MINISERIES:
HOW IS THE INCREASING RISK OF EXTREME WEATHER CHANGING INSURANCE?
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Our Property division is split into regionally focused teams that work across all industry sectors to provide overseas brokers and clients with the experience, resource, and expertise they need to secure the best possible renewal outcomes within any given market environment.

INTRODUCTION

Global temperatures in September were the warmest on record, briefly averaging close to 2°C above pre-industrial levels. This climactic abnormality adds further weight to the prediction that 2023 will be the hottest year on record, increasing the threat of extreme weather conditions globally.\(^1\)

The most recent loss statistics are alarming: incidents of annual catastrophic losses amounting to USD100 billion are now becoming increasingly common, with an estimated industry-wide loss of USD50 bn in the first half of 2023. The insurance sector has been told it should prepare for an average annual catastrophic loss of USD133 bn.\(^1\)

With Lloyd’s planning to extend its top-level nat cat exposure management framework to incorporate a greater number of perils, extreme weather is shifting the definition of what a cat loss even means.\(^1\)

What happens when cat risks are perceived as uninsurable? How is the nat cat market reacting to the increased risk of extreme weather? This miniseries seeks to explore the answers to these questions.

KEY POINTS:

• Some US domestic insurers are unwilling to cover certain secondary perils
• Insurers globally are monitoring the situation in North America as they consider their future climate exposure
• Extreme weather is also impacting insurance and regulation in other countries
• The issue of ageing infrastructure is exacerbated by extreme weather
• Cat risks reassessment and recent loss activity have pushed property insurance to the hardest market in 30 years
• Challenges in the US domestic market have created opportunities for growth in the London and international markets
• How London market insurers approach extreme weather cover is changing

\(^1\)https://www.washingtonpost.com/weather/2023/09/23/record-heat-september/
\(^3\)https://www.postonline.co.uk/lloydslondon/7954241/climate-change-not-primarily-responsible-for-rising-nat-cat-claims-at-lloyds?check_logged_in=1
The dial is shifting for extreme weather, both in terms of frequency and severity. Since 2017, the US has endured an average of 15 nat cat events per year — compared to 10 in the previous decade and six prior to 2007.¹

Although no stranger to extreme weather, it is rare for California to experience hurricanes or tropical storms. However, for the first time since 1939, in August, tropical storm Hilary made landfall in California. With predicted losses estimated to be close to USD600 mn, the damage is not comparable to extreme weather on the east coast, yet it illustrates how unprotected losses can ramp up a region’s annual cat bill.

The number of wildfires is predicted to increase by 30% by 2050 and the UN Environment Programme has warned that governments are largely unprepared.² Global wildfire losses totalled USD69 bn between 2018 and 2022, with insurers paying out USD39 bn in claims.³

While wildfires have recently spread across southeast Australia, Canada, and parts of the Mediterranean, California has borne the brunt of economic loss. To date, Progressive, State Farm, Allstate, Nationwide, and Farmers Tokio Marine, AmGuard, and Falls Lake Fire and Casualty Co have paused or restricted new business in the state. The news has led some commentators to question whether California has become the most insurance-challenged state in the US, with other states such as Florida, Texas, Colorado, Louisiana, and New York in hot pursuit.

Recent research from the non-profit organisation First Street Foundation found that 25% of all US real estate (roughly 35.6 mn properties) faces increasing premiums and reduced coverage due to high climate risks.⁴

In September, the California Insurance Commissioner announced that it would expedite the introduction of rules for the review of cat modelling tools to allow insurers to consider current and future risks, including climate change, when setting rates. Prior to this development, insurers could only factor in what had happened at the specific property when setting rates. However, insurers will only be granted this concession if they agree to write more business in the state, including wildfire risk.⁵

Extreme weather is not only impacting insurance markets in traditionally exposed regions. Insurers in countries that have not previously endured significant nat cat challenges are monitoring what is happening in the US as they assess clients’ risk profiles more closely to consider how they might evolve in relation to future climate exposure.

Swedish forestry market has not experienced the same challenges as nat cat-prone regions. Currently, Swedish property owners’ terms and conditions are generally not dependent upon geographical location. Whether owners live by the sea or in the mountains, their premiums tend to be similar.

