



Representative Office
for the Americas

The climate insurance protection gap

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Liability risk as a (sometimes forgotten) element of climate risks

“There are three broad channels through which climate change can affect financial stability:

*First, **physical risks**[...];*

*Second, **liability risks**: the impacts that could arise tomorrow if parties who have suffered loss or damage from the effects of climate change seek compensation from those they hold responsible. Such claims could come decades in the future, but have the potential to hit carbon extractors and emitters – and, if they have liability cover, their insurers – the hardest;*

*Finally, **transition risks**[...]”*

Source: Carney, M (2015): “Breaking the Tragedy of the Horizon – climate change and financial stability”, speech given at Lloyd’s of London.

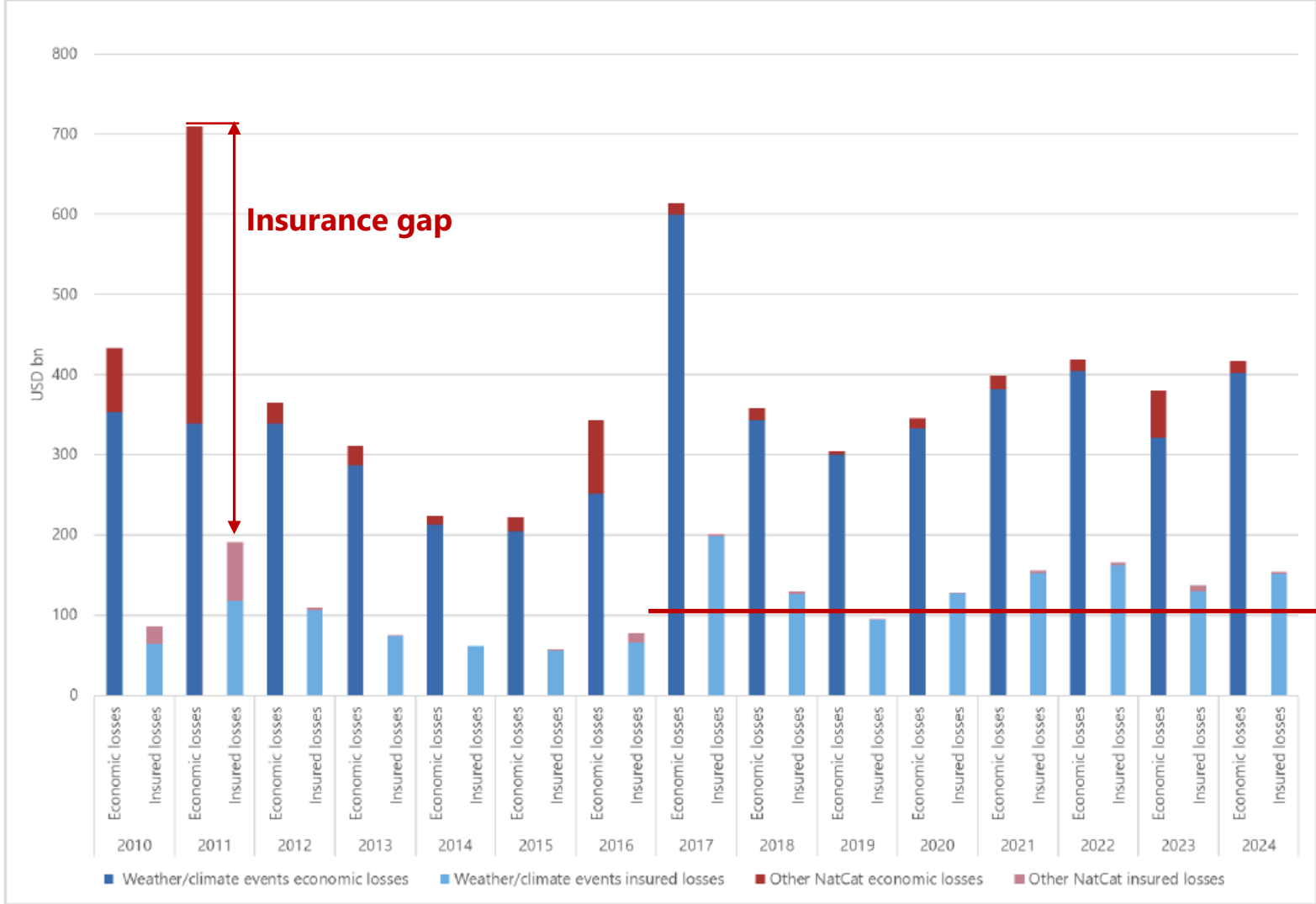
What is the climate insurance protection gap and why does it matter?

