Market context

In this section, we single out key trends that have shaped the risk perception of our clients in 2022: global supply chain disruption, the impact of economic inflation and measures to decarbonise the global economy. We also give an overview of the key reinsurance market trends of 2022. In a special feature, we cast a light on the key technological issues on Swiss Re's radar.

Responding to global supply chain disruption

In 2022, a combination of factors led to global food, energy and manufacturing supply shortages. Swiss Re responded to the accelerated demand for knowledge and data capabilities from clients and businesses to manage supply shocks.

Commercial insurance premiums

USD 1 tn

premiums to be generated by de-risking global supply chains by 2050

Commercial P&C insurance premiums

USD 30 bn

premiums generated by supply chain restructuring activities by 2026

Key publication

sigma 5/2022: Maintaining resilience: the role of P&C insurers in a new world order

Read the full report on

swissre.com

The issue
Global supply chains have come under pressure from recent natural catastrophes, the global pandemic and geopolitical instability. These events have led to shortages of various commodities, slowing economies and higher economic inflation. As a result, supply chains are being realigned to insulate economies against future trade disruptions. In particular, the quick succession of shocks caused by COVID-19 and the war in Ukraine have heightened concerns over energy and food security.

The risk
Typically, supply chains have been geared towards efficiency, which led to widespread offshoring as companies sought to produce goods in the most inexpensive regions. This practice appears to be changing, with an increased focus on reliability and the ability of suppliers to withstand geopolitical crises and disruption. As a result, many advanced countries are contemplating "friend-shoring" supply chains to allied countries and "re-shoring" parts of their overseas production domestically. Supply chains may therefore take on a different risk profile – perhaps becoming more expensive.

The opportunity
According to Swiss Re Institute estimations, de-risking global supply chains is a solid business opportunity. For example, re-shoring is expected to generate USD 30 billion in global commercial insurance premiums between 2022 and 2026, mostly from engineering, property and liability covers.

As supply chain, climate, food and energy security risks grow more complex, re/insurers can be a stabilising factor, putting a dollar value on risks, and thereby helping clients understand the financial impact of a changing risk profile.

Swiss Re's response
Swiss Re is well positioned to aggregate vast amounts of data, combining it with sophisticated risk and data modelling techniques to provide clients with a better understanding of risk throughout supply chains. This knowledge will enable clients to take evidence-based decisions, pinpoint vulnerabilities and address risks with the appropriate insurance products.

An example is the Risk Data & Services (RDS) for Corporates platform, which was launched by Swiss Re Corporate Solutions in the second half of 2022. RDS empowers risk managers to take better control of their risks. By using Swiss Re models and analytics, risk managers can draw insights from their own and third-party data to manage property exposure, climate and supply chain risks.

Factoring in the effects of inflation

High economic inflation remained a concern for the re/insurance sector in 2022, leading to higher claims in property insurance and limiting insurance growth as global GDP slowed.

The issue
Economic inflation remained the number one macroeconomic concern for the insurance industry at the end of 2022. According to Swiss Re Institute forecasts, economic inflation is set to ease in 2023 and 2024, however, it is expected to remain volatile and persistently above historic averages.

For re/insurers, economic inflation can be an issue in property lines, where it may create higher claims. This can be of concern if these inflationary costs have not been priced into the insurance covers.

The risk
Economic inflation has an impact on claims costs, especially where higher prices for items such as construction materials and spare parts for cars make rebuilding and repairs more expensive. For life insurers, the claims impact is less pronounced, as life insurance claims tend to be written with fixed benefits.

The current inflationary situation is a risk for growth in the insurance industry, which is tightly connected to overall economic growth. In 2022, overall economic growth was slowed down both by the effects of economic inflation and the measures taken by central banks to combat it. Swiss Re Institute forecasts an inflationary recession in the US in 2023.

The opportunity
Although the challenging economic situation has led to headwinds for re/insurers, rising interest rates as a result of central bank measures to curb economic inflation are a benefit to re/insurers on the asset side, as they deliver improved investment results.

Swiss Re's response
Swiss Re has factored the effects of economic inflation into its models and pricing across all lines of business. For clients, Swiss Re can offer reinsurance covers that offer earnings protection against the impact of economic inflation.

