units subject to performance conditions ⁴	146	23	153	17
– Granted in units not subject to performance conditions ⁵	0	0	148	11
Other payments				
– Severance payments ⁶	5	1	0	0
– Sign-on payments ⁷	13	1	13	1
Total⁸		139		156

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 135.

² Foreign currency conversions calculated using December 2021 year-to-date FX rates for 2021 figures and December 2020 year-to-date FX rates for 2020 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 Includes separate cash variable compensation scheme for one line of business.

⁴ Includes LSP as well as separate share-based variable compensation scheme for one region for 2021 and LPP for 2020.

⁵ Includes SUs and Dividend Equivalent units of LSP 2021.

⁶ 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.

⁷ Based on values at vesting/payment.

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 6 million in 2020 and CHF 6 million in 2021.



Report of the Statutory Auditor

To the General Meeting of Swiss Re Ltd, Zurich

We have audited the Compensation Report dated 16 March 2022 of Swiss Re Ltd for the year ended 31 December 2021. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the tables labelled “audited” on page 129, page 132 and pages 135–137.

Responsibility of the Board of Directors

The Board of Directors is responsible for the preparation and overall fair presentation of the Compensation Report in accordance with Swiss law and the Ordinance. The Board of Directors is also responsible for designing the compensation system and defining individual compensation packages.

Auditor's Responsibility

Our responsibility is to express an opinion on the Compensation Report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Compensation Report complies with Swiss law and articles 14–16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the Compensation Report with regard to compensation, loans and credits in accordance with articles 14–16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the Compensation Report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of compensation, as well as assessing the overall presentation of the Compensation Report.

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

Opinion

In our opinion, the Compensation Report for the year ended 31 December 2021 of Swiss Re Ltd complies with Swiss law and articles 14–16 of the Ordinance.

Other Matter

The Compensation Report of Swiss Re Ltd for the year ended 31 December 2020 was audited by another auditor who expressed an unmodified opinion on this report on 17 March 2021.

KPMG AG

Dr. Frank Pfaffenzeller
Licensed Audit Expert
Auditor in Charge

Elina Monsch
Licensed Audit Expert

Zurich, 16 March 2022

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Climate-related financial disclosures

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<u>Report on independent assurance</u>	<u>191</u>

Swiss Re's climate-related financial disclosures help stakeholders to properly assess its climate-related risks and opportunities. These disclosures demonstrate how Swiss Re plans to deliver on its commitments towards net-zero emissions for its operations, underwriting activities and investment portfolio.

Summary

Swiss Re's climate-related financial disclosures aim to improve investors' and other stakeholders' ability to appropriately assess and price climate-related risk and opportunities in Swiss Re's re/insurance business, investment activities and operations.¹

Swiss Re has a long-standing commitment to sustainable, long-term value creation. The Group Sustainability Strategy applies to the entire re/insurance value chain with actionable goals and ambitions for the short and mid term (2030) as well as for the long term (2050).² "Mitigating climate risk and advancing the energy transition" is one of three pillars of the Group's sustainability efforts. The Climate Action Plan (see page 155) guides Swiss Re in the implementation of the climate change mitigation ambition through re/insurance solutions.

Swiss Re has been actively contributing to advancing the net-zero³ transition for several years through its participation in various industry-wide and cross-industry forums that are shaping CO₂ measurement standards and climate commitments. Additionally, Swiss Re's Group CEO Christian Mumenthaler acts as a [co-chair of the WEF Alliance of CEO Climate Leaders](#).

The Alliance is made up of over 100 CEOs from the world's largest corporations who have committed to net-zero emissions in their own operations and across their value chains by 2050. Christian Mumenthaler represented the Alliance at COP26, where he met with public sector decision makers and reiterated the business community's willingness to support more ambitious government targets to tackle climate change.

Managing risks related to climate change

- **Property re/insurance against natural catastrophes** 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, but it is not the most dominant risk factor.
- **Other re/insurance portfolios** of Swiss Re 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 and are controlled through annual renewal of assumptions, pricing and policy terms. In **life & health**, more frequent and intense heatwaves, air pollution from wildfires and vector-borne diseases are the most pronounced risks related to climate change. However, climate change is only one of many risk drivers, some of which can contribute to lower mortality and morbidity rates. The risks are mitigated through systematic review processes for mortality assumptions based on the latest available scientific evidence.
- It is Swiss Re's view that the **transition to a low-carbon economy** is not likely to present a significant financial risk for its **re/insurance business**. Swiss Re expects that the associated risks can be managed effectively, primarily through the annual renewal of contracts and formal processes to review underwriting assumptions based on the most recent historic loss experience. Furthermore, the climate-related policies of Swiss Re's advanced ESG Risk Framework ensure that risks associated with transactions are identified, assessed and addressed.
- Swiss Re's dedicated approach to managing **investment-related climate risk** involves the systematic monitoring of the carbon intensity of its government bond, corporate bond, listed equity and parts of the real estate portfolio. For the corporate bond and listed equity portfolios as well as parts of the real estate portfolio, Swiss Re also tracks related forward-looking indicators, such as temperature scores.
- In 2021, Swiss Re initiated a pilot study to assess the **impact of different climate change scenarios on underwriting and investment activities**. This pilot is still ongoing. The results for property natural catastrophe re/insurance suggest that the projected increases of annual expected losses by 2050 do not exceed the increase of insured weather-related losses over the past three decades, which have already been shaped by the ongoing climate processes (including anthropogenic climate change and natural climate variability). The focus for property and other short-tail lines of business remains unchanged: Swiss Re ensures that current risk views reflect all relevant risk drivers including climate change.

¹ The following quantitative disclosures in the TCFD Report have been audited by KPMG AG: Annual expected losses (AEL) of the weather-related perils reporting and carbon footprint calculation of Swiss Re's investment portfolio. The Assurance Report is included on pages 191–194. Additional links and references within the externally audited content were not part of the limited assurance engagement.

² You can read more about the Group Sustainability Strategy in the [Sustainability Report 2021](#)

³ Net-zero emissions means that for every tonne of CO₂ that cannot be avoided, a tonne needs to 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** covers support its insurance and commercial clients with effective protection against **current physical climate risks**. This segment is expected to grow strongly over the coming decades due to economic growth, urbanisation and the expected rise in climate-related risks.
- Its proprietary models help Swiss Re to provide **innovative solutions against the physical risks** of climate change. In 2021 for example, Swiss Re designed and reinsured crop cover for six million

farmers in India, created a simplified flood insurance product for US homeowners and structured the first catastrophe bond for the island nation of Jamaica.

- The **transition to a net-zero emissions 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 it is particularly active in the power sector. In 2021, for example, Swiss Re wrote re/insurance for more than 9100 renewable energy generation facilities, which will help to avoid around 31 million tonnes of CO₂

emissions. Swiss Re provided parametric insurance solutions against revenue shortfall of solar and wind farms in Vietnam. In Germany, Swiss Re wrote re/insurance for the construction of the 476 MW **offshore wind farm Baltic Eagle** and the new transmission line **SüdLink**. The latter is key to transfer renewable energy from the north to the industrialised south.

- Green, social and sustainability bonds play a key role in **financing the transition to a net-zero economy**. By the end of 2021, Swiss Re has reached around 96% of its USD 4 billion target for such bonds.

Accelerated path to net-zero CO₂ emissions

Tackling climate change and advancing the energy transition is challenging. In line with the Paris Agreement, Swiss Re is committed to achieving **net-zero emissions** in its **underwriting and investment activities** as well as for **operations**:

- Climate change is an element of the Group Sustainability Strategy and covers several of the additional assessment dimensions for determining the Group Annual Performance Incentive pool.
- Standards to measure and disclose emissions are needed to advance the transition. Swiss Re is therefore a founding member of the UN-convened **Net-Zero Insurance Alliance (NZIA)** and

the **Net-Zero Asset Owner Alliance (AOA)**, and is taking a leading role in some of their working groups.

- Swiss Re has tightened its underwriting policies relating to thermal coal as well as oil and gas and is committed to **transition its underwriting portfolios to net zero by 2050**.
- Swiss Re aspires to **transition its investment portfolio to net-zero emissions by 2050**. For its corporate bond and listed equity portfolio as well as parts of the real estate portfolio, Swiss Re has set intermediate targets for 2025 on the base year 2018 and aims to fully exit from coal-based assets by 2030.

- Swiss Re has committed to **net-zero emissions in its operations by 2030**. To achieve this target, the company will “Do our best, remove the rest” under the new CO₂NetZero Programme. The focus of the programme is on emission reductions that are incentivised by a Carbon Steering Levy – an internal carbon price of USD 100–200 per tonne of CO₂. The levy also provides the funds to compensate any unavoided emissions through carbon removal solutions. For example, those provided by Swiss Re’s new partner **Climeworks**.

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 implement the TCFD recommendations in the 2016 Financial Report. Since then, Swiss Re has continued to expand its climate-related disclosures structured along **four pillars and seven principles for effective disclosure**.

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 around 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 2021, Swiss Re further embedded climate change considerations in the Business Units and Group Functions and worked on quantifying its climate performance. For a detailed overview of the Board of Directors' oversight and the management's role in sustainability-related risks and opportunities, including climate change, see the Corporate Governance section of the Financial Report on page 78. Sustainability and climate-related governance in particular is covered on page 83.

Climate-related topics are discussed at various governance levels. See pages 84–85 of the Financial Report for climate-related focus areas of the Board of Directors and the Group Executive committees in 2021. Selected climate-related focus topics addressed during the year include:

Board of Directors committee meetings:

- The Finance and Risk Committee reviewed the impact of climate change on the various underwriting portfolios with a focus on natural catastrophes and secondary perils for natural catastrophe insurance, and climate change litigation for casualty. They also assessed new risk transfer opportunities arising from climate change and the associated underwriting risks.
- The Investment Committee received an update on the Responsible Investment climate action approach highlighting the Engagement Framework for listed equity, emissions reduction targets for Swiss Re's sub-portfolio and forward-looking indicators to measure the alignment of Swiss Re's portfolio to a 1.5°C world.

Group Executive Committee (Group EC) meetings:

- During COP26, Swiss Re leaders met with the [Swiss Re Strategic Council](#), a body of renowned external advisors, to discuss the challenges of climate change and the implications of governments', investors' and clients' respective net-zero strategies. Seven external subject matter experts joined the Swiss Re Strategic Council for two days of exchange.

Group Sustainability Council (GSC) meetings:

- Climate-related discussions and endorsements in the GSC in 2021 included: the question of how to deal with insurance for hard-to-abate sectors across lines of business; addressing data limitations for measuring the carbon footprint of the underwriting portfolios, including Swiss Re's engagement with the NZIA on this topic (see "Several steps to align the underwriting portfolio with the Paris Agreement", page 181); and Swiss Re's approach for re/insurance of nature and technology-based carbon removal and storage solutions.

Climate change and sustainability-related KPIs linked to compensation

Climate criteria are assessment dimensions for determining Swiss Re's Group Annual Performance Incentive pool.



Find out more on page 138 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 has long recognised that climate change, if not mitigated, will potentially have very significant effects on society and the global economy. Mitigating climate risk and advancing the energy transition is therefore a core pillar of its sustainability strategy. Swiss Re is committed to reducing its carbon footprint and becoming net-zero in its operations by 2030. For underwriting and investment activities, Swiss Re is committed to reach net-zero emissions by 2050.

Re/insurance protection against natural catastrophes is one of Swiss Re's core businesses and key risks. In 2021, premiums for natural catastrophe covers amounted to USD 3.9 billion, or about 22% of total premiums written.¹ This shows the importance clients place on obtaining re/insurance protection against natural catastrophes. The market is expected to see strong growth due to general economic growth, urbanisation in emerging markets as well as increased physical risks arising from climate change (see Opportunities related to physical risks, page 163). In addition, the difference between insured and total economic losses remains elevated, not only in emerging markets.

In view of the significance of climate change for the re/insurance business, Swiss Re has developed a Climate Action Plan to support private and public-sector clients, while profitably growing its business. The Climate Action Plan serves as Swiss Re's climate strategy.

Swiss Re's Climate Action Plan

Building on the Group Sustainability Strategy and commitments and initiatives of recent years, the Climate Action Plan combines three objectives:

1. Become the leading re/insurance company on physical climate risk.
2. Become a leading provider of re/insurance solutions for low-carbon transition opportunities.
3. Build partnerships to develop scalable solutions to mitigate and adapt to climate change.

As the Climate Action Plan indicates, understanding the risks posed by climate change as well as identifying the potential to create and adapt suitable products and services for clients continue to be priorities for Swiss Re.

¹ For losses exceeding USD 20 million. Net of external expenses such as brokerage and commissions. In previous years, premiums including external expenses were reported, but this is now aligned with the methodology used elsewhere in the Financial Report. See Climate metrics and targets, page 180 for previous years' data.

Re/insurance activities and operations

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 and manageable risk for Swiss Re.

Physical risks posed by climate change could potentially affect three areas of Swiss Re's business. They can:

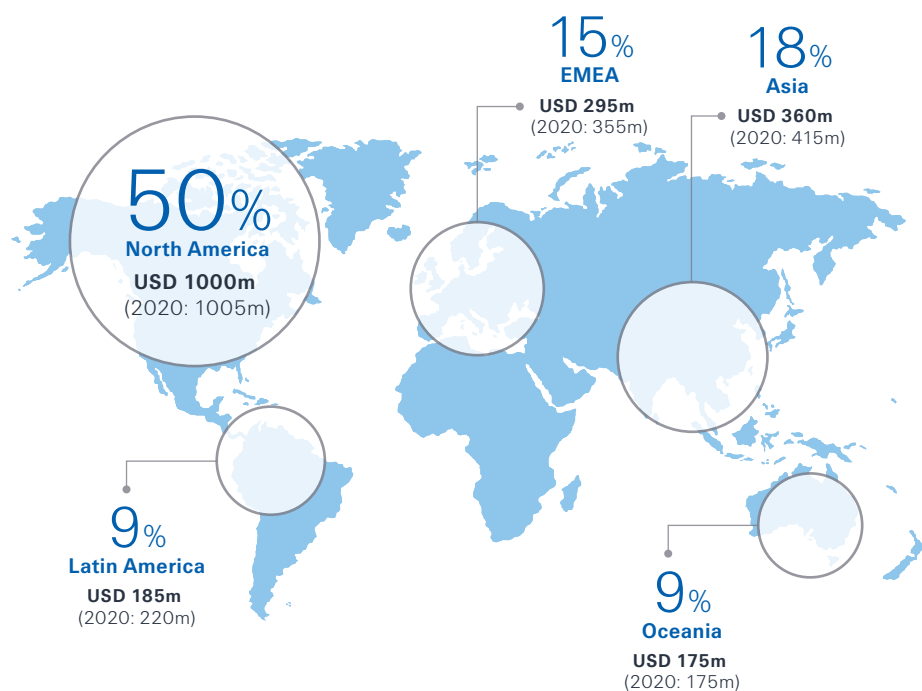
- Influence modelling and pricing of weather-related natural perils
- Impact the insurability of risks exposed to extreme weather events
- Reduce/disrupt operations

Pricing of weather-related perils in property re/insurance

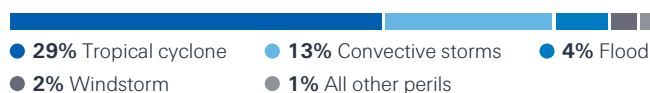
Climate change will impact the frequency and severity of weather-related natural catastrophes. Consequently, Swiss Re's modelling and pricing of insurance risks need to be adjusted on a regular basis. Based on its proprietary loss modelling framework, Swiss Re is investigating how long-term scenario analysis can inform risk views for underwriting decisions today (see page 165).

This framework allows Swiss Re to calculate the annual expected losses (AEL) and loss-frequency distributions of major natural catastrophes. The weather-related perils with the largest AEL for property re/insurance at present are disclosed on page 180 (North Atlantic hurricane, US tornado, Japanese cyclone, European windstorm and European flood). Furthermore, the geographic distribution and peril split of Swiss Re's annual expected natural catastrophe losses for property insurance are shown in the figure on the right. The largest contribution to Swiss Re's AEL for the most material weather-related perils comes from the North America region (50%), mainly dominated by hurricane risk. Asia accounts for 18% of the AEL, with a significant contribution from typhoon risk. EMEA, where the major driver is European winter storms, and Latin America contribute with 15%, and 9%, respectively.

Gross annual expected property re/insurance loss for weather-related natural catastrophes



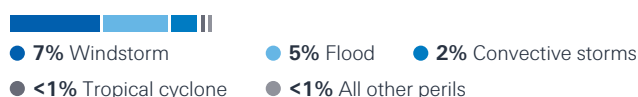
North America



Latin America



EMEA



Asia



Oceania



As a percentage of most material perils in North America, Latin America, Europe, Asia and Oceania (all numbers have been rounded).

In addition to property re/insurance, physical climate risks play a role in a number of other areas of business, eg in agricultural insurance or life and health. However, for both property and agriculture lines of business, Swiss Re’s models show that with the current climate, the dominant factor for Swiss Re’s weather-related risk exposure remains climate variability, 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 (ie 2025 and

2030), in line with the most recent scientific findings from the Intergovernmental Panel on Climate Change (IPCC).¹

Swiss Re closely monitors climatic trends and other macro risk factors that are potentially material for the insurance industry over various time horizons. Physical climate change risks that affect the assessment and management of weather-related risks are summarised in the table below.

Classification of climate change effects on weather-related perils



Source: Swiss Re

¹ Climate Change 2021: The Physical Science Basis, Chapter 4: Future global climate: scenario-based projections and near-term information, IPCC, 2021.

Confidence about observed and future climate trends is highest for risks related to the **increase in global temperatures**. For example, the melting of glaciers and ice caps as well as 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 near future, allowing time for measures to mitigate the risk of coastal flooding.

Swiss Re manages its exposure to sea level rise by developing up-to-date risk models and by managing its risk accumulation in the most exposed areas to ensure a well-diversified underwriting portfolio. Thanks to high-resolution data, Swiss Re's Global Storm Surge Zones help the company and its clients to pinpoint storm surge risks globally in a quantitative manner. The insurance impact for the property line of business is evaluated to be low to medium and localised in coastal and flooding zones (see the case study on sea level rise in the [Swiss Re TCFD report 2020, page 156](#)).

Another outcome of climate change for which there is high confidence is **increased temperature extremes**, which have brought longer and/or 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. These perils have severe consequences for exposures in the wildland-urban interface.

In general, wildfire risk and other so-called frequency perils mostly affect direct insurers. 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 has actively de-risked its portfolio of aggregate excess of loss covers in the last two years because of inadequate pricing. 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 163).

Rising temperatures allow the **atmosphere to hold more moisture**, thus (on average) increasing the severity and frequency of rainfall events (including tropical cyclone-induced rainfall), which in turn is expected to amplify the 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. These modes affect, for example, the frequency and intensity of tropical cyclones or European winter storms. While warmer sea surface temperatures will increase the probability of tropical cyclone formation and intensification, higher wind shear can offset this. These complex interactions introduce a confidence barrier that renders any insurance-related quantification of climate-change effects on high-severity perils like hurricanes very uncertain. Given their material impact, Swiss Re performs internal research and collaborates with leading scientists to tackle this challenge (see Resilience under different climate scenarios, page 165).

While several climate change factors are beginning to affect the natural catastrophe risk landscape, Swiss Re expects **weather risks to remain assessable by scientific methods**. This means that loss models can continue to be updated in the future to assure adequate risk assessment of extreme weather events. The 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 (see Climate risk management, page 175).

Furthermore, since most property re/insurance contracts have a duration of one year, updated risk views are quickly reflected in the pricing of natural catastrophe risks.

Regarding the long-term time horizon to 2050, Swiss Re expects a need for adjustments to some weather risk models, based on evolving scientific knowledge.¹ Confidence is high that future research will provide sufficient guidance on the magnitude and direction of these adjustments.

¹ In climate science, long-term often refers to a time horizon until 2100. However, to align with Swiss Re's net-zero commitments and the Paris Agreement, "long-term" has been chosen to mean the period until 2050.

Impact on the insurability of risks exposed to extreme weather events

An increase in the frequency and severity of extreme weather events requires a rise in premium and can therefore restrict the affordability of property re/insurance in certain regions, especially in coastal areas.

While there is significant uncertainty associated with climate projections, especially when it comes to storms making landfall, increases in the frequency and severity of **tropical storms** are likely. Climate variability is expected to remain the dominant factor in the near term. In the longer term (2050), a rise in sea levels will lead to non-linear increases in storm surge risk for coastal areas. Additionally, warmer temperatures will increase the severity of rainfall events that may increase flood risk.

Affordability of insurance is an issue arising from climate change. It is expected that re/insurance premiums will need to rise to cover extreme weather risks. If this rise remains modest, then re/insurance protection remains economically viable and the overall premium volume will potentially grow. Larger increases, however, may be pushing re/insurance prices for certain highly exposed risks beyond the limits of economic viability. This is particularly relevant for areas with inadequate construction planning and development. In addition, the timing of actions against increased climate-related claims is of crucial importance. For example, if measures to exclude a particular risk are taken too early, viable business opportunities will be missed. If measures are taken too late, the consequence may be higher-than-expected claims.

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 not the right instrument to address such systematic changes to a landscape. For example, if there is permanent flooding due to rising sea levels, insurance is not the appropriate financing mechanism to protect assets.

Finally, the overall size of the re/insurance market will depend on future economic growth rates.

In line with independent external studies, Swiss Re's assessment through its Economics of Climate Adaptation studies have shown that climate adaptation measures need to be taken in many regions to limit expected increases in natural catastrophe damage, thereby, ensuring the economic viability of re/insurance in the future. The implementation of cost-effective adaptation measures against climate change requires active collaboration between public and private sector actors, including re/insurers.

Impact on other lines of business

Agriculture insurance typically covers against perils like hail, drought, excess rain and frost, but the extent of covers provided diverges across markets. Climate change will impact agriculture insurance, but this is limited to the sub-portfolios of crop and forestry, which are mostly exposed to hail and drought. As global climate models show clearly increasing trends for drought and frost, but not for hail and excess rain, less than half of Swiss Re's total agriculture book and only around 45% of its total agriculture AEL are susceptible to climate change.

While hail is also an important peril for Swiss Re's agriculture insurance book, constituting roughly 40% of premiums, there is low confidence on future changes on hail activity driven by climate change in most regions.

The impact on Swiss Re's agriculture book will be mitigated by several factors:

- Agriculture insurance is a short-tail business, which allows costing and portfolio composition to be adjusted annually.
- Climate change that has manifested itself to date is reflected in historical losses, which are the main basis for costing business, and Swiss Re is observing increasing rates in re/insurance pricing.
- Swiss Re will continue efforts to enhance forward-looking modelling.

Nevertheless, from 2010 to 2020, realised losses have exceeded expectations in almost every year. Very likely, part of this gap can be attributed to trend effects due to climate change. In 2020, Swiss Re took corrective actions to better account for climate change-driven trend effects in the costing methodology. This involved adjusting deal-specific historical performance to today's climate, aiming for a much more accurate and representative risk assessment.

Life and health re/insurance is also influenced by climate change. The most pronounced risks for health are heatwaves, air pollution from wildfires and vector-borne diseases. Without mitigation action, mortality rates and healthcare costs could rise, leading to higher claims costs than anticipated. More severe heatwaves can increase mortality, particularly among persons with cardiovascular diseases. Heatwaves will extend to regions previously not affected. This will increase the share of the world's population impacted by such conditions.

The general rise of temperature and increased humidity is another area of concern. This combination enables vector-borne diseases to enter new areas. Climate change will extend the transmission season and geographical range for many infectious diseases. 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 lead to deteriorating health conditions and increasing mortality experience.

Scientific evidence quantifying the impact of climate-related heatwaves, air pollution and vector-borne diseases on health and mortality outcomes is still limited. Swiss Re follows the scientific discussion and incorporates new evidence into its mortality assumptions on a regular basis (see Climate risk management, page 175). Available research suggests that in Swiss Re's main Life & Health markets, extreme cold is currently a more substantial driver of mortality than extreme heat. Seasonal patterns in Swiss Re's mortality claims show a significantly higher burden in winter months compared to summer months. This suggests that a net adverse impact from climate change on mortality may only arise in the more distant future.

Furthermore, the availability of mitigation measures (eg air purifiers, air cooling, increased hydration) that would be affordable for the insured population of Swiss Re's key mortality portfolios in the US, UK, Canada and Australia will limit the effects of warmer temperatures and extreme heat. How climate change will play out in conjunction with other key adverse trends such as increases in unhealthy behaviours or obesity is an area of uncertainty.

There are many other risk factors to consider that could be secondary consequences of other activities undertaken to adapt to climate change. For instance, action to limit air pollution could lead to improving mortality and morbidity outcomes; but conversely, the increased usage of air cooling could place greater stress on electricity grids in times of extreme heat and lead to excess mortality when power failures occur. These secondary consequences are particularly difficult to model and predict, suggesting that a more broad-brush approach, utilising Swiss Re's existing framework around long-term mortality trend assumptions, is more appropriate and avoids spurious accuracy.

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 northeastern coast of the US. However, even assuming an extreme climate change scenario, Swiss Re does not expect any of these 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 175).

Transition risks

Overall, it is Swiss Re's view that the transition to a low-carbon economy is not likely to present a significant financial risk for its re/insurance business. It is expected that the associated risks can be managed effectively, due to the formal processes to review underwriting assumptions based on the most recent historic loss experiences and annual renewal of contracts.

Transition risks may arise as a result of the extensive policy, legal, technological and market changes that are required to make the transition to a low-carbon and, ultimately, a net-zero economy. For a re/insurer, financial risks arising from the transition to a low-carbon economy are mainly linked to the potential re-pricing of carbon-intensive financial assets (see Investment activities, page 169), and the speed at which any such re-pricing might occur. To a lesser extent, re/insurers may also need to adapt to potential impacts on the liability side of their business.

Swiss Re has assessed the most relevant transition risks that may potentially affect the re/insurance business:

- Policy and legal risks
- Technology risks
- Market and reputational risks

Policy and legal risks

As the move towards achieving a net-zero emissions economy by mid-century or earlier gains momentum in both the public and private sector, 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 related policy and legal risks as well as the proactive management of related risks and opportunities. Certain policy risks might also influence the risk quality of some insured assets in the mid to long term, due to factors such as increased cost pressure and reduced asset maintenance.

Risks related to climate change litigation (CCL)

Swiss Re identified CCL as an emerging risk over a decade ago and assessed its relevance. Since the adoption of the Paris Agreement in 2015, the number of CCL cases has more than doubled. The activities are currently focused on the US, Europe and Australia, but they are spreading to other jurisdictions as well. While most of the cases are directed against governments and public entities, private companies are also increasingly being targeted. However, the majority of decisions in those litigation cases potentially relevant for insurers were made in favour of the defendants. Therefore, they have not led to significant claims for the re/insurance industry to date.

Swiss Re has not faced any significant CCL claims in the past. Swiss Re expects the above trends to continue, and 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.

Technology risks

The re/insurance sector is likely to be impacted by the technological transition in two ways:

1. New or rapidly developing technologies by definition do not have loss histories and thus may be challenging to price accurately. Insurers need to develop possible loss scenarios and the related expenses. Once these are developed and tested, new technologies are likely to present the sector with an opportunity for growth. Offshore wind projects, for example, have developed into such growth opportunities (see Climate-related opportunities, pages 163–164).
2. New low-carbon technologies are likely to gradually displace traditional, fossil fuel-based ones. Power generation, for example, 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.

As another example, the global motor vehicle inventory is currently shifting away from internal combustion engines towards electric engines to reduce carbon emissions. This development entails the implementation of a variety of new technologies, from new lightweight materials to advanced battery systems. This will likely change loss patterns for re/insurers.

However, while the automotive industry is undergoing significant change, the impact on re/insurance portfolios is expected to be gradual. It will take years for new technologies to penetrate the motor fleets. In addition, as motor insurance contracts are renewed annually, pricing can be adapted as re/insurers gain experience in underwriting, loss adjustment and claims handling. Swiss Re's Automotive and Mobility Solutions team is creating a comprehensive framework for vehicle risk scoring. The framework covers all specific aspects of vehicle technology from mechanical components such as tires, suspensions and brakes, to advanced driver assistance systems. It also includes the topic of risk assessments for different types of electric and autonomous vehicles.

The motor transition does not affect insurers and reinsurers to the same extent. According to Swiss Re's *sigma* database, in 2020 motor insurance represented approximately 41% of global property and casualty direct premiums written, but for the reinsurance sector and Swiss Re the share is well below 20%.

To address some of the residual transition risk, Swiss Re has started to develop 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. For further

information about the mechanism and related policies, see Climate risk management, page 176, and Climate metrics and targets, page 181.

Market and reputational risks

With policy, legal and technological changes as a backdrop, consumer and investment preferences will further shift toward less carbon-intensive products and services over time. Changes in market volumes will be reflected in the demand for insurance. In addition, to support their decision-making, investors and other stakeholders will expect 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 – so-called greenwashing – can also sustain reputational damage that could affect Swiss Re directly or through its liabilities through CCL. Finally, particularly in fossil fuel-dependent societies, a late and sudden transition without appropriate mitigation measures may result in setbacks such as social unrest, leading to an overall market decline.

Non-investment transition risks for the real economy and their relevance for the re/insurance industry

Transition risks	Financial impacts on real economy	Impacts on insurance liabilities
Policy and legal		
<ul style="list-style-type: none"> • Removal of fossil fuel subsidies and introduction of CO₂ taxes • CO₂ regulation and mandates • Exposure to litigation for historical and current CO₂ emissions • Emission disclosure requirements 	<ul style="list-style-type: none"> • 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 CO₂-intensive sectors • Increased regulatory pressure for decarbonisation and disclosure 	<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • Substitution of existing products and services with lower emissions options • Costs to transition to lower emissions technology 	<ul style="list-style-type: none"> • Write-offs, early retirement of existing assets • Research and development expenditures in new and alternative technologies 	<ul style="list-style-type: none"> • 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		
<ul style="list-style-type: none"> • Uncertainty in market signals and in client behaviour • Decarbonisation efforts required by business partners • Increased stakeholder concern 	<ul style="list-style-type: none"> • Reduced demand for goods and services due to shift in consumer preferences • Change in revenue mix and sources, resulting in decreased revenues • Increasing costs for decarbonising business models • Reduction in capital availability • Increased reputational risk for high-emission sectors 	<ul style="list-style-type: none"> • Premium volume in engineering and property insurance will shift from CO₂-intensive assets and activities to CO₂-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 does not only create risks, but also presents significant new opportunities. Developing corresponding products and services is a core part of the Group Sustainability Strategy and Climate Action Plan. Through its products, services and risk insights, Swiss Re pursues two complementary objectives: adapting to the effects of climate change and supporting the transition to a low-carbon economy.

