

As extreme weather events increase in frequency and severity, insurance losses continue to mount. Some areas exposed to the worst climate risks are now seen as too risky to cover. Michael Yamoah, Navishka Pandit and Judi Tseng assess the implications.

Setting the scene

The increasing number of extreme weather events, from wildfires in Greek tourist resorts to major flooding in Northern Europe, has highlighted the dangers and costs of the climate emergency. Until now, insurers and reinsurers have covered the losses. But some areas of the US are now seen as too risky to cover and attempts by regulators to impose price caps in Louisiana led to insurer insolvencies.¹ Central banks and monetary authorities are concerned that insurers may pose a systemic risk to the economy, given the risk of contagion to the banking system and other businesses in the wake of catastrophic events.² If insurers and reinsurers cannot cover the losses, who will?

For further information, please contact:



Michael Yamoah
Theme lead: Wider Societal
Impacts
michael.yamoah@FederatedHermes.com



Navishka Pandit
Themes: Climate Change,
Human Rights
navishka.pandit@FederatedHermes.com



Judi Tseng
Themes: Climate Change, Human
Capital
judi.tseng@FederatedHermes.com

For decades, physical risk insurers and reinsurers have priced their premiums using complex probability models informed by past events. In some years, earthquakes and hurricanes might lead to bigger claims than expected, but over the long term, the pricing models would ensure that profits and losses were smoothed out.

Yet the rapidity with which the global climate is changing means that relying on historic weather patterns to model risk is no longer prudent.³ Insurers are withdrawing from certain markets, because the probability of loss is deemed too high. In other areas, premiums have shot up, squeezing householders and small business owners. And losses from climate-related events continue to climb

2023 was the hottest year on record,⁴ and 2024 looks set to repeat that. The US has had 19 weather or climate-related disasters this year, each with estimated losses of over US\$1bn.⁵ Germany, Poland and other parts of central and Eastern Europe experienced devastating floods that resulted in fatalities and economic damage running into billions of euros,⁶ while in Greece, wildfires threatened Athens for days.⁷

- ¹ Ninth insurer in Louisiana goes under; here's what it means for 1,500 open claims Business News | nola.com
- ² Towards macroprudential frameworks for managing climate risk (europa.eu)
- ³ The uninsurable world: how the insurance industry fell behind on climate change (ft.com)
- https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/weather-and-climate-news/2024/2023-the-warmest-year-on-record-globally
- 5 https://www.ncei.noaa.gov/access/billions/#:~:text=In%202024%20(as%20of%20 August,and%202%20winter%20storm%20events.
- 6 https://en.wikipedia.org/wiki/2024 Germany floods
- ⁷ https://www.bbc.co.uk/news/articles/clynz911jpyo

For insurers, attempts to ratchet up the price of premiums may be stymied by regulators keen to maintain affordability for businesses and households.

Apart from the physical damage caused, there are longer-lasting secondary impacts on the tourism-driven economy, as the increased frequency of such events deters future holidaymakers.

For insurers, attempts to ratchet up the price of premiums may be stymied by regulators keen to maintain affordability for businesses and households, as in California in the wake of deadly wildfires.⁸ However, this had a negative effect on insurance availability and affordability, as State Farm, one of the largest property and casualty (P&C) insurers in the US, Farmers and Allstate decided not to renew policies or tightened their underwriting standards for California homeowners.⁹

How does insurance work?



Insurers need to quantify risk and predict future events to maintain profitability. This is often done by risk pooling to spread the risk while minimising the cost of premiums for policyholders.

However, the assessment of this risk is dependent on the availability and reliability of data – particularly historical data – to predict the future probability of events. So when data is ambiguous or does not exist, the uncertainty increases. This can lead to a lack of coverage or high excesses in policies – the part of a claim that must be borne by the policyholder. This exposes the insured and uninsured to greater economic losses or higher premiums.

In another scenario, regulatory caps on the price of insurance may hinder the insurer's ability to price the risk accurately. This may improve the availability of insurance in the short term, but ultimately impacts the insurer's financial strength, or encourages insurers to leave the market, reducing consumer choice and concentrating risk with those players that remain.