The benefits of the higher interest rates on Swiss Re's investment portfolio were already visible in 2022. Investment income is expected to remain at higher levels through 2023 and 2024 while economic inflation remains elevated. Over the mid-term, improved investment performance is expected to outweigh the negative impacts of higher costs of claims.

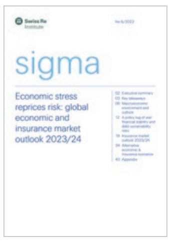
Expected global consumer price index (CPI) inflation in 2022

7.8%

Global CPI inflation forecast for 2023

5.9%

Key publication



sigma 6/2022: Economic stress reprices risk: global economic and insurance market outlook 2023/24

Read the full report on
swissre.com

Decarbonisation and the path to net-zero carbon emissions

The path to a net-zero economy by 2050 will require new investments in technologies to reduce CO_2 emissions and ramp up carbon-capture and storage activities. This in turn will open up new business opportunities for risk transfer solutions.

Climate investments

> USD 270tn

in climate investments needed to meet 2050 net-zero targets

GDP benefit

7–10%

of potential GDP losses can be mitigated by closing the investment gap by 2050

The issue
Greenhouse gas emissions will have to be cut drastically to mitigate the effects of climate change. Reducing carbon emissions from human activity across all industries will require a massive effort at all levels of society, including significant investments into the necessary infrastructure.

The risk
According to Swiss Re Institute, the world stands to lose up to 7–10% of GDP by mid-century from the physical risks of climate change if global warming stays on the current trajectory and if the Paris Agreement and 2050 net-zero emissions targets are not met.

For re/insurers, there is the possible risk that claims increase as warmer temperatures lead to more damage from rising sea levels, longer and more frequent heatwaves, heavy storms and rainfall, floods and wildfires.

The opportunity
As a risk absorber, insurance can improve the risk-return profile of climate-friendly investment projects. As long-term investors, re/insurers are capable of financing emerging decarbonisation solutions such as carbon capture and removal technologies.

Decarbonisation is essential for the transition to net-zero emissions and each dollar invested into decarbonisation adds to reducing emissions and thus mitigating losses in the future. As investments into decarbonisation increase, the demand for risk transfer will do the same.

Swiss Re's response
Swiss Re offers innovative insurance and risk transfer solutions which minimise financial risks associated with renewable energy and infrastructure projects.
At the end of 2022, for example, Swiss Re had written cover for nearly 12 000 solar and wind farms. Swiss Re has expertise for wind, solar, hydro, biomass, geothermal and battery storage, as well as grid enhancement projects.

Swiss Re strives to achieve price adequacy for increasing natural catastrophe risks associated with climate change. Property risks are typically renewed on a yearly or bi-annual basis, allowing the impact of climate-related losses to be incrementally factored into contract renewals.

Swiss Re is committed to net-zero CO_2 emissions in its investment and underwriting portfolios by 2050 and collaborates with industry associations and initiatives such as the Net-Zero Asset Owner Alliance and the Net-Zero Insurance Alliance.

In 2022, Swiss Re was one of the founding buyers in the NextGen Carbon Dioxide Removal (CDR) facility – a large-scale carbon removal project aiming to source and scale up verified carbon removals from a broad range of suppliers, technologies and geographies and contribute towards the development of this still nascent market.

The swing to a hard market

In 2022, the global property reinsurance market moved into a "hard market" phase of the cycle, characterised by stronger pricing, especially in the natural catastrophe-related business.

The issue
Non-life re/insurance pricing has proven to follow a cyclical pattern. In 2022, the property reinsurance market moved into a so-called "hard market". The price upswing in natural catastrophe-related reinsurance in 2022 signals the end of the most recent soft market cycle, which began in 2012, and saw prices decline as a period of relatively benign natural catastrophe activity and low interest rates attracted new capital into the market. This in turn tipped the supply/demand dynamics, producing oversupply with a subsequent decline in prices.

