# Jacqueline Loh: Managing risks in an uncertain world

Keynote address by Ms Jacqueline Loh, Deputy Managing Director of the Monetary Authority of Singapore, at the 13th Singapore International Reinsurance Conference, Singapore, 3 November 2015.

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#### **Opening**

Distinguished guests, ladies and gentlemen, good morning.

It is my pleasure to join you today at the 13th Singapore International Reinsurance Conference.

I believe the theme of this year's conference, "Managing Risks in an Uncertain World", is one which will resonate with many of you, as insurers, reinsurers and brokers alike navigate the crosscurrents in the reinsurance industry, in search of profitable growth and better returns.

In keeping with the conference theme, I would like to share a few observations on how the Singapore insurance industry can capitalise on the opportunities created by new risks, new client segments, and new markets in Asia.

## Too much capital finding too little risks

Those of you who attended the recent Monte Carlo Rendezvous would have discussed extensively the challenging conditions in the current reinsurance market, which some have warned would be the "new reality", or the "new normal". We have seen how structural responses – winning market share from competitors, and bulking up through acquisition of rivals – are largely built on a zero sum game. This becomes a problem when the pie is not growing, as could be the case if the industry does not innovate and create uncontested space.

Indeed, the combination of sluggish economic growth globally and continuous expansion of alternative capital have led to too much insurance capital finding too little risks. These include traditional risks like property and casualty risks. At the same time, the insurance sector is struggling to find solutions for new and emerging risks. This confluence of structural changes across demand, intermediation and the supply side of the insurance value chain is an unprecedented phenomenon.

But the outlook is not for all grey skies ahead. The challenges also present a unique set of profitable growth prospects for the industry, particularly here in Asia.

#### Asia's changing risk landscape

The Asian risk landscape is changing rapidly, with demand for insurance services projected to grow especially quickly in emerging Asia as incomes rise, life expectancy increases, and Asians become more aware of catastrophic risks. Asia currently accounts for 28% of the global insurance market, and premiums in the region are expected to double by 2020, with more than US\$1.3 trillion generated.

So why is excess capacity not being deployed in Asia which faces the greatest need?

Many of Asia's risks, ranging from marine, to property catastrophe insurance, to directors and officers liability, are actually insurable and traditional risks.

Yet, Asia continues to remain severely underinsured. Many of these insurable risks are often not well understood or well developed in this region, due to a lack of risk awareness, insufficient data and nascent insurance markets. The insurance protection gap is widening inexorably:

 Close to half of the world's most underinsured countries are in Asia, and of these, half are in Southeast Asia.

- In the past two decades, Asia has borne 50% of the estimated global economic cost of natural catastrophes. Yet, less than 5% of all disaster losses in Asia are insured, compared to 40% in developed nations.
- The 2008 Sichuan Earthquake is a case in point. Less than 1% of the total economic costs of US\$125 billion were insured. The disaster further left governments and taxpayers with a hefty reconstruction bill of almost US\$150 billion after the event.

Going forward, it will also no longer be sufficient to just focus on traditional risks. As Asia continues to grow and become more digitally-connected, new and emerging risks will arise and we should be proactive in adapting to these needs.

I would therefore like to challenge the industry to:

- raise insurance penetration of traditional risks and find innovative ways to cast the net wider to cover more insureds, and
- develop innovative and meaningful risk transfer products for new and emerging risks.

Specifically, I would like to highlight 3 key growth drivers for insurers and reinsurers today:

- New and emerging risks
- New capital
- New technology and innovation.

# New and emerging risks

The rapidly changing global landscape has given rise to new and emerging risks which are mostly intangible, such as cyber, liability, supply chain and reputation.

Cyber risk is the new catastrophe, estimated to cost the global economy between US\$300bn – US\$1 trillion annually. This is much higher compared to the average annual cost of natural disasters at US\$200bn. More than just the burden of cost, cyber risks often bring about much embarrassment and reputational damage to the company and its clients.

However, cyber risks are not adequately prepared for and their associated costs and impact under-estimated:

- A large majority of businesses believe that cyber risks are still not fully understood, and that risk readiness for cyber risk may have been "vastly overstated".
- Challenges exist around the quantification and pricing of cyber risks and their accumulation effects.