Top 10 Global Economic Loss Events in 2023

Event	Location	Economic loss (US\$bn)	Insured loss (US\$bn)
Turkey and Syria Earthquakes	Turkey and Syria	92.4	5.7
China Floods	China	32.2	1.4
Hurricane Otis	Mexico	15.3	2.1
La Plata Basin Drought	Brazil, Argentina, Uruguay	15.3	1.0
US Drought	United States	14.0	6.5
Emilia-Romagna Floods	Italy	9.8	0.6
Severe Convective Storm	United States	6.2	5.0
Severe Convective Storm	Europe	5.8	3.0
Hawaii Wildfires	United States	5.5	3.5
Severe Convective Storm	United States	5.5	4.4
All other events		178.0	84.8
Totals		380	118

Source: Aon, Climate and Catastrophe Insight Report, 2024

A double-edged exposure

Insurers can lay off part of their underwriting risk to specialist reinsurers such as Swiss Re or Munich Re – if they will take it – but reinsurance premiums are also rising. Balancing this exposure is becoming more difficult for insurers, but it is not the only problem they have to solve. Insurance companies invest the monies they gather from policyholders to offset their liabilities, but these investment portfolios will also be impacted by physical climate-related risk. Transition risks, such as tighter regulations, new policies that favour one sector over another, or changes in consumer preferences, must also be considered.

In this way, climate change affects both sides of the insurer's balance sheet. Insurers that underwrite fossil fuel-related assets, and invest in them, may be among the most exposed. This raises another question – could such a concentration of risk pose a threat to the stability of the global financial system?

A systemic risk



Economic losses and premium increases

Climate-related extreme weather events are already increasing losses for insurers and reinsurers. The average annual loss from natural catastrophes for insurers reached a new high of US\$133bn in 2023, according to Verisk.¹¹ The effect on policyholders is increased premiums or inadequate coverage. Swiss Re estimates a US\$183bn increase in annual property insurance premiums by 2040, driven by extreme weather events. And it suggests weather-related property catastrophe losses in key markets such as China, France and the UK could double by 2040, according to a 2021 report.¹²

⁸ Researchers reveal a hidden factor in California's insurance crisis: The 'winner's curse' – Berkeley News

⁹ Why are State Farm and others leaving California's home insurance market? Answers for beleaguered homeowners – Los Angeles Times (latimes.com)

^{10 &}lt;u>Understanding the Physical Risks Associated with Climate Change (garp.org)</u>

¹¹ Insurance Industry Faces Average Annual Natural Catastrophe Losses of \$133B, A New High According to Verisk Report (yahoo.com)

¹² Climate risks to add \$183bn to property insurance costs by 2040, Swiss Re predicts (ft.com)



As reinsurers raise rates, some insurers have had to exit certain markets, leaving businesses and households with the unenviable choice of costly coverage or none at all. US insurers Berkshire Hathaway, Allstate, and Nationwide have told regulators that extreme weather events driven by climate change have prompted them to raise premiums, end certain coverages, or exclude protections for natural disasters. Heanwhile, some American households are deciding to forgo home insurance as they believe that the frequency of disasters is not worth the rising cost of policies. In Australia, half a million properties are expected to become uninsurable by 2030 with 80% of that risk driven by river flooding.



Deepening economic divide

Increases in climate-related catastrophes are likely to affect vulnerable groups and those in low-income areas more. Higher premiums to reflect risks, or market exits by insurers only exacerbate the economic divide, with negative consequences for social cohesion. For example, Louisiana, which has one of the lowest average incomes in the US, is the second most expensive state for property insurance. ¹⁷ This compounds the current homeownership affordability crisis faced by many in developed economies, as obtaining home insurance is often a pre-condition for most mortgages.



Rising insurer insolvencies and transmission risk

Insurer insolvencies are also on the rise. In Florida, which is exposed to hurricane risk and rising sea levels, nine property insurers have become insolvent since 2021. In the UK, regulators are advancing new solvency rules for insurers, as the market is the fourth largest in the world with some £2.7tn in assets. In Although the attempt to set new rules for insurers is partly driven by concerns related to recent US bank failures and the associated global impacts, physical climate risks compound the urgency because of transmission risk. The fear is that a confluence of climate-related losses could cause a major insurer or reinsurer to fail, triggering a cascade of losses or bankruptcies across the global economy.