Opportunities related to physical risks

A recent *sigma* report by the Swiss Re Institute projects that the global property insurance market is to grow more strongly than the overall economy until 2040.¹ While economic growth and increasing urbanisation in emerging markets will contribute the majority of additional premiums over the next two decades, 20% are due to increased physical risk because of climate change. At the same time, the share of uninsured losses, remains high.²

Swiss Re's re/insurance products against natural catastrophes help our clients to cope effectively with current climate risks. The same applies to Swiss Re's weather insurance solutions. In addition, Swiss Re undertakes special efforts to help expand re/insurance protection by focusing on non-traditional clients (in particular from the public sector), underdeveloped markets and innovative risk transfer instruments.

Business solutions that tackle physical climate risk

Examples of recent deals that tackle physical climate risk include:

Providing crop insurance for six million farmers in India: More than 6 million farmers in West Bengal, India, can now look forward to having better coverage for their crops, as the state launched its first fully subsidised technology-driven crop insurance scheme. The Bangla Shasya Bima scheme is unique in that it adopts the Crop Health Factor as the underlying parameter: it uses remote sensing technology to measure and combine various indicators such as rain and vegetation to assess the health of the crop. Swiss Re helped review the product design and is also the lead reinsurer of the scheme.

Partnering to monitor flood risk: Swiss Re's Rapid Damage Assessment (RDA) supports claims managers to take faster and more accurate decisions in events such as tropical cyclones and floods. RDA uses a combination of event data, natural catastrophe models, data enrichment and AI algorithms on high resolution aerial and synthetic aperture radar satellite imagery to derive property-level damage insights, ultimately improving the loss-adjustment process. Swiss Re continuously enriches its existing datasets through partnerships. One such partnership made in 2021 is with ICEYE, whose radar-based technology satellites can peer through cloud cover, volcanic ash and hurricanes to measure how floods and other natural catastrophes are impacting specific regions as they occur. Swiss Re's experts can then use the

RDA enriched with ICEYE data to calculate the impact of the flooding across clients' portfolios within days.

Providing flood protection for US homeowners: Swiss Re has worked with actuarial consultant Milliman and the firm's insurance advisory and rating organisation, Appleseed, to develop QuickFlood — a simplified flood insurance product for lower risk flood zones in the US — based on Swiss Re's proprietary flood models. Appleseed obtains state-by-state regulatory approval for QuickFlood on behalf of Swiss Re clients, reducing regulatory risk and helping them to adopt and deploy the product quickly. To date, the overall flood solution supports up to 220 000 flood policies, helping to mitigate climate risk.

Protecting China's farmers from weather risks: Located in South China, Guangdong Province cultivates a large variety of agricultural products, but is exposed to heavy rainfall and typhoons. Swiss Re's Agriculture Insurance Risk Monitoring Platform (AIRMP) leverages big data and machine learning to support local insurers with product design, actuarial analysis, pay-out calculations and product management. As of the end of 2021, Swiss Re developed insurance for 20 new agricultural products. The cover includes perils such as typhoons, extreme temperatures, strong winds and droughts. Additionally, Swiss Re provides reinsurance capacity for products developed via the platform, thus further helping to close the protection gap and boost high-quality development of agricultural insurance in Guangdong.

Helping Jamaica become more resilient to natural catastrophes: Swiss Re Capital Markets acted as structuring agent and bookrunner for the first catastrophe bond issued to solely benefit the island nation of Jamaica. The bond provides accelerated economic relief of up to USD 185 million in the case that Jamaica is impacted by a tropical cyclone that meets certain parametric minimum central pressure thresholds. The collateral, meanwhile, is held by the International Bank for Reconstruction and Development, thereby funding development projects for middle and low-income countries.

Helping corporate clients quantify their physical climate risks: Many of Swiss Re's corporate clients increasingly need to assess their exposure to physical climate risks in order to safeguard their long-term business interests and answer to stakeholders, investors, customers and regulators. By combining Swiss Re's forward-looking climate models for precipitation and sea level rise with flood and storm surge zones, Swiss Re's Climate Risk Solutions can help clients quantify their exposure to physical climate risks, supporting their long-term planning and decision-making. The offering includes in-depth analysis of natural catastrophe impact for a customer's identified peril scenarios as well as mitigation and risk transfer options.

Read more about these solutions in the Sustainability Report, pages 22–27 or on the [Swiss Re Corporate Solutions website](#).

¹ Swiss Re Institute *sigma* No 4/2021, *More risk: the changing nature of P&C insurance opportunities to 2040*.

² See Swiss Re Institute, *Resilience Index 2021: a strong growth recovery, but less resilient world economy* and www.sigma-explorer.com.

Opportunities related to transition risks

The transition to a net-zero emissions economy offers business opportunities for a re/insurer across a range of sectors such as power and energy, materials and processes, logistics and transport, and agroforestry and food. New capital spending for low-emission assets is estimated to be 3% of global GDP, or a cumulative USD 105 trillion, until 2050 to achieve net-zero. 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. While the announcement of the Glasgow Financial Alliance for Net Zero (GFAFANZ) in 2021 to commit USD 130 trillion³ reflected an increasing engagement of the financial sector, more will be needed.

Swiss Re is re/insuring renewable energy projects across all lines of business. In 2021, Swiss Re wrote property and engineering

cover for more than 9 100 renewable energy generation facilities which will help to avoid around 31 million tonnes of CO₂ emissions. Swiss Re Corporate Solutions is a recognised market leader for offshore wind risks. Reinsurance engineering premiums from renewable energy power generation grew strongly by 17% per year over the past decade and accounted for 58% of total engineering premiums for power generation in 2021. Furthermore, through [nature-based solutions](#), Swiss Re supports and enables investments in natural assets that support climate adaptation and mitigation.

Business solutions that tackle energy transition risks

Examples of recent deals that tackle energy transition risks include:

Facultative casualty reinsurance for a global client: For the past decade Swiss Re has supported a global insurance company with facultative reinsurance cover for its renewable energy portfolio. This enabled the client to extend its market-leading property, engineering and marine renewable energy insurance covers to include casualty and thus become a one-stop-shop for renewable energy insurance. Initially, the portfolio consisted primarily of European wind farms, but over the last five years the scope has broadened to include other regions as well as photovoltaic solar farms and battery storage systems. In 2021, Swiss Re reinsured over 290 installations. For simpler projects, Swiss Re automatically provides construction and operation-related covers, while more complex risks are underwritten individually.

Advancing the energy transition in India: Swiss Re helped a renewable energy provider in India to consolidate insurance cover for its entire portfolio of solar (80%) and wind (20%) energy plants across India, supporting its ambition to build 25 GW of renewable energy generation capacity by 2025. The scope of the coverage is to provide operational cover (property damage and business interruption) for all of its existing solar

and wind power plants. Plants that are currently under construction will also be covered once they become operational.

Connecting offshore wind energy to consumers in Germany: Swiss Re provides construction insurance to SüdLink, the largest renewable energy infrastructure project in Germany. An electrical superhighway, also called a high-voltage direct current (HVDC) transmission system, it runs completely underground over a distance of 700 kilometres. With a capacity of 4 GW, the SüdLink brings the electricity of ten large offshore windfarms to 10 million households. The project updates existing infrastructure and advances the renewable energy transition.

Improving bankability of solar and wind farms in Vietnam: In 2021, Swiss Re provided several parametric reinsurance programmes that compensate the owners of solar and wind farms in Vietnam – and their investors – in case revenues fall short due to the variability of solar irradiation and wind. The reinsurance programme covers the same time period as the external financing provided by banks or other investors. By ensuring that the owners have stable revenues to meet their financing obligations, the cover enables them to execute the planned expansion of their solar and wind farms while addressing lenders' concerns over the impact of the solar irradiation and wind volatility on revenues. The parametric covers trigger a payment when solar

irradiation or wind conditions fall below a predefined level. This solution is an effective tool to mitigate the owners' and investors' risk exposure to solar irradiation and wind volatility, which to date has not been insurable by conventional insurance products. This in turn can unlock financing for the planned additional 41 GW of solar and wind capacity by 2030, as drafted in Vietnam's latest power development plan to support the country's economic development. Once complete, these reinsured solar and wind power plants will provide electricity to more than 200 000 average households in Vietnam and help to avoid more than 300 000 tonnes of CO₂ emissions each year.

Enabling a large wind farm in the Baltic Sea: Swiss Re Corporate Solutions wrote the lead share for the construction of the [Baltic Eagle wind farm](#) 30 km off the island of Rügen in Germany. The arrangement covers the construction phase and losses of revenue due to specific construction delays as well as property damages during the first year of operation. Reinsurance is also participating through several cedents. Manufacturing of the foundations starts in 2022, with the wind farm due to be commissioned in 2024. The 50 monopile foundations will be set into the seabed more than 40 metres below the surface. Each of the turbines will have a capacity of close to 10 MW resulting in a total of 476 GW. Once operational, the infrastructure will provide enough electricity to the German grid to power almost half a million households.

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 Amount of finance committed to achieving 1.5°C now at scale needed to deliver the transition, GFAFANZ, 2021, <https://www.gfanzero.com/press/amount-of-finance-committed-to-achieving-1-5c-now-at-scale-needed-to-deliver-the-transition/>.

Resilience under different climate scenarios

Swiss Re does not consider climate change to be a single factor posing a fundamental threat to the resilience of its re/insurance business. For the peak exposures in property natural catastrophe re/insurance, the projected increases of AEL do not exceed historic trends, even for the most severe scenario. Climate change is one of many important risk drivers to take into consideration when shaping Swiss Re's business strategy. Therefore, a purely quantitative scenario analysis focusing on climate only is a limited instrument for driving today's decisions, particularly in short-tail lines of business such as property. A key condition for the ability to continue acting as an ultimate risk-taker is the regular update of natural catastrophe models and diversification with regard to regions, lines of business, sectors and clients.

Below are the results of Swiss Re's pilot scenario analysis for property natural catastrophe re/insurance and the evaluation of the usefulness of the analysis for driving strategic decisions relevant today. For life & health and casualty, the scenario analysis is more qualitative and still in progress.

Use of external scenarios

Swiss Re uses scenarios of the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) as a common narrative for the analysis for investment and underwriting portfolios. The NGFS scenarios incorporate different degrees of transition risks along different paths of global warming in an **orderly, disorderly and hot house scenario**. The NGFS scenarios are complemented by additional sources, as required. For physical climate risks in the natural catastrophe property portfolio, Swiss Re uses the Representative Concentration Pathway (RCP) and Shared Socio-Economic Pathway (SSP) scenarios adopted by the IPCC.¹ Differences of the projected physical impacts between RCP 2.6, RCP 4.5 and RCP 8.5 in the near- to mid-term (ie until 2030) but also in the long-term (ie 2050) are minor, but 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.

Casualty and life & health

Swiss Re closely monitors the CCL landscape (see page 171), potential loss scenarios and their impact on Swiss Re's casualty book. For life & health, the available scientific research on the impact of climate change on health and mortality outcomes is still relatively limited to reliably inform 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 (see Climate strategy, page 160).

Property natural catastrophe re/insurance

In accordance with TCFD guidelines, Swiss Re has carried out a long-term scenario analysis for property natural catastrophe re/insurance, which is the portfolio most exposed to physical climate risk (see box on the following two pages). The analysis computed the potential effects caused by climate change on the AEL for the two most material weather-related exposures in Swiss Re's property book, ie tropical cyclones in the US (TC US) and in Japan (TC JP). Three RCP scenarios and the latest available scientific insights were considered, while keeping everything else, including insured assets, constant. 2050 was chosen as the time horizon.

One of the goals was to find out if such scenario work can answer relevant current business steering questions, most notably:

1. Has climate change already created physical risk hot spots in the current business landscape?
2. Does the current costing and underwriting practice capture the climate change impact, if material?
3. If so, does the risk appetite need to change in response to the existing physical or transition risks related to climate change?
4. Do any lines of business where the gradually accumulating impact of physical climate change risk over future decades require taking action today?
5. Does Swiss Re's risk management framework capture the impact of climate change adequately for key lines of business?

¹ 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.

Quantitative pilot scenario analysis for TC US and TC JP

Swiss Re has conducted a quantitative scenario analysis in line with TCFD recommendations.

Transmission mechanism

The general transmission mechanism of physical climate change on property insurance risk includes likely changes of the frequency and/or severity of natural catastrophes, which can then translate into rising damages and property losses. The impact, however, varies across perils and regions and is subject to large uncertainties¹ (see also Climate strategy, page 158). Climate change influences hurricanes through increasing sea surface temperature, adding more energy particularly in the regions of the Atlantic, where hurricanes form and travel towards land. In addition, a warmer atmosphere holds more water vapour, which may increase tropical cyclone-induced rainfall or other extreme precipitation events. Furthermore, sea level rise will exacerbate storm-surge risk.

Findings

Swiss Re chose a market portfolio for its analysis because it is a fair approximation of a global reinsurer's portfolio in view of all uncertainties. The portfolio was kept static to isolate the climate change effects from exposure growth due to economic development, insurance penetration or change in coverage conditions. The resulting estimations reveal that the AEL only increases substantially by 2050 in the NGFS "hot house" scenario. See the following for scenario 1a strong warming, severe impact, RCP 8.5,² ie assuming the upper boundaries of the four parameters considered (tropical cyclone overall frequency, category 4–5 frequency, intensity and rain rate):

- In scenario 1a, ie the "hot house" scenario with the most extreme assumptions, AEL for TC US increase by close to 90% and 60% for TC JP. This translates into AEL annual growth of 2.2% and 1.6% for TC US and TC JP, respectively.

- In scenario 1b, ie "hot house" scenario parametrisation for TC frequency and severity of the median values under RCP 8.5, TC US and TC JP AEL are estimated to increase by far less with 16% and 9%, or an annual increase of 0.6% and 0.3%. Scenario 1b is considered to be the more realistic RCP 8.5 scenario versus 1a.
- In the more benign scenarios 2 and 3, AEL are also estimated to increase by 16% for TC US and 9% for TC JP.
- The loss-severity level of an event with an annual occurrence rate of 0.5% (200-year event) is estimated to increase by up to 30% for the most severe scenario 1a for TC US and 40% for TC JP, but only by around 7% in the other scenarios for TC US and 20% for TC JP.
- Irrespective of the chosen RCP scenario (1b, 2, and 3), the quantified impacts by 2050 are quite similar, because the scenario uncertainties are overlapping.

¹ Knutson et al. (2020), Tropical Cyclones and Climate Change Assessment: Part II: Projected Response to Anthropogenic Warming, Bulletin of the American Meteorological Society.

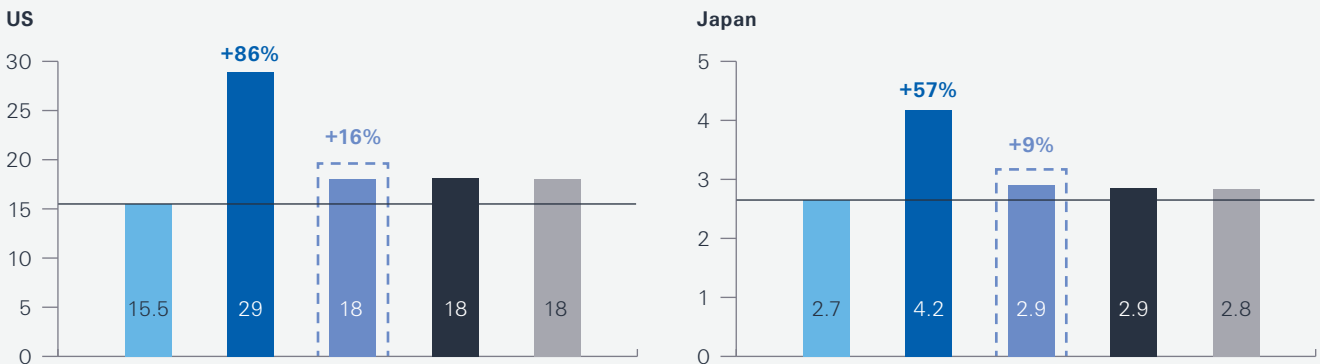
² IPCC RCP 8.5, the worst-case scenario (often also called "business-as-usual scenario") while assuming a severe impact on the frequency of category 4 and 5 cyclones. RCPs are future trajectories for greenhouse gas concentration and are labelled after the radiative forcing values in the year 2100 in Watts / m².

These findings are consistent with similar analyses done by other industry players. The relative increases of 0.3%–0.6% per year are relatively small, compared to historic industry insured loss developments. For example, since the 1990s, insured weather-related natural catastrophe losses normalised by GDP (approximating a constant market portfolio) have increased by 80% according to *sigma* data. This is an increase of roughly 3% per year, which is higher than the anticipated increases in the most extreme scenario 1a.

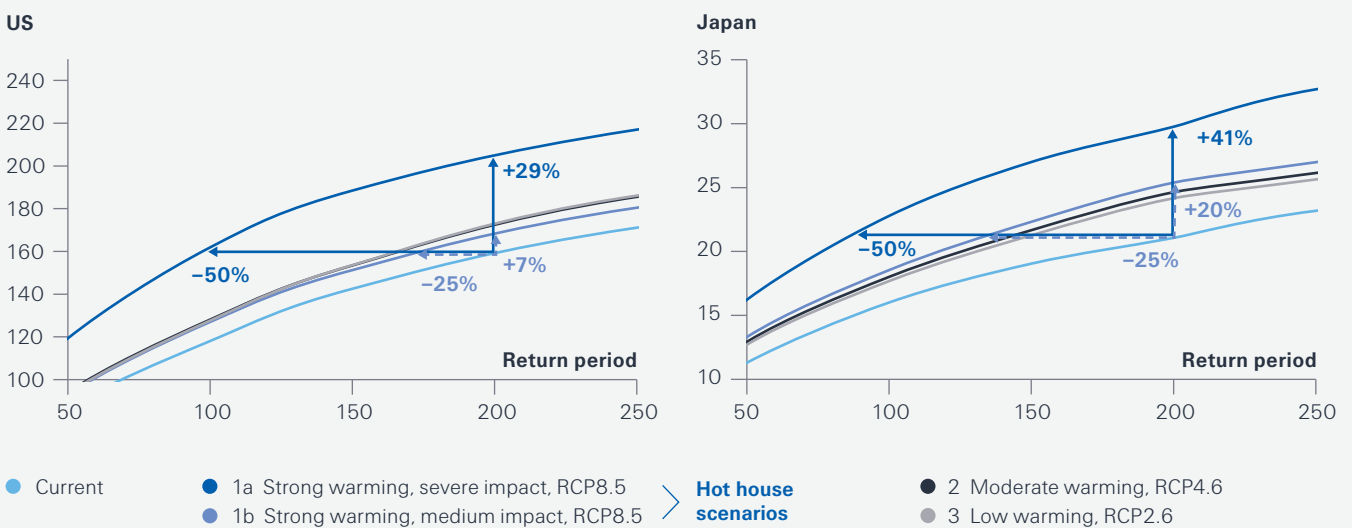
Challenges and limitations

The ability to detect and connect weather-related losses to climate change effects remains low for most perils due to a gap in spatial and temporal scales of scientific climate models and insurance models for natural catastrophe risks. Each climate scenario has a large uncertainty range because there is only limited scientific consensus on how an increase in global temperature will translate into changes in frequency and severity of natural hazards. Therefore, the quantifications presented for different climate change scenarios on TC US and TC JP market portfolios should be treated as indicative.

TC AEL for four scenarios vs today (USD billion and change in %, market portfolio)



TC loss frequency curve for four scenarios vs today (USD billion and % changes for 200-year losses, market portfolio)



Based on today's understanding, the scenario pilot revealed that the expected climatic changes for TC US and TC JP over the next 30 years are manageable for Swiss Re. The company's risk view and risk appetite can be gradually adapted as new scientific insights become available over the investigated time horizon. Even under the most severe scenario, the projected changes do not exceed historic loss experience. However, when it comes to steering the business, such scenario analysis is of limited use in deriving concrete actions.

Looking at climate effects in isolation, as in the scenario pilot above, 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, 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 all of them, in the process rendering the impact of climate change on the resulting AEL marginal. The AEL for Swiss Re's weather-related re/insurance book in 2050 will further depend both on its future market share and projections of the overall global property insurance market volume. Independent studies have shown a wide range for future business volumes, thus making long-term projections very challenging.

The complex dynamics become apparent when considering that over the next decades significant population growth is expected in Asia and Africa. At the same time, the population in Europe and North America is unlikely to grow considerably

or may even start to decline, as projected by the United Nations Department of Economics and Social Affairs. Over the same time period, real GDP per capita is expected to increase by more than 45% in the United States and will likely more than double in China by 2050 based on Swiss Re estimates. Global urbanisation will increase from approximately 56% today to almost 70% by mid-century. These socio-economic dynamics will lead to vast changes of insured value distributions and the re/insurance landscape in general. From a re/insurance perspective, socio-economic dynamics will often overshadow slowly evolving climate trends and thus limit the decision-power of quantitative climate scenario analyses and stress tests in which only changes to climatic conditions of natural hazards are considered.

Looking at the decision-relevant questions posed initially, the pilot scenario work has provided limited steering insight due to the limitations mentioned above. In view of the short-tail nature of property natural catastrophe business, there is little urgency to act for Swiss Re on its own already today. This obviously ignores adaptation and mitigation measures, as well as future loss development. While the projected increase of 0.3–0.6% per annum is small (1.6–2.2% in the most extreme scenario), ongoing climate change processes have been shaping today's risk landscape. For decision-relevant analytics, it is important to understand whether today's risk assessment reflects the current climate (irrespective whether the changes are caused by climate change or natural variability) and whether current market prices reflect the risk level. It is also important that the company's risk management sufficiently ensures that the above two factors are respected. In this context, Swiss Re has invested significant effort 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 past five decades.

How Swiss Re ensures 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 Pricing of weather-related perils in property, page 156).
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 on the likely range of expected changes to assess their materiality over different time horizons and emission pathways.

Qualitative scenarios help focus attention and modelling improvements on relevant factors that will affect the physical risk landscape. Relevant regional key risks and potential for risk reduction through adaptation were identified by IPCC in the Fifth Assessment Report (AR5).¹

On a societal level, Swiss Re's Economics of Climate Adaptation studies have shown that climate change can lead to an increase of economic losses in specific locations due to weather risks of up to 30% within the next 25 years. More importantly, economic development, urbanisation, higher population densities and asset concentrations in flood plains are expected to be the dominant factors in increasing weather-related economic losses. As these factors become more pronounced, the models will gradually factor in this trend, since they are updated and refined at regular intervals.

¹ See eg Figure SPM.8 in AR5 Synthesis Report: Climate Change, [Summary for Policymakers](#), IPCC, 2014.

Investment activities

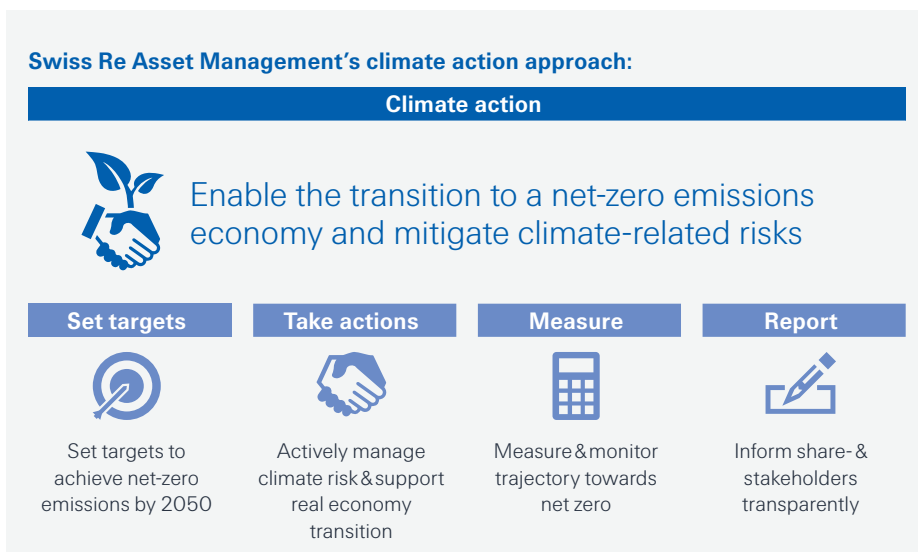
Swiss Re’s investments in real-world activities and businesses are exposed to climate risks and opportunities. Swiss Re has been reporting climate-related information in line with TCFD recommendations and providing insights into these risks and opportunities in its investment portfolio since 2016. The 2021 section includes:

- Enhanced reporting on carbon emissions for the investment portfolio
- Intermediate emission reduction targets aiming to achieve a net-zero investment portfolio by 2050
- Active engagement with key companies across all industries
- Measurement and monitoring of the trajectory to net zero and increasingly active management of potential stranded asset risks

To reflect the increased market focus on climate risks and opportunities, Swiss Re has embedded its approach into the Responsible Investing strategy in a structured manner (see also Sustainability Report, pages 40–48). Swiss Re Asset Management’s “climate action” supports its journey towards a net-zero emissions portfolio by 2050.

It consists of four steps to align the portfolio with a 1.5°C world: set targets, take actions, measure and report. Climate change is a global challenge and should be addressed as such, ie it needs to be mitigated through real-world transition. For this reason, collaborating with investee companies via “Financing transition” and “Engagement” play key roles in Swiss Re’s approach.

As outlined in the 2021 climate publication [Responsible Investments – Our roadmap to net zero](#), achieving a low-carbon emissions portfolio via divestments makes only a limited contribution to the global fight against climate change. When Swiss Re supports its investee companies to tackle the challenge, the benefits are manifold: not only are the investment portfolio and the investee companies better protected, but so are Swiss Re’s underwriting portfolios, as insurance solutions for some of these companies are provided at the same time. Divestments can still be used as a tool to reduce the risk of stranded assets to an acceptable level.



Transition risk

In the area of transition risks, the key risks faced by asset owners is that a changing policy environment may result in a specific company or a particularly exposed industry becoming a stranded asset in investment portfolios, ie the devaluation of investments driven by unfavourable changes, such as increased taxes and/or new regulations.

In alignment with Swiss Re’s commitment made as a founding member of the [AOA](#), it publicly released intermediate climate targets in March 2021 to be achieved by 2025. These targets aim to align the investment portfolio with a 1.5°C world making the transition to a low carbon economy an implicit part of the investment philosophy. At the end of 2021, Swiss Re’s investment portfolio runs a more limited risk when it comes to an “orderly” scenario. But given the economy itself has not yet aligned to a 1.5°C world, the exposure to transition risk may change over time, in particular in

carbon-heavy industries. Ongoing monitoring and active risk management support Swiss Re in maintaining and improving its status over time.

Under “Sub-portfolio”, Swiss Re provides specific carbon reduction targets for the listed equity and corporate bond portfolio as well as the Swiss and German real estate portfolio. Based on AOA’s latest assessment, the IPCC’s 1.5°C pathway implies an emission reduction range for the targeted asset classes of 22–32% for the period from 2020 to 2025.

Swiss Re has set a 2025 reduction target of –35% for Scope 1 and 2 emissions for the listed equity and corporate bond portfolio with the base year 2018, taking into account its financing transition, engagement and sector targets. This gives Swiss Re the tools to work with the investee companies towards emissions reductions in the spirit of real-world change:

Swiss Re Asset Management’s climate targets by 2025

Financing transition:	Engagement:
<ul style="list-style-type: none"> • Green, social and sustainability bonds: USD 4bn • Renewable and social infrastructure loans: + USD 750m 	<ul style="list-style-type: none"> • Topic: alignment with 1.5°C target
Sub-portfolio:	Sector:
<ul style="list-style-type: none"> • Listed equity and corporate bond portfolio: –35% carbon intensity • Swiss and German real estate portfolio: –5% carbon intensity 	<ul style="list-style-type: none"> • Listed equity and corporate bond portfolio: coal phase-out by 2030 • Infrastructure loans and private placements: maturity limitation for fossil fuel-related investments

Swiss Re Asset Management's fossil fuel-related thresholds

2016	2018	2019	2020
<p>Coal production (relative)</p> <ul style="list-style-type: none"> Companies that generate 30% or more of their revenues from thermal coal mining Companies that use at least 30% thermal coal for power generation 	<p>Oil sands production (relative)</p> <ul style="list-style-type: none"> Companies that generate 20% or more of their revenues from oil sands operations 	<p>Coal production (absolute)</p> <ul style="list-style-type: none"> Mining companies that produce at least 20 million tonnes of coal per year Power generating companies with more than 10 GW installed coal fire capacity 	<p>Coal production expansion</p> <ul style="list-style-type: none"> 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 300 MW p.a. <p>Oil and gas companies</p> <ul style="list-style-type: none"> 10% most carbon-intensive oil and gas companies

As part of its risk mitigation, Swiss Re no longer invests in coal mining, coal-fired power generating companies, and oil sands-related companies that are above set thresholds. Investments that are below these thresholds are monitored. Consistent with the Group-wide ESG Risk Framework, Swiss Re avoids investments in the 10% most carbon-intensive oil and gas companies.

For Swiss Re's infrastructure loan and corporate private placement portfolios, the company applies dedicated fossil fuel guidelines, which are reviewed annually. The guidelines further strengthen the risk mitigation strategy in these less liquid asset classes, which is particularly important as both have a longer-term investment horizon.