- “Climate insurance” as such is difficult to find....
...as climate change is a systematic risk (if unabated, it can also become a systemic risk)
- The protection gap refers to economic damages related to events that are expected to become more severe (frequent and/or intense) with climate change
- Key questions:
 - What are ways to mitigate rising insurance costs?
 - How systematic are the risks?
 - What are the costs of a widening insurance gap?
 - What is the role of the public sector or public-private insurance solutions?

What kind of climate-related events can be insured?

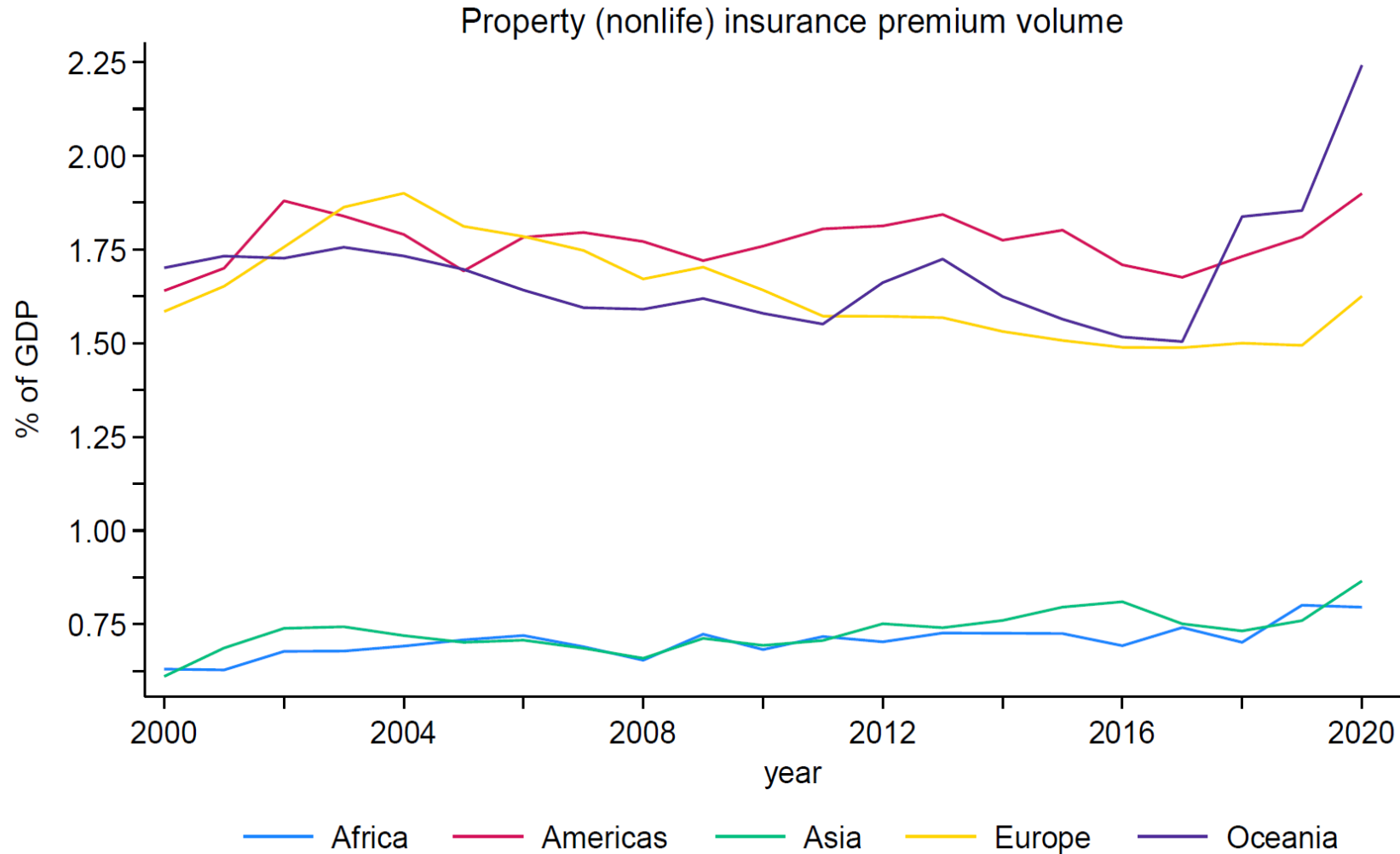
- Economic damages related to climate change could be manifold (see Ehlers et al (2025), “Macroeconomic impact of extreme weather events”, BIS Bulletin No 98)
 - Legal damages demanded from entities that have caused climate change
 - Economic damages resulting from health issues related to climate change
 - and many more...
- The climate insurance protection gap typically refers to something *very specific*:
Damages related to extreme events which are expected to increase in frequency and/or intensity with climate change
- I will concentrate on NatCat insurance, even though health and life insurance are indirectly affected as well

