New report on climate change adaptation and the insurance system

June 21 2013

The economic and insured costs of natural disasters due to extreme weather are examined in a comprehensive new report published this month: "Market-based mechanisms for climate change adaptation."

"A key finding of our review was that the rising costs of natural disasters from extreme weather can be explained by growing concentrations of population and wealth in disaster-prone regions," says co-author Rade Musulin, a Chief Operating Officer of Aon Benfield Analytics Asia Pacific.

"In some regions, such as Asia, insured losses are also increasing due to higher insurance penetration. At the moment, global climate change effects cannot be detected in the data. This is true across jurisdictions and for different perils," he says.

"The large uncertainty about just how a warming climate might affect extreme weather of the type likely to cause property damage—tropical cyclones, storms including hailstorms, floods and bushfires—means that disaster risk reduction needs to be central to any strategy for climate change adaptation. If we were better adapted to the current climate, we would be better prepared for anything that climate change may eventually throw at is. Informed land-use planning is the priority," added Professor John McAneney, Director of Risk Frontiers.

In undertaking their review of residual market mechanisms, the researchers expected to identify preferred approaches or elements of the

various schemes that might be employed to incentivise behavioural change, at least in respect of extant risks.

However none of the schemes examined could truly be said to be successful in this regard and many have led to perverse outcomes. Other key observations include the following:

(a) transferring risk to the public purse does not reduce risk
(b) governments can spread the cost of losses across time rather than space
(c) governments can force home-owners in low risk areas to cross-subsidize the insurance premiums of those in high risk areas
(d) cross-subsidisation is increasingly difficult for private sector insurers operating in a competitive market, and
(e) governments can tax people to pay for tomorrow's disaster.

"The equity of (b), (c) and (e) needs careful reflection by policy makers", says lead author Professor John McAneny. "The real issue here is that climate change is a complex policy area and no easy answers emerged from our deliberations, at least in respect to the employment of insurance instruments."

The team has explored some new mechanisms, however, including financial instruments called Catastrophe (CAT) bonds that transfer insurance risks to the capital markets. They proposed a hypothetical Sydney flood CAT bond for residential buildings and contents in the Hawkesbury River basin, and found that the methodology is easily transferrable to other location-specific perils such as bushfires.

More information: McAneney, J. et al. 2013, Market-based mechanisms for climate change adaptation: Assessing the potential for and limits to insurance and market based mechanisms for encouraging climate change adaptation, National Climate Change Adaptation

Research Facility, Gold Coast, pp. 129. www.nccarf.edu.au/publications … s-climate-adaptation

Provided by Macquarie University