

THE IMPACT OF CLIMATE CHANGE ON THE INSURANCE INDUSTRY

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There is little doubt that the impact of climate change on insured risk is increasing in severity and impact across multiple perils and continents. A Swiss Re Sigma report shows global losses from natural catastrophes at \$190 billion for 2020, with insured losses at \$89 billion, notably secondary perils accounting for 70 per cent of insured losses. Recent reporting from the 6th Intergovernmental Panel on Climate Change (IPCC)'s report supports the view of 'human-influenced climate change through increased heatwaves, precipitation, droughts and tropical cycles since their previous report. The expectation is that the 21st century can expect to see up to a 2 degrees Celsius increase in temperatures unless greenhouse gases can be mitigated in the coming decades.

Supporting the IPCC viewpoint, Swiss Re also highlights climate change as an existential threat. On the one hand, it is a threat to the global economy, civilisation and the uninsured. On the other, it is an opportunity for insurers to capitalise on the rising cost of secondary perils. In another Sigma report, Swiss Re points out that the P&C sector expects double the premium growth by 2040, driven by emerging markets and premium consummate to increased risk.

Aligned to the Sigma report, secondary peril is a term that requires realignment. Chaucer recently noted that large wildfire events have increased 30 per cent in the US over the past decade, exacerbated by extreme drought conditions. This year, wildfires raged across Greece, Turkey, southern Italy and Russia and were 'at-risk in 38 US states, with record acreage burnt. Such is the frequency and impact of the losses that Chaucer has argued for wildfire risk to be considered a primary peril.

None of this comes as a shock. As an example, we've seen a wildfire trend in the US from research undertaken by the National Climate Assessment council that affirms drought as a primary instigator of US wildfire. Indeed, to underline this fact, in June 2021, the Mojave Arizona-Nevada lifeline Lake Mead was at 36 per cent of its capacity, restricting electricity production and generating the first-ever water shortage declaration at the federal level.

Meanwhile, primary perils such as tropical cyclones and hurricanes, storm surges and associated flooding continue to escalate in both frequency and severity, with Swiss Re noting the underlying causes impacting both primary and secondary perils remaining the same. In terms of insurance costs, Hurricane Ida gives a view of our future. The impact of climate change driving the storm trifecta - warmer Gulf of Mexico water, humidity and limited wind shear further north than previously - combined with the increasing expense of materials, partially driven by the pandemic and socio-economic restrictions on the housing market, will continue to lead towards increased claims volume and market hardening. Indeed, in 2021, the reinsurance market saw a 6 per cent rise over the 12 per cent in 2020; yet generally, the agreement is premiums are not consummate to risk.

Hurricane Ida insurance losses are also an example of the exacerbated problem of a combination of supply chain disruption and climate change. Despite Ida having a lower landfall speed than Katrina, business interruption supply chain insurance losses are expected to spread well beyond the insurance area.

Another example of contingent business interruption losses based on the supply chain industry is the Suez Canal Ever Given marine shipping loss. Major shipping terminals saw traffic back up and the unavailability of empty shipping containers delay exports, increase costs and create shortages across multiple industries.

What does this all mean for insurers and how can they mitigate risk?

There are three key considerations. Firstly, loss history is no longer the single greatest determinant factor in predicting future losses. The catastrophe loss model sector has heavily relied on history to predict the impact and frequency of future events. Climate change has upended the mindset that history predicts the future through historical records almost year on year across geographies and perils. An insurer must seek a multi-view on risk and avoid over-reliance on a single viewpoint, regardless of the foundation of the science. Data providers are the basis for a balance in risk and portfolio assessment when paired with accessible technologies that enable immediate access at the point of underwriting.

Secondly, insurers should consider additional data points at the point of underwriting to improve understanding of the risk above the typical submission, survey and schedule. Data from the IoT, real-time monitoring technologies, on-the-scene claims-assessment drones and rich specialist providers are sources of additional information that support decision-making.

Finally, the insurance industry must continue to embrace advances in technologies that monitor the upstream/downstream impact of the supply chain to quantify both direct business interruption and contingent business interruption scope of losses.

In today's digital age, smart underwriting is about seamlessly bringing data together from multiple sources and maximising data insights in real-time to minimise risk and cost and maximise competitive advantage. Automation of low-value tasks and the use of sensors, IoT, telematics, predictive analytics and machine learning are providing deeper insights on risk. There is always a commercial cost-benefit trade-off with market capital providing competition from traditional and alternative markets. Peer differentiation must be commercially viable, be targeted and leverage data points that will reduce portfolio volatility and enable further resilience of the corporate risk profile.

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