Nevertheless, Storm Hans recently caused chaos, flooding, and landslides. In the north-western ski resort town of Are, the Susabacken stream overflowed, damaging roads and houses. In what insurers labelled “unique”, notifications were coming from Sundsvall in the north to southern Skåne, rather than being concentrated in one area.³

It is possible for one major event to be a catalyst for a change in market conditions. In 2005, cyclone Gudrun caused significant financial damage, most notably to the forestry industry: 75 mn cubic metres of trees blew down in the south of the country.³ This example of extreme weather was significant enough to change the market. Prior to 2005, the Swedish forestry market had been very competitive with substantial capital available. Following Gudrun, policy wordings became tighter and premiums were considerably higher.

Claims data from a Gallagher affinity business partner shows that fire and escape of water account for roughly 90% of property claims in Sweden, and, on average, extreme weather is the cause of less than 1% of claims. However, the flooding in Gävleborg in 2021 highlights the volatility of extreme weather’s influence on the market and how one single event can dramatically impact annual results.

Gävleborg County accounted for 56% of the total claim costs and was heavily affected by severe rainfall, leading to extensive flooding and damage to residential and commercial properties and SEK 1.9 bn in insurance claims.

Insurers consequently took legal action against Gävle municipality, demanding SEK 1.2 bn in compensation. The Chairman of the Gävle Municipal Board called for increased state responsibility to change or clarify boundaries, most importantly, who is financially responsible for flood damage?

Gästrike Vatten, the water company responsible for the sewage and drainage system in Gävle, also faced criticism. Waste water and storm water flowed through the same pipes and many households were flooded with sewage. The water company said it was unreasonable to expect the pipes to handle so much water and said it had a legal responsibility to pay only SEK 250 mn in damages.

The Swedish Association of Local Authorities and Regions has argued that state funding of SEK 420 for the Swedish Contingencies Agency is insufficient to effect the kind of change necessary. It is clear that regulations regarding heavy rainfall need to be reviewed and adapted to accommodate climate change.

If the frequency and severity of extreme weather events continue to increase in Sweden, it could make it difficult to obtain insurance in areas that are considered particularly exposed to flooding. Insurers are certainly aware of what is happening in other countries and have started to consider how clients’ risk profiles might change due to the increased risk of extreme weather.

³ https://www.sei.org/perspectives/cyclone-gudrun-swedish-forestry/
Prior to 2022, hail was considered an easily insurable risk in France, yet the damage it caused last year suggests that changes to pricing and insurance risk assessment are necessary to ensure hail cover remains sustainable in the long term.

Nat cat cover is compulsory in France and most motor and property policies include a defined premium loading for the protection. Prior to 2017, average combined ratios were well below 100%, meaning insurers were making a profit. Since 2017 (the first year of the drought and subsidence losses and Hurricane Irma), average nat cat ratios have been trending well over 100%, and insurers have been losing money.12

France has a natural disaster compensation scheme, which the French public reinsurer Caisse Centrale de Reassurance manages. Hail losses have not been included in this scheme to date.

While the final loss figure is still to be determined, the total insured hail loss from SCS in France last year is already estimated at EUR6.4 bn, comfortably making it the costliest year on record.13

Prior to 2022, the 2014 Pentecost storms (aka Ela) had been the highest hail property loss at EUR600–700 mn. Consequently, it was used as the key industry benchmark, and from this, insurers assumed that events of this severity should be expected every 20 to 50 years. However, last year, Maya hit in early June, closely followed by Qiara in the same month and both exceeded the 2014 loss and forced the market to reconsider its previous assumptions, as a EUR600–700 mn property SCS loss event could now feasibly occur in less than 10 years.14

Last year’s extreme weather prompted French newspaper Le Monde to publish “How climate change could make France uninsurable”, in which it claimed the “climate bill” in 2022 was EUR10.6 bn.

Unlike the shock hail losses, drought has hit France in five out of the six most recent years. Insurers’ models predict periods of eight consecutive years of drought by 2050, with exposed areas expanding to the north and west of the country. Six of France’s 10 hottest years since the beginning of the 20th century have occurred in the last decade, with 2022 and 2020 being the top two.

There is a growing consensus that the hotter/drier climate in France is contributing to an increase in the frequency and severity of extreme weather. The insurance industry is expecting EUR43 bn in subsidence claims between 2020 and 2050. In the prior 30 years, losses in this area totalled EUR13.8 bn. The weather also contributed to extreme wildfires, burning around 66,000 hectares.