Maturity limitation for fossil fuel-related infrastructure loan and corporate private placement investments

Swiss Re's fossil fuel guideline for infrastructure loan investments as of today

	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	Max maturity until 2030	Max maturity until 2035

- Only finance brownfield projects
- No financing for either brownfield or greenfield projects

Physical risk

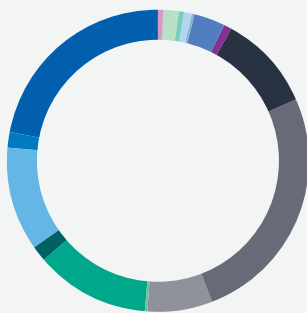
While Swiss Re considers transition risks to be tilted to the short- to mid-term, it regards physical risks as a longer-term risk. Physical risk analytics (see Climate risk management section, page 179) for Swiss Re's real asset holdings suggest manageable risks in the next 30–50 years. The low climate impacts are primarily tied to the portfolio's general exposure to low-risk locations, and cannot be interpreted as physical climate risks being low in general. In a scenario like the hot house world, however, the severity of the outcome may be worse.

Climate-related opportunities

Green bonds

Green bond proceeds are used exclusively to finance environmentally sound and sustainable projects that foster a net-zero emissions economy and protect the environment, such as renewable energy, circular economy, biodiversity, sustainable water or climate change adaptation. As of 31 December 2021, Swiss Re held USD 3.0 billion of green bonds. Swiss Re is targeting a green, social and sustainability bond portfolio of USD 4.0 billion by the end

of 2024. Only bonds that meet all four components of the ICMA Green or Social Bond Principles, or the ICMA Sustainability Bond Guidelines in Swiss Re's annual review are considered for target achievement. In 2021, less than 5% did not pass the review and were therefore not included in the reporting of Swiss Re's green, social and sustainability bond holdings.

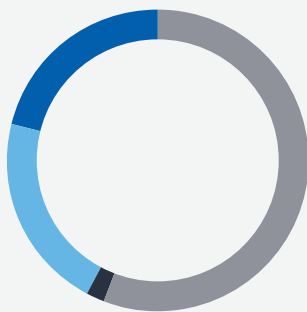


- 21.9% Sovereign
- 1.7% Municipals
- 11.0% Supranational
- 1.7% Agency securitized
- 12.2% Agency
- 0.2% CMBS
- 7.0% Regional governments
- 25.7% Financials
- 10.4% Utilities
- 0.9% Non-cyclical consumer goods
- 3.2% Information technology
- 0.3% Resources
- 0.8% Basic industries
- 0.6% Cyclical services
- 1.8% Non-cyclical services
- 0.5% General industrials
- 0.1% Cyclical consumer goods

Renewable and social infrastructure loans

For the infrastructure loan allocation, Swiss Re targets to finance renewable energy projects that reflect its risk appetite, generate attractive long-term returns and help build a more sustainable energy supply for the future. As of 31 December 2021, Swiss Re held USD 0.5 billion of renewable energy, making up

approximately 21% of the infrastructure loan portfolio, of which 58% is in solar panels and 42% in wind farms. Additionally, Swiss Re invested around USD 45 million in energy efficiency projects and USD 0.5 billion in social infrastructure, such as hospitals, student dorms or affordable housing projects.



- 21% Renewable energy
 - 21% Social
 - 2% Energy efficiency
 - 56% Other
- 42%

→ 58%

Real Estate

As sustainability considerations are an important pillar of long-term sustainable value creation, they are incorporated into Swiss Re’s decision-making throughout the property life cycle, also including external investment manager due diligence. New property investments are evaluated from an environmental and social perspective, which includes both a property’s current and potential future status as it relates to energy efficiency, public transport connectivity, use of sustainable materials, occupier well-being and community engagement. Ongoing business plan execution and asset management of properties already in the portfolio incorporate different ways to improve sustainability characteristics, as economically and financially sensible.

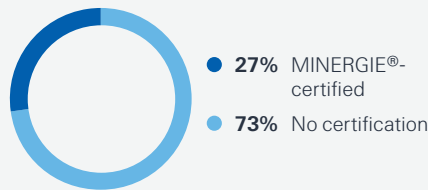
Swiss Re’s real estate investment portfolio comprises commercial and residential buildings with a total market value of USD 5.6 billion as of 31 December 2021.

These are predominantly located in Switzerland, Germany, the US, the UK, and Central and Eastern Europe (CEE).

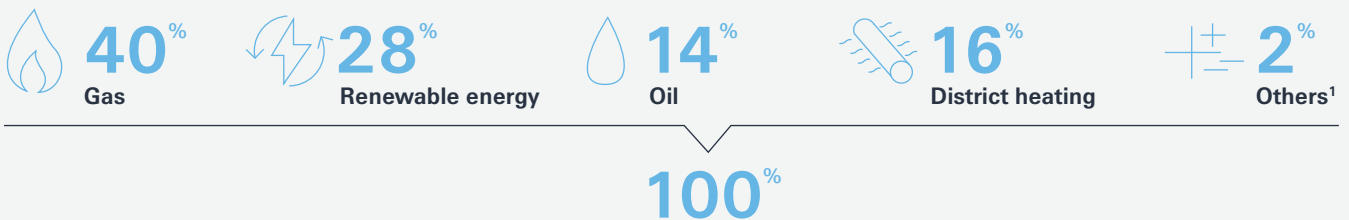
For real estate investments in Switzerland, Swiss Re applies the following sustainability criteria: analysis of energy sources as a percentage of market value and MINERGIE® certifications. MINERGIE® is a Swiss sustainability label for new and refurbished buildings. By the end of 2021, the combined market value of Swiss Re’s MINERGIE®-certified buildings reached USD 0.6 billion, or 27% of the Swiss portfolio of direct real estate investments by value, which corresponds to an energy consumption floor area of 87 075 m².

The Swiss portfolio is gradually shifting away from fossil fuels as a heating source to either renewable energy (28%) or district heating (16%). Whenever this is not possible, gas (40%) is considered as an alternative, given its smaller carbon footprint compared to oil (14%).

Switzerland

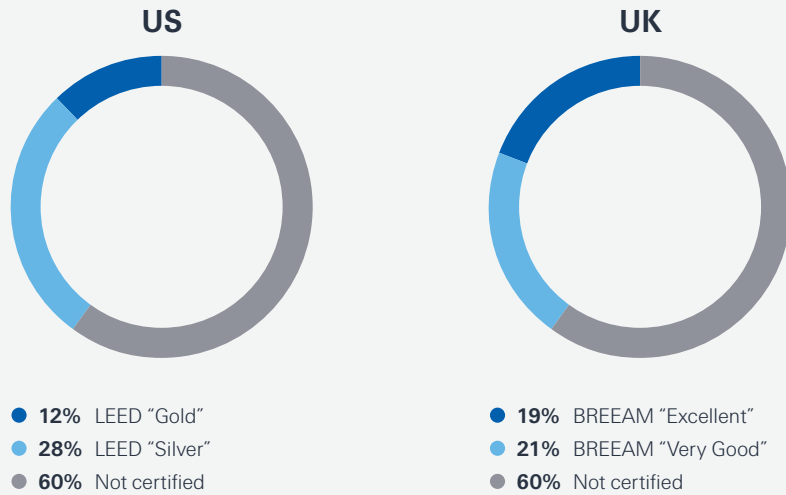


Energy sources



¹ Includes wood pellets, projects under construction, land and non-heated assets.

The externally managed real estate portfolio is predominantly invested in the US, the UK and CEE, and contains 37% certified buildings based on regional energy labels. The UK and the US portfolios are the most advanced ones with 40% certified buildings.



In the US, Swiss Re's approach to sustainability includes some of the most recognised certificates and guidelines such as the LEED certification of the U.S. Green Building Council (USGBC). The US portfolio is also benchmarked against GRESB, an industry-driven organisation transforming the way capital markets assess ESG performance of real assets.

2021 is the fourth year that the US portfolio achieved four out of five stars in GRESB. The GRESB score for 2021 is the highest Swiss Re has achieved since it started benchmarking the portfolio. It should be noted that GRESB methodology was refined in 2020, which is why the most recent score cannot be compared with the results of previous years.



85/100
 (versus GRESB average score of 73)

→ **Performance: 55.8**
 (GRESB possible points 70)

→ **Management: 29.1**
 (GRESB possible points 30)

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.

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

Besides man-made risks, natural catastrophe risks are the key risk category in Swiss Re's P&C re/insurance risk landscape.

Swiss Re has an internal property risk modelling team that builds, maintains and updates sophisticated models for all relevant natural catastrophe risks such as tropical cyclones, floods, winter storms and earthquakes. The models are based on current scientific knowledge and are updated regularly or on an ad-hoc basis within a few months, 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 and fully integrated property natural catastrophe risk models are important tools for managing the business: they are used to determine 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. The trend is expected to continue, fostered by a warming climate, urbanisation and asset growth in exposed areas. 2021 has made its imprint with winter storm Uri, and the summer flood and hail events in Europe. Looking back at the last few years, wildfire losses have become a noticeable segment in both the industry and Swiss Re's own loss experience. Swiss Re executes on a broad secondary perils agenda across three pillars, focusing on:

1. Firming and expanding risk views, reflective of macro risk trends (climate change, urbanisation, etc)
2. Inter-peril correlation (research and embed global peril correlations into underwriting risk decisions and risk management)
3. Governance and steering: enhance capturing of secondary perils in pricings to enable rigid monitoring, steering and establishing an enhanced framework for actual vs expected analysis

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 based mostly on recent experience data from Swiss Re's portfolio. The trend assumptions for the first 20 years are reviewed annually. For the long-term, they are reviewed on a bi-annual basis. The long-term trend assumption is where climate change (ie heatwaves, air pollution from wildfires and vector-borne diseases) is likely to make a material impact, if at all. Swiss Re Institute Life & Health Research & Development is leading this process in conjunction with the Business Units. 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 signed off by the Group Executive Committee.

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. The Own The Way You Work™ Programme, which was introduced in 2013 and offers employees full flexibility in their work arrangements through the use of laptops and seamless access to a Swiss Re Virtual Workplace, is also a viable and effective alternative. The programme enabled a smooth transition to a remote working environment during the COVID-19 pandemic, during which the majority of employees worked from home for many months.

Transition risks

To ensure appropriate risk identification of transition risks and assess potential impacts on its business, Swiss Re continues to monitor and identify such risks as well as the relevant legal developments, particularly around CCL, in risk management, the Swiss Re Institute and casualty underwriting.

Swiss Re has risk monitoring in place for all types of transition risks described on pages 161–162. Technological developments are monitored through Swiss Re's respective underwriting units and pricing of associated covers is reviewed on an annual basis.

General sustainability risks in Swiss Re's re/insurance business

Swiss Re's ESG Risk Framework is an advanced risk management instrument that identifies, assesses and addresses social and environmental risks associated with Swiss Re's transactions, both on the underwriting and investment side. Two policies of 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

In the Thermal Coal Policy, established in 2018, Swiss Re pledges not to provide re/insurance 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. While it is relatively easy to implement this policy in some parts of the business, for others the transition will take some time and will require a continued and constructive dialogue with clients. Swiss Re continues to implement the

Thermal Coal Policy for treaty business. The approach defines thresholds for coal exposures in treaties across property, engineering, casualty, credit and surety, and marine cargo lines of business. These thresholds for reinsurance treaty business will come into effect in 2023 and will then be gradually lowered until the final phase-out targets for OECD countries by 2030 and non-OECD countries for 2040 are reached.

Enhanced Oil and Gas Policy

In 2021, Swiss Re stopped providing individual insurance 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, Swiss Re will no longer provide individual insurance covers for those oil and gas companies that are responsible for the world's 10% most carbon-intensive oil and gas production.



To learn more about the Swiss Re ESG Risk Framework, carbon risk steering mechanism and thermal coal and oil and gas policies, please visit the [Swiss Re website](#).

Swiss Re recently further strengthened the Oil and Gas Policy, based on Swiss Re's net-zero commitments and in response to new scientific findings published by the International Energy Agency. Swiss Re will no longer re/insure or directly invest in new oil and gas field projects that receive their go-ahead (in the form of a final investment decision) from their parent companies after 2022. Exceptions will apply to projects of companies aligned with net-zero emissions by 2050, as defined by the Science Based Target Initiative (SBTi) or a comparable third-party assessment.

As most of the global expansion of oil and gas exploration and production is insured via company-wide property insurance policies, Swiss Re has taken measures to align these portfolios (in both direct insurance and facultative reinsurance) with its commitment to net-zero emissions by 2050.

Swiss Re will partner with oil and gas clients (up-, mid- and downstream) on the transition to net-zero emissions and will align re/insurance support to companies according to the below ambitions. These ambitions will be translated into net-zero alignment targets once guidance based on science-based target setting becomes available.

- By 2025, half of Swiss Re's oil and gas premiums are to come from companies that are aligned with net-zero by 2050, as per SBTi or a comparable, credible third-party assessment.
- By 2030, Swiss Re's oil and gas re/insurance portfolios are to contain only companies that are aligned with net-zero by 2050, also as per SBTi or a comparable, credible third-party assessment.

Furthermore, from July 2022 Swiss Re will no longer re/insure or invest in companies and projects with more than 10% of their production located in the Arctic AMAP region (Norwegian production is exempt).

Swiss Re is also developing an approach for oil and gas in treaty reinsurance, to be finalised by 2023.

Investments

Climate-related risks can impact the value of Swiss Re's investments and are therefore considered an important part of its climate action. With the risk analysis presented below, Swiss Re can assess the risks arising from climate change using a structured approach, while the emission reduction framework measures risks and portfolio carbon efficiency, taking into account the actions taken by Swiss Re's investee companies.

Swiss Re's investment portfolio can be impacted by both transition and physical risks from climate change. Swiss Re expects political and legal risks leading to emission restrictions and/or carbon price increases, as well as technology- and demand-related changes to be the main drivers of transition risk in the short to medium term. However, with recent market activities, Swiss Re recognises that litigation risk for companies has increased. Swiss Re aims to identify those industries and groups of companies that are most exposed to these risks and may thus require adjustments in the near to medium term.

The chart shows an overview of the identified transmission channels by asset class and how they link to the NGFS scenarios:

	Climate-related drivers and reactions	NGFS scenarios	Asset class coverage	Risk analytics and tools
Transition risks	Policy and legal: Policy actions, attempting to constrain actions that worsen the adverse effects or seek to promote adoption to climate change Legal actions in form of litigation	Orderly Disorderly	Corporate bonds Listed equity Sovereign bonds Real estate	<ul style="list-style-type: none"> Carbon consumption/pricing Policy monitor Trend identification
	Technology: Improvement of innovations that support the transition to a lower-carbon, energy-efficient economic system			<ul style="list-style-type: none"> Carbon consumption Trend identification Management monitoring
	Market: Shift in supply and demand for certain commodities, products and services			<ul style="list-style-type: none"> Trend identification Revenue mix analytics
	Reputation: Changing customer and community perceptions of an organisation's contribution to or detraction from the transition to a lower-carbon economy			<ul style="list-style-type: none"> Carbon consumption Trend identification Management monitoring
Physical risks	Acute: Event-driven effects due to global warming Chronic: Longer-term shifts in climate pattern	Hot house world	Real estate Infrastructure loans CMLs US commercial mortgage-backed securities	<ul style="list-style-type: none"> Weather forecasting/natural catastrophe analytics Economic impact assessment Physical exposures analytics

Resilience under different climate scenarios

Climate scenarios deal with forecasting possible future outcomes based on projecting a variety of variables. In 2021, specific NGFS climate scenarios were linked to Swiss Re's investment portfolio to derive the portfolio's sensitivity to these different scenarios.

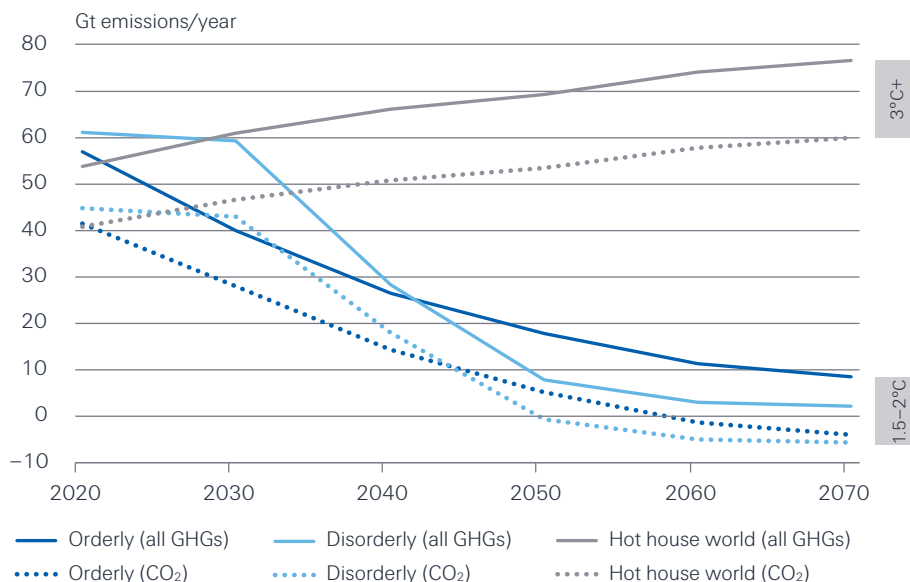
The following NGFS scenarios were selected for the analysis:

- **Orderly:** climate policies are introduced early and become gradually more stringent. Net-zero CO₂ emissions achieved before 2070, giving a 67% chance of limiting global warming to below 2°C. Physical and transition risks are both relatively low.
- **Disorderly:** climate policies are only introduced in 2030. Emissions 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:** Only currently implemented policies are preserved. Emissions grow until 2080 leading to 3°C+ of warming and severe physical risks.

Swiss Re's emissions reduction target was based on the IPCC 1.5°C pathway scenario, which puts Asset Management on a decarbonisation pathway consistent with an orderly scenario in the short- to mid-term per end of 2021. However, further reductions in carbon intensity will be needed to remain consistent with the 1.5°C trajectory post 2030/2035. The main part of the ongoing scenario analysis builds on the expertise Swiss Re has already gained. It aims to increase its understanding regarding the three selected NGFS scenarios and their impact on the portfolio, with a focus on a disorderly transition. In the early stages, corporate bonds and listed equity are in focus, striving to build a solid framework that allows Swiss Re to compile meaningful and robust results that can serve both as a tool to improve investment processes and to inform the current status and progress of its climate actions.

Emissions

Representative scenarios



Source: NGFS

Transition risk analytics

The market environment has started to shift to address climate change mitigation and adaptation requirements to limit the global temperature rise. 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 continues to consider policy and legal risks, as well as technology risks, having mainly seen changes within these two dimensions that potentially impact asset values.

One example is the outcome of COP26 on the phase-down of unabated coal-fired power generation and the phase-out of inefficient fossil fuel subsidies. Swiss Re has already taken action in recent years by introducing thresholds for coal-related investments and moving away from the 10% most carbon-intensive oil and gas companies with the aspiration to proactively manage the now increasing risk of stranded assets.

Swiss Re's dedicated approach to managing climate risk involves the systematic monitoring of the carbon intensity of its government bond, corporate bond, listed equity and real estate portfolio. For the corporate bond and listed equity portfolio, related forward-looking indicators are also tracked. For example, in 2021, Swiss Re further strengthened its approach to assessing the alignment of the corporate bond and listed equity portfolio with a 1.5°C target by evaluating the temperature alignment.

Transition risk in corporate bonds and listed equity

Carbon intensity (WACI, sales-based taking Scope 1 and 2 emissions into account) is seen as a useful measure to quantify the carbon consumption for multi-asset portfolios and remains a measure of choice for comparisons over time, between portfolios and against benchmarks. Swiss Re therefore sets its carbon reduction targets based on this metric.

Temperature alignment methods, on the other hand, have the clear benefit of providing a forward-looking element and thus a high degree of signalling. However, comparability across methodologies/providers is limited at this point, as the temperature alignment methods are still evolving. No global standard for calculating the implied temperature scores has yet been established, and timeliness and stability of data continue to be a key challenge. Swiss Re will continue to use the temperature alignment outputs to identify portfolio leaders and laggards.

Transition risk in real estate

A carbon intensity-based measure is also applied in real estate. The carbon profile of the real estate portfolio is measured against decarbonisation pathways for both 2°C and 1.5°C scenarios, 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.

Swiss Re analysis shows that the combined Swiss and German portfolio emission intensity is already at a very low energy consumption level, which is considered consistent with a 1.5°C trajectory per end of 2021 (excluding the effects of embodied carbon emissions). Further reductions in carbon intensity will be needed, however, to remain consistent with the 1.5°C trajectory post-2030/2035.

Physical risks analytics

The physical risk analysis focuses on real assets with clearly identifiable locations mostly within Swiss Re's private debt (including infrastructure loans and commercial mortgage lending), commercial mortgage-backed securities and real estate holdings. Focus was placed on acute, event-driven impacts due to natural perils, eg tropical cyclones and floods, resulting in direct damage to assets. Based on Swiss Re's proprietary modelling capabilities used for re/insurance underwriting (see page 156), results were derived and simple stresses were calculated to gain an understanding of what an increase in severity and frequency of climate-related perils could mean. Furthermore, exposure changes under the different warming scenarios were modelled and assessed. The results of both analyses suggest a very low exposure of Swiss Re's real asset holdings to natural perils in general and to climate-related perils in particular.

Climate metrics and targets

Swiss Re uses a number of 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 for climate-related risks and opportunities for its re/insurance business, investments and own operations.

Re/insurance activities Physical risks

Premium income related to natural catastrophes (USD billion)

	2019	2020	2021
World	3.1	3.7	3.9

For losses exceeding USD 20 million. Net of external expenses such as brokerage and commissions. In previous years, gross premiums were reported.

Annual expected losses (AEL)

AEL for weather-related natural perils can be used as an indicator for the average current climate-related risk exposure. However, AEL figures do not, by definition, provide an adequate measure for the potential risk of individual years with exceptionally intense natural catastrophe losses. Adequate metrics for the risk of individual rare natural catastrophes are Value at Risk (VaR) or Tail Value at Risk (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 71, where the results of insurance risk stress tests are provided for peak insurance risks.


The AEL figures are the result of expected weather activities, the vulnerability of insured assets and operations, their values and the volume and structure of insurance products. Changes in the AEL figures will show the evolution of Swiss Re's climate risk exposure. This could be due to climate change, but also due to changes in the vulnerability of insured assets and operations, their values or changes in the Group's business strategy. AEL figures are updated on an annual basis.

The table on the right shows the AEL by region and peril as well as the highest gross AEL for Swiss Re's business as of the end of 2021.

Gross AEL for weather-related perils by region and for peak exposures, Swiss Re Group (2019–2021, USD million)

	2019	2020	2021
Total	1 915	2 170	2 010
North America	890	1 005	1 000
Latin America	175	220	185
EMEA	305	355	295
Asia	310	415	360
Oceania	225	175	175
Tropical cyclone	980	1 150	1 055
North America	550	615	580
Latin America	145	180	160
EMEA	0	0	0
Asia	235	310	280
Oceania	50	45	35
Convective storms	300	330	360
North America	220	240	255
Latin America	0	0	0
EMEA	45	45	40
Asia	0	0	0
Oceania	35	45	65
Flood	285	340	320
North America	65	80	85
Latin America	25	30	25
EMEA	95	110	105
Asia	60	85	75
Oceania	40	35	30
Windstorm	190	230	190
North America	45	50	50
Latin America	0	0	0
EMEA	145	180	140
Asia	0	0	0
Oceania	0	0	0
All other perils	150	120	90
North America	10	20	30
Latin America	5	10	0
EMEA	20	20	10
Asia	15	20	5
Oceania	100	50	45
Peak exposures			
North Atlantic hurricane	680	770	720
US tornado	220	240	260
Japanese tropical cyclone	140	210	180
European windstorm	150	180	140
European flood	90	100	100

Regional figures may not add up to the world total due to rounding.

 You can download all the data from the TCFD and the Sustainability Report from the Swiss Re website.

Transition risk

Several steps to align the underwriting portfolio with the Paris Agreement

Swiss Re sought to further refine the assessment of the carbon footprint of its direct insurance business based on the methodology proposed by the CRO Forum. The effort again brought to light that there are significant limitations to data availability at present and that carbon footprint estimates for re/insurance underwriting are thus marked by considerable uncertainty.

Keeping these uncertainties in mind, Swiss Re estimates the weighted average carbon intensity of its direct insurance portfolio for 2021 remained unchanged at 120 tonnes of CO_{2e} per million US dollars of revenue. The fluctuations that were observed in the results are not statistically significant.

The thermal coal and oil and gas policies within Swiss Re's ESG Risk Framework (see Climate risk management, page 176) are important steps on the path to reaching net-zero emissions for the re/insurance portfolio by 2050. The Coal Policy puts Swiss Re on course to reach the Group-wide target of completely phasing out thermal coal business in OECD countries by 2030, and in the rest of the world by 2040. The policies are also in line with the commitment made in 2019 by becoming a member of the Powering Past Coal Alliance.

These policies are an initial step towards the development of a comprehensive carbon risk steering mechanism. Such a mechanism is needed to measure Swiss Re's GHG emissions and associated risks related to its re/insurance business. Swiss Re co-founded the UN-convened Net-Zero Insurance Alliance (NZIA). The NZIA is collaborating with the Partnership for Carbon Accounting Financials (PCAF) with the goal to establish a standard to measure and disclose emissions associated with re/insurance underwriting portfolios.

Swiss Re chairs the NZIA working group tasked to develop the insurance-associated emissions standard, which will help bring the insurance sector and the real economy one step closer to a net-zero future. Measuring Swiss Re's carbon footprint in line with the foreseen PCAF standard will provide the basis for its carbon steering towards reaching net-zero emissions on the liability side of the business by 2050.

Swiss Re as a founding member of the NZIA

The UN-convened Net-Zero Insurance Alliance (NZIA) brings together twenty-one of the world's leading insurers and reinsurers to play their part in accelerating the transition to net-zero emissions economies. They have committed to individually transition their underwriting portfolios to net-zero GHG emissions by 2050, consistent with a maximum temperature rise of 1.5°C above pre-industrial levels by 2100. Swiss Re is among the founding members of the NZIA, together with AXA (Chair), Allianz, Aviva, Generali, Munich Re, SCOR, Swiss Re, and Zurich.

As risk managers, insurers and investors, the insurance industry plays a key role in supporting the transition to a net-zero economy. The NZIA is building on the pioneering work that the founding signatories have already begun as investors through their membership of the Net-Zero Asset Owner Alliance, where all eight NZIA founding members are already individually setting science-based 2025 decarbonisation targets for their respective investment portfolios in line with a net-zero transition pathway.

Swiss Re's engagement with the NZIA also builds on its efforts to phase out thermal coal exposure by 2030 for OECD countries and the rest of the world by 2040. In addition, Swiss Re gradually started withdrawing insurance support from the most carbon-intensive oil and gas production in 2021.

Find out more on the NZIA:



[Launch of UN-convened Net-Zero Insurance Alliance – Swiss Re as a founding member | Swiss Re](#)

[Net-Zero Insurance Alliance – United Nations Environment – Finance Initiative](#)

Climate-related commitments to the United Nations and the Insurance Development Forum

In 2019, the UN Development Programme (UNDP), the government of Germany and members of the Insurance Development Forum entered into a Tripartite Agreement in which they collectively committed to increasing insurance protection in climate-vulnerable countries. As part of their commitment, industry members pledged to offer USD 5 billion of risk capacity for climate risk insurance, benefitting up to 500 million people in twenty climate-vulnerable countries by 2025. The commitment aims to accelerate the implementation of risk management and risk financing solutions as a means to strengthen adaptation measures and the resilience to climate risks in exposed countries. As a member of the IDF, Swiss Re has endorsed this commitment along with several of its industry peers.

To achieve this commitment, Germany's KfW Development Bank has provided funding via the InsuResilience Solutions Fund (ISF) and project teams for sixteen of the climate-vulnerable countries have been established. Swiss Re currently co-leads six of these country project teams (Ghana, Bangladesh, Nigeria, Uzbekistan, Pakistan and Colombia) and contributes to an additional five country project teams by providing risk and modelling insights. To meet the commitments of the Tripartite Agreement, Swiss Re and members of the IDF will continue to collaborate with climate-vulnerable countries by providing risk modelling expertise and working to expand the project pipeline in the respective countries see Swiss Re Sustainability Report, page 29 for more details.

Investment activities

Through its dedicated climate action, Swiss Re is working to achieve a net-zero emissions investment portfolio by 2050 by setting intermediate targets every five years and regularly reporting on progress. Targets were set in 2020 for 2025 in accordance with the AOA's inaugural 2025 Target setting Protocol (TSP).

Financing transition targets

Green bond proceeds are used to finance environmentally sustainable projects and thereby facilitate the transition towards a net-zero emissions economy. By the end of 2021, Swiss Re held USD 3 billion in green bonds. As part of Swiss Re's adaptation strategy, its mandate also considers social and sustainability bonds. This enables the company to not only support the environment, but also underserved groups or populations, thus generating a positive impact on society.

The ambition is to achieve an investment target of USD 4 billion for green, social and sustainability bonds by the end of 2024. As part of Swiss Re's climate-positive investments, it has also set a target to increase its renewable energy and social infrastructure loan portfolio, which also includes energy efficiency, by USD 750 million by the end of 2024.

Infrastructure loans are an attractive asset class for Swiss Re's investment portfolio given the spread premium and diversification benefits relative to corporate bonds. Renewable infrastructure loans in particular are used to finance environmentally sustainable infrastructure projects. Social infrastructure loans are used to finance projects such as hospitals, student dorms or affordable housing. By the end of 2021, Swiss Re held USD 1.0 billion in renewable energy and social infrastructure loans, which is an increase of 100 million relative to 2020.

Engagement targets

Swiss Re believes that engagement with the real economy is an integral component to support the limitation of global warming to 1.5°C. In 2020, it therefore established an Engagement Framework aligned with the sub-portfolio targets. For additional information on Swiss Re's engagement targets and activities, see Sustainability Report 2021, pages 46–49.

