Social value of insurance

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Climate change and insurance: not just coping, but helping...

Extreme weather events are on the increase, and most experts attribute these to climate change, with weather related events between 1980 and 2013 costing US$3.2 trillion.

Much of that cost is borne by the insurance industry. With extreme weather events projected to increase, insurance obviously has a large stake in managing risk and mitigating this where possible.

Insurance is playing a key role: providing data; measuring future risks for those who don't; exploring collective approaches for climate mitigation; and providing coverage to vulnerable communities.

The business of risk management

Insurance firms are increasingly playing a greater role in encouraging greener and more sustainable practices across the economy.

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The costs of is staggering, and increasing. In 2011, the overall insurable losses from weather-related natural catastrophes were US$170bn, whereas the annual average since 1980 was just US$81.6bn.[1]

No small wonder that the 2012 World Economic Forum Global Risks Report named climate change among the top five risks to the global economic system.

Much of that cost is borne by the insurance industry. By its very nature, insurance identifies risks and mitigation measures, and it can help societies not just respond to climate change but better prepare. So insurance can play a key role in not just coping with the effects of climate change, but also helping in efforts to curb it.

Reporting and modelling climate risk

Climate change is about extreme uncertainty, which is often the last thing you need for risk management. Nevertheless insurers have been gathering data and modelling the impact of events. For example:

Climate change and insurance in numbers

Total overall losses 1980-2013:

US$3.2 trillion

Average annual number of weather catastrophes:

1980-1996: 414

1997-2013: 797

Number of years overall losses were above US$100bn:

1980-1996: 3

1997-2013: 10

Overall loss records 1980-2013

1982: US$60bn

1993: US$130bn

1998: US$180bn

2005: US$270bn

Source: MunichRe NatCat service

[1] Source: MunichRe, NatCat Service, Jan 2013

- Insurers have maintained and shared extensive data on weather-related natural catastrophes which have helped governments and global initiatives over the years. Munich Re's NatCat service provides a climate change event database, comprising over 30,000 insurable events entries since the 1970s. Swiss Re's Sigma resource performs a similar function.
- All the major insurers and brokers have been undertaking climate change-related research in recent years. Firms like Aviva, Axa, Aon Benfield, Willis and Zurich all either undertake in-house or externally fund major geological and meteorological modelling projects. Lloyd's, the Geneva Association and ourselves have recently published material on climate change-related risks.[2]

Measuring future risks for those who don't

Despite the losses in recent years, experts still argue that far worse that is yet to come in the form of "tipping points" such as the melting of landlocked ice; which would accelerate mega-disasters and rising sea levels. A core strength of the insurance industry is its ability to model the financial implications of such risks, and in so doing illustrate the urgency of taking decisive mitigating steps.

Exploring collective approaches to mitigation

Insurers can and are working individually and collectively with various communities at the national, regional and global levels to mitigate climate change:

- **Advice on risk reduction:** insurers cannot avoid the event but cost effective mitigation measures can diminish the impact on people and property.
- **Spreading the financial loss over time:** this is the traditional role of insurance, annualising the cost of high severity low frequency events has for long been a vital ingredient in supporting economic growth.
- **Reducing the gap between the economic and insured loss:** the average insurance recovery from catastrophic weather events over the last ten years in what the IMF terms advanced economies was 53% whereas it was only 6.6% in emerging economies. Recovering from a catastrophic event is hard for all communities, for many of the world's most vulnerable and least developed communities the impact of the uninsured loss from a single disaster can reverse many years of development gains.
- **ClimateWise:** this was formed by the sector in 2007 to coordinate climate change efforts. It now consists of 32 insurance firms plus the ABI and the CII, under the independent leadership of the University of Cambridge Institute for Sustainability Leadership and patronage of HRH the Prince of Wales. It undertakes annual reviews to assess the initiatives as well as green practices of its members against six agreed principles.

Helping vulnerable communities

The hardest hit in these events are those vulnerable communities where even a small increase in weather risk significantly raises the risk to property, economic prosperity and life. Insurers are working in several initiatives:

- **Caribbean Catastrophe Risk Insurance Facility:** Munich Re, Aon Benfield and other insurers and brokers are working with the World Bank Treasury team to provide hurricane and earthquake insurance to 16 CARICOM governments.
- **Agricultural Insurance Scheme China:** Swiss Re and the state-owned China Re and the Beijing Municipal Government to provide insurance for the Chinese government in support of 400,000 farming households in China.

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[2] See for example The Chartered Insurance Institute, *Coping with Climate: Risks and Opportunities for Insurers*, May 2009, www.cii.co.uk/22989