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SLOVENIA: 2023 IS SET TO BE THE LARGEST LOSS YEAR FOR EXTREME WEATHER

Slovenia is the Central Eastern European (CEE) country with the highest share of insured losses from extreme weather events in the last 40 years.15 Between 2006 and 2020 Slovenian insurers paid EUR850 mn in claims for extreme weather, mostly related to property and vehicles.16

2008 has been the largest loss year on record, but 2023 will exceed this due to severe storms and hail in June and July, followed by the devastating floods and torrential rain in August. Agriculture, road, and energy infrastructure were particularly affected, with hundreds of homes and commercial buildings damaged and at least 10 bridges collapsed.

Due to the higher-than-anticipated number of claims, the Slovenian government raised its initial EUR500 mn loss estimate to several bn.17 Slovenia’s largest insurer, Zavarovalnica Triglav, has said the cat claims from floods would have an adverse impact on its overall 2023 results but that the impact would be limited by adequate reinsurance protection. While the Sava Insurance Group, the country’s second-largest insurer, purchased a backup reinsurance cover for part of its excess-of-loss cat programme after sustaining extensive flood losses that drove around EUR65 mn–EUR70 mn of claims to reinsurers.18 How will the reinsurance market react? Will reinsurers increase attachment points and force insurers to retain more risk?

Insurance Council of Australia (ICA) Chief Executive Andrew Hall posed this question in April’s edition of the Australian Farm Institute. Since the Black Summer bushfires of 2019–20, Australia has endured 11 declared insurance catastrophes, with insurers paying more than USD13 bn in claims. The increased risk of extreme weather has driven premiums up, leaving insureds with limited options: absorb the cost, reduce their cover or opt out of insurance completely. Spiralling rebuilding costs mean many individuals and businesses also aren’t adequately insured.

In the ICA’s most recent report, it found that the impact of Australia’s worst disasters, such as Cyclone Tracy and Sydney’s giant hailstorm in 1999, would be more severe now due to increased population and rebuilding costs.

Tracy killed 71 people and caused USD200 mn in insured losses in 1974. Yet the ICA said it would cause USD7.4 bn in losses if repeated today. If adjusted only for inflation, the cost would have been USD1.78 bn.

This finding aligns with recent comments made by Lloyd’s Chief of Markets Patrick Tiernan, who said several factors were pushing up losses along with climate change — increases in insured values, more of these values existing in high-hazard locations, claims inflation, and changes in vulnerability.

Federal Assistant Treasurer Stephen Jones and delegates from the ICA, including Insurance Australia Group, QBE Australia, and Suncorp Group, visited London and Munich in September to discuss how extreme weather is impacting the Australian market and to inform global reinsurers of the steps the country is taking to reduce this risk.

Clients are becoming more experienced regarding their exposure and understand that protecting their assets requires getting the right mix of insurance, mitigation, and resilience. Hall has argued government intervention in the form of lower taxation, tighter planning codes, and public disaster mitigation funding are necessary steps the country must take to reduce the cost of insurance.
In September, two dams along the Wadi Derna river in northern Libya collapsed during Storm Daniel, killing thousands of people and displacing countless more. The dams were built in the 1970s, and according to reports, have not been maintained since 2002. The dangers flooding posed to the dams, which are meant to protect 90,000 people, were well known. In an academic paper last year, civil engineering professor Abdelwanees Ashoor wrote: “In the event of a big flood, the consequences will be disastrous for the residents of the valley and the city.” Now experts are calling for immediate action to address poorly maintained dams worldwide, which are under increased pressure due to extreme weather.

Most of the world’s major dams were built between 1950 and 1985 and like any man-made structure, they have a limited shelf life, which experts estimate is around 50 years. A 2021 UN study of 50,000 large dams found that many were older than this and at increased risk of failure. In India and China, there are 28,000 large dams that are approaching their end of life. In India, the Mullaperiyar Dam in Kerala is over 100 years old, in an area prone to earthquakes and 3.5 million people are at risk if it collapses. In India, the Mullaperiyar Dam in Kerala is over 100 years old, in an area prone to earthquakes and 3.5 million people are at risk if it collapses. In the UK, most dams are over 100 years old; in 2020, the average age of a UK large dam was 106 years old.