The 2017 hurricane season, which included Harvey, Irma and Maria, triggered an end of the price decreases. Guy Carpenter's Global Property Catastrophe Rate-on-Line Index[1], for example, increased 5.5% in 2018, following five straight years of decline. An upward trend in natural catastrophe prices followed until 2021 and 2022, when both years witnessed natural catastrophe losses in excess of USD 100 billion. The Guy Carpenter price index for those years subsequently moved upwards by 10% and 27%, respectively.

In addition to natural catastrophe losses, economic inflation also drives price increases, as re/insurers adjust their assumptions to accommodate for higher claims costs.

The current market environment has thus seen a corresponding correction in the supply/demand dynamics for reinsurance. During the 1 January 2023 renewal rounds, for example, some reinsurers, and also non-traditional capital providers, reduced their participation in the natural catastrophe business after experiencing high losses in 2021 and 2022.

The risk
The biggest risks of a hard market are twofold. Firstly, the potential for high returns can lead to an inflow of additional capacity, typically creating an oversupply of capital, which can lead to lower and possibly unsustainable prices and impact profitability. Secondly, insurers may choose to retain more risk if prices are perceived to be too high. This ultimately impacts premium volumes and the ability of reinsurers to shape important risk topics.

The opportunity
A hard market cycle, when prices increase, allows re/insurers to make the corrections to a more risk-adequate premium level. Further, repricing re/insurance cover at regular intervals allows the industry to adequately factor in long-term trends such as urbanisation and climate change, which alter the risk patterns for natural catastrophes.

The current hard market dynamics also allow the industry to recalibrate the terms and conditions of reinsurance contracts, which tend to deteriorate in softer market conditions.

Swiss Re's response
During property treaty renewal rounds throughout 2022, Swiss Re achieved clear improvements on rates, terms and conditions, and retention levels.

At the 1 January 2023 renewal round for P&C Re treaty contracts, P&C Re achieved a price increase of 18%, with improved rates in all lines of business. P&C Re grew its natural catastrophe book by 21%. While overall reinsurance capital in the market decreased, Swiss Re supported its clients by quoting coverage early and consistently, providing leading capacity that found broad support in the market.

P&C Re price increases

18%

P&C Re's achieved price increases at 1 January 2023 renewals

P&C Re natural catastrophe book

21%

growth in the P&C Re natural catastrophe book at 1 January 2023 renewals

[1] Guy Carpenter Global Property Catastrophe Rate-on-Line Index (artemis.bm).

Creating value from new digital trends

In a world of rapid technological change, Swiss Re identifies those technologies that improve efficiency, create new products and improve the user experience for clients and consumers.

The issue
There are currently three broad thematic trends driving technological change for Swiss Re and the insurance industry.

The first is an increased focus on assessing which technologies can add real value for the business. While many new tech options initially look promising, time has shown that not all create impactful change. An example of a technological advance shown to create efficiency inside an organisation is the emergence of low-code tools.

Low-code development platforms give companies the ability to create and roll out new user experiences without having to engage in long development projects. This allows insurance companies to launch new services within a shorter timeframe and meet changing client and customer needs.

Re/insurers can also learn from the digital transformation in adjacent industries such as healthcare, mobility and manufacturing. An example of this in health insurance is the development of virtual care solutions, which became popular during the COVID-19 pandemic and are expanding the types of services health insurers offer.

A second group of trends centres around data use, ethics and security issues. Re/insurers require personal data to provide insurance cover, some of which will deal with sensitive personal data such as medical records for health insurance purposes. This data has on occasion become a target for hackers.

At the same time, public awareness of the use of personal data by corporations has led to increased regulatory attention. There are significant ethical discussions underway on how data can be used ethically to improve insurance pricing and product development.

A third thematic area is how to attract skilled employees to the insurance industry and retain them. Re/insurers are competing for talent with technological giants, banks and many other industries. Consequently, there is a need to create exciting careers for specialists who join the insurance industry, but also to upskill existing employees to make their work impactful.

The risk
Failure to keep up with technological advances could lead to inefficiencies, poor data management, difficulty in meeting regulatory requirements and trouble attracting and retaining talent – which will ultimately result in competitive disadvantages. Without a clear technological roadmap, companies risk pursuing expensive technological changes that do not result in significant value creation or efficiency gains.