The New York Federal Reserve Bank has already voiced concerns about insurers' exposure to climate risk, noting that it is "a key channel through which climate change risk can threaten broader financial stability." ²⁰ It added that their omission from many regulatory climate stress tests was worrying. Meanwhile, the Bank of England stated that "existing capability and regime gaps create uncertainty over whether banks and insurers are sufficiently capitalised for future climate-related losses." ²¹

Other considerations for insurers

The impact of physical climate risks on insurance underwriting goes beyond the obvious P&C segments. The life and health (L&H) segments also face significant challenges. The World Health Organization (WHO) expects deaths from vector-borne diseases to rise, although it acknowledges the challenges of attributing specific increases in morbidity and mortality to global warming.²² For developed countries, unprecedented temperatures in cities and towns ill-equipped to cope, are leading to more people dying in their overheating homes.

Increases in climate-related catastrophes are likely to affect vulnerable groups and those in low-income areas more.

US Environmental Protection Agency (EPA) data shows that heat-related deaths reached new highs in 2021 and 2022.²³ Similarly, in the UK, 2022's record temperatures caused an all-time high in heat-related deaths.²⁴ However, individual heat-related deaths may be attributed to heart failure or some other underlying condition that has been exacerbated by excessive heat, so the true cost is currently hidden. While the short-term consequences for L&H insurers have so far been modest, this may change as the severity and frequency of climate events increase.²⁵



- ¹³ Reinsurers defend against rising tide of natural catastrophe losses, for now (moodys.com)
- ¹⁴ Home insurers cut natural disasters from policies over climate risk The Washington Post
- ¹⁵ Americans Are Dropping Their Home Insurance, Claiming the Odds of Disaster Don't Justify the Cost WSJ
- ¹⁶ Climate change is causing an insurance crisis in Australia | World Economic Forum (weforum.org)
- ¹⁷ https://money.com/home-insurance-most-expensive-states-2024/
- https://www.milliman.com/en/insight/florida-property-insurance-market-ran-aground
- ¹⁹ Britain to create new regime to deal with insurance company failures | Reuters
- ²⁰ sr1066.pdf (newyorkfed.org)
- ²¹ Bank of England report on climate-related risks and the regulatory capital frameworks | Bank of England
- ²² Climate change (who.int)
- ²³ <u>Climate Change Indicators: Heat-Related Deaths | US EPA</u>
- ²⁴ https://www.gov.uk/government/publications/heat-mortality-monitoring-reports/heat-mortality-monitoring-report-2022
- ²⁵ Climate Change: What does the future hold for health and life insurers? (genevaassociation.org)

Our engagement expectations

EOS engages with global insurance companies to understand the climate-related risks and opportunities they face, as well as their strategies for addressing these over different time horizons. We are asking insurers to demonstrate how they embed climate-related considerations into their product design and pricing, as well as their capital adequacy decisions.

As part of our ongoing engagements, we expect insurers and reinsurers to:

- Improve their climate-related data to enhance their existing models. Insurers should also address concerns related to investable assets by limiting exposures to products that are susceptible to transition climate risk by demonstrating alignment with a low-carbon future. This can be achieved via global standard frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and the use of other emerging approaches to measure climate transition risk exposure. In our engagement with MetLife, we have highlighted the importance of assessing the impact of climate on the business and its investable assets. We acknowledge its approach to climate scenario analysis and the steps it is taking to screen investments using ESG considerations.
- Play a key role in steering their clients' transition via active engagement. For example, the Monetary Authority of Singapore (MAS) has proposed that insurers collect climate-related risk data from their clients. It recommends that insurers place clients with elevated climate-related risks or inadequate mitigation and adaptation strategies under enhanced monitoring, and engage with them further using differentiated strategies, instead of indiscriminately withdrawing coverage. In our engagement with insurer Ping An, we learned that if it declines to underwrite a thermal coal asset because of its coal policy, it will share some transition solutions with the affected client.
- Galvanise peers to participate in broader national, regional, and global efforts to collectively tackle some of the challenges and gaps in insurance climate-related risk. In our engagement with Reinsurance Group of America (RGA), we sought to understand how it works with the insurance industry to overcome the lack of data or a structured approach for assessing the impact of climate-related risk on the L&H segments. We welcomed its

- thought leadership publication about the L&H impacts of climate change in South Africa, and asked how this informs its business. It is looking to expand its research scope with its own scenario analyses to other regions. It also participates in industry research and shares its findings internally.
- 4 Recognise the impact on society, particularly vulnerable groups, and consider how to address the emerging trend of uninsurable markets, given the past value/ profit derived from those markets. We have discussed the wider socio-economic impacts of climate change with insurance broker Hub International, which expressed concern over the balance of affordable premiums and the increased likelihood of climate-related natural disasters.
- 5 Work towards the inclusion of the insurance industry in relevant economic stress tests to minimise systemic risk.