In the US, more than 2,200 dams are in need of maintenance and repair. The number of severe convective storms has increased since the last study three years ago, placing them under greater pressure. The Association of State Dam Safety Officials estimates that USD76 bn is needed to address dam-related issues, while the Infrastructure Bill has only allocated USD3 bn to such projects. Ageing dams bring to light a broader issue of infrastructure and extreme weather. Insurance casualties are often associated with homeowners who cannot secure insurance in areas prone to natural catastrophes. However, cases like this one demonstrate that severe weather is affecting every aspect of insurance. If obtaining insurance for older infrastructure in vulnerable regions becomes more difficult, maintenance and repair will become less likely and the risk of failure will increase. As we have seen in Libya, the people who suffer the consequences remain the same.
Cat risks have pushed property insurance into the most challenging market for three decades. All large renewals now tend to occur in the period between March 1 and July 1, while European risks tend to be renewed in January. There had been concern in the market that capacity would run out, yet this only happened in very limited pockets — but will this change? Overall capacity has remained available, but at increased pricing and attachment levels.

At all levels of the insurance value chain — insurers, reinsurers, and retrocessionaires — there has been a movement away from attrition and a reassessment of risk. For reinsurers, the current hard market has been driven by their inability to generate sufficient returns — with the increased frequency of both primary and secondary perils being a significant driver of their losses.

The tradition of bucketing perils into primary and secondary silos is becoming increasingly meaningless. The cumulative wealth of examples where individual secondary peril events have led to primary-level losses provides an ever-strengthening argument that any peril can lead to extensive losses.

Insurers used to write secondary perils safe in the knowledge that any losses would be covered by reinsurance. However, the increases in reinsurance attachment points (once the loss exceeds this amount, the reinsurer will step in and pay the excess) that have become the market norm since January 1, 2023, have left insurers with even higher net retention levels and led them to question whether these risks are insurable.

Recent results indicate that results are improving for reinsurers as more retained losses fall to insurers. With ongoing concerns about secondary perils and inflation, this reinsurance market dynamic is unlikely to change in the foreseeable future.

However, the actions of US insurers demonstrate that they are not in a position to accept any more risk without something changing. This issue is not isolated to North America, and the measures being taken here will likely pave the way for other regions that are vulnerable to nat cat.

The challenging environment for US domestic insurers in both the admitted and excess and surplus (E&S) markets is providing more opportunity for the London and international markets, where there has been significant premium growth and client expansion.
Where is the appetite?

Cat-exposed treaty reinsurance hasn’t performed well since 2017, and many insurance carriers are also questioning the performance of their binder portfolios. Consequently, within the London market, there has been a reallocation of capacity, moving from the binding authority/MGA market and treaty to the open direct and facultative (D&F) market, giving insurers more control over underwriting and data provision. By way of example, Blenheim, Kiln, and Apollo have withdrawn from treaty insurance and expanded their property D&F portfolios.30

Nevertheless, the D&F market is hardening due to reinsurance and excess demand. Deductibles are increasing and there is a move toward insurers pushing for per-location deductibles to manage some specific secondary perils. This could lead to insureds living in areas exposed to extreme weather paying more before their insurance policy starts to cover the loss. As mentioned above, these higher-frequency/lower-cost events are often aggregating at higher totals.

Florida and California are experiencing significant rate changes and have witnessed an increase in self-insurance. Where wildfire has been excluded as a peril from property policies, it has been very challenging to place. The international market is not as capacity-constrained, but there has been upward pressure on pricing, retention, and deductible levels.

After a fairly quiet windstorm season, Hurricane Otis losses could be one of the costliest events in Mexico’s history, with the market bracing for a multi-billion dollar loss. Will captive utilisation continue to increase, or will capital return to the market? If it is the latter, will it just be via reinsurance or will it be in the specialty insurance arena, which is possibly less volatile than a treaty? There are signs that capital is being attracted to the market — but it will need to gain confidence in the long-term profitability of the market and that insurers and reinsurers have an understanding of the risk they are assuming. It remains to be seen whether this will enter through treaty reinsurance, or whether carriers would prefer to retain underwriting control and re-enter from an MGA or syndicate/D&F perspective.

These questions have undoubtedly been taking points amongst reinsurers and insurers, yet the answers will only become clear once this windstorm season’s dust settles. Nevertheless, one question can be answered now. The market will continue to evolve and innovate, and areas prone to extreme weather will remain insurable in the long term. The insurance market depends on volatility, without it, it has no business model. The increase in severe weather has undoubtedly stretched the current boundaries of the insurance value chain to the limit, prompting a reset so that all levels can regain the confidence they will be adequately compensated and show they can sufficiently understand the volatility they are accepting.

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### For selected reinsurers and insurers, the number of percentage points on the combined ratio attributable to catastrophe losses in H1 2022 and H1 2023

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**Source:** S&P Capital IQ Pro

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