Economic losses from climate-related natural catastrophes (NatCat)



Source: Gallagher Re (2025), figures adjusted for inflation using the US Consumer Price Index.

Insurance premia have been going up recently

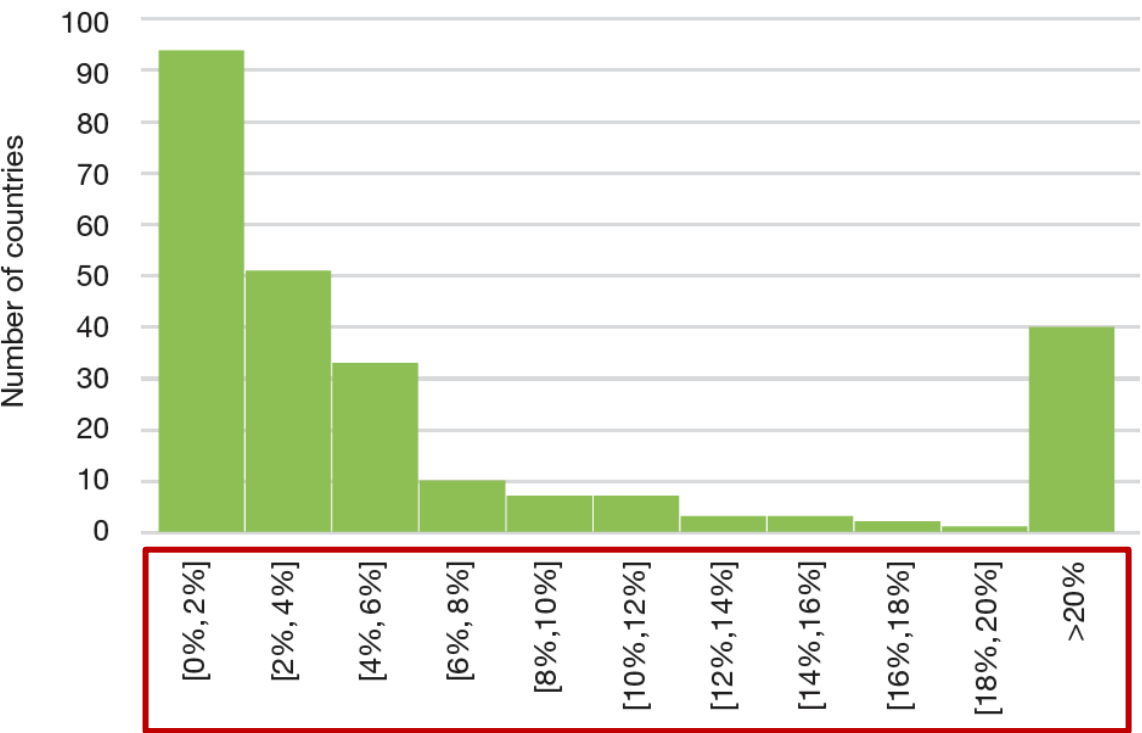


What can we expect with progressing climate change?