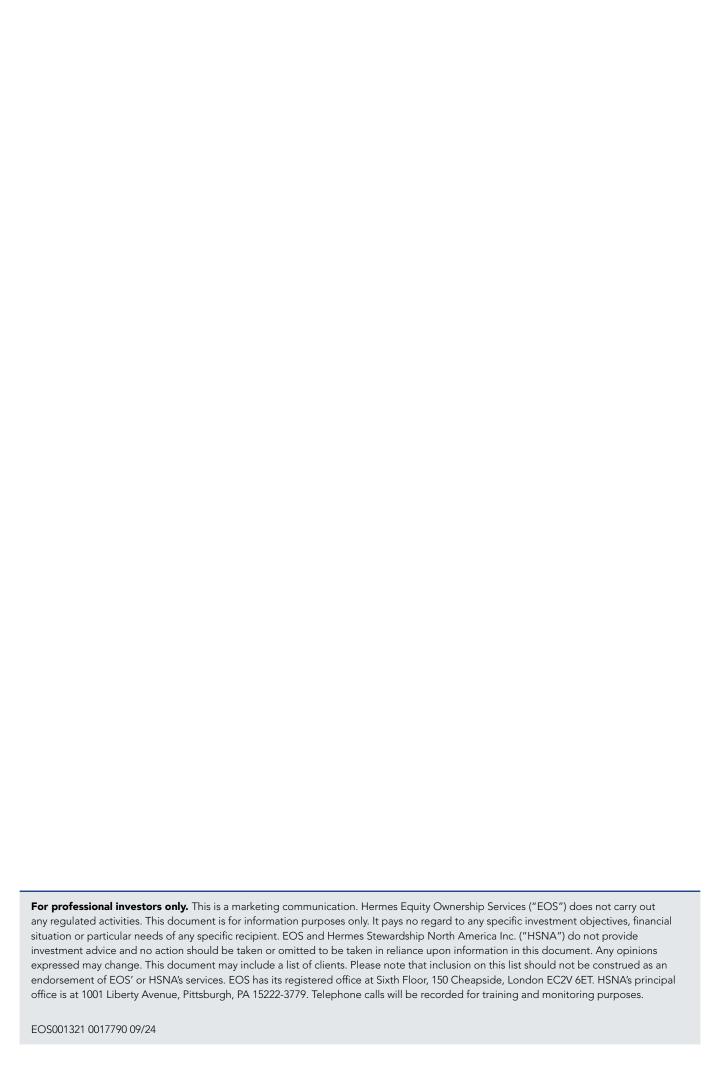
Insurers are exposed to climate risks through their underwriting and their investable assets. FM is one of the largest commercial property insurers in the world and has a unique business model, where risk and premiums are determined through engineering analysis. This analysis also includes a climate risk report

The company's climate resilience product suite²⁷ has been recognised for its innovation, winning a 2023 Innovation Award from Business Insurance magazine. The product suite includes a climate risk report, a climate change impact report, a climate reporting aid, and the FM Resilience Index.



 $^{{}^{26}\,\}underline{consultation\text{-}paper\text{-}on\text{-}guidelines\text{-}on\text{-}transition\text{-}planning\text{-}insurers\text{-}1.pdf}\,\text{(mas.gov.sg)}}$

²⁷ https://www.fm.com/solutions/services-we-provide/climate-products





Federated Hermes

Federated Hermes is a global leader in active, responsible investing.

Guided by our conviction that responsible investing is the best way to create long-term wealth, we provide specialised capabilities across equity, fixed income and private markets, multi-asset and liquidity management strategies, and world-leading stewardship.

Our goals are to help people invest and retire better, to help clients achieve better risk-adjusted returns and, where possible, to contribute to positive outcomes that benefit the wider world.

Our investment and stewardship capabilities:

- Active equities: global and regional
- Fixed income: across regions, sectors and the yield curve
- Liquidity: solutions driven by five decades of experience
- Private markets: private equity, private credit, real estate, infrastructure and natural capital
- Stewardship: corporate engagement, proxy voting, policy advocacy

Why EOS?

EOS enables institutional shareholders around the world to meet their fiduciary responsibilities and become active owners of their assets. EOS is based on the premise that companies with informed and involved investors are more likely to achieve superior long-term performance than those without.

For more information, visit **www.hermes-investment.com** or connect with us on social media:



