

Climate change – supporting the insurance industry in an evolving risk landscape

Guy Carpenter's Kieran Bhatia, Katy Reyner and Kimberly Roberts on how the industry can adapt to the risks posed by a changing climate

In the Global Risks Report 2024, published by the World Economic Forum in collaboration with Marsh McLennan, extreme weather was cited as the top risk, with 66 percent of respondents listing it as the most likely material crisis on a global scale in 2024.

With the increase in extreme weather events projected to accelerate, growing costs for insurers could drive insurance premiums toward unaffordable levels in parts of the US. There are already significant protection gaps in some counties around the country. For example, in Los Angeles County, California, less than 0.2 percent of residents have flood insurance policies.

There are a variety of actions the insurance industry can take to ensure the adequate provision, affordability and management of products in a changing climate.

Underwriting: Insurance companies can assess current and projected physical risks for their portfolios. This analysis can help underpin robust underwriting decisions to minimize physical risk in the present day and the future.

Investment decisions: The transition to a low-carbon economy comes with investment risks and opportunities. Insurers and reinsurers can evaluate sustainable investment decisions as part of the transition toward a net-zero economy.

Capital management: Growing physical risks have increased focus on solvency; insurers could be required to hold more capital, reducing investment opportunities, portfolio growth or other activities. Insurers may need to consider innovative ways to manage capital in a changing climate.

Reinsurance products: Insurers can assess alternative reinsurance solutions, such as parametric insurance and community-based catastrophe insurance, to mobilize more capital in the face of rising risks.

Regulatory requirements: Climate regulatory and reporting requirements are increasing. Insurers can advocate for consistency between approaches from state and federal regulators, which would promote efficiency and common understanding of climate change risk.

Collaboration: The insurance industry is uniquely placed to incentivize climate change resilience and adaptation measures because of its long-standing role in promoting financial stability. Industry partnerships across the public sector, academia and decision-makers will be critical for enabling strategic advancements for the insurance industry as our climate evolves.

How Guy Carpenter can help

One key challenge in assessing the relative risk of a changing climate is that the magnitude of impacts varies based on the perils and geographies of portfolios.

We have higher confidence of increasing impacts from chronic perils, such as heat waves and coastal flood events. For other acute perils, such as severe convective storms and winter storms, there is less certainty about how a changing climate may influence their frequency and severity. Understanding the major drivers of loss by peril is a key analytical outcome required to ensure rate adequacy.

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

- **Education:** Briefings on the latest science, regulation and industry trends, along with executive training and workshops.
- **Catastrophe model adjustments:** Probabilistic loss estimates under future climate scenarios to help with reinsurance structuring, capital management and regulatory requirements.
- **Model suitability in the present climate:** How suitable are current catastrophe models given the global temperature anomaly of this year? Guy Carpenter helps clients better understand present-day risk for strategic underwriting, reinsurance structuring and capital management.
- **Climate change risk scores:** A holistic view of the frequency and severity of key perils across the US for present and future climate. Risks are binned into categories and intersected with client portfolios to communicate which perils and locations are projected to experience the largest climate impacts.



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