GuyCarpenter

Climate Action Week London 2024

CLIMATE RESILIENCE HINGES ON MANAGEMENT OF PHYSICAL AND TRANSITION RISKS

Key takeaways

- With 2023 being a record year for global warmth, careful consideration of risks involving climate resilience takes on special importance.
- The insurance industry plays a key role in helping communities recover from natural catastrophes.
- Underwriting, investment, capital management and reinsurance strategies help the industry manage its products in a changing climate.
- Tackling the climate change problem requires a multifaceted and collaborative approach across multiple industries and stakeholders.
- Regional considerations will also dictate specific market considerations and outcomes.

With 2023 being the world's warmest year on record, it has never been more important to consider climate risk and building resilience. According to the National Oceanic and Atmospheric Administration (NOAA), the average global temperature for 2023 exceeded the pre-industrial (1850-1900) average by 1.35 degrees C—the highest global temperature among all years in NOAA's 1850-2023 climate record.[1]

With climate-related perils, there are two interlinked risks that must be managed: physical and transition risks. Physical risk refers to the possibility that weather events will increase in frequency and severity, causing increased losses from extreme weather events. Transition risk refers to risk arising from changing strategies, policies or investments as we move to a net-zero future.

An often less-considered risk is an increase in climate-related litigation. As understanding of climate science improves, and companies are required to disclose more information around their climate impact, the insurance industry could increasingly be held accountable, both directly and indirectly.

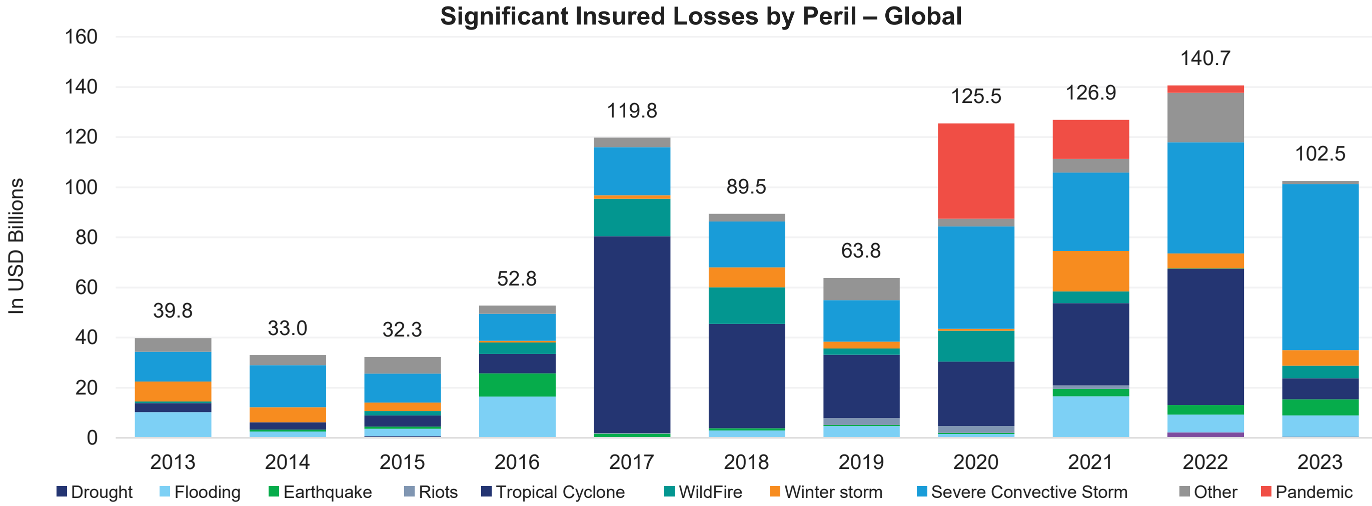
The insurance industry plays a key role in addressing all these risks, and in particular, helping communities recover from natural catastrophes. With current and future climate change impacts, we can expect an increase in catastrophic events, including greater potential for flooding and heatwaves. In the Global Risks Report 2024[2], published by the World Economic Forum in collaboration with Marsh McLennan, extreme weather was both the highest response for current risks in 2024, with 66% of respondents listing it as the most likely material crisis on a global scale in 2024, and as was cited as having the highest potential impact over the next 10 years.

The UK has experienced significant windstorm and flooding events in the past, such as storm Daria in 1990 and the flood events of 2007.

