Climate change: Risks and opportunities

Guy Carpenter's Stella Geng on steps reinsurers can take to address climate change impacts

Climate change continues to influence the frequency and severity of natural catastrophe perils, and the shift to a less-polluting, lower-carbon economy is spawning multiple transition risks for businesses. As the impact from these risks increases, it is imperative for companies to integrate robust climate change strategies into their businesses and ESG programmes.

Public-private partnerships to address physical risks

The (re)insurance industry's analytical tools and modelling capabilities can measure many of the impacts that climate change will continue to have. This deeper understanding helps facilitate continued partnerships between the private and public sectors in relieving the burden of post-event response from governments. The industry continues to fulfil the crucial need for affordable and accessible protection for communities, and provides mitigation incentives and support for those communities.

> **"The CRD Bond combines community-based insurance, stacked investment and advanced funding for loss-prevention measures"**

One example of this type of partnership is the climate resilient development bond (CRD bond), an enhanced insurance-linked security structure proposed by Guy Carpenter, in collaboration with Queen Mary University of London.

The CRD bond combines community-based insurance, stacked investment and advanced funding for loss-prevention measures. In a CRD bond, the aggregate principal amount is deposited into two separate accounts, through which a project fund can be used for immediate and ongoing loss-prevention funding. Upon the implementation of the loss-prevention project, the risk profile of the structure should improve, and the savings from risk reduction can be used for further funding of the project. The CRD bond facilitates financial resilience to climate-related risks while also driving incentives and actions for mitigation projects.

As organisations explore incorporating climate risk into their overall sustainability strategies, measuring the impact of climate change is a top priority. However, not all catastrophe models can do this. Guy Carpenter provides advisory services to clients on how best to incorporate climate change into their risk management, pricing and capital decisions, as well as responding to evolving regulatory requirements.

Climate change transition risk

As the transition toward net-zero carbon emissions continues to gain momentum and further mitigation of climate issues is required, (re)insurance coverage for impending risks associated with new low-carbon technologies – such as electric vehicles, solar power plants, wind farms and carbon capture and storage – is gaining importance.

For example, investors in solar and wind farms face potential threats as the increasing frequency and severity of natural catastrophe events – such as cyclones and hail – may damage solar and wind infrastructure, while the lack of sun or wind may result in power generation shortages that could give rise to subsequent revenue volatility.

Traditional insurance may be difficult to obtain due to a lack of historical claims data and a limited understanding of the new technologies. However, reinsurance can help provide the capital to enable insurers to underwrite more policies to help protect renewable energy facilities.

How Guy Carpenter can help

Guy Carpenter continues to innovate new solutions to help both the public and private sector manage emerging risks related to climate.

We are uniquely positioned to help clients understand which perils and regions are most at risk to the impacts of climate change. Our offerings include custom views of catastrophe models and risk score tools suitable for different future time horizons and warming assumptions, presenting geographic accumulations of risk and/or underwriting strategies. We can enable clients to quantify the impacts under potential climate scenarios on the overall volatility and tail risk of their insured portfolio.

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