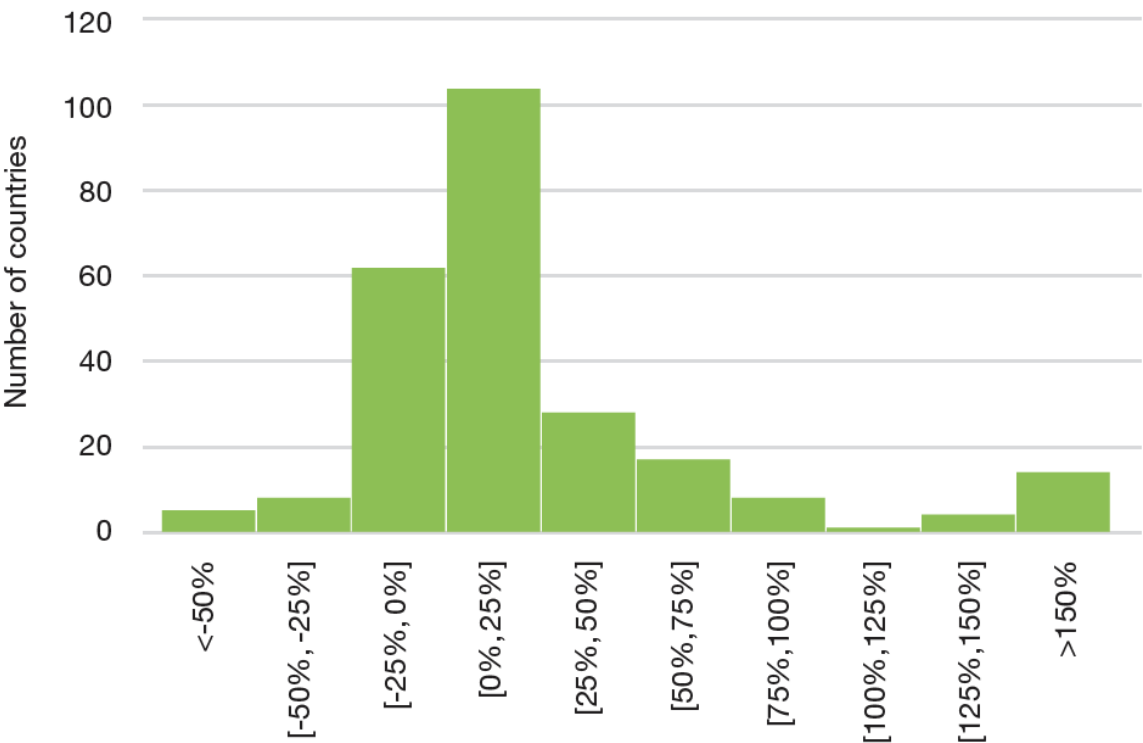
- Swiss Re (2024):
 - Insured NatCat losses are expected to continue increasing at an annual rate of between 5 and 7% in a world of fast evolving risk landscapes caused mostly by economic growth and urbanisation, and the associated accumulation of assets
 - Hazard intensification for certain perils and regions due to climate change could compound property damage outcomes
 - Insurance premiums for physical risks from NatCat events could increase by 50% by 2030, reaching between USD 200 and 250 billion globally

The increase in insurance prices from climate change *alone* will likely be limited

Histogram of current 1-in-250 year damages as a percentage of exposure across territories



Histogram of increase in 1-in-250 year damages due to climate change across territories