Sub-portfolio targets

Swiss Re committed to have a net-zero emissions investment portfolio by 2050. Informed by IPCC's pathways consistent with the 1.5°C target, Swiss Re established a corporate bond and listed equity portfolio emissions reduction target of –35% for Scope 1 and 2 emissions to be achieved by 2025 and with 2018 as the base year (see below, "Deep dive: Carbon footprint of the corporate bond and listed equity portfolio").

Furthermore, Swiss Re set a carbon intensity reduction target for its Swiss and German real estate investment portfolio of –5% with 2018 as the base year, to be achieved by year-end 2024. This builds on the portfolio emissions intensity analysis described in the section "Transition risk in real estate". The chart below depicts the outcome of the analysis for the Swiss real estate portfolio and confirms the status of being well below a 1.5° decarbonisation pathway, though further improvements in energy efficiency will be needed post-2030. Similar analysis conducted on the German part of the portfolio resulted in a comparable outcome.

The analysis focuses on the combined Swiss and German portfolio's carbon intensity versus the year-end 2024 target and shows that the targeted reductions are likely to be achievable.

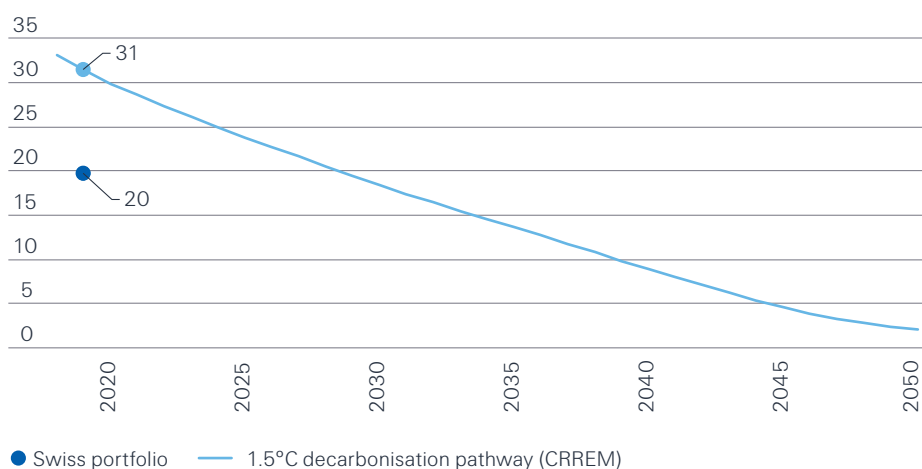
Sector targets

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 does not invest in thermal coal-related activities that exceed the set thresholds. The long-term objective for 2030 is to fully exit coal-related assets, such as coal mining and coal-based power generation, for the listed equity and corporate bond portfolio via normal portfolio reallocations.

Additionally, and in line with the Group-wide ESG Risk Framework, Swiss Re divested from the world's 10% most carbon-intensive oil and gas companies in 2020.

For infrastructure loan and corporate private placement portfolios, Swiss Re excludes any coal-related assets. For both asset classes, maturities are limited to 2030 for oil-related exposures and to 2035 for gas-related exposures. These guidelines support an investment universe that is in line with the commitment to a net-zero emissions investment portfolio by 2050. Swiss Re's specific approach to these sectors is outlined in the section "Climate strategy".

Swiss real estate portfolio carbon intensity vs 1.5°C decarbonisation pathway (kgCO₂e/m²/annum)

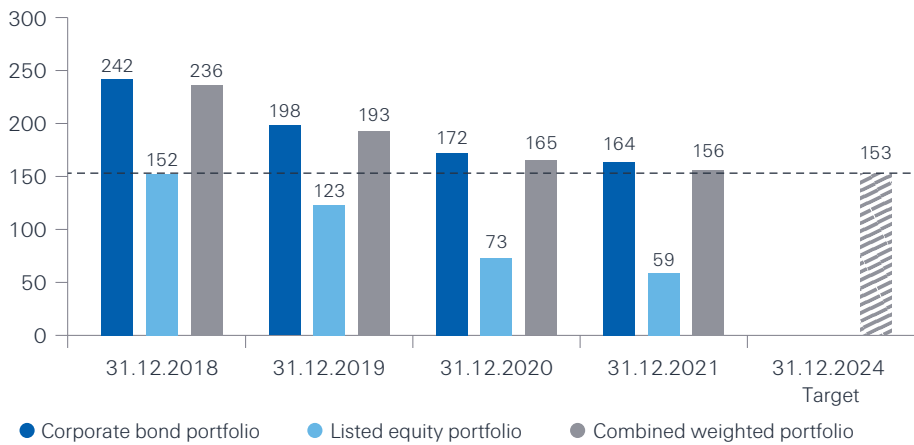


Source: Swiss Re, CRREM

Deep dive: Carbon footprint of the corporate bond and listed equity portfolio¹

Since the end of 2015, carbon intensities in both the corporate bond and the listed equity portfolios decreased substantially as part of asset rebalancing away from fossil fuel investments. Starting in 2018, Swiss Re adjusted the carbon footprint scope of the listed equity portfolio to include ETFs and exclude strategic holdings. The carbon intensity of Swiss Re’s corporate bond and listed equity portfolio decreased by 34%, relative to base year 2018.

Carbon intensity of the corporate bond and listed equity portfolios (tonnes CO_{2e}/USD revenue)



¹ All carbon intensities from MSCI ESG as of February 2022, based on holdings as of December 2021.
 Carbon intensity: Weighted average carbon intensity = (company CO_{2e} emissions/company revenue) * (investment/portfolio).

Carbon reduction drivers¹

Corporate bonds (since end of 2018)

The corporate bond reduction of 78 tCO₂e/USD m revenue since end of 2018 was driven by the combination of a change in reported intensities (15%) and an effect attributable to portfolio rebalancing

activities (85%). While some rebalancing is required to achieve the formulated carbon intensity profile by 2024, Swiss Re's preference is to achieve the target through security selection rather than sector allocation. However, over the last three years, the portfolio carbon reduction was

driven by a combination of the two. 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.

Drivers of carbon intensity reduction from 2018 to 2021: Corporate bond portfolio¹

Investment portfolio	2018	2021	Sector perspective		Country perspective	
			Sector allocation	Security selection	Country allocation	Security selection
Carbon intensity (tonnes CO ₂ e/ USDm revenue)	242	164	-45	-33	+5	-83
Change in reported intensities		-12				
Rebalancing		-66				
Total		-78				
			Utilities		United States	
			Energy		Canada	
			Financials		United Kingdom	
			Transportation		Australia	

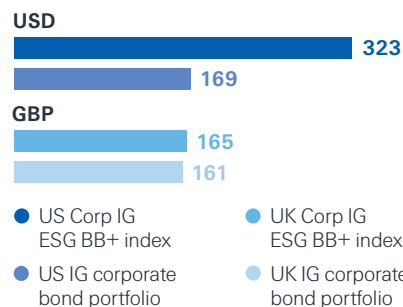
● Decrease ● Unchanged ● Increase

Corporate bond weighted average carbon intensity per year-end 2021

The corporate bond portfolio's weighted average carbon intensity reduction relative to year-end 2020 was driven by selective reductions in high carbon intensity names. It is well below its corresponding benchmark in terms of carbon intensity, given its continued underweight in high carbon intensity holdings compared to the benchmark.

Comparing the current investment portfolio against the broad market benchmarks on a more detailed level shows that the overall underweight in carbon intensity is largely driven by Swiss Re's security selection, while there is a limited effect due to sector allocation. This shows that there was a broader market trend to reduce weights in carbon-intense sectors.

Corporate bond weighted average carbon intensity per year-end 2021 (tonnes CO₂e/USDm revenue)¹



Carbon intensity as per year-end of 2021: Corporate bond portfolio vs benchmark¹

December 2021	Investment portfolio	Benchmark Corp IG ESG BB+	Sector perspective		Country perspective	
			Sector allocation	Security selection	Country allocation	Security selection
Carbon intensity (tonnes CO ₂ e/ USDm revenue)	164	244	-22	-58	-12	-68
			Utilities		United States	
			Energy		Canada	
			Financials		United Kingdom	
			Transportation		Australia	

● Underweight ● In line with benchmark ● Overweight

¹ All carbon intensities from MSCI ESG as of February 2022, based on holdings as of December 2021.
Carbon intensity: Weighted average carbon intensity = (company CO₂e emissions/company revenue) * (investment/portfolio).

Listed equities (since end of 2018)

The below comparison against 2018 was performed excluding ETFs as some look-through information is missing. An intensity reduction of 61 tCO₂e/USD m revenue is apparent. Since the equity portfolio is more actively managed than the

credit portfolio, only 5% of the decline is due to reported intensities, while most is due to portfolio rebalancing. Security selection was hence the main driver for the change, while reduction of exposures in some key sectors had only a modest impact:

Drivers of carbon intensity reduction from 2018 to 2021: Listed equity portfolio¹

Investment portfolio	2018		2021		Sector perspective			Country perspective		
	Carbon intensity (tonnes CO ₂ e/USDm revenue)					Sector allocation	Security selection		Country allocation	Security selection
Carbon intensity (tonnes CO ₂ e/USDm revenue)	111		50			-23	-38		+10	-71
Change in reported intensities		-3			Chemicals			United States		
Rebalancing		-58			Energy			United Kingdom		
Total		-61			Transportation			China		
					IT					

● Decrease ● Unchanged ● Increase

Excluding ETFs

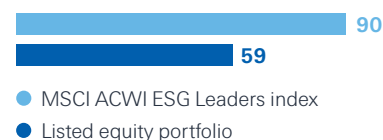
Listed equities as per year-end 2021

Compared to the market benchmark – the ESG Leader version of the MSCI ACWI Index – Swiss Re’s investment portfolio has a superior carbon intensity profile.

While industry weights were kept close to benchmark, the selection of companies within indices contributed significantly to the superior carbon profile.

The comparison below focuses on listed equities only. With that, it differs from the scope applied for Swiss Re’s carbon reduction target, which also includes Equity ETFs. Both the underweighting in carbon-intensive industries/countries and the security selection contributed to a lower carbon intensity of the current portfolio.

Listed equity weighted average carbon intensity per year-end 2021 (tonnes CO₂e/USDm revenue)¹



Carbon intensity as per year-end of 2021: Listed equity portfolio (excluding ETFs) vs benchmark¹

December 2021	Investment portfolio		Benchmark MSCI ACWI ESG Leaders		Sector perspective			Country perspective		
	Carbon intensity (tonnes CO ₂ e/USDm revenue)					Sector allocation	Security selection		Country allocation	Security selection
Carbon intensity (tonnes CO ₂ e/USDm revenue)	50		90			-21	-19		-18	-22
					Chemicals			United States		
					Energy			United Kingdom		
					Transportation			China		
					IT					

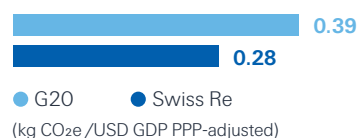
● Underweight ● In line with benchmark ● Overweight

¹ All carbon intensities from MSCI ESG as of February 2022, based on holdings as of December 2021. Carbon intensity: Weighted average carbon intensity = (company CO₂e emissions/company revenue) * (investment/portfolio).

Government bonds as per year-end 2021

The composition of Swiss Re's government bond portfolio is impacted by the fact that asset-liability management is at the core of its investment approach. In 2021, Swiss Re's government bond portfolio was less carbon intensive than the G20 countries due to its higher allocation to low carbon intensity countries.

Carbon intensity of government bond portfolio versus G20 per year-end 2021¹



Temperature alignment assessment for listed equities and corporate bonds

Swiss Re applied a temperature alignment view on both the listed equity and corporate bond portfolio. The methodology is based on specific intensity targets and emission projections that are dependent on a company's industry and on forward-looking projections of its carbon consumption. This metric has the clear benefit of providing a forward-looking element and thus a high degree of signalling.

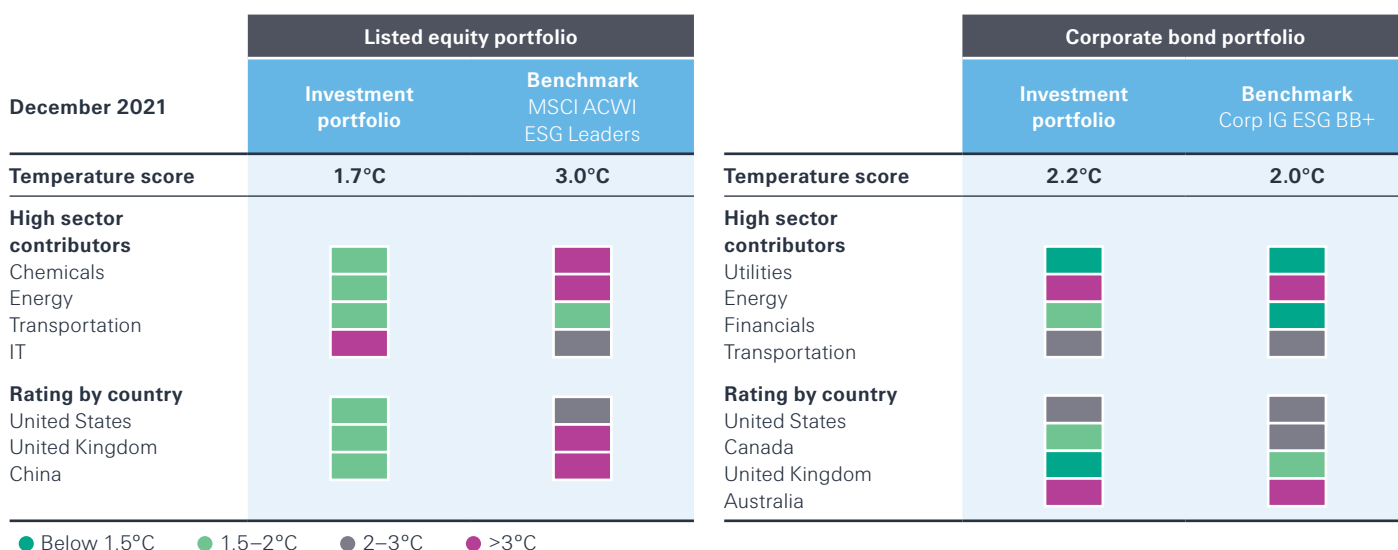
While results and analytics allow for a granular assessment of the carbon risks embedded in Swiss Re's holdings and will help to not only gain a deep understanding of our portfolio positioning, several caveats need to be made: comparability across methodologies/providers is limited at this point in the absence of a recognised global standard and given these methods are still evolving. Hence temperature alignment outputs from different providers are not comparable. The timeliness of data is insufficient: the latest available datapoint for the forward-looking projections relies on end

of 2019 company filings. While this information can be applied to current portfolio holdings, any development from the last two years in terms of forward-looking projections is not yet reflected in the final temperature outcome.

The temperature alignment score for the listed equity portfolio is at 1.7°C while the corresponding benchmark scores at 3.0°C. In line with the reported carbon intensities, the listed equity portfolio scores significantly below its benchmark.

In the case of corporate bonds, the temperature score of the portfolio is 2.2°C. This is slightly higher than the benchmark temperature score of 2.0°C, even though the carbon intensity of the portfolio is lower. The two measures may provide diverging insights as the carbon intensity is based on historical reported emissions while temperature score incorporates forward-looking elements. They also differ in terms of scope, coverage and timing. The temperature score does, however, highlight that more actions are required to align our economy with a 1.5°C pathway.

Temperature alignment: Comparison of portfolio vs benchmark²



¹ All carbon intensities from MSCI ESG as of February 2022, based on holdings as of December 2021.
Carbon intensity: Weighted average carbon intensity = (country CO₂e emissions / country GDP PPP-adjusted) * (investment / portfolio).
² Temperature related data from Trucost as of February 2022, based on holdings as of December 2021.

Greenhouse gas emissions from Swiss Re's operations (Scope 1, 2 and 3)

Bringing operational CO₂ emissions to net zero by 2030 is Swiss Re's key target under the CO₂NetZero Programme.

CO₂NetZero Programme to reduce operational footprint to net zero

Swiss Re has committed to reducing its operational CO₂ footprint to net-zero emissions by 2030. To achieve this goal, Swiss Re has adopted a "do our best, remove the rest" approach under its CO₂NetZero Programme.

"Doing our best" means intensifying efforts to reduce emissions. A special focus lies on business travel emissions, which are currently responsible for the bulk of the Group's reported operational carbon footprint. The reduction target for CO₂ emissions from air travel has been tightened to at least 50% for 2022 (relative to the 2018 level) to prevent going back to the pre-pandemic flight levels.

The CO₂ targets are supported by a Carbon Steering Levy introduced in 2021 (see box). While Swiss Re is already using 100% of its power from renewable sources, the amount of energy consumed per full time employee (FTE) is also targeted to decline by 2% per year throughout the decade (baseline 2018).

With "... remove the rest" Swiss Re will gradually move from conventional carbon offsetting to supporting high-quality, ie durable and scalable carbon removal projects. This gradual transition means that Swiss Re will be able to uphold the climate neutrality claim of its former Greenhouse Neutral Programme (see box on page 188), while preparing to balance all remaining emissions through carbon removal by 2030 under the current CO₂NetZero Programme (see Sustainability Report, pages 60–61 for more details on the CO₂NetZero Programme).

Swiss Re's Carbon Steering Levy

In September 2020, Swiss Re was the first multinational company to announce a triple-digit real internal carbon price on both direct and indirect operational greenhouse gas emissions, ie on all Scope 1, all Scope 2 and a significant part of the upstream Scope 3 emissions (business travel, energy transmission and distribution, paper, water, waste) across all business units and countries of operations.

This Carbon Steering Levy will gradually increase from USD 100 per tonne of CO₂ in 2021 to USD 200 in 2030. The latter corresponds to the market price that Swiss Re experts expect for high-quality removals in 2030, based on cost projections in scientific literature and current market intelligence.

The levy is the overarching element of the CO₂NetZero Programme, as it helps Swiss Re to meet both the "Do our best, ..." and "... remove the rest" objectives simultaneously.

Swiss Re expects that placing a stringent price on carbon and increasing it on an annual basis will help it to achieve further emission cuts by incentivising concrete reduction measures and low-carbon behaviour. To this end, the levy is displayed at all decision-making levels, for instance, in the travel booking tool where different flight options are compared.

At the same time, the levy will secure the funds required to compensate the remaining emissions in line with our net-zero by 2030 target.

Carbon dioxide can be removed from the atmosphere through nature-based solutions like afforestation, which also have substantial co-benefits such as improved biodiversity. However, nature-based solutions are limited by other important types of land-use and are vulnerable to the risk of stored carbon escaping ("storage reversal"). Therefore, technological carbon removal solutions such as direct air capture are needed to keep global warming well below 2°C over the long term. They are more durable and scalable than nature-based solutions, but are currently much more expensive, mainly due to their large energy requirements and early stage of development. To help to bring down the cost of technical carbon removal solutions Swiss Re started a partnership with Climeworks, a leading specialist in direct air capture and storage of CO₂ in 2021 (see Sustainability Report 2021, page 64).

Milestones under Swiss Re's Greenhouse Neutral Programme

Between 2003 and 2020 Swiss Re ran its Greenhouse Neutral Programme, combining major commitments to cut CO₂ emissions, reduce energy intensity, use renewable power and compensate the remaining emissions. These are some of the milestones of the programme:

- Per-capita CO₂ emissions reduced by more than half between 2003 and 2019 (Scope 1, Scope 2 and parts of upstream Scope 3)
- All remaining CO₂ emissions compensated since 2003 (Scope 1, Scope 2 and parts of upstream Scope 3, in particular business travel)
- Only renewable power used by 2020
- More than 33 000 subsidies granted to employees for emissions-cutting investments between 2007 and 2020

Greenhouse gas emissions data disclosure

Ever since Swiss Re first launched its Greenhouse Neutral Programme in 2003, the Group has disclosed its operational environmental performance indicators. The disclosure includes greenhouse gas emissions and their relative performance over time, with an expanded reporting scope starting from 2013.

In 2021, at the start of the ten-year reporting cycle of the CO₂NetZero Programme (2021–2030), Swiss Re undertook a full re-baselining exercise to update the greenhouse gas emission factors and improve the calculation methodology, aligning it with the latest climate science and relevant frameworks. The methodology used to calculate emissions is based on the guidelines of the GHG Protocol – Corporate Standard, the most widely used emissions accounting and reporting standard.

The baseline year for the current reporting cycle is set to 2018. The full disclosure of the Group's operational emissions is presented in the tables on the following pages.

Swiss Re strives to continuously improve the calculation methodology for the emissions in its current reporting boundary. However, a large portion of upstream Scope 3 operational emissions remains unmeasured and therefore is currently not reported. These emissions, mostly stemming from the activities in Swiss Re's supply chain, are roughly estimated as being five to ten times higher than Swiss Re's total reported emissions. This difference has increased significantly in the past two years due to the sharp reduction of emissions from business travel, as a result of COVID-19 pandemic.¹

The unreported emissions are difficult to quantify accurately because their sources are beyond Swiss Re's direct operational control, and methods and tools to collect the underlying activity data are not yet readily available. In line with Swiss Re's ambition to reduce its operational footprint and achieve the target of net-zero emissions in operations by 2030, the next challenge will be to work in close collaboration with the main suppliers to identify, quantify and develop synergies to address the most material emission hot spots in the supply chain.

¹ Previously, unreported emissions were roughly estimated to be three to five times higher than reported emissions. However, the absolute amount of reported emissions has shrunk significantly in the past thanks to Swiss Re's emissions reduction initiatives described (see box on the right) and, in the last two years, as a result of COVID-19 pandemic. On the other hand, the overall magnitude of unreported emissions is estimated to be relatively stable and not heavily affected by COVID-19 pandemic.

Data tables

Data are reported on a hydrological year basis (ie 12 months from 1 October to 30 September) except for business air travel data, which are reported on a calendar year basis (ie 12 months from 1 January to 31 December).

GHG emissions figures for the years 2018, 2019 and 2020 have been restated. For more information, see Sustainability Report, pages 109–110.

Absolute GHG emissions	Unit	2018 (base)	2019	2020	2021
Scope 1	CO₂e tonnes	4 186	4 248	2 901	2 665
Heating fuels	CO ₂ e tonnes	2 849	2 435	2 111	2 104
Technical gases ¹	CO ₂ e tonnes	922	1 386	537	494
Operational road travel ²	CO ₂ e tonnes	415	427	253	67
Scope 2	CO₂e tonnes	1 359	984	81	61
Purchased energy (location-based)	CO ₂ e tonnes	11 805	11 356	8 575	7 432
Purchased energy (market-based)	CO ₂ e tonnes	1 359	984	81	61
Scope 3 (upstream)³	CO₂e tonnes	84 158	87 765	16 919	7 481
Business travel ⁴	CO ₂ e tonnes	69 338	74 290	9 909	4 558
Commuting	CO ₂ e tonnes	12 223	11 567	5 660	1 820
Other ⁵	CO ₂ e tonnes	2 596	1 908	1 351	1 103
Operational emissions	CO₂e tonnes	89 702	92 996	19 901	10 207
Operational emissions in scope for compensation⁶	CO₂e tonnes	77 479	81 429	14 241	8 387

- ¹ Technical gases is reported as Scope 1 as Swiss Re has direct control over the majority of the fugitive emissions. Also included is a smaller amount with indirect control.
- ² 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).
- ³ Included are upstream Scope 3 emissions from business operations, currently from energy transmission and distribution, paper, water, waste, business travel and commuting. We acknowledge the existence of a large portion of upstream Scope 3 emissions that are currently unmeasured and therefore not reported. For more information, see Greenhouse gas emissions data disclosure, page 188.
- ⁴ Business air travel (ie commercial flights and business jets) figures are reported on a calendar year basis (ie 12 months from 1 January to 31 December). Personally expensed employee transport (ie private cars and taxis) for business reason is now included in business ground travel along with the centrally booked employee transport (ie trains and rental cars).
- ⁵ Other currently includes upstream Scope 3 emissions from energy transmission and distribution, paper, water and waste.
- ⁶ Current emissions in scope for compensation include Scope 1, Scope 2 and part of upstream Scope 3 (business travel, energy transmission and distribution, paper, water and waste). Commuting is not included.

Carbon certificates	Unit	2018 (base)	2019	2020	2021
Total amount of retired carbon certificates	CO₂e tonnes	69 343	70 303	27 249	9 409
Certificates retired for the compensation of operational emissions ¹	CO ₂ e tonnes	69 343	70 303	27 249	8 387
Certificates retired as part of the NetZeroYou2 Programme ²	CO ₂ e tonnes	–	–	–	1 022
Share of carbon avoidance certificates ("offsets")	%	100%	100%	100%	65%
Share of carbon removal certificates	%	0%	0%	0%	35%

- ¹ Carbon certificates retired in 2018, 2019 and 2020 do not match the corresponding Operational emissions in scope for compensation because of restatement of those years' figures in 2021. For more information, please see Sustainability data and performance in the Sustainability Report 2021, pages 109–110.
- ² NetZeroYou2 Programme started in 2021, therefore no certificates have been retired in the previous years.

GHG emissions intensity (per FTE)	Unit	2018 (base)	2019	2020	2021
Scope 1	CO₂e kg/FTE	301	301	203	180
Heating fuels	CO ₂ e kg/FTE	205	173	148	142
Technical gases ¹	CO ₂ e kg/FTE	66	98	38	33
Operational road travel ²	CO ₂ e kg/FTE	30	30	18	4
Scope 2	CO₂e kg/FTE	98	70	6	4
Purchased energy (location-based)	CO ₂ e kg/FTE	850	805	601	501
Purchased energy (market-based)	CO ₂ e kg/FTE	98	70	6	4
Scope 3 (upstream)³	CO₂e kg/FTE	6 060	6 224	1 185	504
Business travel ⁴	CO ₂ e kg/FTE	4 993	5 269	694	307
Commuting	CO ₂ e kg/FTE	880	820	396	123
Other ⁵	CO ₂ e kg/FTE	187	135	95	74
Operational emissions	CO₂e kg/FTE	6 460	6 595	1 394	688

¹ Technical gases is reported as Scope 1 as Swiss Re has direct control over the majority of the fugitive emissions. Also included is a smaller amount with indirect control.

² 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).

³ Included are upstream Scope 3 emissions from business operations, currently from energy transmission and distribution, paper, water, waste, business travel and commuting. We acknowledge the existence of a large portion of upstream Scope 3 emissions that are currently unmeasured and therefore not reported. For more information, see Greenhouse gas emissions data disclosure, page 188.

⁴ Business air travel figures are reported on a calendar year basis (ie 12 months from 1 January to 31 December). Employees' expensed transport (ie by private cars and taxis) is now included in business ground travel along with the transport that is booked centrally via travel management tools (ie trains and rental cars).

⁵ Other currently includes upstream Scope 3 emissions from energy transmission and distribution, paper, water and waste.

GHG emissions intensity (per FTE)	Unit	2018 (base)	2019	2020	2021
GHG emissions intensity	CO₂e kg/FTE	6 460	6 596	1 394	688
of which from building facilities	CO ₂ e kg/FTE	587	507	304	258
of which from business travel ¹	CO ₂ e kg/FTE	4 993	5 269	694	307
of which from commuting	CO ₂ e kg/FTE	880	820	396	123

¹ Business air travel figures are reported on a calendar year basis (ie 12 months from 1 January to 31 December). Personally expensed employee transport (ie private cars and taxis) is now included in business ground travel along with the centrally booked employee transport (ie trains and rental cars).



Independent limited assurance report on selected Sustainability Information in Swiss Re Management Ltd's Sustainability Report 2021 and TCFD reporting 2021

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") Sustainability Information in the following sections of the Sustainability Report for the year ended December 31, 2021:

- Creating solutions for sustainability;
- Extending our risk intelligence;
- Being a responsible investor;
- Engaging in dialogue with our stakeholders;
- Driving sustainable operations;
- Engaging our people;
- Ensuring good corporate governance and compliance;
- Appendix: Data on "Driving sustainable operations" on pages 106-108
- Appendix: Data on Absences on pages 113 and 114
- Appendix: Life and Health automated underwriting solutions figures disclosed in the "Building societal resilience" section of the "Sustainability Topics: goals and progress" table on page 90. This includes the number of potential customers assessed and the number of automatic covers offered by our solutions.

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, 2021 (TCFD reporting 2021), including:

- Annual expected losses (AEL) of the weather-related perils reporting on pages 156 and 180
- Weighted average carbon intensity of Swiss Re's direct insurance portfolio on page 181
- Carbon footprint calculation of Swiss Re's investment portfolio on page 183-185
- Data tables on pages 189 and 190

Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in the Sustainability Report 2021 and in the Financial Report 2021 or linked to from the Sustainability Information or from the Financial Report 2021, 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 Sustainability Information in the above-mentioned sections of the Sustainability Report and the Financial Report for the year ended December 31, 2021 are not prepared, in all material respects, in accordance with the reporting criteria described under *'Understanding how Swiss Re has prepared the 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 2021 and in the Financial Report 2021 or linked to from the Sustainability Information or from the Financial Report 2021, including any images, audio files or embedded videos.

Understanding how Swiss Re has prepared the Sustainability Information

The 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 Sustainable Business 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 Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the 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.

Swiss Re's Responsibilities

The Board of Directors of Swiss Re is responsible for:

- Selecting or establishing suitable criteria for preparing the Sustainability Information, taking into account applicable law and regulations related to reporting the Sustainability Information;
- The preparation of the Sustainability Information in accordance with the reporting criteria described under *'Understanding how Swiss Re has prepared the Sustainability Information'*;
- Designing, implementing and maintaining internal control over information relevant to the preparation of the 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 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 Sustainability Information as prepared by management, we are not permitted to be involved in the preparation of the 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.

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 Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. Carrying out our limited assurance engagement on the 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 2021 and the TCFD reporting 2021;
- Assessment of the overall presentation of the disclosures through critical reading of the Sustainability Report 2021 and the TCFD reporting 2021.

