



Solidum Market Comment

The impact of global warming on the insurance and ILS industry

Global warming will boost both volume and margins

Global warming has significant and growing impacts on the insurance and reinsurance industries, primarily because it increases the frequency, severity, and unpredictability of natural disasters and extreme weather events. In spite of those negative impacts for nature, people and society, we expect the ILS industry to benefit from this development. Here's a breakdown of the key effects:

1. Increased claims from catastrophic events

- *More frequent and intense disasters:* Wildfires, tornados, hail, floods and droughts are becoming more common and severe. Hurricane frequency might not increase, but the strength of storms is likely to increase as well. This leads to rising claims.
- *Higher property and casualty insurance losses as a consequence:* Insurers face higher payouts for damaged homes, businesses, and infrastructure. In addition, claims will increase for health- and life insurers, too, as heatwaves and related events increase morbidity and mortality.

2. Higher premiums and reduced coverage

- *Premium inflation:* To cope with higher payouts and in order to ensure solvency, insurers raise premiums, especially in high-risk areas.
- *Withdrawal from high-risk markets:* Insurers may also stop offering coverage in regions prone to wildfires (e.g., California) or flooding (e.g., coastal areas).
- *Insurance gaps:* More people and businesses become underinsured or uninsured as costs rise or coverage becomes unavailable.

3. Strain on reinsurance

- *Reinsurers bear systemic risk:* As catastrophic claims increase, reinsurers face significantly higher payouts, further tightening the market.
- *Reduced capacity and higher costs:* This leads to more expensive reinsurance, which trickles down to primary insurers and customers.

4. Regulatory and risk modelling challenges

- *Climate risk disclosures:* Regulators increasingly require climate risk assessment and disclosure, adding complexity and compliance costs.



- *Modelling uncertainty:* Traditional actuarial models struggle to account for non-linear and fast-changing climate risks.

5. Emerging markets and new product needs

- *Climate-specific insurance products:* Demand is growing for crop insurance, flood insurance, and parametric products tied to weather indices.
- *Public-private partnerships:* Governments may step in to support insurance in high-risk areas or promote risk pooling.

Conclusions: In sum, the long-term outlook for insurance premiums is one of sustained and significant increases. As extreme weather events become more frequent and severe, insurers are compelled to adjust their pricing models to account for heightened risks.

ILS markets will profit over proportionally from this general trend and most likely outperform the re-insurance market

The ILS market is likely to profit more than the traditional reinsurance industry from the effects of global warming. However, it will need to adapt fast to handle the new volatility and complexity of climate risk. Several factors push this development; one of it also due to solvency rules for the re-insurance industry.

Traditional reinsurers must maintain strict solvency margins and comply with Solvency II (in the EU) or similar regimes globally. Covering a 1-in-250-year event requires them to hold large capital buffers, which ties up capital and lowers returns on equity. In addition, they face asset pressure due to climate exposure in their own investment portfolios (e.g. real estate, fossil fuels, etc.). As a consequence, re-insurers' capacities to digest these additional volumes, even though economically attractive, are limited.

ILS instruments, in contrast, are event-specific and finite in duration, and capital is fully collateralized upfront. This structure shields ILS sponsors from post-event balance sheet deterioration and allows investors to take more concentrated risk with capped downside.

In parallel to the rising premiums in the insurance industry, spreads in the ILS markets will be boosted at least equally strong. The protection gap will push increasing volumes to the ILS market, so more supply of risk will need to find its demand and as a consequence, spreads see additional tail wind. Because climate change increases frequency and severity of events, greater long-term reliance on external capital will most likely be the reality. Reinsurers are increasingly offloading tail risk to ILS markets, boosting ILS relevance and return potential.

All these developments are expected to have a significant positive effect on future spreads.

Solidum is well positioned to capture this attractive market

While the ILS market is expected to benefit from the effects of global warming economically, there are challenges that need to be carefully managed by an ILS manager. Modelling uncertainties will



increase, since traditional actuarial models will struggle more to account for non-linear and fast changing climate risks. We also expect more climate-specific insurance products, such as parametric products tied to weather indices or crop insurance, coming to the market. Furthermore, high-risk areas such as coastal zones or wildfire-prone regions will be seeing disproportionately large premium increases or even policy non-renewals. In some locations, insurers may exit the market, leading to limited competition and even sharper price hikes.

In-depth inhouse modelling and actuarial skills are mission critical to capture those attractive opportunities in the future. Solidum's investment team combines more than 100 Years of professional experience in all relevant fields, such a modelling, underwriting and actuarial. Please do not hesitate to contact us for further details on this important matter.

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