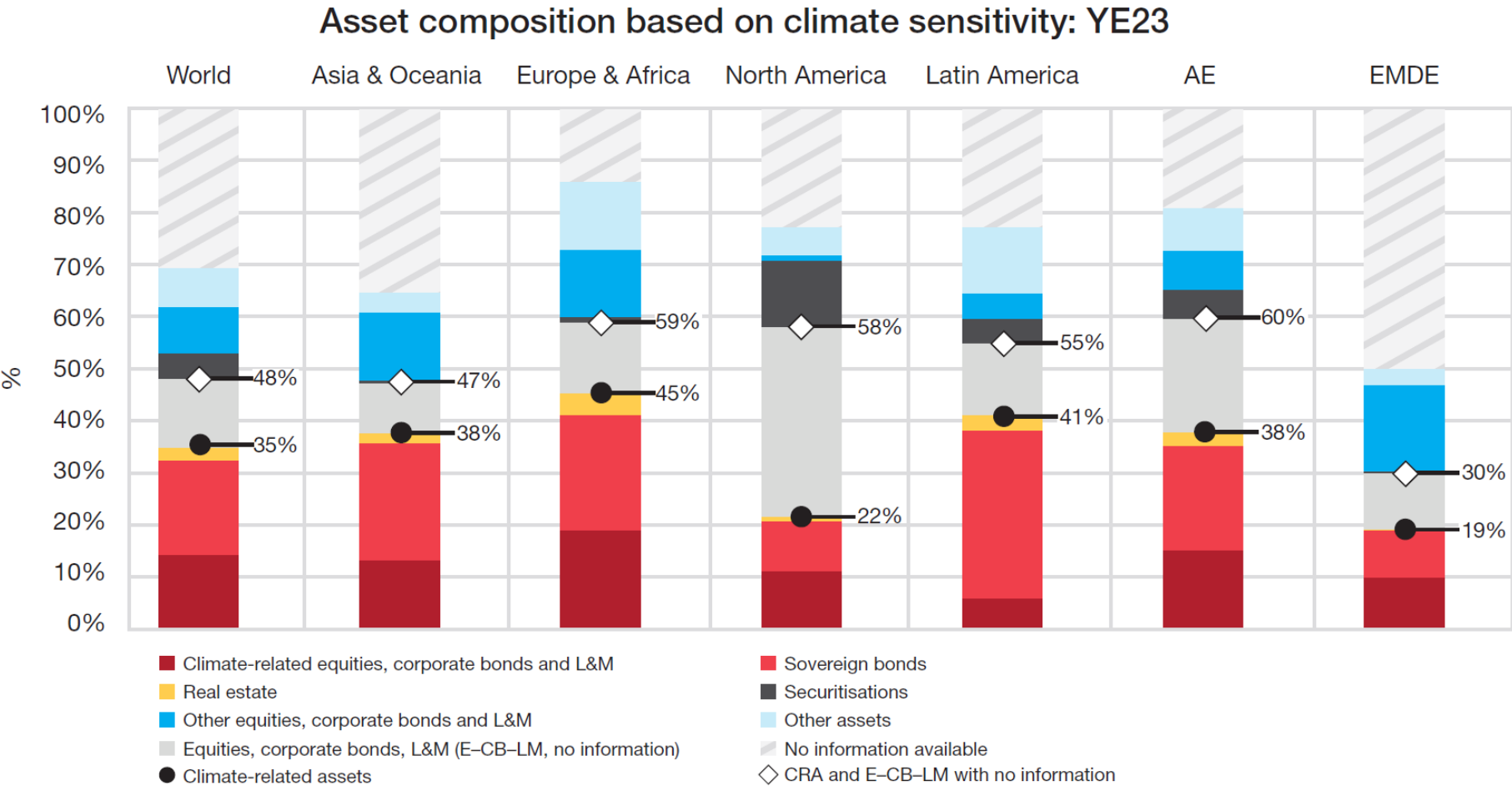


Source: IAIS (2024), "Global Insurance Market Report (GIMAR)"

Intermediate takeaways

- There are various reasons for why there is unlikely to be financial stability risks coming from insurance companies
 - Insurance contracts can be repriced frequently, and insurers can do so commensurate with increased risks – or exit the market
- There could be (at least) three stumbling blocks
 - If risks on the asset side of insurance companies grow rapidly with climate change
 - Existing risks cannot be diversified (availability of re-insurance is key)
 - Insufficient data or regulations constrain the pricing of risks
- That leaves *higher uninsured economic risks*
 - What are the policy options?