Yet such risks are the most likely to occur and carry the greatest potential impact on operation, with the leading risks in terms of impact and likelihood being:

- Reputational damage from a sensitive data breach (impact on organisation's resiliency – 79%; likelihood 79%)
- Failure in a main IT data centre (59%; 77%)
- Disruption of online services due to a cyber attack (58%; 77%).

Cyber risks thus present an enormous potential for insurance players – not just to capitalise on this insufficiently tapped space, but more importantly, to play a vital risk management role for the wider society:

 Increasing awareness of cyber exposures, as well as the forces of regulatory change, will underpin the rapid growth of cyber insurance. It is estimated that the cyber insurance market will grow 30% per annum to US\$20 billion in annual premiums by 2025.

- Companies are increasingly focusing on cyber security issues. 63% of boards today actively address computer and information security, up from 33% in 2012. The sharp increase is likely driven by the recent high-profile and well-publicized cyber incidents.
- Governments are also gearing up to address the problem. There is a trend towards stringent data protection regimes that are backed by increasing levels of liabilities such as more notifications and significant fines for data breaches. US, Hong Kong, Singapore and Australia are among those already enforcing, or looking at, new laws, while the European Union is looking to harmonise pan-European data protection laws across the EU member states.

As technology and the users – or abusers – of technology get smarter, the extent of and impact from cyber breaches will correspondingly rise. Businesses must prepare for this new era of cyber risks with cyber insurance as a critical component in a comprehensive risk management strategy.

To further the development of cyber insurance in Singapore, the MAS is supporting the Cyber Risk Test-bed project. This will promote both the demand for and supply of insurance coverage, as well as tackle the difficulties that arise when nurturing new and emerging lines:

- On the supply side, a lack of loss and claims data that underpins an effective and accurate risk pricing model.
- On the demand side, a lack of awareness as cyber risk is new and emerging, and exposures are therefore difficult to understand and quantify.
- Finally, insufficient technical expertise to underwrite such complex risks.

Led by the NTU-Insurance Risk and Financial Research Centre (IRFRC) in collaboration with the Agency for Science, Technology and Research (A\*STAR), the insurance industry and corporates, the industry-wide cyber insurance test-bed project seeks to address the limits of insurability of cyber risks in three ways.

- First, the common data sharing platform encourages pooling of not just insurers' claims data, but also corporates' potential loss data simulated through hypothetical events.
- Second, it helps corporates understand their potential exposures and losses.
- Third, the players on the platform can come together to establish industry standards on clear-cut definitions of cyber risks, coverage limits and terms and conditions.

Today, I am very pleased to announce SCOR as the first founding member to join the Cyber Risk Test-bed Alliance. We remain in close discussions with a number of insurance players, and look forward to the industry's active participation on this strategic project.

## **New capital**

The second opportunity is in new capital. New or alternative capital continues to increase its share in the global reinsurance industry, as alternative risk transfer solutions in the form of insurance-linked securities (ILS) such as catastrophe bonds, collateralised reinsurance and sidecars, among others, gain acceptance.

Alternative capital grew 6% in the first half of 2015 to US\$68 billion, while traditional capacity fell by 3% to US\$497 billion.

While the influx of alternative capital may have led to excess capacity, softening rates and narrowing of profit margins, this same capital has the potential to unlock opportunities for insurers to access new products and markets.

As I mentioned earlier, Asia, in particular, is especially attractive to insurers and reinsurers:

- Alternative capital, when deployed to markets in need of risk capital for protection against losses, will allow insurers and reinsurers to underwrite more risks and better serve society's needs.
- As countries in Asia look to strengthen resilience to potentially debilitating events like catastrophes, it is not unexpected that alternative risk transfer mechanisms, such as catastrophe bonds and government pools, will increasingly feature as regional insurers leverage alternative sources of risk capital to complement traditional reinsurance.

The management of catastrophe risks in Asia-Pacific is a priority for insurance players as well as governments in the region. A research by Lloyd's has shown that a 1% rise in insurance penetration translates to a 22% reduction in taxpayers' contribution following a disaster.

In order to expand the insurability of catastrophe risks in the region and bridge the protection gap, an innovative public-private partnership ("PPP") approach is needed. To do this, the MAS is supporting a Natural Catastrophe Data Analytics Exchange (NAT CAT DAX) for Asia Pacific.