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, 16 March 2022

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Income statement

For the years ended 31 December

USD millions	Note	2020	2021
Revenues			
Gross premiums written	4	42 951	46 658
Net premiums written	4	39 827	43 220
Change in unearned premiums		494	-753
Premiums earned	3	40 321	42 467
Fee income from policyholders	3	449	259
Net investment income – non-participating business ¹	7	2 988	3 373
Net realised investment gains/losses – non-participating business ²	7	1 730	537
Net investment result – unit-linked and with-profit business	7	-2 187	63
Other revenues		37	40
Total revenues		43 338	46 739
Expenses			
Claims and claim adjustment expenses	3	-19 838	-17 181
Life and health benefits	3	-13 929	-14 992
Return credited to policyholders		1 760	-431
Acquisition costs	3	-8 236	-8 228
Operating expenses		-3 597	-3 505
Total expenses before interest expenses		-43 840	-44 337
Income/loss before interest and income tax expense/benefit		-502	2 402
Interest expenses		-588	-571
Income/loss before income tax expense/benefit		-1 090	1 831
Income tax expense/benefit	15	266	-394
Net income/loss before attribution of non-controlling interests		-824	1 437
Income/loss attributable to non-controlling interests		-54	
Net income/loss attributable to common shareholders		-878	1 437
Earnings per share in USD			
Basic	14	-3.04	4.97
Diluted	14	-3.04	4.78
Earnings per share in CHF³			
Basic	14	-2.97	4.52
Diluted	14	-2.97	4.35

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

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

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

Reclassification out of accumulated other comprehensive income

For the years ended 31 December

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

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

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

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

Liabilities and Equity

As of 31 December

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

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

Statement of shareholders' equity

For the years ended 31 December

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

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

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

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

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

Statement of cash flows

For the years ended 31 December

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

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

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

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

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

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

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

Notes to the Group financial statements

1 Organisation and summary of significant accounting policies

Nature of operations

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

Basis of presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (US GAAP) and comply with Swiss law. All significant intra-group transactions and balances have been eliminated on consolidation.

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

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

The Board of Directors of Swiss Re Ltd has decided that as of 1 January 2024 the Group’s consolidated financial statements will be prepared in accordance with International Financial Reporting Standards (IFRS). Financial statements for periods ending on or prior to 31 December 2023 will continue to be prepared in accordance with US GAAP. The adoption is expected to have a material impact on the Group’s financial statements.

Principles of consolidation

The Group’s financial statements include the consolidated financial statements of Swiss Re Ltd and its subsidiaries. Voting entities which Swiss Re Ltd directly or indirectly controls through holding a majority of the voting rights are consolidated in the Group’s accounts. Variable interest entities (VIEs) are consolidated when the Swiss Re Group is the primary beneficiary. The Group is the primary beneficiary when it has power over the activities that impact the VIE’s economic performance and at the same time has the obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. Companies which the Group does not control, but over which it directly or indirectly exercises significant influence, are accounted for using the equity method or the fair value option and are included in other invested assets. The Swiss Re Group’s share of net profit or loss in investments accounted for under the equity method is included in net investment income. Equity and net income of these companies are adjusted as necessary to be in line with the Group’s accounting policies. The results of consolidated subsidiaries and investments accounted for using the equity method are included in the financial statements for the period commencing from the date of acquisition.

Use of estimates in the preparation of financial statements

The preparation of financial statements requires management to make significant estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as the related disclosure, including contingent assets and liabilities. The Swiss Re Group’s liabilities for unpaid claims and claim adjustment expenses and policy benefits for life and health include estimates for premium, claim and benefit data not received from ceding companies at the date of the financial statements. In addition, the Group uses certain financial instruments and invests in securities of certain entities for which exchange trading does not exist. The Group determines these estimates based on historical information, actuarial analyses, financial modelling and other analytical techniques. Actual results could differ significantly from the estimates described above.

Foreign currency remeasurement and translation

Transactions denominated in foreign currencies are remeasured to the respective subsidiary's functional currency at average exchange rates. Monetary assets and liabilities are remeasured to the functional currency at closing exchange rates, whereas non-monetary assets and liabilities are remeasured to the functional currency at historical rates. Remeasurement gains and losses on monetary assets and liabilities and trading securities are reported in earnings. Remeasurement gains and losses on available-for-sale securities, investments in consolidated subsidiaries and investments accounted for using the equity method are reported in shareholders' equity.

For consolidation purposes, assets and liabilities of subsidiaries with functional currencies other than US dollars are translated from the functional currency to US dollars at closing rates. Revenues and expenses are translated at average exchange rates. Translation adjustments are reported in shareholders' equity.

Valuation of financial assets

The fair value of the majority of the Group's financial instruments is based on quoted prices in active markets or observable inputs. These instruments include government and agency securities, commercial paper, most investment-grade corporate debt, most high-yield debt securities, exchange-traded derivative instruments, most mortgage- and asset-backed securities and listed equity securities. In markets with reduced or no liquidity, spreads between bid and offer prices are normally wider compared to spreads in highly liquid markets. Such market conditions affect the valuation of certain asset classes of the Group, such as some asset-backed securities as well as certain derivative structures referencing such asset classes.

The Group considers both the credit risk of its counterparties and own risk of non-performance in the valuation of derivative instruments and other over-the-counter financial assets. In determining the fair value of these financial instruments, the assessment of the Group's exposure to the credit risk of its counterparties incorporates consideration of existing collateral and netting arrangements entered into with each counterparty. The measure of the counterparty credit risk is estimated by incorporating the observable credit spreads, where available, or credit spread estimates derived based on the benchmarking techniques where market data is not available. The impact of the Group's own risk of non-performance is analysed in a manner consistent with the aforementioned approach, with consideration given to the Group's observable credit spreads. The value representing such risk is incorporated into the fair value of the financial instruments (primarily derivatives), in a liability position as of the measurement date. The change in this adjustment from period to period is reflected in realised investment gains and losses in the income statement.

For assets or derivative structures at fair value, the Group uses market prices or inputs derived from market prices. A separate internal price verification process, independent of the trading function, provides an additional control over the market prices or market inputs used to determine the fair values of such assets. Although management considers that appropriate values have been ascribed to such assets, there is always a level of uncertainty and judgement related to these valuations. Subsequent valuations could differ significantly from the results of the process described above. The Group may become aware of counterparty valuations, either directly through the exchange of information or indirectly, for example through collateral demands. Any implied differences are considered in the independent price verification process and may result in adjustments to initially indicated valuations. As of 31 December 2021, the Group had not provided any collateral on financial instruments in excess of its own market value estimates.

Investments

The Group's investments in fixed income securities are classified as available-for-sale (AFS) or trading. Fixed income securities AFS are carried at fair value, based on quoted market prices, with the difference between the applicable measure of cost and fair value being recognised in shareholders' equity. Trading fixed income securities are carried at fair value with unrealised gains and losses recognised in earnings. A trading classification is used for securities that are bought and held principally for the purpose of selling them in the near term.

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

Equity investments are carried at fair value with unrealised gains and losses recognised in earnings, with the exception of equity method investments and investments that result in consolidation.

Interest on fixed income securities is recorded in net investment income when earned and is adjusted for the amortisation of any purchase premium or discount. Dividends on equity securities are recognised as investment income on the ex-dividend date. Realised gains and losses on sales are included in earnings and are calculated using the specific identification method.

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

Investment in real estate that the Group intends to hold for the production of income is carried at depreciated cost, net of any write-downs for impairment in value. Depreciation on buildings is recognised on a straight-line basis over the estimated useful life of the asset. Land is recognised at cost and not depreciated. Impairment in value is recognised if the sum of the estimated future undiscounted cash flows from

the use of the real estate is lower than its carrying value. The impairment loss is measured as the amount by which the asset's carrying amount exceeds its fair value and is recognised in realised investment losses. Depreciation and other related charges or credits are included in net investment income. Investment in real estate held for sale is carried at the lower of cost or fair value, less estimated selling costs, and is not depreciated. Reductions in the carrying value of real estate held for sale are included in realised investment losses.

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

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

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

Derivative financial instruments and hedge accounting

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

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

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

Derivative financial instrument assets are generally included in other invested assets and derivative financial instrument liabilities are generally included in accrued expenses and other liabilities.

The Group also designates non-derivative and derivative monetary financial instruments as hedges of the foreign currency exposure of its net investment in certain foreign operations. From the inception of the hedging relationship, remeasurement gains and losses on the designated non-derivative and derivative monetary financial instruments and translation gains and losses on the hedged net investment are reported as translation gains and losses in shareholders' equity.

Cash and cash equivalents

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

Deferred acquisition costs

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

Deferred acquisition costs for short-duration contracts are amortised in proportion to premiums earned. Deferred acquisition costs for traditional long-duration contracts are amortised over the life of underlying contracts based upon the present value of gross premiums. Deferred acquisition costs for universal-life type contracts and similar products are amortised based on the present value of estimated gross profits. Estimated gross profits are updated quarterly.

Modifications of insurance and reinsurance contracts

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

Business combinations

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

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

Acquired present value of future profits

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

Goodwill

The excess of the purchase price of acquired businesses over the estimated fair value of net assets acquired is recorded as goodwill. The goodwill is tested for impairment on an annual basis as of 30 September, unless there is an event or circumstances which makes an impairment more likely than not. Adjustments to reflect impairment in value are recognised in earnings in the period in which the determination of impairment is made.

Other assets

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

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

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

Leases

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

Additional disclosures are provided in Note 13 "Leases".

Capitalised software costs

External direct costs of materials and services incurred to develop or obtain software for internal use, payroll and payroll-related costs for employees directly associated with software development and interest cost incurred while developing software for internal use are capitalised and amortised on a straight-line basis through earnings over the estimated useful life.

Income taxes

Deferred income tax assets and liabilities are recognised based on the difference between financial statement carrying amounts and the corresponding income tax bases of assets and liabilities using enacted income tax rates and laws. A valuation allowance is recorded against deferred tax assets when it is deemed more likely than not that some or all of the deferred tax assets may not be realised.

The Group recognises the effect of income tax positions only if sustaining those positions is more likely than not. Changes in recognition or measurement are reflected in the period in which a change in judgement occurs. Interest and penalties related to unrecognised tax benefits are recorded in income tax expense.

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

Unpaid claims and claim adjustment expenses

Liabilities for unpaid claims and claim adjustment expenses for property and casualty and for life and health insurance and reinsurance contracts are accrued when insured events occur and are based on the estimated ultimate cost of settling the claims, using reports and individual case estimates received from ceding companies. Reserves also are established for claims incurred but not reported, which are developed on the basis of past experience adjusted for current trends and other factors that modify past experience. The establishment of the appropriate level of reserves is an inherently uncertain process involving estimates and judgements made by management, and therefore there can be no assurance that ultimate claims and claim adjustment expenses will not exceed the loss reserves currently established by the Group. These estimates are regularly reviewed, and adjustments for differences between estimates and actual payments for claims and for changes in estimates are reflected in income in the period in which the estimates are changed or payments are made.

The COVID-19 pandemic has created additional uncertainty, both in respect of estimation of claims across the insurance and reinsurance industry and assessments of the wider potential global health and economic impacts. This uncertainty has been compounded by the evolving nature of the pandemic, including the spread of new strains of the virus, and is driven, among other factors, by lack of definitive answers about the impacts of the pandemic and related mitigation efforts on economies and societies across the globe, the efficacy of vaccines and other treatments, and the long-term health and social impacts of the pandemic on populations, as well as by evolving responses of governments and regulators, responses of businesses and outcomes of legal actions that have already been brought or may in the future be brought. The Group has recorded its best estimate of claims and claim adjustment expenses incurred as a result of the pandemic as at 31 December 2021, which best estimate reflects the Group's expectations based on current facts and circumstances. However, the Group may, as a result of the myriad uncertainties, need to change its estimates for claims incurred and additional future claims over time as underlying facts develop.

The Group does not discount liabilities arising from prospective property and casualty insurance and reinsurance contracts, including liabilities which are discounted for US statutory reporting purposes. Liabilities arising from property and casualty insurance and reinsurance contracts acquired in a business combination are initially recognised at fair value in accordance with the acquisition method of accounting.

The Group does not discount life and health claim reserves except for disability income claims in payment and mortality claims paid out in the form of an annuity. These claims are recognised at the estimated present value of the remaining ultimate net costs of the incurred claims.

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

Liabilities for life and health policy benefits

Liabilities for life and health policy benefits from reinsurance business are generally calculated using the net level premium method, based on assumptions as to investment yields, mortality, morbidity, withdrawals, lapses and policyholder dividends. Assumptions are set at the time the contract is issued or, in the case of contracts acquired by purchase, at the acquisition date. The assumptions are based on current best estimates, making allowance for possible adverse deviation. Interest rate assumptions for life and health (re)insurance benefit liabilities are based on estimates of expected investment yields. Assumed mortality or morbidity rates are generally based on experience multiples applied to the actuarial select and ultimate tables based on industry experience.

Policyholder account balances

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

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

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

Amounts assessed against policyholders for mortality, administration and surrender are reported as fee income. Amounts credited to policyholders are reported as interest credited to policyholders. Investment income and realised investment gains and losses allocable to

policyholders are included in net investment income and net realised investment gains/losses except for unit-linked, which is presented in a separate line item on the face of the income statement.

In unit-linked contracts, the investment risk is borne by the policyholder. Additional disclosures are provided in Note 7 "Investments".

Funds held assets and liabilities

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

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

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

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

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

Premium deficiency testing

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

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

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

Shadow adjustments

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

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

Premiums

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

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

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

Insurance and reinsurance ceded

The Group uses retrocession arrangements to increase its aggregate underwriting capacity, to diversify its risk and to reduce the risk of catastrophic loss on reinsurance assumed. The ceding of risks to retrocessionaires does not relieve the Group of its obligations to its ceding companies. The Group regularly evaluates the financial condition of its retrocessionaires and monitors the concentration of credit risk to minimise its exposure to financial loss from retrocessionaires' insolvency. Premiums and losses ceded under retrocession contracts are reported as reductions of premiums earned and claims and claim adjustment expenses. Amounts recoverable for ceded short- and long-duration contracts, including universal-life-type and investment contracts, are reported as assets in the accompanying consolidated balance sheet.

The Group provides reserves for uncollectible amounts on reinsurance balances ceded, based on management's assessment of the collectability of the outstanding balances.

Receivables

Premium and claims receivables which have been invoiced are accounted for at face value. Together with assets arising from the application of the deposit method of accounting that meet the definition of financing receivables they are regularly assessed for impairment. Evidence of impairment is the age of the receivable and/or any financial difficulties of the counterparty. Allowances are set up on the net balance, meaning all balances related to the same counterparty are considered. The amount of the allowance is set up in relation to the time a receivable has been due and any financial difficulties of the debtor and can be as high as the outstanding net balance.

Pensions and other post-retirement benefits

The Group accounts for its pension and other post-retirement benefit costs using the accrual method of accounting. Amounts charged to expense are based on periodic actuarial determinations.

Share-based payment transactions

As of 31 December 2021, the Group has a Leadership Performance Plan (LPP)/Leadership Share Plan (LSP), restricted shares and a Global Share Participation Plan. These plans are described in more detail in Note 17 "Share-based payments". The Group accounts for share-based payment transactions with employees using the fair value method. Under the fair value method, the fair value of the awards is recognised in earnings over the vesting period.

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

Treasury shares

Treasury shares are reported at cost in shareholders' equity.

Earnings per common share

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

Subsequent events

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

Adoption of new accounting standards

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

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

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

In March 2020, the FASB issued ASU 2020-04, "Facilitation of the Effects of Reference Rate Reform on Financial Reporting", an update to Topic 848, "Reference Rate Reform". In response to concerns about structural risks of interbank offered rates (IBORs) and, particularly, the risk of cessation of the London Interbank Offered Rate (LIBOR), regulators in several jurisdictions around the world have undertaken reference rate reform initiatives to identify alternative reference rates. The amendments in this update provide optional expedients and exceptions for applying US GAAP accounting principles to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of these reference rate reform initiatives. The Group adopted ASU 2020-04 on 12 March 2020, which is the issuance date of the standard. There is a choice to apply the guidance by Topic or industry Subtopic at any time prospectively during the effective period from 12 March 2020 through 31 December 2022. As of 31 December 2021, the Group applied the guidance to Topic 815 related to Group's adherence to the ISDA 2020 Fallbacks Protocol, which is a standardized approach for amending contracts in order to incorporate IBOR fallback provisions and related to changes to the critical terms of a hedging relationship due to reference rate reform as well as to Topic 944 related to changes resulting from the replacement of discontinued reference rates included in contracts within the scope of Topic 944, "Financial Services – Insurance".

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

Future adoption of new accounting standards

In June 2016, the FASB issued ASU 2016-13, "Measurement of Credit Losses", an update to Topic 326, "Financial Instruments – Credit Losses". ASU 2016-13 replaces the incurred loss impairment methodology in current US GAAP with a methodology that reflects expected credit losses. The standard is applicable to all financial assets such as financial instruments that are measured at amortised cost, available-for-sale debt securities and reinsurance recoverables. The objective of the expected credit loss model is that a reporting entity recognises its estimate of expected credit losses incorporating forward-looking information in a valuation allowance for financial assets in scope. As amended by ASU 2019-10 "Effective Dates", ASU 2016-13 is effective for annual and interim periods beginning after 15 December 2022. For most affected financial assets, the ASU must be adopted using a modified retrospective approach, with a cumulative effect adjustment recorded to opening retained earnings on the adoption date. The Group is currently assessing the impact of the new requirements.

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

In August 2018, the FASB issued ASU 2018-12, "Targeted Improvements to the Accounting for Long-Duration Contracts", an update to Topic 944, "Financial Services – Insurance". This ASU requires that the cash flows and net premium ratio will be updated for changes in insurance assumptions (eg mortality, morbidity, terminations) when measuring the liability for future policy benefits for nonparticipating traditional and limited-payment insurance and reinsurance contracts. There will no longer be a provision for adverse deviation. In addition, the discount rate used to reflect the time value of money in the calculation of the liability for future policy benefits will be standardised. Further, the ASU requires deferred acquisition costs (DAC) relating to most long-duration contracts to be amortised on a constant basis over the expected term of the contract. As amended by ASU 2020-11 "Effective Date and Early Application", ASU 2018-12 is effective for annual periods beginning after 15 December 2024, and interim periods beginning after 15 December 2025. Due to the decision of the Board of Directors

of Swiss Re Ltd to prepare the Group's consolidated financial statements in accordance with IFRS beginning 1 January 2024, the Group does not plan to adopt ASU 2018-12.

2 Information on business segments

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

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

Accounting policies applied by the business segments are in line with those described in the summary of significant accounting policies (please refer to Note 1). Cross-segmental dividends and gains and losses on certain one-off transfers and transactions between segments are accounted for through segmental shareholders' equity.

The Group operating segments are outlined below.

Property & Casualty Reinsurance and Life & Health Reinsurance

Reinsurance consists of two segments, Property & Casualty and Life & Health. The Reinsurance Business Unit operates globally, both through brokers and directly with clients, and provides a large range of solutions for risk and capital management. Clients include stock and mutual insurance companies as well as public sector and governmental entities. In addition to traditional reinsurance solutions, Reinsurance offers insurance-linked securities and other insurance-related capital market products in both Property & Casualty and Life & Health.

Property & Casualty includes the business lines property, casualty (including motor) and specialty. Life & Health includes the life and health lines of business.

Corporate Solutions

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

Life Capital

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

Group items

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

Consolidation

Segment information is presented net of external and internal retrocession and other intra-group arrangements. The Group total is obtained after elimination of intra-group transactions in the "Consolidation" column. This includes significant intra-group reinsurance arrangements, recharge of trademark licence fees and intersegmental funding.

a) Business segments – income statement

For the year ended 31 December

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

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 and with-profit 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 and with-profit business".

Business segments – income statement

For the year ended 31 December

2021 USD millions	Property & Casualty Reinsurance	Life & Health Reinsurance	Corporate Solutions	Group items	Consolidation	Total
Revenues						
Gross premiums written	23 246	16 071	7 492	795	-946	46 658
Net premiums written	22 381	14 584	5 717	538		43 220
Change in unearned premiums	-455	104	-374	-28		-753
Premiums earned	21 926	14 688	5 343	510		42 467
Fee income from policyholders		180		79		259
Net investment income – non-participating business	1 613	1 044	121	787	-192	3 373
Net realised investment gains/losses – non-participating business	542	302	115	-422		537
Net investment result – unit-linked and with-profit business		63				63
Other revenues	20	3	12	412	-407	40
Total revenues	24 101	16 280	5 591	1 366	-599	46 739
Expenses						
Claims and claim adjustment expenses	-14 773		-2 374	-38	4	-17 181
Life and health benefits		-13 648	-924	-416	-4	-14 992
Return credited to policyholders		-94		-337		-431
Acquisition costs	-5 359	-2 014	-690	-165		-8 228
Operating expenses	-1 162	-864	-851	-1 035	407	-3 505
Total expenses before interest expenses	-21 294	-16 620	-4 839	-1 991	407	-44 337
Income/loss before interest and income tax expense/benefit	2 807	-340	752	-625	-192	2 402
Interest expenses	-296	-286	-26	-155	192	-571
Income/loss before income tax expense/benefit	2 511	-626	726	-780	0	1 831
Income tax expense/benefit	-413	103	-149	65		-394
Net income/loss before attribution of non-controlling interests	2 098	-523	577	-715	0	1 437
Income/loss attributable to non-controlling interests	-1		1			
Net income/loss attributable to common shareholders	2 097	-523	578	-715	0	1 437
Claims ratio in %	67.4		61.8			66.2
Expense ratio in %	29.7		28.8			29.6
Combined ratio in %	97.1		90.6			95.8
Management expense ratio ¹ in %		5.4				
Net operating margin ² in %	11.6	-2.1	13.5			5.1

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 and with-profit 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 and with-profit business".

Business segments – balance sheet

As of 31 December

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

Business segments – balance sheet

As of 31 December

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

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

For the year ended 31 December

2020 USD millions	Property	Casualty	Specialty	Unallocated	Total
Revenues					
Gross premiums written	9 001	9 445	3 066		21 512
Net premiums written	8 278	9 364	2 994		20 636
Change in unearned premiums	-28	245	-21		196
Premiums earned	8 250	9 609	2 973		20 832
Net investment income				1 178	1 178
Net realised investment gains/losses				683	683
Other revenues				26	26
Total revenues	8 250	9 609	2 973	1 887	22 719
Expenses					
Claims and claim adjustment expenses	-6 785	-7 570	-2 048		-16 403
Acquisition costs	-1 640	-2 732	-732		-5 104
Operating expenses	-604	-443	-153		-1 200
Total expenses before interest expenses	-9 029	-10 745	-2 933	0	-22 707
Income/loss before interest and income tax expense	-779	-1 136	40	1 887	12
Interest expenses				-321	-321
Income/loss before income tax expense	-779	-1 136	40	1 566	-309
Claims ratio in %	82.2	78.8	68.9		78.7
Expense ratio in %	27.2	33.0	29.8		30.3
Combined ratio in %	109.4	111.8	98.7		109.0

Property & Casualty Reinsurance business segment – by line of business

For the year ended 31 December

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

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

For the year ended 31 December

2020 USD millions	Life	Health	Unallocated	Total
Revenues				
Gross premiums written	10 291	4 776		15 067
Net premiums written	9 156	4 501		13 657
Change in unearned premiums	36	32		68
Premiums earned	9 192	4 533		13 725
Fee income from policyholders	158			158
Net investment income – non-participating business	870	270		1 140
Net realised investment gains/losses – non-participating business	54	-12	403	445
Net investment result – unit-linked and with-profit business	-32			-32
Other revenues	3	1		4
Total revenues	10 245	4 792	403	15 440
Expenses				
Life and health benefits	-8 587	-3 617		-12 204
Return credited to policyholders	5			5
Acquisition costs	-1 309	-690		-1 999
Operating expenses	-522	-264		-786
Total expenses before interest expenses	-10 413	-4 571	0	-14 984
Income/loss before interest and income tax expense	-168	221	403	456
Interest expenses			-367	-367
Income/loss before income tax expense	-168	221	36	89
Management expense ratio ¹ in %	5.1	5.5		5.2
Net operating margin ² in %	-1.6	4.6		2.9

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 and with-profit 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 and with-profit business".

Life & Health Reinsurance business segment – by line of business

For the year ended 31 December

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

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 and with-profit 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 and with-profit business".

d) Group items business segment

For the year ended 31 December

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

Group items business segment

For the year ended 31 December

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

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

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

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

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

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

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

3 Insurance information

Premiums earned and fees assessed against policyholders

For the years ended 31 December

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

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

Claims and claim adjustment expenses

For the year ended 31 December

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

Acquisition costs

For the year ended 31 December

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

Claims and claim adjustment expenses

For the year ended 31 December

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

Acquisition costs

For the year ended 31 December

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

Reinsurance recoverable on unpaid claims and policy benefits

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

Reinsurance receivables

Reinsurance receivables as of 31 December were as follows:

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

Policyholder dividends

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

4 Premiums written

For the years ended 31 December

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

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

5 Unpaid claims and claim adjustment expenses

A reconciliation of the opening and closing reserve balances for unpaid claims and claim adjustment expenses for the years ended 31 December is presented as follows:

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

Prior-year development

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

For life and health lines of business, development on prior years' unpaid claims in the year ended 31 December 2021 is favourable. For life business, there is favourable development in Continental Europe and the UK. For health business, there is unfavourable development in disability portfolios in the US and Australia driven by adverse experience and strengthening of claim reserves. Claims development related to prior years for disability portfolios also includes an element of interest accretion for unpaid claims reported at an estimated present value.

A summary of prior year net claims and claim adjustment expenses development by lines of business for the years ended 31 December is shown below¹:

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

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

US asbestos and environmental claims exposure

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

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

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

Short duration contract unpaid claims and claim adjustment expenses

Basis of presentation for claims development information

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

Claims development information and IBNR are presented on an accident year basis and by line of business for individually significant categories. Additional aggregation or disaggregation is provided where appropriate, necessary and practicable (“disaggregation categories”). For instance, Reinsurance liability and motor lines of business are further disaggregated into proportional and non-proportional treaty types to provide more specific information on claims development. Amounts shown in the claims development tables are on a nominal basis, including cases where the Group discounts claims liabilities for measurement under US GAAP, and are net of external retrocession and retrocession between business segments to the extent that a retrocession programme can be allocated to a disaggregation category. Ceded retroactive reinsurance is not included in the claims development table if it cannot be allocated on a reasonable basis to the disaggregation categories used to present claims development information. Loss portfolio transfers are presented prospectively as reliable historical claims information is not always obtainable, or the data is incomplete and of insufficient quality.

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

Life & Health contracts that are not expected to remain in force for an extended period are classified as short duration contracts. These provide insurance protection for a fixed short duration and their provisions may be subject to changes at the end of contract period, such as adjustments to the premium charged or the coverage provided. Examples of short duration contracts in the Life & Health Reinsurance segment include group life business, certain types of disability and long-term care contracts, group accident, and health coverage including critical illness and medical expenses. The Group provides claims development information for Life & Health Reinsurance where reported accident year information is available and there is potential for claims development. This primarily applies to the group disability business in Australia and the UK. This business is generally considered to have relatively higher claims estimation uncertainty than other life and health lines such as group life, due to longer claims development periods.

The Group provides no claims development information for the Group items segment as its short duration reserves are not material. This is also the case for Life & Health business in the Corporate Solutions segment, where short duration contracts mainly include disability business.

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

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

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

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

Some of the information provided in the following tables is Required Supplementary Information (RSI) under US GAAP and does not form part of these consolidated audited financial statements. Claims development information for all periods except the current reporting period and any information derived from it – including average annual percentage payout of claims incurred – is considered RSI and is identified as RSI in the tables presented.

Methodology for determining the presented amounts of liabilities for unpaid claims

The liability for unpaid claims and claim adjustment expenses is based on an estimate of the ultimate cost of settling the claims based on both information reported to us by ceding companies and internal estimates.

Non-life re/insurance contracts

The Group develops and recognises its own estimate of IBNR claims, which includes circumstances in which cedents have not reported any claims to the Group or where the Group's estimate of reserves needed to cover reported claims differs from the amounts reported by cedents. For reinsurance business, case reserves and estimated IBNR are reported by cedents and this IBNR is presented together with the Group's own estimate as IBNR in the claims development tables. For insurance business, reserving is performed similarly, except that estimates for case reserves and IBNR are performed by the Group.

Reserving is done on portfolio or contract level depending on the features of the contract. For business reviewed on a portfolio level, the expected ultimate losses are set for most lines and types of business based on analysis performed using standard actuarial techniques. In general, contracts are aggregated into portfolios by combining contracts with similar features, and ultimate losses are derived using a blend of initial costing loss ratio and actual reported experience, with more weighting given to experience over time.

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

In most cases, these standard actuarial techniques encompass a number of loss development factor techniques applied to claim tables of paid and reported losses. Other actuarial techniques may be applicable to specific categories, such as an analysis of frequency and severity. Life contingency techniques for projecting regular payments related to bodily injury claims are applied to motor proportional, motor non-proportional, liability proportional, liability non-proportional, accident and health and similar Corporate Solutions lines, where the information is available. In some cases, techniques specific to the projection of future payments for specific risks such as asbestos or pollution claims are applied to both proportional and non-proportional liability claims, also in Corporate Solutions (see also separate section "US asbestos and environmental claims exposure" on page 233). Reserving for non-traditional business is carried out on a deal-by-deal basis according to each deal's specifications. For large events, a separate process takes into consideration the relevant expertise from underwriting and claims functions in estimating the ultimate loss.

Contract-level reserving is based on standard actuarial techniques but requires more detailed contract, pricing, claim and exposure information than required for the business reviewed on a portfolio level.

Life and health re/insurance contracts

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

Claims frequency information

Claims frequency information is not available for the disaggregation categories of Property & Casualty Reinsurance, as cedents do not report claims frequency information to the Group for most of the assumed reinsurance contract types.

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

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

Property & Casualty Reinsurance – Property

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	17.5%	49.8%	17.1%	5.7%	2.4%	1.0%	0.7%	0.4%	0.3%	0.2%

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 - 2021 accident year claims incurred are higher due to natural catastrophes and 2020 was impacted by COVID-19, mainly due to Property Non-Damage Business Interruption and Event Cancellation policies.