Asset side of the insurance sector

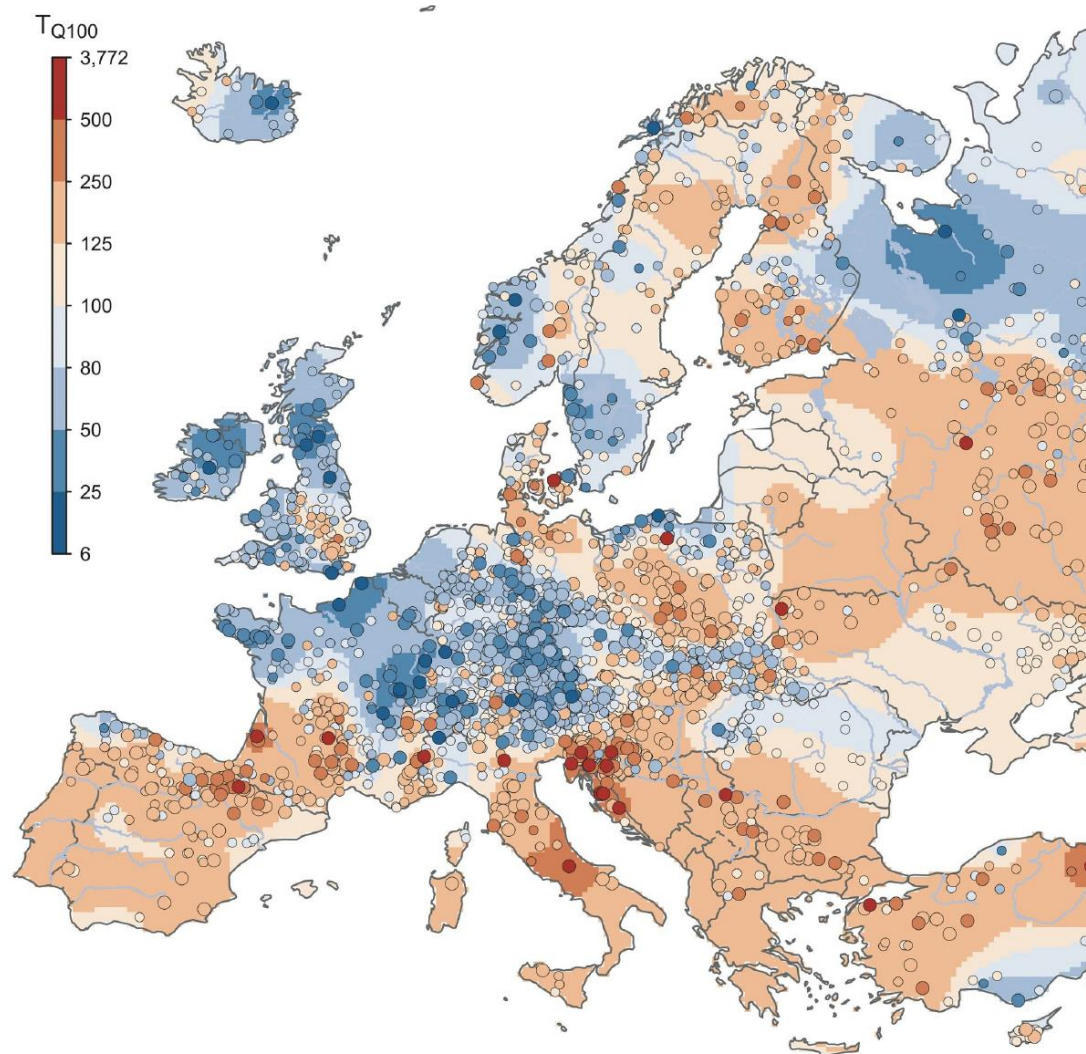


Source: IAIS (2024), "Global Insurance Market Report (GIMAR)"

Diversification across regions is key

The picture shows the average number of years it currently takes for a previously (in 1960) one in 100 years flood to occur in Europe.

Large dots present areas with a statistical significance level of >95% for the sign of change