In recent years there has been an increase in global insured losses, particularly for perils such as wildfire, flooding and severe convective storm. Historically, peak perils such as hurricanes and typhoons have driven annual losses. However, 2024 recorded one of the largest total global insured losses despite not having a major peak peril

1. https://www.noaa.gov/news/2023-was-worlds-warmest-year-on-record-by-far
2. https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2024.pdf

Figure 1: Global large catastrophe losses



Significant Insured Losses (Est. losses> $100M) - Not adjusted for inflation. Source: PCS, PERILS, Verisk, ICA, GC; Losses from Russia and Ukraine conflict are estimated by S&P Global

Source: Guy Carpenter

loss. Perils traditionally regarded as "secondary," such as severe convective storm, contributed a larger proportion to the overall loss than in previous years.

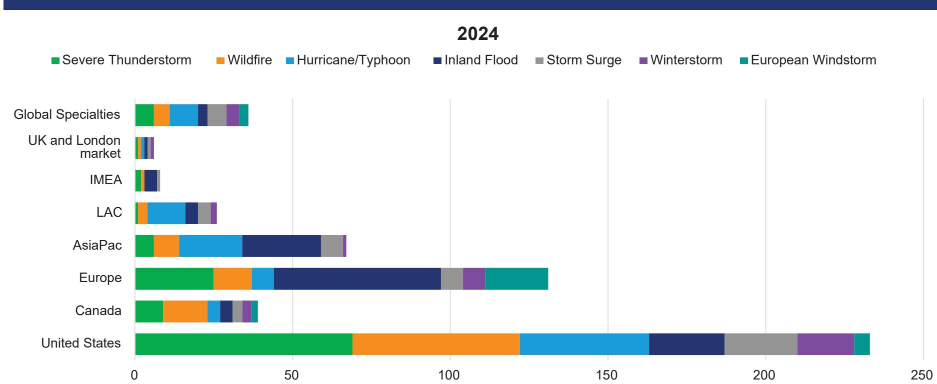
During the autumn and winter of 2023-2024, Western Europe experienced a series of damaging storms. These types of storms are common in Europe, and in some cases can bring heavy rainfall. The winter of 2023-24 was one of wettest October-to-March periods on record for the UK and the third on record for Ireland. This resulted in flooding, deaths, transport disruptions and power outages.[3]

The events come at a time when there is an existing cost-of-living crisis, with lower-income groups being more vulnerable to the financial and societal impacts of flood damage. According to the World Weather Attribution, average precipitation on stormy days increased by about 20% due to human-induced climate change, or equivalently the level of rainfall experienced during the 2023-24 winter has become more likely by about a factor of 10.[4]

Changes in loss are not driven by hazard changes alone, but also by transformations in exposure with population growth and urbanization, as well as changing vulnerability to damage. Regardless of the reason behind increasing trends in insured losses, these increasing costs for insurers may result in insurance premiums rising to unaffordable levels. While insurance coverage participation is high in the UK, there is a significant protection gap in some countries. For example, in the UAE, which saw record-breaking flood events in April this year, the insurance penetration rate is only 2.75%. Therefore, it is imperative that the insurance industry understands and manages current and future changes in risk.

Figure 2: Results of Guy Carpenter survey of reinsurance market

For markets openly commenting on climate change, what perils are they most concerned with?



For the majority of territories a wide range of perils were cited as of concern. The perils most commonly cited by territory were:

Europe
Inland flood

US
Severe Thunderstorm

Asia Pacific
Inland flood

Source: Guy Carpenter

3. Autumn and winter storm rainfall in the UK and Ireland was made about 20% heavier by human-caused climate change – World Weather Attribution
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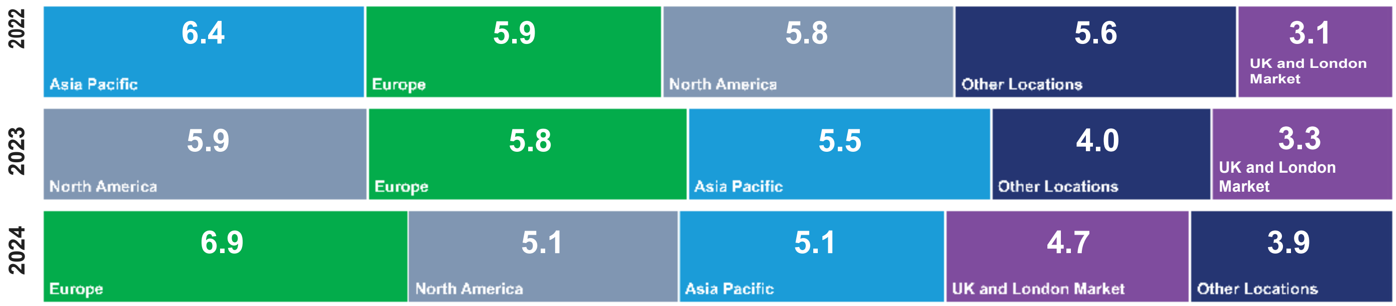
Figure 3: Results of Guy Carpenter survey of reinsurance market

On a scale of 1 (zero importance) to 10 (very important), how important is quantifying the impact of climate change to advocate for our clients in reinsurance renewal and capacity discussions?