Property & Casualty Reinsurance – Liability, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	2.7%	11.2%	13.0%	14.2%	12.1%	10.2%	6.6%	5.6%	1.8%	2.1%

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 2021 are driven by US business with 2020 impacted by COVID-19 from exposures emanating from financial and economic downturn.

Property & Casualty Reinsurance – Liability, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	0.9%	7.9%	8.0%	9.2%	10.5%	8.4%	7.1%	6.1%	5.8%	1.4%

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

Property & Casualty Reinsurance – Accident & Health

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	15.6%	25.6%	14.7%	8.6%	4.8%	3.7%	2.2%	1.5%	1.2%	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 with the 2020 year impacted by COVID-19 from losses emanating from adverse health impacts. The 2011 and prior accident years include the run-off of business written by entities acquired as part of the acquisition of General Electric Insurance Solutions during 2006. This business, which generally had a longer payment pattern, was not renewed.

Property & Casualty Reinsurance – Motor, proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year										
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	thereof IBNR	
2012	1 540	1 530	1 513	1 501	1 491	1 490	1 487	1 487	1 490	1 491	18	
2013		1 598	1 573	1 578	1 551	1 544	1 540	1 539	1 540	1 541	10	
2014			2 077	2 037	2 035	2 017	2 007	2 004	2 002	2 003	-3	
2015				1 964	1 955	1 957	1 960	1 960	1 968	1 972	15	
2016					2 522	2 637	2 686	2 688	2 693	2 706	24	
2017						2 398	2 412	2 398	2 410	2 421	82	
2018							2 056	2 089	2 068	2 064	130	
2019								2 059	2 034	2 068	250	
2020									1 882	1 931	437	
2021										1 915	983	
Total										20 112	1 946	

¹ Unaudited

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

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

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%	35.3%	12.5%	5.2%	2.8%	1.4%	0.7%	0.5%	0.4%	0.5%

¹ Unaudited

The increase in the incurred losses from accident years 2012 to 2016 is driven by new business volume across all regions with the 2020 accident year seeing mainly indirect (frequency) impacts from COVID-19. Proportional motor business includes both longer-tailed liability business and shorter-tailed hull business.

The negative IBNRs are due to overstated case reserves on European business.

Property & Casualty Reinsurance – Motor, non-proportional

Incurred claims and allocated claim adjustment expenses, net of reinsurance

USD millions		Reporting year									thereof	
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	IBNR	
2012	340	357	336	320	321	303	312	307	310	295	39	
2013		439	462	464	447	432	438	437	442	444	62	
2014			413	447	442	441	434	412	409	404	54	
2015				392	415	451	446	459	457	454	67	
2016					474	593	556	550	537	521	91	
2017						586	617	604	611	603	130	
2018							498	539	546	534	143	
2019								1 201	1 213	1 196	205	
2020									526	528	311	
2021										549	437	
Total										5 528	1 539	

¹ Unaudited

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

USD millions		Reporting year									thereof	
Accident year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	IBNR	
2012	2	25	50	85	112	137	159	171	178	184	184	
2013		7	85	149	195	221	248	265	279	286	286	
2014			4	60	105	144	189	218	238	252	252	
2015				-1	34	92	158	204	234	265	265	
2016					8	65	126	181	241	272	272	
2017						9	59	126	203	241	241	
2018							4	36	96	144	144	
2019								92	304	490	490	
2020									3	41	41	
2021										9	9	
Total										2 184	2 184	
All liabilities before 2012											2 849	
Liabilities for claims and claim adjustment expenses, net of reinsurance											6 193	

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)	1.7%	10.8%	12.1%	11.3%	9.0%	6.9%	5.8%	3.6%	2.0%	2.0%

¹ Unaudited

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

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

Property & Casualty Reinsurance – Specialty

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	13.8%	26.0%	20.6%	11.5%	6.5%	4.2%	2.7%	1.4%	0.6%	0.6%

¹ Unaudited

This category contains several individual large losses on marine, aviation and space lines, including the Costa Concordia event in accident year 2012. From 2017 to 2021 accident years, claims incurred is higher due to natural catastrophes, with 2020 accident year impacted by COVID-19, due to higher default probability than expected for Credit & Surety and coverage for Non-Damage Business Interruption for Engineering.

Corporate Solutions

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	16.9%	31.8%	16.5%	9.5%	5.7%	5.5%	2.1%	2.1%	1.5%	2.1%

¹ Unaudited

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

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

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

Life & Health Reinsurance, long tail

Incurred claims and allocated claim adjustment expenses, net of reinsurance

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

¹ Unaudited

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

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

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)	4.7%	16.2%	17.0%	12.3%	8.7%	6.4%	5.2%	4.3%	3.5%	2.7%

¹ Unaudited

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

Reconciliation of gross liability for unpaid claims and claim adjustment expenses

The following table reconciles the Group's net outstanding liabilities to the gross liabilities for unpaid claims and claim adjustment expenses. For details on consolidation please refer to Note 2 "Information on business segments".

The net outstanding liabilities correspond to the total liabilities for unpaid claims and claim adjustment expenses, net of reinsurance for each disaggregation category.

Other short duration contract lines include reserves for business that is not material to the Group and where accident year information is not available. For Life & Health Reinsurance, in certain markets, cedents do not provide sufficient information to reinsurers to split claims incurred and claims paid by accident year. This is based on existing market practice. For these markets, an assessment of available information from other sources was made along with investigating approximations that could be used to provide claims development information by accident year. However, these alternate sources and estimates, based on currently available data and methods, could not be used to generate meaningful and representative accident year information and therefore have been excluded from disclosure. Other short duration contract lines also contain other treaties from Property & Casualty Reinsurance and Corporate Solutions which could not be allocated on a consistent basis to disaggregation categories or specific accident years.

As of 31 December

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

Discounting information

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

USD millions	2020	2021
Carrying amount of discounted claims	1 374	1 103
Aggregate amount of the discount	-311	-249
Interest accretion ¹	29	29
Range of interest rates	3.0–3.2%	3.1–3.2%

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

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

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

As of 31 December, the DAC were as follows:

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

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

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

As of 31 December, the PVFP was as follows:

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

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

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

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

7 Investments

Investment income

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

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

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

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

Realised gains and losses

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

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

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

Investment result – unit-linked and with-profit business

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

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

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

Impairment on fixed income securities related to credit losses

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

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

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

USD millions	2020	2021
Balance as of 1 January	61	46
Credit losses for which an other-than-temporary impairment was not previously recognised	18	5
Reductions for securities sold during the period	–32	–10
Increase of credit losses for which an other-than-temporary impairment has been recognised previously, when the Group does not intend to sell, or more likely than not will not be required to sell before recovery		5
Impact of increase in cash flows expected to be collected	–2	–1
Impact of foreign exchange movements	1	–1
Balance as of 31 December	46	44

Investments available-for-sale

Amortised cost or cost, estimated fair values and other-than-temporary impairments of fixed income securities classified as available-for-sale as of 31 December were as follows:

2020 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	10 915	693	-18		11 590
US Agency securitised products	6 575	214	-10		6 779
States of the United States and political subdivisions of the states	1 444	248			1 692
United Kingdom	4 206	841	-5		5 042
Germany	3 038	494	-1		3 531
Canada	2 179	223	-13		2 389
France	2 551	570	-1		3 120
China	1 704	23	-6		1 721
Other	10 571	821	-38		11 354
Total	43 183	4 127	-92		47 218
Corporate debt securities	27 538	3 084	-35		30 587
Mortgage- and asset-backed securities	3 141	157	-22	-1	3 275
Fixed income securities available-for-sale	73 862	7 368	-149	-1	81 080

2021 USD millions	Amortised cost or cost	Gross unrealised gains	Gross unrealised losses	Other-than-temporary impairments recognised in other comprehensive income	Estimated fair value
Debt securities issued by governments and government agencies:					
US Treasury and other US government corporations and agencies	14 969	360	-98		15 231
US Agency securitised products	2 981	46	-25		3 002
States of the United States and political subdivisions of the states	1 306	203			1 509
United Kingdom	4 158	367	-62		4 463
Germany	2 758	275	-23		3 010
Canada	2 874	120	-12		2 982
France	2 403	205	-49		2 559
China	2 286	26			2 312
Other	10 603	376	-114		10 865
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

The "Other-than-temporary impairments recognised in other comprehensive income" column includes only securities with a credit-related loss recognised in earnings. Subsequent recovery in fair value of securities previously impaired in other comprehensive income is also presented in the "Other-than-temporary impairments recognised in other comprehensive income" column.

Unrealised losses on securities available-for-sale

The following table shows the fair value and unrealised losses of the Group's fixed income securities, aggregated by investment category and length of time that individual securities were in a continuous unrealised loss position as of 31 December 2020 and 2021.

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

2021 USD millions	Less than 12 months		12 months or more		Total	
	Fair value	Unrealised losses	Fair value	Unrealised losses	Fair value	Unrealised losses
Debt securities issued by governments and government agencies:						
US Treasury and other US government corporations and agencies	9 635	74	582	24	10 217	98
US Agency securitised products	1 325	24	36	1	1 361	25
States of the United States and political subdivisions of the states	20	0			20	0
United Kingdom	830	25	388	37	1 218	62
Germany	766	20	39	3	805	23
Canada	1 633	10	40	2	1 673	12
France	1 130	45	48	4	1 178	49
China	20	0	39	0	59	0
Other	4 612	66	636	48	5 248	114
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

Maturity of fixed income securities available-for-sale

The amortised cost or cost and estimated fair values of investments in fixed income securities available-for-sale by remaining maturity are shown below. Fixed maturity investments are assumed not to be called for redemption prior to the stated maturity date. As of 31 December 2020 and 2021, USD 20 219 million and USD 25 004 million, respectively, of fixed income securities available-for-sale were callable.

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

Investments trading and at fair value through earnings

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

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

Investments held for unit-linked and with-profit business

As of 31 December 2020 and 31 December 2021, the carrying amounts of investments held for unit-linked business consist of equity securities at fair value through earnings of USD 463 million and USD 468 million.

Mortgage, policy and other loans, and investment real estate

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

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

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

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

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

Maturity of lessor cash flows

As of 31 December 2021, the total undiscounted cash flows to be received from operating leases of investment real estate for the next five years and thereafter were as follows:

USD millions	Operating leases
Less than one year	211
Between one year and two years	188
Between two years and three years	158
Between three years and four years	129
Between four years and five years	99
After five years	398
Total cash flows	1 183

The Group manages risk associated with the residual value of its leased properties through careful property selection as well as diversification by geographical region and property type. Lease contracts for residential real estate in Switzerland and Germany are usually open-ended. Cash flows for such contracts have been projected taking into consideration the average turnover rate in the region. Lease contracts for residential real estate in the US with a lease term of one year or less have been excluded from the projected cash flows in the table above. Rental income for those leases for the year ended 31 December 2020 and 2021 was USD 27 million and USD 25 million, respectively.

Other financial assets and liabilities by measurement category

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

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

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

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:

2020 USD millions	Gross amounts of recognised financial assets	Amounts set-off in the balance sheet	Net amounts of financial assets presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – assets	1 609	-1 343	266	-3	263
Reverse repurchase agreements	4 945	-1 943	3 002	-3 002	0
Securities borrowing	292	-10	282	-280	2
Total	6 846	-3 296	3 550	-3 285	265

2020 USD millions	Gross amounts of recognised financial liabilities	Amounts set-off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	Related financial instruments not set-off in the balance sheet	Net amount
Derivative financial instruments – liabilities	-1 775	1 280	-495	303	-192
Repurchase agreements	-1 891	1 643	-248	248	0
Securities lending	-2 032	310	-1 722	1 652	-70
Total	-5 698	3 233	-2 465	2 203	-262

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

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

Assets pledged

As of 31 December 2020 and 2021, investments with a carrying value of USD 5 858 million and USD 5 974 million, respectively, were on deposit with regulatory agencies in accordance with local requirements, of which USD 249 million and USD 244 million, respectively, were cash and cash equivalents. As of 31 December 2020 and 2021, investments with a carrying value of USD 15 424 million and USD 15 006 million, respectively, were placed on deposit or pledged to secure certain reinsurance liabilities, including pledged investments in subsidiaries, of which USD 259 million and USD 119 million, respectively, were cash and cash equivalents. Cash and cash equivalents pledged include some instances where cash is legally restricted from usage or withdrawal.

As of 31 December 2020 and 2021, investments with a carrying value of USD 795 million and USD 463 million, respectively, were placed on deposit or pledged to secure certain derivative and debt liabilities.

As of 31 December 2020 and 2021, securities of USD 13 787 million and USD 16 775 million, respectively, were transferred to third parties under securities lending transactions and repurchase agreements on a fully collateralised basis. Corresponding liabilities of USD 1 970 million and USD 1 431 million, respectively, were recognised in accrued expenses and other liabilities for the obligation to return collateral that the Group has the right to sell or reuse.

As of 31 December 2020 and 2021, a real estate portfolio with a carrying value of USD 200 million and USD 190 million, respectively, served as collateral for a credit facility, allowing the Group to withdraw funds up to CHF 500 million.

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

As of 31 December 2020 and 2021, the fair value of the equity securities, government and corporate debt securities received as collateral was USD 4 837 million and USD 5 494 million, respectively. Of this, the amount that was sold or repledged as of 31 December 2020 and 2021 was USD 1 341 million and USD 1 002 million, respectively. The sources of the collateral are securities borrowing, reverse repurchase agreements and derivative transactions.

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

As of 31 December 2020 and 2021, the gross amounts of liabilities related to repurchase agreements and securities lending by the class of securities transferred to third parties and by the remaining maturity are shown below.

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

2021 USD millions	Remaining contractual maturity of the agreements				Total
	Overnight and continuous	Up to 30 days	30–90 days	Greater than 90 days	
Repurchase agreements					
Debt securities issued by governments and government agencies	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

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

8 Fair value disclosures

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

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

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

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

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

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

The fair values of assets are adjusted to incorporate the counterparty risk of non-performance. Similarly, the fair values of liabilities reflect the risk of non-performance of the Group, captured by the Group's credit spread. These valuation adjustments from assets and liabilities measured at fair value using significant unobservable inputs are recognised in net realised gains and losses. For 2021, these adjustments were not material. Whenever the underlying assets or liabilities are reported in a specific business segment, the valuation adjustment is allocated accordingly. Valuation adjustments not attributable to any business segment are reported in Group items.

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

Valuation techniques

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

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

Values of mortgage- and asset-backed securities are obtained both from third party pricing vendors and through quoted prices, some of which may be based on the prices of comparable securities with similar structural and collateral features. Values of certain ABS for which there are no significant observable inputs are developed using benchmarks to similar transactions or indices. For both residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), cash flows are derived based on the transaction-specific

information, which incorporates priority in the capital structure, and are generally adjusted to reflect benchmark yields, market prepayment data, collateral performance (default rates and loss severity) for specific vintage and geography, credit enhancements and ratings. For certain RMBS and CMBS with low levels of market liquidity, judgements may be required to determine comparable securities based on the loan type and deal-specific performance. CMBS terms may also incorporate lock-out periods that restrict borrowers from prepaying the loans or provide disincentives to prepay and therefore reduce prepayment risk of these securities, compared to RMBS. The factors specifically considered in valuation of CMBS include borrower-specific statistics in a specific region, such as debt service coverage and loan-to-value ratios, as well as the type of commercial property. Mortgage- and asset-backed securities also includes debt securitised by credit card, student loan and auto loan receivables. Pricing inputs for these securities also focus on capturing, where relevant, collateral quality and performance, payment patterns and delinquencies.

The Group uses third party pricing vendor data to value agency securitised products, which mainly include collateralised mortgage obligations (CMO) and mortgage-backed government agency securities. The valuations generally utilise observable inputs consistent with those noted above for RMBS and CMBS.

Equity securities held by the Group for proprietary investment purposes are mainly classified in level 1. Securities classified in level 1 are traded on public stock exchanges for which quoted prices are readily available.

The category "Other invested assets" includes the Group's private equity and hedge fund investments which are made directly or via ownership of funds. Valuation of direct private equity investments requires significant management judgement due to the absence of quoted market prices and the lack of liquidity. Initial valuation is based on the acquisition cost, and is further refined based on the available market information for the public companies that are considered comparable to the Group's holdings in the private companies being valued, and the private company-specific performance indicators, both historic and projected. Subsequent valuations also reflect business or asset appraisals, as well as market transaction data for private and public benchmark companies and the actual companies being valued, such as financing rounds and mergers and acquisitions activity. The Group's holdings in private equity and hedge funds are generally valued utilising net asset values (NAV), subject to adjustments, as deemed necessary, for restrictions on redemption (lock-up periods and amount limitations on redemptions). These investments are included under investments measured at net asset value as a practical expedient.

The Group holds both exchange-traded and OTC interest rate, foreign exchange, credit and equity derivative contracts for hedging and trading purposes. The fair values of exchange-traded derivatives measured using observable exchange prices are classified in level 1. Long-dated contracts may require adjustments to the exchange-traded prices which would trigger reclassification to level 2 in the fair value hierarchy. OTC derivatives are generally valued by the Group based on the internal models, which are consistent with industry standards and practices, and use both observable (dealer, broker or market consensus prices, spot and forward rates, interest rate and credit curves and volatility indices) and unobservable inputs (adjustments for liquidity, inputs derived from the observable data based on the Group's judgements and assumptions).

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

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

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

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

Assets and liabilities measured at fair value on a recurring basis

As of 31 December, the fair values of assets and liabilities measured on a recurring basis by level of input were as follows:

2020 USD millions	Quoted prices in active markets for identical assets and liabilities (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	Impact of netting ¹	Total
Assets					
Fixed income securities held for proprietary investment purposes	11 264	70 571	1 183		83 018
Debt securities issued by US government and government agencies	11 264	2 194			13 458
US Agency securitised products		7 021			7 021
Debt securities issued by non-US governments and government agencies		28 646			28 646
Corporate debt securities		29 404	1 183		30 587
Mortgage- and asset-backed securities		3 306			3 306
Equity securities held for proprietary investment purposes	4 899				4 899
Equity securities backing unit-linked and with-profit business	463				463
Short-term investments held for proprietary investment purposes	6 846	9 236			16 082
Derivative financial instruments	5	1 372	232	-1 343	266
Interest rate contracts		494			494
Foreign exchange contracts		215			215
Equity contracts	4	653	201		858
Credit contracts		10			10
Other contracts	1		31		32
Other invested assets	551	1 085	588		2 224
Funds held by ceding companies		172			172
Total assets at fair value	24 028	82 436	2 003	-1 343	107 124
Liabilities					
Derivative financial instruments	-12	-1 422	-341	1 280	-495
Interest rate contracts		-444	-2		-446
Foreign exchange contracts		-410			-410
Equity contracts	-10	-331	-23		-364
Credit contracts		-237			-237
Other contracts	-2		-316		-318
Liabilities for life and health policy benefits			-98		-98
Accrued expenses and other liabilities	-891	-2 099			-2 990
Total liabilities at fair value	-903	-3 521	-439	1 280	-3 583

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.

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 and with-profit business	468				468
Short-term investments held for proprietary investment purposes	2 495	5 967			8 462
Derivative financial instruments	12	1 273	86	-1 207	164
Interest rate contracts	1	433			434
Foreign exchange contracts		331			331
Equity contracts	9	504	60		573
Credit contracts		5			5
Other contracts	2		26		28
Other invested assets	1 114	486	507		2 107
Funds held by ceding companies		172			172
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

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

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

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

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

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".

2021 USD millions	Fixed income securities	Equity securities	Derivative assets	Investment real estate	Other invested assets	Total assets	Derivative liabilities	Liabilities for life and health policy benefits	Total liabilities
Assets and liabilities									
Balance as of 1 January	1 183	0	232	0	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
Disposals						0			0
Impact of foreign exchange movements	-10					-10			0
Closing balance as of 31 December	1 312	0	86	0	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".

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

The gains and losses relating to the assets and liabilities measured at fair value using significant unobservable inputs (level 3) for the years ended 31 December were as follows:

USD millions	2020	2021
Gains/losses included in net income for the period	69	38
Whereof change in unrealised gains/losses relating to assets and liabilities still held at the reporting date	-16	-12

Quantitative information about level 3 fair value measurements

Unobservable inputs for major level 3 assets and liabilities as of 31 December were as follows:

USD millions	2020 Fair value	2021 Fair value	Valuation technique	Unobservable input	Range (weighted average ¹)
Assets					
Corporate debt securities	1 183	1 312			
Infrastructure loans	701	779	Discounted cash flow model	Valuation spread	65–305 bps (203 bps)
Private placement corporate debt	440	491	Corporate spread matrix	Credit spread	39–196 bps (99 bps)
Private placement credit tenant leases	42	36	Discounted cash flow model	Illiquidity premium	125–150 bps (146 bps)
Derivative equity contracts	201	60			
OTC equity option referencing correlated equity indices	201	60	Proprietary option model	Correlation	-20–50% (33%)
Liabilities					
Derivative equity contracts	-23	-9			
OTC equity option referencing correlated equity indices	-23	-9	Proprietary option model	Correlation	-20–95% (39.3%)
Other derivative contracts and liabilities for life and health policy benefits	-414	-344			
Variable annuity and fair valued GMDB contracts	-355	-261	Discounted cash flow model	Risk margin	4% (n/a)
				Volatility	10.7–70.8%
				Lapse	1–10%
				Mortality improvement	0–1.5%
				Withdrawal rate	0–90%
Weather contracts	-30	-66	Proprietary option model	Risk margin	7–18% (13.5%)
				Correlation	-26%–48% (-0.7%)
				Volatility (power/gas)	39–179% (120.9%)
				Volatility (temperature)	50–149 (119) HDD/CAT ²
				Index value (temperature)	1 133–7 379 (1 508) HDD/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); Cumulative Average Temperature (CAT).

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

The significant unobservable input used in the fair value measurement of the Group's infrastructure loans is valuation spread. A significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement corporate debt securities is credit spread. A significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement. The significant unobservable input used in the fair value measurement of the Group's private placement credit tenant leases is illiquidity premium. A significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement.

The significant unobservable input used in the fair value measurement of the Group's OTC equity option referencing correlated equity indices is correlation. Where the Group is long correlation risk, a significant increase (decrease) in this input in isolation would have resulted in a significantly higher (lower) fair value measurement. Where the Group is short correlation risk, a significant increase (decrease) in this input in isolation would have resulted in a significantly lower (higher) fair value measurement.

The significant unobservable inputs used in the fair value measurement of the Group's variable annuity and fair valued guaranteed minimum death benefit (GMDB) contracts are: risk margin, volatility, lapse, mortality improvement rate and withdrawal rate. A significant increase (decrease) in isolation in each of the following inputs: risk margin, volatility and withdrawal rate would have resulted in a significantly lower (higher) fair value of the Group's obligation. A significant increase (decrease) in isolation in lapse rate would, in general, have resulted in a significantly higher (lower) fair value of the Group's obligation due to the maturity of the contracts. Changes in the mortality improvement rate impact the fair value of the Group's obligation differently for living-benefit products, compared to death-benefit products. For the former, a significant increase (decrease) in the mortality improvement rate (ie decrease (increase) in mortality) in isolation would have resulted in a decrease (increase) in fair value of the Group's liability. For the latter, a significant increase (decrease) in the mortality improvement rate in isolation would have resulted in an increase (decrease) in fair value of the Group's liability.

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

Other invested assets measured at net asset value

Other invested assets measured at net asset value as of 31 December were as follows:

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

¹ The redemption frequency varies by position.

² Cash distribution can be delayed for an extended period depending on the sale of the underlyings.

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

The private equity direct portfolio consists of equity and equity-like investments directly in other companies. These investments have no contractual term and are generally held based on financial or strategic intent.

Private equity and real estate funds generally have limitations imposed on the amount of redemptions from the fund during the redemption period due to illiquidity of the underlying investments. Fees may apply for redemptions or transferring of interest to other parties. Distributions are expected to be received from these funds as the underlying assets are liquidated. The period of time over which the underlying assets are expected to be liquidated is indeterminate as investees provide liquidation notices.

The redemption frequency of hedge funds varies depending on the manager as well as the nature of the underlying product. Additionally, certain funds may impose lock-up periods and redemption gates as defined in the terms of the individual investment agreement.

Fair value option

The fair value option under the Financial Instruments Topic permits the choice to measure specified financial assets and liabilities at fair value on an instrument-by-instrument basis. The Group elected the fair value option for positions in the following line items:

Other invested assets

The Group elected the fair value option for certain investments classified as equity method investees within other invested assets in the balance sheet. The Group applied the fair value option, as the investments are managed on a fair value basis. The changes in fair value of these elected investments are recorded in earnings.

Funds held by ceding companies

For operational efficiencies, the Group elected the fair value option for funds held by the cedent under three of its reinsurance agreements. The assets are carried at fair value and changes in fair value are reported as a component of earnings.

Liabilities for life and health policy benefits

The Group elected the fair value option for existing GMDB reserves related to certain variable annuity contracts. The Group has applied the fair value option, as the equity risk associated with those contracts is managed on a fair value basis and it is economically hedged with derivative options in the market. The liability is carried at fair value and changes in fair value attributable to instrument-specific credit risk are reported on other comprehensive income and all other changes in fair value are reported as a component of earnings.

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

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

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

Changes in fair values for items measured at fair value pursuant to election of the fair value option

Gains/losses included in earnings for items measured at fair value pursuant to election of the fair value option including foreign exchange impact for the years ended 31 December were as follows:

USD millions	2020	2021
Other invested assets	-24	54
Funds held by ceding companies	6	
Liabilities for life and health policy benefits	-8	16
Total	-26	70

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

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

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

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

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

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

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

Debt positions, which are fair valued based on executable broker quotes or the discounted cash flow method using observable inputs, are classified as level 2 measurements. Fair value of the majority of the Group's level 3 debt positions is judged to approximate carrying value due to the highly tailored nature of the obligation and short-notice termination provisions.

9 Derivative financial instruments

The Group uses a variety of derivative financial instruments including swaps, options, forwards, credit derivatives and exchange-traded financial futures in its trading and hedging strategies, in line with the Group's overall risk management strategy. The objectives include managing exposure to price, foreign currency and/or interest rate risk on planned or anticipated investment purchases, existing assets or liabilities, as well as locking in attractive investment conditions for future available funds.

The fair values represent the gross carrying value amounts at the reporting date for each class of derivative contract held or issued by the Group. The gross fair values are not an indication of credit risk, as many over-the-counter transactions are contracted and documented under ISDA master agreements or their equivalent. Management believes that such agreements provide for legally enforceable set-off in the event of default, which substantially reduces credit exposure.

Fair values and notional amounts of derivative financial instruments

As of 31 December, the fair values and notional amounts of the derivatives outstanding were as follows:

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

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

The notional amounts of derivative financial instruments give an indication of the Group's volume of derivative activity. The fair value assets are included in "Other invested assets" and "Investments for unit-linked and with-profit business". The fair value liabilities are included in "Accrued expenses and other liabilities". The fair value amounts that were not offset were nil as of 31 December 2020 and 2021.

Non-hedging activities

The Group primarily uses derivative financial instruments for risk management and trading strategies. Gains and losses of derivative financial instruments not designated as hedging instruments are recorded in “Net realised investment gains/losses – non-participating business” and “Net investment result – unit-linked and with-profit business” in the income statement.

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

USD millions	2020	2021
Derivatives not designated as hedging instruments		
Interest rate contracts	145	52
Foreign exchange contracts	970	-907
Equity contracts	-114	-209
Credit contracts	-93	-43
Other contracts		162
Total gains/losses recognised in income	908	-945

Hedging activities

The Group designates certain derivative financial instruments as hedging instruments. The designation of derivative financial instruments is primarily used for overall portfolio and risk management strategies. As of 31 December 2020 and 2021, the following hedging relationships were outstanding:

Fair value hedges

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

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

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

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

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

Cash flow hedges

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

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

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

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

Hedges of the net investment in foreign operations

The Group designates derivative and non-derivative monetary financial instruments as hedging the foreign currency exposure of its net investment in certain foreign operations.

As of 31 December 2020 and 2021, the Group recorded an accumulated net unrealised foreign currency remeasurement gain of USD 248 million and USD 594 million, respectively, in "Other comprehensive income – Foreign currency translation". These offset translation gains and losses on the hedged net investment.

Maximum potential loss

In consideration of the rights of set-off and the qualifying master netting arrangements with various counterparties, the maximum potential loss as of 31 December 2020 and 2021 was approximately USD 956 million and USD 583 million, respectively. The maximum potential loss is based on the positive market replacement cost assuming non-performance of all counterparties, excluding cash collateral.

Credit risk-related contingent features

Certain derivative instruments held by the Group contain provisions that require its debt to maintain an investment-grade credit rating. If the Group's credit rating were downgraded or no longer rated, the counterparties could request immediate payment, guarantee or an ongoing full overnight collateralisation on derivative instruments in net liability positions.

The total fair value of derivative financial instruments containing credit risk-related contingent features amounted to USD 71 million and USD 63 million as of 31 December 2020 and 2021, respectively. For derivative financial instruments containing credit risk-related contingent features, the Group posted collateral of USD 48 million and USD 36 million as of 31 December 2020 and 2021, respectively. In the event of a reduction of the Group's credit rating to below investment grade, a fair value of USD 30 million additional collateral would have had to be posted as of 31 December 2021. The total equals the amount needed to settle the instruments immediately as of 31 December 2021.

10 Disposals

ReAssure Group Plc.

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

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

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

11 Assets held for sale

Elips Life AG

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

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

1.2 Debt and contingent capital instruments

The Group enters into long- and short-term debt arrangements to obtain funds for general corporate use and specific transaction financing. The Group defines short-term debt as debt having a maturity at the balance sheet date of not greater than one year and long-term debt as having a maturity of greater than one year. For subordinated debt positions, maturity is defined as the first optional redemption date (notwithstanding that optional redemption could be subject to regulatory consent). Interest expense is classified accordingly.