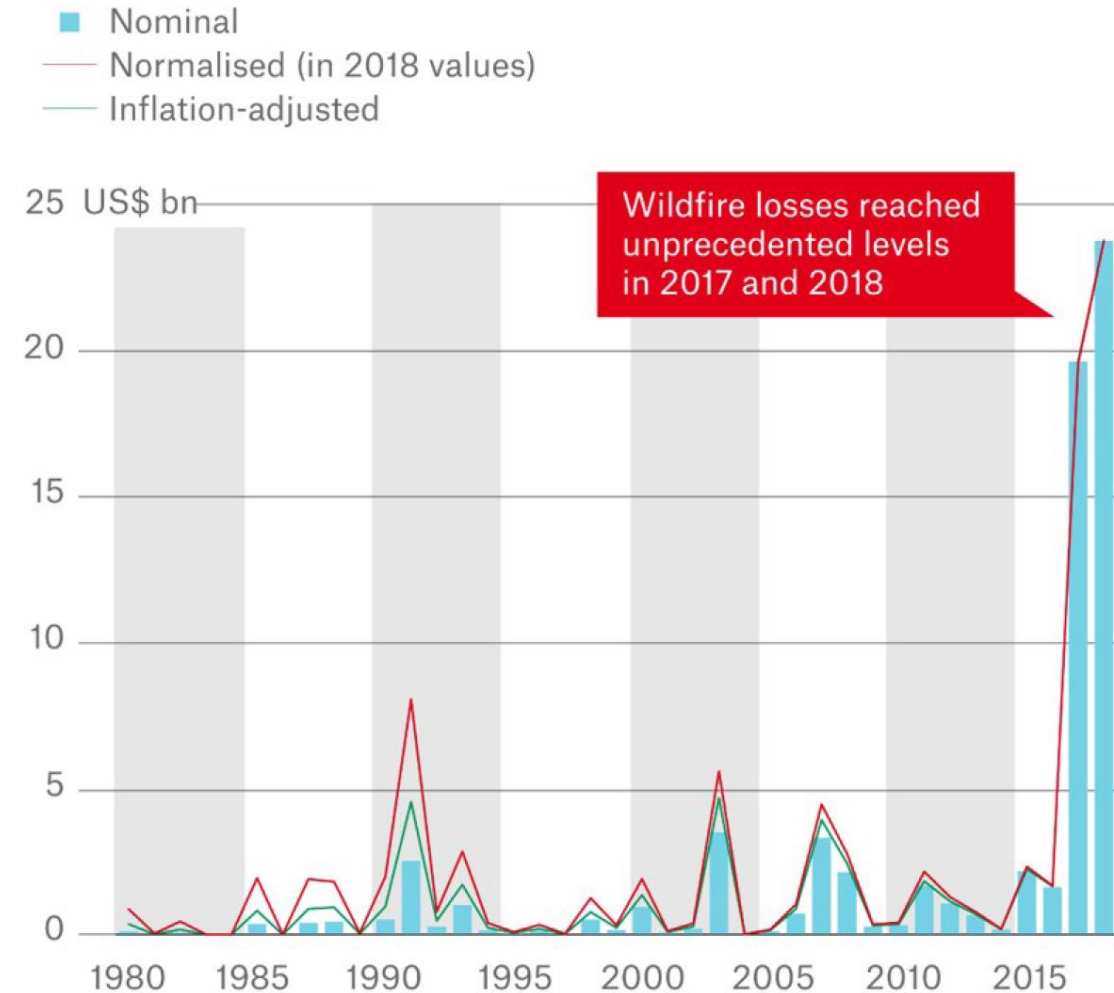
Source: EIOPA (2021), "Methodological paper on potential inclusion of climate change in the Nat Cat standard formula"

Importance of re-insurance

- Individual insurance companies usually operate in a confined region
- For climate-affected insurance contracts to work, the risks need to be diversified across regions – or even globally
- This is done through re-insurance
- Re-insurance companies further distribute the risks among themselves or use insurance-linked instruments (eg CAT bonds)
- The insurance gap is very much a re-insurance gap (see Möhr et al (2025), “Mind the climate-related protection gap – reinsurance pricing and underwriting considerations”, FSI Insights No 65)

