

Defining the limits of insurability – A continuous strategic challenge

Dr Kai-Uwe Schanz, Principal Partner of Dr Schanz, Alms & Co AG, Zurich, examines how the limits of insurability are defined, using climate change as an example.



When new risks emerge or new forms of risk transfer are designed, the notion of insurability attracts particular attention. It touches the core of the industry's *raison d'être*: if the limits of insurability are defined too restrictively, insurers and reinsurers put their economic relevance and societal acceptance at risk. On the other hand, setting the limits too generously can easily spell commercial disaster and ultimately bankruptcy. Between these poles, companies need to constantly review the actuarial, economic and political determinants of insurability in order to ensure their long-term survival. As an illustrative example, let us pick climate change – one of the most serious potential changes to the global risk landscape.

Is climate change insurable?

Climate change as a potentially globally devastating development of an either creeping or abrupt nature raises a number of questions surrounding the insurance industry's future ability and willingness to take on related risks. For example, in extremis, climate change may affect all individuals on earth which would render impossible any meaningful risk diversification – a key prerequisite to insurability. Other "technical" challenges include the impossibility of quantifying the potential severity of climate change and its risk of occurrence as well as the need for insurance companies to base underwriting decisions on scientific evidence and projections – rather than on sufficiently extensive historical data.

Also, the sheer range of exposures presented by climate change casts doubt on the insurance industry's ability to cope: Weather patterns are expected to change, affecting the frequency and severity of storms, floods, droughts, heat waves and bush fires. The supply of fresh water might be disrupted in a number of countries and regions. Crop yields might be adversely affected in both developing and industrialised countries. Biodiversity could face irreversible damage. All these developments could have major political and economic ramifications such as triggering huge migration movements and impairing the economic growth potential of entire countries or regions.

However, (re)insurers traditionally look at specific events rather than overall trends. From this perspective, hurricanes and tornados, for example, could very well remain insurable even if the respective patterns of frequency and severity were affected by climate change. When assessing the limits of insurability against this backdrop, we recommend distinguishing between actuarial, economic and political considerations.

Let us begin with the actuarial dimension: As already mentioned, diversifiability and quantifiability of risks are key prerequisites to insurability. Both should remain intact

for specific exposures, even in the face of climate change. Global warming is expected to display marked regional differences, with losers and winners, enabling insurers to aggregate a sufficiently large number of independent risks which can be pooled and diversified. Similarly, catastrophe models, underwriting and pricing can be adjusted to reflect climate change. Also, climate-related risks are fortuitous and not exposed to moral hazard in as much as they do not depend upon the choice of the insured, fulfilling another key criterion for insurability.

From an economic perspective, for an exposure to be insurable, the insurer must be able to charge a premium which is commensurate with risk. At the same time, policyholders should be wary of insurers who offer rock-bottom rates, given the significant insolvency risk posed by inadequate rates in catastrophe business.

And last but not least, the insurability of climate-related exposures is subject to a variety of political decisions. Governments may feel tempted to interfere with the market mechanism by capping premium rates – a move which could deter insurers from providing coverage.

Some recommendations for (re)insurers

How can insurers and reinsurers continue to adapt to and shape the climate risk landscape? Here are four recommendations.

First, redouble efforts to take and support action to reduce the scale and impact of global warming. Given the large uncertainties and incalculable loss potentials associated with climate change, this appears to be the most effective long-term risk mitigation strategy for the industry.

Second, as weather events linked to climate change are expected to remain insurable, the industry should continue to develop products and solutions which provide indemnification for climate-related losses, while facilitating the adaptation to climate change (for example, by using more robust materials for repair works) and incentivising mitigation efforts (for example, by providing premium discounts on low-emission vehicles).

Third, (re)insurers should step up their efforts to engage alternative risk carriers, eg capital market participants who invest in insurance-linked securities such as catastrophe bonds.

Fourth, (re)insurers should raise their voices in relevant legislative and regulatory discussions, highlighting the economic costs of politically motivated distortions and interventions such as ill-designed public disaster relief schemes which remove individuals' incentives to manage risk or even encourage moral hazard.

In summary, catastrophic events potentially linked to climate change are expected to remain insurable, but (re)insurers should recognise that the determinants of future insurability go far beyond traditional actuarial analyses and also encompass complex economic and political aspects. ■

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