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

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

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

Maturity of long-term debt

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

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

Senior long-term debt

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

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	258
2044	Subordinated fixed rate resettable callable loan note	2014	USD	500	4.50%	2024	499
2049	Subordinated fixed rate reset step-up callable loan note	2019	USD	1 000	5.00%	2029	992
2050	Subordinated fixed rate reset step-up callable loan note	2019	EUR	750	2.53%	2030	849
2052	Subordinated fixed rate reset step-up callable loan note	2020	EUR	800	2.71%	2032	876
2057	Subordinated private placement (amortising, limited recourse)	2007	GBP	1 372	6.25%		1 858
Perpetual	Perpetual subordinated fixed-to-floating rate callable loan note	2015	EUR	750	2.60%	2025	822
Perpetual	Perpetual subordinated fixed spread callable note	2019	USD	1 000	4.25%	2024	995
Total subordinated long-term debt as of 31 December 2021						7 149	
Total subordinated long-term debt as of 31 December 2020						8 074	

Contingent capital instruments classified as long-term debt

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

Interest expense on long-term debt and contingent capital instruments

Interest expense on long-term debt for the years ended 31 December was as follows:

USD millions	2020	2021
Senior financial debt	88	88
Senior operational debt	7	3
Subordinated financial debt	263	227
Subordinated operational debt	112	119
Contingent capital instruments classified as financial debt	17	17
Total	487	454

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

Convertible debt

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

Long-term debt issued in 2021

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

13 Leases

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

Lease liabilities and right-of-use assets

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

USD millions	2020	2021
Operating lease right-of-use assets	471	426
Operating lease liabilities	524	478

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

Maturity of lease liabilities

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

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

As of 31 December 2021, undiscounted sublease cash flows over the next ten years were USD 54 million.

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

The weighted average discount rate for operating leases as of 31 December 2020 and 2021 was 2.4% and 2.1%, respectively. The weighted average remaining lease term for operating leases as of 31 December 2020 and 2021 was 9.3 years and 9.9 years, respectively.

Lease cost

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

USD millions	2020	2021
Fixed operating lease cost	89	85
Other lease cost ¹	5	5
Total operating lease cost	94	90
Less sublease income from operating leases	-10	-6
Total lease cost	84	84

¹ "Other lease cost" includes variable lease cost.

Other information

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

14 Earnings per share

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

USD millions (except share data)	2020	2021
Basic earnings per share		
Net income/loss	-824	1 437
Non-controlling interests	-54	
Net income/loss attributable to common shareholders	-878	1 437
Weighted average common shares outstanding	289 126 570	288 952 702
Net income/loss per share in USD	-3.04	4.97
Net income/loss per share in CHF¹	-2.97	4.52
Effect of dilutive securities		
Change in income available to common shares due to convertible debt		14
Change in average number of shares due to convertible debt		14 072 893
Change in average number of shares due to employee options		506 107
Diluted earnings per share		
Net income assuming debt conversion and exercise of options		1 451
Weighted average common shares outstanding		303 531 702
Net income/loss per share in USD	-3.04	4.78
Net income/loss per share in CHF¹	-2.97	4.35

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 2020 and 2021, the parent company of the Group (Swiss Re Ltd) paid dividends per share of CHF 5.90, respectively.

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

15 Income taxes

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

USD millions	2020	2021
Current taxes	398	268
Deferred taxes	-664	126
Income tax expense/benefit	-266	394

Tax rate reconciliation

The following table reconciles the expected tax expense at the Swiss statutory tax rate to the actual tax expense in the accompanying income statement:

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

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

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

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

Deferred and other non-current taxes

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

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

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

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

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

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

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

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

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

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

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

Income taxes paid in 2020 and 2021 were USD 364 million and USD 258 million, respectively.

Unrecognised tax benefits

A reconciliation of the opening and closing amount of gross unrecognised tax benefits (excluding interest and penalties) is as follows:

USD millions	2020	2021
Balance as of 1 January	170	150
Additions based on tax positions related to current year	13	11
Additions based on tax positions related to prior years	-6	14
Reductions for tax positions of current year	16	-2
Reductions for tax positions of prior years	-30	-20
Statute expiration	-5	-2
Settlements	-17	-1
Other (including foreign currency translation)	9	-7
Balance as of 31 December	150	143

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

Interest and penalties related to unrecognised tax benefits are recorded in income tax expense/benefit. For the years ended 31 December 2020 and 2021, such benefits were USD 10 million and expenses were USD 1 million, respectively. For the years ended 31 December 2020 and 2021, USD 37 million and USD 38 million, respectively, were accrued for the payment of interest (net of tax benefits) and penalties. The accrued interest balance as of 31 December 2021 is included within the deferred and other non-current taxes section reflected above and in the balance sheet.

The balance of gross unrecognised tax benefits as of 31 December 2021 presented in the table above excludes accrued interest and penalties (USD 38 million).

During the year, certain tax positions and audits in Switzerland were effectively settled.

The Group continually evaluates proposed adjustments by taxing authorities. The Group believes that it is reasonably possible (more than remote and less than likely) that the balance of unrecognised tax benefits could decrease by USD 62 million over the next 12 months due to settlements or expiration of statutes. It is also reasonably possible that balance could increase as a result of proposed adjustments by taxing authorities. Quantification of an estimated range of increases cannot be made at this time.

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

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

16 Benefit plans

Defined benefit pension plans and post-retirement benefits

The Group sponsors various funded defined benefit pension plans. Employer contributions to the plans are charged to income on a basis which recognises the costs of pensions over the expected service lives of employees covered by the plans. The Group's funding policy for these plans is to contribute annually at a rate that is intended to maintain a level percentage of compensation for the employees covered. A full valuation is prepared at least every three years.

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

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

2020				
USD millions	Swiss plan	Foreign plans	Other benefits	Total
Benefit obligation as of 1 January	4 165	2 589	340	7 094
Service cost	120	8	4	132
Interest cost	4	47	5	56
Amendments				0
Actuarial gains/losses	226	169	10	405
Benefits paid	-49	-84	-17	-150
Employee contribution	35			35
Acquisitions/disposals/additions		-541		-541
Effect of settlement, curtailment and termination	-161			-161
Effect of foreign currency translation	410	46	18	474
Benefit obligation as of 31 December	4 750	2 234	360	7 344
Fair value of plan assets as of 1 January	4 145	2 633	0	6 778
Actual return on plan assets	220	272		492
Company contribution	104	15	17	136
Benefits paid	-49	-84	-17	-150
Employee contribution	35			35
Acquisitions/disposals/additions		-559		-559
Effect of settlement, curtailment and termination	-161			-161
Effect of foreign currency translation	408	39		447
Fair value of plan assets as of 31 December	4 702	2 316	0	7 018
Funded status	-48	82	-360	-326
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

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

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

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

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

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

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

Components of net periodic benefit cost

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

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

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

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

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

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

The accumulated benefit obligation (the current value of accrued benefits excluding future salary increases) for pension benefits was USD 6 921 million and USD 6 631 million as of 31 December 2020 and 2021, respectively.

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

USD millions	2020	2021
Projected benefit obligation	5 455	523
Fair value of plan assets	5 195	368

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

Principal actuarial assumptions

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

The expected long-term rates of return on plan assets are based on long-term expected inflation, interest rates, risk premiums and targeted asset category allocations. The estimates take into consideration historical asset category returns.

Plan asset allocation by asset category

The actual asset allocation by major asset category for defined benefit pension plans as of the respective measurement dates in 2020 and 2021 was as follows:

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

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

Equity securities include Swiss Re shares of USD 2 million (0.03% of total plan assets) and USD 3 million (0.04% of total plan assets) as of 31 December 2020 and 2021, respectively.

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

Assets measured at fair value

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

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

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

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

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

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

2021 USD millions	Fair value			Investments measured at net asset value as practical expedient	Total
	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)		
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

Assets measured at fair value using significant unobservable inputs (level 3)

For the years ended 31 December, the reconciliation of fair value of pension plan assets using significant unobservable inputs were as follows:

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

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

Expected contributions and estimated future benefit payments

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

As of 31 December 2021, the projected benefit payments, which reflect expected future service, not adjusted for transfers in and for employees' voluntary contributions, are as follows:

USD millions	Swiss plan	Foreign plans	Other benefits	Total
2022	272	80	18	370
2023	268	84	18	370
2024	258	86	18	362
2025	256	88	18	362
2026	249	89	18	356
Years 2027–2031	1 134	468	88	1 690

Defined contribution pension plans

The Group sponsors a number of defined contribution plans to which employees and the Group make contributions. The accumulated balances are paid as a lump sum at the earlier of retirement, termination, disability or death. The amount expensed in 2020 and 2021 was USD 84 million and USD 87 million, respectively.

17 Share-based payments

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

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

Restricted shares

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

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

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

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

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

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

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

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

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

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

Unrecognised compensation cost

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

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

Global Share Participation Plan

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

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

18 Compensation, participations and loans of members of governing bodies

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

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

19 Related parties

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

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

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

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

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

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

20 Commitments and contingent liabilities

As a participant in limited and other investment partnerships, the Group commits itself to making available certain amounts of investment funding, callable by the partnerships for periods of up to ten years. The total commitments remaining uncalled as of 31 December 2021 were USD 1 607 million.

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

The Group enters into a number of contracts in the ordinary course of re/insurance and financial services business which, if the Group's credit rating and/or defined statutory measures decline to certain levels, would require the Group to post collateral or obtain guarantees. The contracts typically provide alternatives for recapture of the associated business.

Legal proceedings

In the normal course of business operations, the Group is involved in various claims, lawsuits and regulatory matters. In the opinion of management, the resolution of these matters is not expected to have a material adverse effect on the Group's business, consolidated financial position, results of operations or cash flows.

21 Significant subsidiaries and equity investees

		Share capital (millions)	Affiliation in % as of 31.12.2021	Method of consolidation
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 (Jersey) Limited, St Helier	GBP	3	100	f
Swiss Re Finance Midco (Jersey) Limited, St Helier	GBP	0.000002	100	f
Liechtenstein				
Elips Life AG, Vaduz	CHF	12	100	f
Elips Versicherungen AG, Vaduz	CHF	5	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	15 960	100	f
Swiss Re International SE, Luxembourg	EUR	182	100	f
Ares ECSF XI (S) Holdings S.À R.L., Luxembourg	EUR	131	100	f
iptiQ EMEA P&C S.A., Luxembourg	EUR	6	100	f
Netherlands				
elipsLife EMEA Holding B.V., Hoofddorp	EUR	0.0001	100	f
Swiss Re Life Capital EMEA Holding B.V., Hoofddorp	EUR	0.0001	100	f
iptiQ EMEA P&C Holding B.V., Hoofddorp	EUR	0.0001	100	f
Switzerland				
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 Capital Markets Limited, London	USD	60	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 31.12.2021	Method of consolidation	
Americas and Caribbean				
Brazil				
Swiss Re Brasil Resseguros S.A., Sao Paulo	BRL	337	100	f
Swiss Re Corporate Solutions Brasil Seguros S.A., Sao Paulo	BRL	318	60	f
Cayman Islands				
FWD Group Ltd, Grand Cayman	USD	1	12	e
SRE HL PE 1 LP, George Town	EUR	306	100	f
SREH HL PE 1 LP, George Town	EUR	419	100	f
SRZ HL PE 1 LP, George Town	USD	348	100	f
Swiss Pillar Investments UK Limited, George Town	GBP	0.1	100	f
Ares European Credit Strategies Fund XI (S), L.P., George Town	EUR	131	100	f
Colombia				
Compañía Aseguradora de Fianzas S.A. Confianza, Bogota	COP	234 203	51	f
United States				
First Specialty Insurance Corporation, Jefferson City	USD	5	100	f
iptiQ Americas Inc., Wilmington	USD	0.0001	100	f
Lumico Life Insurance Company, Jefferson City	USD	0	100	f
North American Capacity Insurance Company, Manchester	USD	4	100	f
North American Elite Insurance Company, Kansas City	USD	4	100	f
North American Specialty Insurance Company, Kansas City	USD	5	100	f
Pecan Re Inc., Colchester	USD	5	100	f
Pillar RE Holdings LLC, Wilmington	USD	0.001	100	f
SR Corporate Solutions America Holding Corporation, Wilmington	USD	0.00001	100	f
SRE HL PE 1 (Master) LP, Wilmington	EUR	305	100	f
SREH HL PE 1 (Master) LP, Wilmington	EUR	417	100	f
SRZ HL PE 1 (Master) LP, Wilmington	USD	347	100	f
Swiss Re America Holding Corporation, Wilmington	USD	0.1	100	f
Swiss Re Corporate Solutions Global Markets Inc., Wilmington	USD	0	100	f
Swiss Re Financial Markets Corporation, Wilmington	USD	0	100	f
Swiss Re Financial Products Corporation, Wilmington	USD	0.00001	100	f
Swiss Re Life & Health America Holding Company, Wilmington	USD	0.001	100	f
Swiss Re Life & Health America Inc., Jefferson City	USD	4	100	f
Swiss Re Management (US) Corporation, Wilmington	USD	0.0001	100	f
Swiss Re Property & Casualty America Inc., Kansas City	USD	1	100	f
Swiss Re Risk Solutions Corporation, Wilmington	USD	0	100	f
Swiss Re Treasury (US) Corporation, Wilmington	USD	0.00001	100	f
Swiss Reinsurance America Corporation, Armonk	USD	10	100	f
Washington International Insurance Company, Kansas City	USD	4	100	f
Westport Insurance Corporation, Jefferson City	USD	6	100	f
Wing Re Inc., Jefferson City	USD	0.3	100	f
Wing Re II Inc., Jefferson City	USD	0.3	100	f
Elips Life Insurance Company, Jefferson City	USD	0	100	f

	Share capital (millions)	Affiliation in % as of 31.12.2021	Method of consolidation	
Africa				
South Africa				
Swiss Re Africa Limited, Cape Town	ZAR	2	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

22 Variable interest entities

The Group enters into arrangements with variable interest entities (VIEs) in the normal course of business. The involvement ranges from being a passive investor to designing, structuring and managing the VIEs. The variable interests held by the Group arise primarily as a result of the Group's involvement in certain insurance-linked securitisations, life and health funding transactions, swaps in trusts, debt financing, investment, senior commercial mortgage and infrastructure loans as well as other entities, which meet the definition of a VIE.

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

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

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

- the power to direct the activities of the VIE that most significantly impact the entity's economic performance; and
- the obligation to absorb the entity's losses that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE.

For all its variable interests in VIEs, the Group assesses whether it has a controlling financial interest in these entities and, thus, is the primary beneficiary. The Group identifies the activities that most significantly impact the entity's performance and determines whether the Group has the power to direct those activities. In conducting the analysis, the Group considers the purpose, the design and the risks that the entity was designed to create and pass through to its variable interest holders. Additionally, the Group assesses if it has the obligation to absorb losses or if it has the right to receive benefits of the VIE that could potentially be significant to the entity. If both criteria are met, the Group has a controlling financial interest in the VIE and consolidates the entity.

The Group monitors changes to the facts and circumstances of the existing involvement with legal entities to determine whether they require reconsideration of the entity's designation as a VIE or voting interest entity. For VIEs, the Group regularly reassesses the primary beneficiary determination.

Insurance-linked securitisations

The insurance-linked securitisations transfer pre-existing insurance risk to investors through the issuance of insurance-linked securities. In insurance-linked securitisations, the securitisation vehicle assumes the insurance risk from a sponsor through insurance or derivative contracts. The securitisation vehicle generally retains the issuance proceeds as collateral, which consists of investment-grade securities. The Group does not have potentially significant variable interest in these vehicles and therefore is not a primary beneficiary.

Typically, the variable interests held by the Group arise through ownership of insurance-linked securities, in which case the Group's maximum loss equals the principal amount of the securities held by the Group.

Life and health funding vehicles

The Group participates in certain structured transactions that retrocede longevity and mortality risks to captive reinsurers with an aim to provide regulatory capital credit to a transaction sponsor through the creation of funding notes by a separate funding vehicle which is generally considered a VIE. The Group's participation in these transactions is generally limited to providing contingent funding support via a financial contract with a funding vehicle, which represents a potentially significant variable interest in the funding vehicle. The Group does not have power to direct activities of the funding vehicles and therefore is not a primary beneficiary of the funding vehicles in these transactions. The Group's maximum exposure in these transactions equals either the total contract notional or outstanding balance of the funding notes issued by the vehicle, depending on the specific contractual arrangements.

Swaps in trusts

The Group provides interest rate and foreign exchange risk hedges to certain asset securitisation trusts which qualify as VIEs. As the Group's involvement is limited to interest rate and foreign exchange derivatives, it does not have the power to direct any activities of the trusts and therefore does not qualify as primary beneficiary of any of these trusts. These activities are in run-off.

Debt financing vehicles

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

Investment vehicles

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

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

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

Investment vehicles for unit-linked business

Additionally, the Group invests on behalf of the policyholders as a passive investor in a variety of investment funds across various jurisdictions. By design, many of these funds meet a VIE definition. While the Group may have a potentially significant variable interest in some of these entities due to its share of the fund's total net assets, in most cases it does not have power over the fund's investment decisions or unilateral kick-out rights relative to the decision maker.

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

Senior commercial mortgage and infrastructure loans

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

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

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

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

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

Other

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

The Group did not provide financial or other support to any VIEs during 2021 that it was not previously contractually required to provide.

Consolidated VIEs

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

USD millions	2020	2021
Fixed income securities available-for-sale	3 807	3 362
Short-term investments	59	42
Cash and cash equivalents	20	77
Accrued investment income	30	29
Premiums and other receivables	35	22
Funds held by ceding companies	1	4
Deferred acquisition costs	5	7
Deferred tax assets	191	126
Other assets	14	19
Total assets	4 162	3 688
Unpaid claims and claim adjustment expenses	59	89
Unearned premiums	16	25
Funds held under reinsurance treaties	4	4
Reinsurance balances payable	22	24
Deferred and other non-current tax liabilities	166	109
Accrued expenses and other liabilities	18	7
Long-term debt	1 926	1 859
Total liabilities	2 211	2 117

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

Non-consolidated VIEs

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

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

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

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

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

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

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

23 Subsequent events

Sale of stake in Phoenix Group Holdings Plc.

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

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

Military conflict in Ukraine

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

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Statutory Auditor's Report

To the General Meeting of Swiss Re Ltd, Zurich

Report on the Audit of the Consolidated Financial Statements

Opinion

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

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

Basis for Opinion

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

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



VALUATION OF LEVEL 3 INVESTMENTS



VALUATION OF LIFE AND HEALTH RESERVES



VALUATION OF PROPERTY AND CASUALTY RESERVES



VALUATION OF DEFERRED TAX ASSETS ON LOSS CARRYFORWARDS

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



VALUATION OF LEVEL 3 INVESTMENTS

Key Audit Matter

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

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

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

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

- Note 1
- Note 7
- Note 8

Our response

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

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

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

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



VALUATION OF LIFE AND HEALTH RESERVES

Key Audit Matter

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

Our response

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



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

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

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

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

- Note 1
- Note 5

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

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

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

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



VALUATION OF PROPERTY AND CASUALTY RESERVES

Key Audit Matter

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

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

Our response

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

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

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



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

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

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

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

- Note 1
- Note 5

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



VALUATION OF DEFERRED TAX ASSETS ON LOSS CARRYFORWARDS

Key Audit Matter

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

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

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

Our response

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

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

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

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



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

- Note 1
- Note 14

Other Matter

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

Responsibilities of the Board of Directors for the Consolidated Financial Statements

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

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

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

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

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

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



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

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

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

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

Other Information in the Annual Report

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

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



Report on Other Legal and Regulatory Requirements

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

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

KPMG AG

Dr. Frank Pfaffenzeller

Licensed Audit Expert

Auditor in charge

Zurich, 16 March 2022

Eric James Elman

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Group financial years 2012–2021

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

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

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

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 2021 amounted to CHF 610 million (2020: CHF 1 573 million).

Revenues were mainly driven by cash dividends from subsidiaries and affiliated companies of CHF 868 million, trademark licence fees of CHF 407 million, realised gains on derivative financial instruments of CHF 82 million, interest on loans to subsidiaries and affiliated companies of CHF 51 million, and commitment fees of CHF 65 million.

Expenses were mainly driven by a valuation adjustment to the carrying amount of investments in subsidiaries and affiliated companies of CHF 328 million, administrative expenses of CHF 256 million, realised loss on investments of CHF 92 million, commitment fees of CHF 84 million, and interest on loans of CHF 23 million.

Assets

Total assets decreased from CHF 25 104 million as of 31 December 2020 to CHF 23 207 million as of 31 December 2021.

Current assets decreased by CHF 1 091 million to CHF 3 622 million as of 31 December 2021, mainly driven by a decrease in receivables from subsidiaries and affiliated companies.

Non-current assets decreased by CHF 806 million to CHF 19 585 million as of 31 December 2021, driven by a decrease in investments in subsidiaries and affiliated companies and loans to subsidiaries and affiliated companies.

Liabilities

Total liabilities decreased from CHF 2 619 million as of 31 December 2020 to CHF 1 817 million as of 31 December 2021.

Short-term liabilities increased by CHF 12 million to CHF 514 million as of 31 December 2021, mainly driven by an increase in loans from subsidiaries and affiliated companies partially offset by a decrease in payables to subsidiaries and affiliated companies.

Long-term liabilities decreased by CHF 814 million to CHF 1 303 million as of 31 December 2021, mainly due to a loan agreement with Swiss Re Finance (UK) plc partially offset by an increase in provision for currency fluctuation.

Shareholders' equity

Shareholders' equity decreased from CHF 22 485 million as of 31 December 2020 to CHF 21 390 million as of 31 December 2021, mainly due to dividends to shareholders of CHF 1 705 partially offset by net income of CHF 610 million.

Coronavirus

The global spread of the novel coronavirus and the disease it causes ("COVID-19"), and the actions taken to slow the spread of the pandemic, have had an adverse impact on communities, social and business interactions, economic activity and economies across the globe. Following the significant contractions of 2020, economic growth momentum is expected to carry over into 2022. However, the expectation of post-crisis global growth and the recovery remains fragile and uneven across economies, which are less resilient to face any subsequent shocks and/or challenges. As the COVID-19 crisis continues, the ultimate toll of the pandemic in terms of lives lost, societal dislocations, business activity, economic growth, broader costs to society and industry losses remains highly uncertain. The Swiss Re Group will continue to monitor pandemic-related developments and their impact on its operations and its investments.

Income statement

Swiss Re Ltd

For the years ended 31 December

CHF millions	Notes	2020	2021
Revenues			
Investment income	2	3 832	1 075
Trademark licence fees		416	407
Other revenues		9	5
Total revenues		4 257	1 487
Expenses			
Administrative expenses	3	-310	-256
Investment expenses	2	-2 072	-500
Other expenses		-299	-107
Total expenses		-2 681	-863
Income before income tax expense		1 576	624
Income tax expense		-3	-14
Net income		1 573	610

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	2020	2021
Current assets			
Cash and cash equivalents		0	0
Short-term investments	4, 5	55	55
Receivables from subsidiaries and affiliated companies	5	2 615	1 581
Other receivables and accrued income		26	14
Loans to subsidiaries and affiliated companies		2 017	1 972
Total current assets		4 713	3 622
Non-current assets			
Loans to subsidiaries and affiliated companies		1 241	745
Investments in subsidiaries and affiliated companies	6	19 150	18 840
Total non-current assets		20 391	19 585
Total assets		25 104	23 207

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

Liabilities and shareholders' equity

CHF millions	Notes	2020	2021
Liabilities			
Short-term liabilities			
Payables to subsidiaries and affiliated companies		264	158
Other liabilities and accrued expenses		128	128
Loans from subsidiaries and affiliated companies		110	228
Total short-term liabilities		502	514
Long-term liabilities			
Provisions		–	71
Debt	8	2 117	1 232
Total long-term liabilities		2 117	1 303
Total liabilities		2 619	1 817
Shareholders' equity			
Share capital	11	32	32
<i>Legal reserves from capital contributions</i>		192	–
<i>Other legal capital reserves</i>		0	5
Legal capital reserves		192	5
Legal profit reserves		4 314	4 311
Reserve for own shares (indirectly held by subsidiaries)		16	18
Voluntary profit reserves		17 431	17 491
Retained earnings brought forward		–	–
Net income for the financial year		1 573	610
Own shares (directly held by the Company)	10	–1 073	–1 077
Total shareholders' equity		22 485	21 390
Total liabilities and shareholders' equity		25 104	23 207

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 2021 comprises the accounting period from 1 January 2021 to 31 December 2021.

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. Value adjustments are recorded where the expected recovery value is lower than the 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 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 16 March 2022. This is the date on which the financial statements are available to be issued.

2 Investment income and expenses

CHF millions	2020	2021
Cash dividends from subsidiaries and affiliated companies	3 658	868
Realised gains on sale of investments	5	82
Valuation adjustments on derivative financial instruments	24	7
Income from short-term investments	0	0
Income from loans to subsidiaries and affiliated companies	75	51
Investment management income	0	0
Other interest revenues	70	67
Investment income	3 832	1 075

CHF millions	2020	2021
Realised losses on sale of investments	13	92
Valuation adjustments on derivative financial instruments	32	39
Valuation adjustments on investments in subsidiaries and affiliated companies	1 982	328
Investment management expenses	0	0
Other interest expenses	45	41
Investment expenses	2 072	500

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 2021, securities with a carrying amount of CHF 2 million (2020: CHF 4 million) were lent to Group companies under securities lending agreements.

5 Derivative financial instruments

As of 31 December 2021, the Company's assets for derivative financial instruments carried at market value amounted to CHF 55 millions (2020: CHF 155 millions).

To secure the net position of certain derivative financial assets and liabilities, securities in a total amount of CHF 53 million (2020: CHF 49 million) were deposited in favour of Group companies.

6 Investments in subsidiaries and affiliated companies

As of 31 December 2021 and 2020, Swiss Re Ltd held directly the following investments in subsidiaries and affiliated companies

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

As of 31 December 2020	Domicile	Currency	Share capital (millions)	Affiliation in %	Voting interest in %
Swiss Reinsurance Company Ltd	Zurich	CHF	34.4	100	100
Swiss Re Corporate Solutions Ltd	Zurich	CHF	100.0	100	100
Swiss Re Life Capital Ltd	Zurich	CHF	0.1	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 21 “Significant subsidiaries and equity investees” on pages 293 to 295 in the notes to the Group’s 2021 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, when issued, will be classified as subordinated debt. As of 31 December 2020 and 2021, no notes have been issued under the facilities.

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

Instrument	Issued in	Currency	Nominal value in millions	Commitment fee (paid on undrawn amount)	Interest rate on issued notes	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% ¹	2025	2050
Dated subordinated fixed rate callable notes facility	2016	USD	400	3.92%	6.05% ¹	2031	2056
Dated subordinated fixed-to-floating rate callable notes facility	2016	USD	800	3.67%	5.625% ¹	2027	2052
Perpetual subordinated fixed spread callable notes facility	2017	USD	750	2.77%	4.625% ¹	2022	Perpetual ²

¹ Until first optional redemption date.

² First optional redemption date in 2022 and every five years thereafter.

The Company has 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. For its various rights, Swiss Reinsurance Company Ltd owes the Company an unconditional fixed commitment fee on the total facility amount, payable in annual instalments. Annually, Swiss Reinsurance Company Ltd receives a partial reimbursement of the commitment fee on the undrawn facility amount. As of 31 December 2020 and 2021, the facilities were undrawn.

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

Instrument	Borrower	Issued in	Currency	Nominal value in millions	Total commitment fee calculated and paid on nominal value	Reimbursement fee paid on undrawn amount	Net commitment fee paid 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

As of 31 December 2021, Swiss Re Ltd had outstanding external debt of CHF 456 million (2020: CHF 442 million).

Instrument	Issued in	Currency	Nominal in millions	Interest rate	Maturity	Book value CHF millions
Convertible debt	2018	USD	500	3.25%	2024	456

9 Change in shareholders' equity

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
Allocations relating to the dividend paid					1 573		–1 573		–
Allocations 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

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 1.1.2020	33	192	5 312	17	18 200	4	932	–1 890	22 800
Allocations relating to the dividend paid					936	–4	–932		0
Dividend for the financial year 2019					–1 705				–1 705
Net income for the financial year							1 573		1 573
Share buyback programme 2019 ²								–184	–184
Share cancellation ²	–1		–999					1 000	0
Other movements in own shares			1	–1				1	1
Shareholders' equity 31.12.2020	32	192	4 314	16	17 431	0	1 573	–1 073	22 485

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.

² At the 155th Annual General Meeting held on 17 April 2019, the Group's shareholders authorised the Board of Directors to repurchase up to a maximum CHF 1 billion purchase value of the Group's own shares prior to the 2020 Annual General Meeting through a public share buyback programme for cancellation purposes. The buyback programme was completed on 18 February 2020. The total number of shares repurchased amounted to 9.9 million of which 8.2 million and 1.7 million shares were repurchased by 31 December 2019 and between 1 January and 18 February 2020, respectively. On 17 April 2020, the 156th Annual General Meeting resolved the cancellation of the repurchased 9.9 million shares by way of share capital reduction. The shares were cancelled on 28 July 2020, after completion of the procedure in respect of a share capital reduction as set forth in Article 732 et seqq of the Swiss Code of Obligations.

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

Number of own shares	2020	2021
<i>Own shares held by subsidiaries</i>	169 772	178 571
<i>Own shares held by Swiss Re Ltd directly</i>	36 579 990	28 342 336
Opening balance own shares	36 749 762	28 520 907
Purchase of own shares ¹	484 557	500 669
Sale of own shares ²	-474 412	-477 464
Share buyback programme (155th AGM 2019) ³	1 668 398	-
Cancellation of shares bought back	-9 907 398	-
Own shares as of 31 December	28 520 907	28 544 112

¹ Purchased at average price of CHF 86.19 (2020: CHF 74.56).

² Sold at average price of CHF 90.24 (2020: CHF 73.99).

³ Purchased in 2020 at average price of CHF 110.56.

11 Major shareholders

As of 31 December 2021, there was one shareholder with a participation 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

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

Further information in respect of major shareholders are detailed in "Group structure and shareholders" on page 86 to 87 of the Group's 2021 financial report.