Source: Guy Carpenter

In a survey conducted by Guy Carpenter on the reinsurance market sentiment in relation to climate change, the peril cited most commonly as a concern in Europe was flooding. This year, climate change sentiments noticeably diverged among regions, with the importance of quantifying climate risk increasing significantly in Europe, the UK and London markets compared to other regions.

Around a third of the reinsurance market currently manages climate change risk by advocating for premium increases and another third by reducing exposure to certain regions. Over time, this could worsen the problem of insurance affordability and accessibility, exacerbating protection gaps, which suggests there is still work to be done to properly understand and more effectively manage changing risk under global warming.

The insurance industry is at the forefront of understanding the science behind changes in catastrophes due to climate change and can play a major role through improving the accuracy and availability of climate-related data and analytics. While traditional insurance products are short term, the insurance industry needs to adopt a longer-term view to ensure the continued sustainability of the insurance industry.

There are several ways the insurance industry can take action toward adequate provision, affordability and management of products in a changing climate.

- **Underwriting:** Insurance companies can assess the risk for policies currently in force, but also look at how the risk changes in future climate and which areas are projected to experience increases or decreases for different perils. This helps inform underwriting decisions to ensure diversification of risk, and sustainable portfolio composition as well as monitoring of emissions.
- **Resilience:** Insurance companies can also work with policyholders and brokers to improve resilience to natural perils that are impacted by climate change and to quantify the benefits of those measures to ensure that adequate insurance coverage is sustainable at an affordable premium
- **Investment decisions:** There are risks and opportunities from the transition to a low-carbon economy. Insurers and reinsurers need to make sustainable investment decisions that ensure current and future profitability and assist in the transition to net-zero. Also to be considered are reputational risk, liability relative to net-zero commitments, and stranded assets.
- **Capital management:** With increasing risk, insurers would be required to hold more capital, which could reduce the amount of capital available for investment, portfolio growth or other purposes. Insurers may need to consider innovative ways to manage capital in a changing climate, for example through insurance linked securities such as catastrophe bonds.
- **Reinsurance products:** Insurers can use reinsurance structures to manage capital and volatility, and these may need to be reconsidered under changing climate.
- **Regulatory requirements:** The industry should use increasing regulatory requirements, such as the Corporate Sustainability Reporting Directive and EU Taxonomy, as an opportunity to both understand their climate risk and discover opportunities. More consistency between the approaches from the different national regulators will assist efficiency and common understanding of climate change risk.
- **Collaboration:** No individual can solve the problem themselves. The industry can work together with the public sector, academia, supervisors and their policyholders. The European Climate Resilience Dialogue, the UN-led Forum for Insurance Transition to Net Zero and Partnership for Carbon Accounting Financials provide just a few examples of useful forums for the industry to address this problem.

How Guy Carpenter Helps Clients

Guy Carpenter provides various solutions to help insurers and reinsurers manage climate risks:

- **Education:** Briefings on the latest science, regulation and industry trends, executive training and workshops.
- **Risk Rating Products:** Climate assessment for global risk scores to assess underwriting and portfolio management strategies.
- **Catastrophe Model Adjustments:** Have a view of probabilistic losses under future climate scenarios to help with reinsurance structuring, capital management and regulatory requirements.
- **Model Suitability in Present Climate:** How suitable are current catastrophe models for the amount of warming that has already transpired? Enhances understanding of present-day risk for underwriting, reinsurance structuring, capital management and regulatory requirements.
- **Regulatory disclosure:** Address requests around accumulation, sustainability and resilience.

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About Guy Carpenter

Guy Carpenter & Company, LLC is a leading global risk and reinsurance specialist with 3,500 professionals in over 60 offices around the world. Guy Carpenter delivers a powerful combination of broking expertise, trusted strategic advisory services and industry-leading analytics to help clients adapt to emerging opportunities and achieve profitable growth. Guy Carpenter is a business of Marsh McLennan (NYSE: MMC), the world's leading professional services firm in the areas of risk, strategy and people. The company's more than 85,000 colleagues advise clients in over 130 countries. With annual revenue of $23 billion, Marsh McLennan helps clients navigate an increasingly dynamic and complex environment through four market-leading businesses including Marsh, Mercer and Oliver Wyman. For more information, visit www.guycarp.com and follow us on LinkedIn and X.