Recent issues of insurance pricing for climate-affected contracts

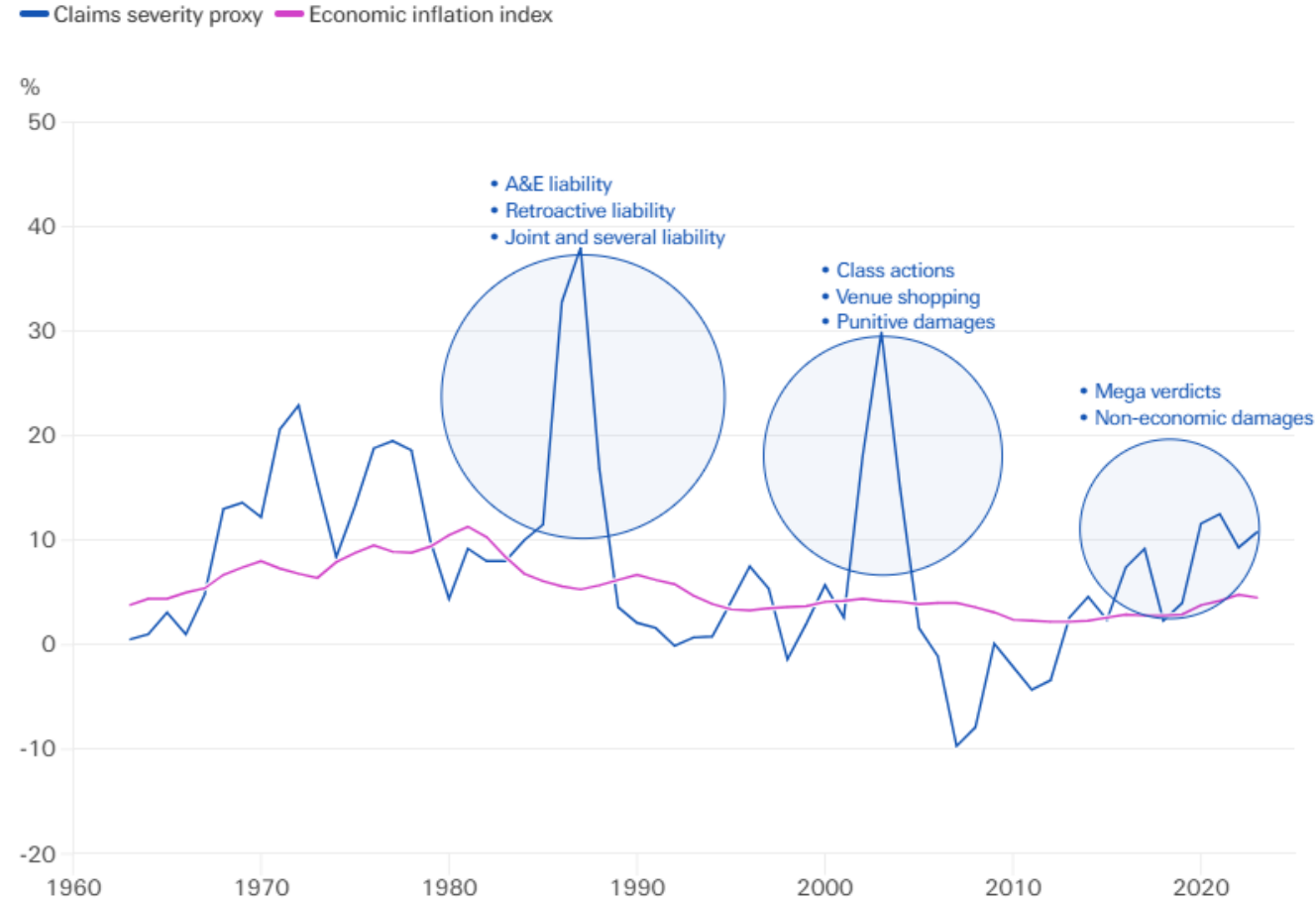
- The risk of wildfires in California had been increasing rapidly in 2017-18
- NatCat pricing of insurance is (in most jurisdictions) based on backward-looking data
- Additional price controls and long delays in approvals for price adjustments
- The state-run insurer FAIR offers insurance to those who can prove they cannot obtain it at a reasonable price



Source: MunichRe (2019), "Climate change increases wildfire risk in California"

Legal issues and regulation play a huge role in the cost of insurance

Growth in claims severity versus inflation in the US



Source: AM Best, Macrobond, Swiss Re Institute

Possible solutions to closing the (re-)insurance gap

- Use of parametric insurance can potentially limit excessive legal risks
- Supportive regulatory environment
- Obligation to obtain insurance for certain events to improve diversification
 - Recent example: obligatory flood insurance in Italy for firms, from 1 Jan 2025)
 - Obligation on the side of insurance companies to accept insurance takers, which can create high exposures
 - Backed by a €5 billion (\$5.3 billion) reinsurance fund, set up by a state-controlled financial institution
- A combination of private and public sector solutions

Policy options – some initial thinking from the ECB and EIOPA

