Earth

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ROLE OF RE/INSURERS IN TACKLING CLIMATE CHANGE

Smoke rising from a factory as a truck loaded with cars crosses a bridge in Paris, France, Friday, Nov. 30, 2018
Source: Associated Press

Climate change is happening. Weather-related financial losses, regulatory and technological changes, liability risks, and health impacts related to climate change have implications for the business operations, underwriting, and financial reserving of insurance companies.

Dealing with the consequences requires major financial efforts to compensate for losses. Insurance has attracted much attention as a tool in climate risk management in this context. In addition to financial compensation for losses after an extreme weather event, insurance can provide incentives to reduce risk.

Because of climate change, extreme weather events such as floods, droughts, heat waves and storms are becoming more common, accompanied by an overall increase in risk. This places an increasing burden on the public budgets, insurers and people governments alike in order to absorb these impacts.

Global Warming
Researchers in Munich Re found that global warming was the reason for US$24bn (£18bn) of losses in the 2018 Californian wildfires. These wildfires were broadly consistent with climate change. They warned that if the risk from wildfires, flooding, storms or hail is increasing then the only sustainable option, they have to adjust their risk prices accordingly. Some people on low and average incomes in some regions will no longer be able to buy insurance.

“A 2°C world might be insurable,” warned Henri de Castries, former Chairman and CEO of insurance giant AXA. “A 4°C world certainly would not be.”

Insurers anticipate that continuing global increases in temperature could make it increasingly difficult to offer the affordable financial protection that people deserve, and that modern society requires to function properly.

Munich Re's insurance cover in hurricane-prone regions such as Florida is already higher than in northern Europe, by an order of magnitude.

Premiums are also being adjusted in regions facing an increased threat from severe convective storms, which hold an energy and severity primed by global warming. These include parts of Germany, Austria, France, south-west Italy and the US Midwest.

Risk for Re/Insurance Industry Due to Climate Change

1. **Physical impact risk:** The increasing frequency and severity of extreme weather events across the globe. The specific types of weather events include hurricanes, extreme precipitation, tornadoes, landslides, mudflows, drought, wild fires, heat waves, flash floods and rising sea levels.

2. **Legal liability of insurers related with failure to disclose climate risks:** Insurance companies are under pressure to take account of risks to their investment portfolios posed by climate change properly. Insurance industry is one of the world's biggest institutional investors in fossil fuels. In UK, environmental law firm Client Earth has already reported three insurance firms to the Financial Conduct Authority for failure to disclose climate risks.

Despite knowing the risks associated with climate change, human beings are collectively underinvesting in protecting ourselves. Reasons include: First, individuals focus on short time horizons and thus underprepare for future threats. Second, when major disasters do occur, individuals are shocked but quickly begin to let their guard down again. Third, people are over-optimistic and thus underestimate their own risk exposure.

Less than 0.5% of assets invested by the world's 80 largest insurers are in low-carbon investments that provide solutions to climate change, despite the insurance sector being highly exposed to its financial risks. Further, nine out of ten investment strategies in the sector make the Paris Agreement goals currently unattainable.

Global coal power insurance premiums amounted to $4.1 billion in 2017, and premiums for coal mining and transport bring the total global coal insurance market to approximately $6 billion per year.

Road Ahead

1. By divesting of the vast majority of their fossil fuel assets, insurers could accelerate the process of decarbonisation by switching to low carbon technology. Such is the size and scale of the industry, that this would go a long way towards dramatically improving society's chances of avoiding effects of catastrophic climate change.

2. Insurance industry can choose what to insure. For example, Coal has been highlighted as the most carbon heavy of all fossil fuels generating not only nearly half of the world's CO_2, but also creating the most atmospheric pollution. Research by Climate Analytics found that no more new coal projects can be built if we are to achieve the goals of the Paris Agreement, yet there are currently 1,600 planned globally. If the insurance industry was to cease underwriting such intensive fossil fuel, production sites it is likely that many of these projects would never go ahead.

A new report by the Asset Owners Disclosure Project (AODP) reveals European insurers viz. AXA, Aviva, Allianz and Legal & General are showing true leadership on climate change and are actively managing the financial risks it poses in capital markets. Likewise, Japanese insurers have made significant progress in disclosing their climate risks.

In 2018, more than 20 companies, representing 20% of the insurance industry's global assets, have exited the coal business, up from 13% a year ago. Meanwhile, 43% of the reinsurance market has now restricted coal coverage, including industry giants Swiss Re and Munich Re.

This trend is most prominent in Europe and Australia, where 22 major insurers have divested from coal and tar sands companies and 13 have stopped or limited underwriting insurance policies for the coal industry.

However, except three, the US insurance firms surveyed have no plans in place to decarbonise their portfolios or address climate-related financial risks. In Asia, where most new coal projects are proposed, some U.S. insurers are offering a lifeline to these projects by extending insurance coverage.

Industry experts believe that Better Data Can Help Insurers More Accurately Price Climate Risk.

For example, if it's expensive to insure a house on the coast, individuals will have an incentive to live elsewhere. If insurers offer a discount for climate-proofing homes, homeowners will likewise have an incentive to make that investment. Improvements in geospatial sciences create the possibility of much more precise price discrimination.

Insurers exploiting geographically refined data to more precisely estimate land parcel risk. Aviva Insurance uses detailed topographical data to assess varying flood risks for coastal houses, such as those at the tops of hills versus houses at lower elevations.

As insurers such as Aviva engage in price differentiation for property insurance, holdouts in the industry will face a choice: embrace individualized insurance or lose out on the low-risk insurance seekers. Low-risk customers will seek insurers that recognize their risk levels and lower their premiums. Moreover, as more and more insurers appropriately price climate risk using more fine-grained data, individuals will face clear incentives to consider those risks when deciding where to live.

Insurers can further individualize pricing by offering discounts to customers who invest in self-protection and hence lower their risk rates. For example, USAA now offers discounts for homeowners in seven fire-prone states who take steps to protect their houses from wildfires.

Premiums discounts incentivize resilience measures, which can help prevent property loss in the first place. Product improvements such as hurricane-resistant doors can nearly eliminate certain disaster risks and have relatively low installation costs. By investing in these durable improvements, real estate owners can lower their premiums because they have reduced the risk that their real estate assets face. The insurer benefits because insured property owners are less likely to file a claim in the aftermath of a hurricane if the premium owner has been incentivized to invest in resilience precautions. When implemented on a large scale, these policies can play a significant role in mitigating the potential damage inflicted by climate change.

Insurance products can nudge local governments to invest more in climate resilience. Catastrophe bond (Cat Bond) is one such tool. Sponsored by local governments, issued by reinsurance companies, and triggered only after achieving a specified trigger by an event such as a specific storm surge height for a hurricane or a specific magnitude of earthquake, a Cat Bond acts as insurance for local governments, protecting them from the financial risk of disasters.

Cat Bonds are rising in popularity because they fill a temporal gap left by traditional insurance companies, whose time horizons only reflect the one-year policies they offer. They provide the long-term protection against risk that governments seek and that insurance companies have failed to provide.

Use of Cat Bond, however, can raise the risk of moral hazard such that municipalities underinvest in resilience measures because they know that they are insured. To mitigate this moral hazard problem, one firm, Re:focus partners, in partnership with Swiss Re, proposed a new type of Cat Bond. Re:focus's variation adds a rebate option to these bonds, rewarding municipalities that invest in disaster protection.

Source: Forbes, HBR, Munich Re, Swiss Re, and The Ecologist

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