INSIGHTS – CAT FOCUS

CAT resilience: Cementing the cornerstones

(L-R): Mr Qin Lu, Mr Steve T H Chen, Dr Tien-Mu Huang, Ms Grace Mang-Chih Lee and Mr Hemant Nagpal.

Experts and regulators at the 15th Conference on Catastrophe Insurance in Asia exhorted the industry and countries alike to collaborate and beef up disaster risk management in the face of increasingly volatile risks. Digitalisation, AI and even social media also featured more prominently in this year's discussion as speakers explored their feasibility in CAT risk management.

By Dawn Sit in Taipei

Industry and governments all must pay serious heed to catastrophe risk management and raising resilience via insurance, capital market solutions and regional collaborations. Because in spite of technology advancements and continuous innovation, no one can precisely predict natural disaster occurrences, nor control its damages, said Dr Tien-Mu Huang, Vice Chairman of the Financial Supervisory Commission (FSC), Taiwan.

He cited catastrophic losses and severe impacts on the global insurance industry from events such as the Queensland and Thai floods, the Tohoku earthquake and Typhoon Morakot, and noted that economic losses caused by Nat CATs usually affect not just one country or region, but also tend to spread to the whole world.

Disaster finance is cornerstone of CAT risk management

Keynote speaker Grace Lee, who is Director General of the Insurance Bureau, FSC, highlighted that APEC economies face Nat CAT losses of about US$100 billion each year. "Financial protection is the key to CAT risk management. Each country needs to assess and reduce its contingent liabilities, have good budget management, as well as develop financing tools for before and after the disaster."

On financing mechanisms, aside from national and regional risk pools, she mooted catastrophe bonds as a successful form of risk transfer. Taiwan's 2003 issu-ance of the Formosa Re CAT bond was its first foray into capital market financing, and it was the second market in Asia to do so, after Japan. While not yet prevalent in Asia, she said that CAT bonds have the potential to become another important risk transfer tool other than insurance; in 2016, total CAT bond issuance stood at US$5.5 billion, with an unexpired sum currently totalling a record high of over US$22 billion.

However, given its complex nature, disaster risk management considerations "go beyond simply insurance arrangements" and are also reliant on mutual cooperation between governments and the industry.

Insurers need a plan too

While clients depend on their insurers when disaster strikes, insurance companies must themselves be organised to better meet their insureds' needs promptly, said Mr Damon Bennett, CEO of Asia Pacific for Cunningham Lindsey.

Mr Damon Bennett

A good practice, he advocated, is a comprehensive catastrophe plan that must include key elements such as pre-event risks and objectives; a CAT response strategy; roles and responsibilities detailed in a CAT response operating model; clear communications; logistics, business processes and KPIs; claims solutions; and service resolution.

CAT models' expanding role

Meanwhile, Mr Hemant Nagpal, RMS Director of Model Product Management, shared that catastrophe models are no longer just insurance tools, and insights from holistic risk management solutions may not only be used for risk transfer, but also risk management.

As markets increasingly focus on operational efficiency, along with the perennial quest for growth and profitability, he said these factors will drive the need for digitalisation, underwriting discipline and more advanced data management and analytics capabilities. "Regulators within the region will also continue to synchronise solvency regulations and risk-based capital frameworks, which will raise the usage and need for CAT modelling tools," he added

The discussion on digitalisation and new tech continued as Dr Thomas Loridan, Lead Catastrophe Loss Modeller, Risk Frontiers, Australia, made the case for adopting machine

Dr Thomas Loridan

learning in the CAT modelling framework, as it has the "potential to change the way we build CAT models".

He suggested that the use of algorithms can enable models to "self-learn" from data, rather than be explicitly programmed. As opposed to the traditional "knowledge engineering" approach, machine learning in CAT modelling can account for processes that are beyond human understanding or that are too complex for modellers to formulate efficiently.

Muted drive to change

On a related note, Mr Nick Hassam of specialist consultancy Risk Spatial presented the findings of a market-wide survey among catastrophe risk insurance professionals, which

Mr Nick Hassam

identified a range of technologies to potentially disrupt the hazard modelling process in the short to medium term. Chief among these were the concepts of Open Modelling, Big Data and Artificial Intelligence.

Despite confidence in the potential for disruption, he noted that catastrophe modellers around the world are

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uncertain if insurance incumbents have the ability to implement these technology solutions, with the largest number of respondents identifying a reluctance of existing insurance organisations to implement change.

Leveraging social media

Elsewhere, Dr Iain Willis, Managing Director at JBA Risk Management, Singapore, shared that social media could provide valuable support in disaster risk management in four

Dr Iain Willis

main aspects: enabling reassurance, facilitating response, spreading news and outreach, and helping in mitigation in the form of passing on advance information to those potentially at risk.

Notwithstanding the benefits, the use of social media also has its limitations. Primarily discussing social media's role in flood mapping, Dr Willis noted that there is rich media content – videos and images – that are useful for assessing damages and that such channels can facilitate real-time streaming in event locations. However, there is also a lot of repeated content and events in rural or less developed areas could have less coverage and thus may not be as reliable as satellite imagery or meteorological agency reports.

Catastrophes not confined to natural hazards

Separately, Aon Benfield Greater China CEO Qin Lu gave a rundown of the top risks on the horizon according to the broker's 2017 survey, which included reputational damage, economic slowdown, regulatory changes, cyber attacks, business interruption and political risks among others.

While these risks were not traditional disaster risks like earthquake and floods per se, they should not be overlooked as the impact from a cyber attack such as the recent WannaCry event in May could potentially have catastrophic consequences. He noted

that the WannaCry attack was likely "the first time the effect of a cyber attack was so closely felt by the wider public".

Elaborating on risk trends, Mr Lu highlighted the significant leap in concern for cyber, as well as the resurface of political risk and uncertainties among the top 10 risks. Brexit, multiple election surprises and political scandals, as well as the recent rise of populism and trade protectionism he said, will likely have significant economic and social implications globally.

Underrated risks not to be overlooked

But more than the top risks, insurers also need to take note of "underrated and connected risks", such as exchange rate fluctuations, commodity prices, liquidity and capital availability, workforce shortage and supply chain failures. Seemingly increasing "anti-globalisation" could lead to possible changes to existing trade agreements and immigration policies, which could impact on industries that rely heavily on imports of goods, services and talent from across the world, despite being "underrated".

"Industries like retail, in which goods are being manufactured across myriad locations, or healthcare and hospitality, in which there is a reliance on a multinational workforce, will find that these risks will grow in importance over the coming years."

He added that most of these risks are either partially uninsurable, or are yet to have solutions devised for them, and hence the industry has a lot more to work on to provide more protection to society.

The conference was organised by Asia Insurance Review and sponsored by RMS, with support from the Non-Life Insurance Association of the Republic of China; Taiwan Insurance Institute; Taiwan Typhoon and Flood Research Institute; ACTS; International Insurance Society; and the Reinsurance Brokers Association of Singapore.