Re/insurers often require sensitive data such as health records to assess claims or underwrite policies. If this data is accidently leaked to the public domain or stolen by cyber criminals who demand a ransom payment, an insurer can face significant reputational and financial damage. There is increased public and regulatory scrutiny on high-profile data theft cases, as they have received wide-spread media attention in recent years.

The ethical use of data by re/insurers is also a sensitive issue. Even the most well-intentioned use of data to improve underwriting fairness can give rise to issues, such as gender or racial discrimination. A prominent example in recent years has been discussion around the potential for gender-based pricing discrepancies.

The opportunity
Digitalisation is allowing re/insurers to engage in digital ecosystems, meet evolving customer expectations and stay cost competitive.

By adopting technologies such as application programming interfaces (APIs), cloud computing and low-code

Glossary

Low code
A simplified approach to coding which presents users with options of the features to be implemented, minimising the need for programming.

Virtual care
A way of accessing healthcare in which patients interact with their doctors or healthcare workers via phone, video or secure messaging platforms.

Application programming interface (API)
A mechanism that allows different software components to communicate with one another using a set of defined rules and protocols.

environments, re/insurers can empower employees who are not necessarily programming specialists to work with data in a more intuitive way. Automation is also gaining momentum, with re/insurers leveraging artificial intelligence technologies such as speech recognition to automate sales, client retention efforts and claims operations. Image recognition and computer vision are used to accelerate claims processes by estimating property damage from sources such as aerial images.

Connectivity technologies are transforming corporate risk management. For example, real-time data is enabling digital twins – a digital representation or advanced simulation of a physical object such as manufacturing plants or products – which provide new opportunities to anticipate and mitigate risks.

New technologies are also opening up opportunities for new products and business models. In the automotive space, increasing onboard sensing, artificial intelligence and edge computing have allowed vehicles to drive with less human intervention. This potentially decreases the risk for human error while creating demand for new insurance products to cover potential risks inherent in automated driving systems.

Swiss Re's response

Swiss Re's technology strategy places an emphasis on the value of transforming core internal processes. Recent work around cloud computing, APIs and low-code tools has laid the foundation for the secure integration of data services, as well as the accessibility and scalability of solutions.

For example, Swiss Re has created the Analytics Data Model, a collection of curated and certified data sets combining proprietary, client and third-party data into a single access point. This enables Swiss Re to provide a single version of truth for data.

For clients, Swiss Re is creating new solutions and services, such as its Property Exposure Management and Rapid Damage Assessment solutions, which provide damage insights for insured properties before and after natural catastrophes. For cyber risk management, Swiss Re has created Cyber Guardian, a next-generation cyber risk management engine combining risk modelling experience with third-party threat intelligence and analytics teams.

Swiss Re is also making it easier for clients to manage and quantify their risks. For example, the Corporate Solutions' Risk Data & Services for Corporates platform enables companies to combine their data with analytical solutions provided by Swiss Re and other data sources. This allows for advanced analytics such as digital twins, which can be used to model and manage supply chain risks.

In the automotive space, Swiss Re is partnering with Waymo to set the standards for the risk assessment of autonomous vehicles. Swiss Re's teams have also built up comprehensive telematics capabilities and are developing expertise to provide clients with telematics-based insurance solutions. Telematics data provides insights into driving behaviours that impact risk, and also allows for additional services, such as stolen car recovery or efficient claims handling.

For life insurance, Swiss Re's Magnum, a suite of cloud-based underwriting automation solutions, boosts re/insurers' digitalisation and makes underwriting more efficient.

Swiss Re is focused on attracting and retaining specialist talents such as cyber security specialists, data scientists and engineers. In addition, work is being done to upskill existing employees and encourage the adoption of new data tools and ways of working. Swiss Re regularly runs internal dialogue sessions and events to promote awareness, supporting this with in-house training and other resources.

Telematics

Technology for the wireless transmission and storage of vehicle information, enabling remote monitoring via a vehicle's own onboard diagnostics system.

Edge computing

Processing, analysing and storing data where it is generated. For example, using an onboard computer to monitor a car's performance.

Digital twin

A virtual model designed to accurately reflect and test a real-world process or system such as a supply chain.

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