In addition, Swiss Re Ltd held, as of 31 December 2021, directly and indirectly 28 544 112 (2020: 28 520 907) own shares, representing 8.99% (2020: 8.98%) of voting rights and share capital. Swiss Re Ltd cannot exercise the voting rights of own shares held.

12 Release of undisclosed reserves

In 2021 and 2020, 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 2021, the Company has guaranteed CHF 1 841 million (2020: CHF 2 130 million) of which no amount was utilised as of 31 December 2021 and 2020, respectively.

14 Subsequent events

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

15 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, 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 118 to 147 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	2020	2021
Christian Mumenthaler, Group Chief Executive Officer	83 157	93 414
Urs Baertschi, CEO Reinsurance EMEA /Regional President EMEA	1 371	3 989
Andreas Berger, CEO Corporate Solutions	125	213
Anette Bronder, former Group Chief Operating Officer ¹	135	n/a
John R. Dacey, Group Chief Financial Officer	30 346	39 234
Cathy Desquesses, Group Chief Human Resources Officer	n/a	0
Nigel Fretwell, former Group Chief Human Resources Officer ²	12 436	n/a
Guido Furer, Group Chief Investment Officer	54 203	64 888
Hermann Geiger, Group Chief Legal Officer	49 756	53 175
Russell Higginbotham, CEO Reinsurance Asia/Regional President Asia	8 546	15 966
Jonathan Isherwood, CEO Reinsurance Americas/Regional President Americas	51 196	55 880
Thierry Léger, Group Chief Underwriting Officer	56 343	64 891
Moses Ojeisekhoba, CEO Reinsurance	40 831	47 001
Patrick Raaflaub, Group Chief Risk Officer	24 063	32 611
Total	412 508	471 262

¹ The number of shares held on 17 December 2021 when Anette Bronder stepped down from the Group EC was 6 092.

² The number of shares held on 30 June 2021 when Nigel Fretwell stepped down from the Group EC was 15 168.

Members of the Board of Directors	2020	2021
Sergio P. Ermotti, Chairman, Chair Governance & Nomination Committee ¹	874	13 006
Walter B. Kielholz, former Chairman ²	399 005	n/a
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	35 513	39 655
Raymond K.F. Ch'ien, member	18 067	16 221
Karen Gavan, member ³	4 587	6 344
Joachim Oechslin, member	1 263	2 895
Deanna Ong, member	1 166	2 672
Jay Ralph, member	4 950	6 582
Joerg Reinhardt, member	27 300	28 831
Philip K. Ryan, member, Chair Finance and Risk Committee	18 871	21 883
Sir Paul Tucker, member	7 125	8 757
Jacques de Vaucleroy, member, Chair Compensation Committee	7 511	10 046
Susan L. Wagner, member, Chair Investment Committee	17 125	20 162
Larry Zimbleman, member	3 745	5 502
Total	547 102	182 556

¹ Elected as Chairman of the Board of Directors at the AGM of 16 April 2021.

² Did not stand for re-election at the AGM of 16 April 2021. In the reporting period 2020, Walter B. Kielholz reported the purchase of 300 call options for a total of 30 000 shares, if exercised. For further details, please refer to: www.swissre.com/investors/shares/management-transactions

³ Shareholdings include 2 500 American Depositary Receipts, equivalent to 625 shares.

Share-based compensation

The share-based compensation for the members of the Board of Directors for 2020 and 2021 was:

Members of the Board of Directors	2020		2021	
	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 ³	60	874	1 043	12 132
Walter B. Kielholz, former Chairman ⁴	1 520	20 127	507	7 378
Renato Fassbind, Vice Chairman, Lead Independent Director, Chair Audit Committee	330	4 370	330	4 142
Raymond K.F. Ch'ien, member	130	1 722	130	1 632
Karen Gavan, member	133	1 784	140	1 757
Joachim Oechslin, member	87	1 263	130	1 632
Deanna Ong, member	80	1 166	120	1 506
Jay Ralph, member	123	1 651	130	1 632
Joerg Reinhardt, member	122	1 616	122	1 531
Philip K. Ryan, member, Chair Finance and Risk Committee	240	3 178	240	3 012
Sir Paul Tucker, member	130	1 722	130	1 632
Jacques de Vaucleroy, member, Chair Compensation Committee	202	2 676	202	2 535
Susan L. Wagner, member, Chair Investment Committee	242	3 205	242	3 037
Larry Zimpleman, member	130	1 748	140	1 757
Total	3 529	47 102	3 606	45 315

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 Elected as Chairman of the Board of Directors at the AGM of 16 April 2021.

⁴ Did not stand for re-election at the AGM of 16 April 2021.

Vested options

For the years ended 31 December 2020 and 2021, 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 13 April 2022 to approve the following allocations and dividend payment:

CHF millions	2020	2021
Retained earnings brought forward	–	–
Net income for the financial year	1 573	610
Disposable profit	1 573	610
Allocation to voluntary profit reserves	–1 573	–610
Retained earnings after allocation	–	–

CHF millions	2020	2021
Voluntary profit reserves brought forward	17 431	17 491
Allocation from retained earnings	1 573	610
Reclassification of legal reserves from capital contributions	192	–
Ordinary dividend payment out of voluntary profit reserves	–1 705 ¹	–1 705 ²
Voluntary profit reserves after allocation and dividend payment	17 491	16 396

¹ Since the Board of Directors' proposal for allocation of disposable profit, included in the Annual Report 2020, the number of registered shares eligible for dividend, at the dividend payment date of 22 April 2021, decreased due to the transfer of 14 437 shares for employee participation purposes from not eligible to eligible for dividend. This resulted in a lower dividend of CHF 0.1 million, compared to the Board of Directors' proposal, and higher voluntary profit reserves by the same amount.

² The Board of Directors' proposal to the Annual General Meeting of 13 April 2022 is based on the number of shares eligible for dividend as of 31 December 2021. The actual dividend payment will depend on the number of shares eligible for dividend as of 14 April 2022.

Dividend

If the Board of Directors' proposal for allocations and dividend payment is accepted, an ordinary dividend of CHF 5.90 per share will be paid on 21 April 2022 from voluntary profit reserves.

Share structure per 31 December 2021	Number of registered shares	Nominal capital in CHF
Eligible for dividend ¹	288 953 194	28 895 319
Not eligible for dividend	28 544 112	2 854 411
Total shares issued	317 497 306	31 749 731

¹ The Board of Directors' proposal to the Annual General Meeting of 13 April 2022 is based on the number of shares eligible for dividend as of 31 December 2021. The actual dividend payment will depend on the number of shares eligible for dividend as of 14 April 2022.

Zurich, 16 March 2022



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, which comprise the balance sheet as at 31 December 2021, 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 313 to 323) for the year ended 31 December 2021 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 Auditing Standards. 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 entity 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.

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



IMPAIRMENT ASSESSMENT OF INVESTMENTS IN SUBSIDIARIES AND AFFILIATED COMPANIES

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



IMPAIRMENT ASSESSMENT OF INVESTMENTS IN SUBSIDIARIES AND AFFILIATED COMPANIES

Key Audit Matter

The Company has recorded investments in subsidiaries and affiliated companies of CHF 18'840 million as of 31 December 2021 and a valuation adjustment on these investments of CHF 328 million for the year then ended. 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 using the internal established valuation method.

The recoverability of investments in subsidiaries and affiliated companies is supported by an impairment

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:



assessment by comparing the book value against the Company's determined fair value. Depending on the amount of the headroom between the book value and the determined fair value the recoverability represents a higher risk.

The applied valuation method for the valuation of certain assets and liabilities uses assumptions which are partially based on internal estimates 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 changes in the estimate could have a material impact on the recoverability. Auditing the impairment assessment involved a high degree of auditor judgment and increased extent of audit effort, due to the estimation uncertainty associated with the assumptions.

- Evaluating the determined fair value of investments in subsidiaries and affiliated companies by comparing to a benchmark based on alternative valuation methods
- Assessment of the accuracy of the valuation allowance

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

- Note 1
- Note 2
- Note 6

Other Matter

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

Responsibility of the Board of Directors 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 entity'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 entity 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 Swiss Auditing Standards 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 Swiss Auditing Standards, 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 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 entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit, 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 the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the 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

A handwritten signature in blue ink, appearing to read 'Frank Pfaffenzeller', written over a light blue grid background.

Dr. Frank Pfaffenzeller
Licensed Audit Expert
Auditor in Charge

A handwritten signature in blue ink, appearing to read 'Elina Monsch', written over a light blue grid background.

Elina Monsch
Licensed Audit Expert

Zurich, 16 March 2022

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General information

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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	<p>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.</p> <p>Total on-balance sheet senior and subordinated debt and contingent capital, including drawn LOCs, divided by total capitalisation.</p>
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	<p>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.</p> <p>Some of the terms included in the glossary are explained in more detail in Note 1 to the Group financial statements.</p> <p>Swiss Re uses some of the term definitions provided by the glossary of the International Association of Insurance Supervisors (IAIS).</p>

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”, “may increase”, “may fluctuate” and similar expressions, or by future or conditional verbs such as “will”, “should”, “would” and “could”. These forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the Group’s actual results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects to be materially different from any future results of operations, financial condition, solvency ratios, capital or liquidity positions or prospects expressed or implied by such statements or cause Swiss Re to not achieve its published targets. Such factors include, among others:

- the frequency, severity and development of insured claim events, particularly natural catastrophes, man-made disasters, pandemics, acts of terrorism or acts of war;
- mortality, morbidity and longevity experience;
- the cyclical nature of the reinsurance sector;
- central bank intervention in the financial markets, trade wars or other protectionist measures relating to international trade arrangements, adverse geopolitical events, domestic political upheavals or other developments that adversely impact global economic conditions;
- increased volatility of, and/or disruption in, global capital and credit markets;
- the Group’s ability to maintain sufficient liquidity and access to capital markets, including sufficient liquidity to cover potential recapture of reinsurance agreements, early calls of debt or debt-like arrangements and collateral calls due to actual or perceived deterioration of the Group’s financial strength or otherwise;
- the Group’s inability to 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, including changes in regulation related to environmental, social and governance (“ESG”) matters, or the interpretations thereof by regulators and courts, affecting the Group or its ceding companies, including as a result of comprehensive reform or shifts away from multilateral approaches to regulation of global operations;
- the Group’s ability to fully achieve one or more of its ESG or sustainability goals or to fully comply with applicable ESG or sustainability standards;
- matters negatively affecting the reputation of the Group, its board of directors or its management, including matters relating to ESG or sustainability, such as allegations of greenwashing, lack of diversity and similar allegations;
- the lowering or loss of one of the financial strength or other ratings of one or more companies in the Group, and developments adversely affecting its ability to achieve improved ratings;
- uncertainties in estimating reserves, including differences between actual claims experience and underwriting and reserving assumptions;
- policy renewal and lapse rates;
- uncertainties in estimating future claims for purposes of financial reporting, particularly with respect to large natural catastrophes and certain large man-made losses and social inflation litigation, as significant uncertainties may be involved in estimating losses from such events and preliminary estimates may be subject to change as new information becomes available;
- legal actions or regulatory investigations or actions, including in respect of industry requirements or business conduct rules of general applicability, the intensity and frequency of which may also increase as a result of social inflation;
- 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;
- changes in accounting standards, practices or policies, including the contemplated adoption of IFRS;
- 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.

Military conflict in Ukraine

The military conflict unfolding in Ukraine, resulting trade and economic sanctions, and other potential impacts on the global economic environment and currencies, particularly in Russia and Europe, may cause demand for Swiss Re’s products to be volatile, cause abrupt changes in its customers’ buying patterns, interrupt its ability to supply products to this region or to fulfill contractual obligations or limit customers’ access to financial resources and ability to satisfy obligations to Swiss Re. In the event geopolitical tensions fail to abate or deteriorate further, additional governmental sanctions may be enacted adversely impacting the global economy and supply chain, banking and monetary systems, markets or customers for Swiss Re’s products, which could adversely affect Swiss Re’s results of operations.

Coronavirus

The global spread of the novel coronavirus and the disease it causes (“COVID-19”), and the actions taken to slow the spread of the pandemic, have had an adverse impact on communities, social and business interactions, economic activity and economies across the globe. Following the impressive contractions of 2020, economic growth momentum is expected to carry over into 2022. However, the expectation of post-crisis global growth and the recovery remains fragile and uneven across economies. This remains especially true given the lower level of global economic resilience after the pandemic which renders economies much more vulnerable in the face of any subsequent shocks and/or challenges. The recovery of individual economies remains highly exposed to developments around the coronavirus, including: new strains of the virus which risk becoming vaccine-resistant or for which vaccines provide less protection against severe illness, drop in vaccine-acceptance rate (including for multiple doses) making herd immunity increasingly difficult to reach, and slow vaccination rollout in a number of emerging market economies. Despite the impact of the pandemic on the global economy, the global insurance markets (as measured by premium growth) were less severely impacted in 2021 than expected (although the life market was more adversely affected than the non-life market). Premium growth recovered in 2021 and is expected to continue to recover, alongside recovery of the global economy, in 2022 and 2023, supported by rate hardening. Growth is expected to be led by China and, to a lesser extent, by other markets in Asia, aided in the case of life business by greater awareness of the importance post-pandemic of mortality and health coverage, as well as digital insurance penetration.

In Property & Casualty, the COVID-19 crisis (in particular the impact on businesses and business activity) had the greatest impact on event cancellation, non-damage business interruption covers, and credit and surety (this was particularly true for 2020, whereas in 2021 Property & Casualty business was not materially impacted by COVID-19). In Life & Health Reinsurance, the COVID-19 crisis had the greatest impact on mortality exposures. The majority of losses in 2021 were incurred in the first, third and fourth quarters, largely driven by excess mortality, and reported losses to date continue to reflect high levels of incurred but not reported (IBNR) claims.

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

business interruption insurance policies, and in Australia, where a Court of Appeal also found in favour of policyholders. Legal actions on a range of pandemic-related claims are likely to continue in a number of jurisdictions.

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

General impact of adverse market conditions

Swiss Re's operations as well as its investment returns are subject to conditions in the financial markets and macroeconomic factors, which are outside of its control. Financial, credit and foreign exchange markets are experiencing continued periods of volatility reflecting a range of political, geopolitical, economic and other uncertainties, some of the more significant of which are inter-related. Further adverse developments or the continuation of adverse trends that, in turn, have a negative impact on financial markets and economic conditions, could limit the Group's ability to access the capital markets and bank funding markets, could adversely affect the ability of counterparties to meet their obligations to the Group and could adversely affect the confidence of the ultimate buyers of insurance and reinsurance. Any of the foregoing factors, developments and trends could have an adverse effect on the Group's investment results, which in the current extremely low interest rate environment could have a material adverse effect on the Group's overall results, make it difficult to determine the value of certain assets in the Group's portfolio, make it more difficult to acquire suitable investments to meet its risk and return criteria and otherwise have a material adverse effect on its business and operations.

Regulatory changes

Swiss Re and its subsidiaries operate in a highly regulated environment, which continues to change over time. The regulatory regimes to which members of the Group are subject have changed significantly in recent years and are expected to continue to evolve. While some regulation is national in scope, the global nature of the Group's business means that its operations are subject in effect to a patchwork of global, national and regional standards. Swiss Re and its subsidiaries are subject to group supervision and Swiss Re's subsidiaries are also subject to applicable regulation in each of the jurisdictions in which they conduct business, particularly Switzerland, the United States, the United Kingdom, Luxembourg and 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 further designations have been suspended until 2022, the determination to discontinue G-SII designations altogether will only be made in 2022, based on an assessment of progress made by the International Association of Insurance Supervisors ("IAIS"), in establishing a new holistic framework for systemic risk that was adopted in November 2019 and implemented as of the beginning of 2020. The new framework embraces an enhanced set of policy measures targeted at the exposures and activities that can lead to systemic risks from the insurance sector as a whole. The Group cannot predict what additional regulatory changes will be implemented as the IAIS systemic risk process evolves and what any such changes may mean for how the Group is structured in any particular jurisdiction and how aspects of its business may be affected. Moreover, the Group cannot predict whether the Financial Stability Board will endorse the new IAIS holistic framework or retain the existing G-SII approach, or what regulatory changes may apply in the future to ceding companies in the context of broader designations of reinsurers as systemically important.

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

The Group cannot predict which legislative and/or regulatory initiatives will be enacted or promulgated, what the scope and content of these initiatives ultimately will be, when they will be effective and what the implications will be for the industry, in general, and for the Group, in particular. The Group may be subject to changes in views of its regulators in respect of the models that the Group uses for capital and solvency purposes, and could be adversely affected if, for example, it is required to use standard models rather than internal models. Generally, legal and regulatory changes could have a material impact on the Group's business. Notwithstanding the departure of the United Kingdom from the EU single market and customs union, continued uncertainty regarding the ways in which the future relationship between the United Kingdom and the European Union will evolve could also impact the legislative and/or regulatory regimes to which the Group is subject (including Solvency II), both in the United Kingdom and in the European Union.

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

Sustainability and ESG activities and disclosures

Investors, shareholders, business partners, customers and other third parties, including regulators and public authorities, are increasingly focusing on environmental, social and governance (“ESG”), sustainability and corporate social responsibility endeavours and reporting. Swiss Re’s Group Sustainability Strategy, of which climate change is an essential element, focuses on three key principles: embedding sustainability in a number of activities throughout the re/insurance value chain, leading sustainability-linked solutions and quantifying sustainability performance, including the impact Swiss Re has on society and the environment. In addition, Swiss Re addresses sustainability risks through its ESG Risk Framework which includes policies and guidelines that apply to a number of activities throughout the re/insurance value chain.

While Swiss Re’s sustainability strategy and practices, ESG Risk Framework and the level of transparency with which the company is approaching them are foundational to Swiss Re’s business, they expose the company to several risks, including:

- that Swiss Re may fail or be unable to fully achieve one or more of its sustainability goals due to a range of factors within or beyond its control, or that it may adjust or modify goals in light of new information, adjusted projections, or a change in business strategy, any of which could negatively impact Swiss Re’s brand, reputation, and business;
- that achieving its sustainability goals may require Swiss Re to expend significant resources, which could divert the attention of management and key personnel, affect profitability, harm Swiss Re competitively, or otherwise limit its ability to make investments into growth;
- that disclosures related to ESG or sustainability may result in heightened scrutiny from shareholders, business partners or other third parties, including regulators and public authorities, of our ESG performance, activities, and decisions;
- that a failure to or perception of a failure to disclose metrics and set goals that are rigorous enough or in an acceptable format, including in relation to how Swiss Re manages its claims and asset management, a failure to appropriately manage the selection of goals, a failure to or perception of a failure to make appropriate disclosures, perception of a failure to prioritise the “correct” ESG goals, or an unfavourable ESG-related rating by a third party could negatively impact the Swiss Re brand, reputation, and business and subject the company to enforcement actions or climate litigation;
- that the ESG or sustainability recommendations, standards, norms, metrics or regulatory requirements, which are constantly evolving, change in a manner that impacts the Group negatively or requires Swiss Re to change the content or manner of its disclosures, and its shareholders, business partners or third parties, including regulators and public authorities, view such change(s) negatively, Swiss Re is unable to adequately explain such changes, or is required to expend significant resources to update disclosures, any of which could negatively impact its brand, reputation, and business; and
- that Swiss Re’s brand, reputation, and business could be negatively impacted if any of its disclosures, reporting to third-party ESG standards, or reporting against its goals, are inaccurate or misleading, perceived to be inaccurate or misleading, or alleged to be inaccurate or misleading (including allegations of greenwashing).

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 ESG or sustainability recommendations, standards, norms, metrics or regulatory requirements or is perceived to have not responded appropriately to ESG or sustainability recommendations, standards, norms, metrics or regulatory requirements Swiss Re may suffer from reputational damage, which could result in its financial condition, results of operations, business and prospects being materially and adversely affected.

Market risk

Volatility and disruption in the global financial markets could expose the Group to significant financial and capital markets risk, including changes in interest rates, credit spreads, equity prices and foreign currency exchange rates, which may adversely impact the Group's financial condition, results of operations, liquidity and capital position. The Group's exposure to interest rate risk is primarily related to the market price and cash flow variability associated with changes in interest rates. In general, low interest rates continue to pose significant challenges to the insurance and reinsurance industries, with earnings capacity under stress unless lower investment returns can be offset by lower combined ratios or higher returns from other asset classes. Exposure to credit spreads primarily relates to market price and cash flow variability associated with changes in credit spreads. When credit spreads widen, the net unrealised loss position of the Group's investment portfolio can increase, as could other-than-temporary impairments.

The Group is exposed to changes in the level and volatility of equity prices, as well as the value of securities or instruments that derive their value from a particular equity security, a basket of equity securities or a stock index. The Group is also subject to equity price risk to the extent that the values of life-related benefits under certain products and life contracts, most notably variable annuity contracts, are wholly or partially exposed, directly and/or indirectly, to market fluctuations, including equity prices. To the extent market values fall, the financial exposure on guarantees related to these contracts would increase to the extent this exposure is not hedged. While the Group has an extensive hedging programme covering its existing variable annuity business, certain risks cannot be hedged, including actuarial, basis and correlation risks. Exposure to foreign exchange risk arises from changes in spot prices, forward prices and volatilities of currency rates.

These risks can have a significant effect on investment returns and market values of securities positions, which in turn may affect both the Group's results of operations and financial condition. The Group continues to focus on asset-liability management for its investment portfolio, but pursuing even this strategy has its risks – including a possible mismatch between investments and liability benchmarks – that in turn can lead to reinvestment risk. The Group seeks to manage the risks inherent in its investment portfolio by repositioning the portfolio from time to time, as needed, and to reduce risk and fluctuations through the use of hedges and other risk management tools.

Credit risk

If the credit markets were to deteriorate, the Group could experience losses. Changes in the market value of the underlying securities and other factors impacting their price could give rise to market value losses. The Group could also face write-downs in other areas of its portfolio, including other structured instruments, and the Group and its counterparties could face difficulties in valuing credit-related instruments. Differences in opinion with respect to valuations of credit-related instruments could result in legal disputes among the Group and its counterparties as to their respective obligations, the outcomes of which are difficult to predict and could be material. The Group is also subject to credit and other risks in its credit business, including reliance on banks that underwrite and monitor facilities in which the Group participates and potential default by borrowers under those facilities.

Liquidity risks

The Group's business requires, and its clients expect, that it has sufficient capital and sufficient liquidity to meet its re/insurance obligations, and that this would continue to be the case following the occurrence of any foreseeable event or series of events, including extreme catastrophes, that would trigger insurance or reinsurance coverage obligations. The Group's uses of funds include, among other things, 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 intra-group transactions, the timing of dividend payments from subsidiaries or the fact that certain assets may be encumbered or are otherwise not tradeable. Finally, any adverse ratings action against the Group could trigger a need for further liquidity (for example, by triggering termination provisions or margin calls/collateral delivery requirements in contracts to which Swiss Re is a party) at a time when the Group's ability to obtain liquidity from external sources is limited by such ratings action. See also "Risks relating to credit rating downgrades."

Counterparty risks

The Group is exposed to the risk of defaults, or concerns about defaults, by its counterparties. Issuers or borrowers whose securities or loans the Group holds, trading counterparties, counterparties under swaps and other derivative contracts, clearing agents, clearing houses and other financial intermediaries may default on their obligations to the Group due to bankruptcy, insolvency, 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.

Risks relating to credit rating downgrades

Ratings are an important factor in establishing the competitive position of reinsurance companies. Third-party rating agencies assess and rate the financial strength of reinsurers and insurers, such as Swiss Re. These ratings are intended to measure a company's ability to repay its obligations and are based upon criteria established by the rating agencies. Ratings may be solicited or unsolicited and may be downgraded or withdrawn at the sole discretion of the rating agencies.

The Group's ratings reflect the current opinion of the relevant rating agencies. One or more of the Group's ratings could be downgraded or withdrawn in the future. In addition, unsolicited ratings may also be downgraded or withdrawn, such as a downgrade in April 2020 of unsolicited insurer financial strength and long-term issuer default ratings assigned to various entities within the Group. Rating agencies may increase the frequency and scope of ratings reviews, revise their criteria or take other actions that may negatively impact the Group's ratings and/or the ratings of its legal entities, which it cannot predict. In addition, changes to the process or methodology of issuing ratings, or the occurrence of events or developments affecting the Group, could adversely affect the Group's existing ratings or make it more difficult for the Group to achieve improved ratings which it would otherwise have expected.

As claims paying and financial strength ratings are key factors in establishing the competitive position of reinsurers, a decline in Swiss Re's ratings and/or the ratings of its key rated legal entities could make reinsurance provided by the Group less attractive to clients relative to reinsurance from competitors with similar or stronger ratings. A decline in ratings could also cause the loss of clients who are required by policy or regulation to purchase reinsurance only from reinsurers with certain ratings. Certain larger reinsurance and derivative contracts may contain terms that would allow the ceding companies or counterparties to terminate the contract if the Group's ratings or those of its subsidiaries are downgraded beyond a certain threshold. Furthermore, ratings directly impact the availability and terms of unsecured financing (potentially impacting the Group's ability to rollover existing facilities or obtain new facilities) and declines in the Group's ratings or the ratings of legal entities within the Group could also obligate the Group to provide collateral or other guarantees in the course of its business or trigger early termination of funding arrangements, potentially resulting in a need for additional liquidity. As a ratings decline could also have a material adverse impact on the Group's costs of borrowing or ability to access the capital markets, the adverse implications of a downgrade could be more severe. These same factors could also impact the Group's insurance business.

Legal and regulatory risks

In the ordinary course of business, the Group is involved in lawsuits, arbitrations and other formal and informal dispute resolution procedures, the outcomes of which determine the Group's rights and obligations under insurance, reinsurance or other contractual agreements. From time to time, the Group may institute, or be named as a defendant in, legal proceedings, and the Group may be a claimant or respondent in arbitration proceedings. These proceedings could involve coverage or other disputes with ceding companies, disputes with parties to which the Group transfers risk under reinsurance arrangements, disputes with other counterparties or other matters. The Group cannot predict the outcome of any of the foregoing, which could be material for the Group.

The Group could in the future be involved in investigations and regulatory proceedings, which could result in adverse judgments, settlements, fines and other outcomes. These investigations and proceedings could relate to insurance or reinsurance matters, or could involve broader business conduct rules, including those in respect of market abuse, bribery, money laundering, trade sanctions, competition law and data protection and privacy. The Group also is subject to audits and challenges from time to time by tax authorities, which could result in increases in tax costs, changes to internal structures and interest and penalties. Tax authorities may also actively pursue additional taxes based on retroactive changes to tax laws. The Group could be subject to risks arising from alleged, or actual, violations of any of the foregoing, and could also be subject to litigation or enforcement actions arising from potential employee misconduct, including non-compliance with internal policies and procedures, negligence and malfeasance, such as undertaking or facilitating cyber-attacks on internal systems. Substantial legal liability could materially adversely affect the Group's business, financial condition or results of operations or could cause significant reputational harm, which could seriously affect its business.

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 claims and coverage 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. The Group believes that it has adequate reserves to address the uncertainty related to conditions such as social inflation. In addition, the Group closely monitors the intersection between social inflation, economic inflation and loss trend and adjusts its pricing accordingly. The Group continued to manage its exposure to large corporate risks due to ongoing volatility related to social inflation in 2021 and materially reduced its exposure. 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.

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) are inherently unpredictable in terms of both their frequency and severity and have exposed, and may continue to expose, the Group to unexpected large losses (and related uncertainties in estimating future claims in respect of such events); changes in the insurance industry that affect ceding companies, particularly those that further increase their sensitivity to counterparty risk; competitive conditions (including as a result of consolidation and the availability of significant levels of alternative capacity); cyclical nature of the industry; risks related to emerging claims and coverage issues (including, in particular, social inflation), which trends may potentially be exacerbated by the COVID-19 crisis; macro developments giving rise to emerging risks, such as climate change and technological developments (including greater exposure to cyber risks (where accumulation risk is yet to be fully understood), which could have a range of consequences from operational disruption, to loss of proprietary or customer data, to greater regulatory burdens and potential liability); risks arising from the Group's dependence on policies, procedures and expertise of ceding companies; risks related to investments in emerging markets; and risks related to the failure of, or attacks directed at, the Group's operational systems and infrastructure, including its information technology networks and systems. Any of the foregoing, as well as the occurrence of future risks that the Group's risk management procedures fail to identify or anticipate, could have a material adverse effect on the Group, and could also give rise to reputational risk.

Use of models; accounting matters

The Group is subject to risks relating to the preparation of estimates and assumptions that its management uses, for example, as part of its risk models as well as those that affect the reported amounts of assets, liabilities, revenues and expenses in the Group's financial statements (such as assumptions related to the Group's capital requirements and anticipated liabilities), including assumed and ceded business. For example, the Group estimates premiums pending receipt of actual data from ceding companies, which actual data could deviate from the estimates (and could be adversely affected if premiums turn out to be lower, while claims stay the same). In addition, particularly with respect to large natural catastrophes and pandemics, 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 section in respect of its results, including financial statements, prepared in accordance with the Group's proprietary economic value management ("EVM") principles ("EVM report"). Financial information included in the EVM report 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.

Risks related to the Swiss Re corporate structure

SRL is a holding company, a legal entity separate and distinct from its subsidiaries, including Swiss Reinsurance Company Ltd. As a holding company with no operations of its own, SRL is dependent upon dividends and other payments from its direct and indirect operating subsidiaries. The Group is in the process of streamlining its legal entity structure, with the expectation that, over time, its structure will continue to evolve. In the future it may, for example, elect again to partner with minority investors or may elect otherwise to dispose of interests in Group businesses or portions thereof, or to grow through acquisitions. To the extent it undertakes acquisitions, it is subject to the risks inherent in acquiring and integrating new operations.

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Corporate calendar

2022

13 April 2022

158th Annual General Meeting

5 May 2022

First quarter 2022 key financial data

29 July 2022

Half-year 2022 results

28 October 2022

Nine months 2022 key financial data

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