Led by the NTU Institute for Catastrophe Risk Management (ICRM) in collaboration with A\*STAR and the industry, this common data analytics platform will enable industry to pool insurable claims data. More importantly, this platform will unlock new economic exposure and loss datasets through the use of new technologies such as satellites, remote sensors and drones. With a comprehensive and integrated economic and insurance database, this will form a strong data backbone for the industry to not only underwrite traditional reinsurance better, but also catalyse new product innovation, such as government pools, and alternative risk transfer products, which will push the boundaries of insurability further.

Today, it gives me great pleasure to announce the formation of the Nat Cat DAX Alliance, in collaboration with pioneer industry founding members Mitsui Sumitomo Insurance Group, Renaissance Re, RMS and Aon. I urge the industry to be a part of this collaborative initiative, as we partner together to increase the availability of quality data, enhance the underwriting process, and spur collective market analytics and innovation.

### New technology and innovation

Just as new disruptive technologies like 3D printing, autonomous vehicles, and the Internet of Things have emerged in various sectors of the economy, such technologies will similarly surface in the insurance industry. This will have an impact on all parts of the insurance value chain – product design, underwriting and distribution.

- Product design While there is tremendous scope for enhancements in product design, the advent of new technologies and innovation could even render some existing offerings obsolete. For example, autonomous cars and their safety elements could leave some motor insurance products out-dated, if not irrelevant, over the next couple of decades.
- Underwriting With big data and smart analytics, underwriting models will likely evolve to become more predictive and personalised, such as through the use of telematics to price motor premiums according to driving behaviour, or the use of wearables for a customised health protection plan. Data analytics is not new to the insurance sector, which has had decades of experience working with and analysing large amounts of internal data such as loss histories. This will now be boosted through the insurers' ability to incorporate external third-party data sources, such as government statistics on health, worker-safety, and energy data, in their underwriting and pricing of risks.
- Distribution Mobile technologies are influencing financial buying decisions, including the way consumers purchase insurance. This will have a predominantly big impact on Generation Z, a "mobile first" and "mobile only" generation.

Technology and innovation will be a differentiator for the insurance industry, and a key enabler for insurers to access previously untapped risks and businesses.

# Singapore as a smart financial centre

Singapore needs to position ourselves for this new future too. We have embarked on a national Smart Nation initiative, which seeks to harness info-communication technology, networks and data to support better living, create more opportunities, and support stronger communities. The Government will put in place the infrastructure, policies, ecosystem and capabilities to enable a Smart Nation, but we also need industries and citizens to work with us to explore and experiment with new solutions. And if these solutions can work here, we hope that they can also be relevant to other parts of the world.

In line with our national vision to be a Smart Nation, MAS is also seeking to create a Smart Financial Centre, one where technology and innovation are used to increase efficiency, create new opportunities, manage risks better, and improve lives.

The MAS will pursue this with the industry on two complementary fronts – a calibrated regulatory approach conducive to innovation while fostering security, twinned with development initiatives to augment the Fintech ecosystem here.

- On the regulatory front, financial institutions like yourselves are free to launch new ideas without first seeking MAS' approval, so long as you are satisfied with your own due diligence. We are also encouraging a "sandbox" approach for you to launch your innovative products within controlled boundaries.
- On the development front, we have launched a Financial Sector Technology & Innovation scheme to provide financial support, and will work closely with the industry and educational institutes to build competencies in Fintech and innovation.

The insurance industry is well placed to take the lead in making Singapore a Smart Financial Centre, given the industry's fertile ground for innovation and the application of technology.

The cluster of innovation labs that have steadily been hubbed here over the years is a reflection of this. We are proud to be home to Aon's Analytics and Innovation Centre and MetLife's recently launched LumenLab. To be unveiled later this year in Singapore are AIA's EDGE Lab, Aviva's Digital Garage and AXA's Data Innovation Lab.

This dynamic mix of insurance brokers, life insurers and composite insurers bear testament to the vibrant and conducive innovation ecosystem here, supported by a strong Fintech community of start-ups and research institutes. Besides improving the efficiency of the insurance sector, I am heartened that they are actively exploring opportunities brought about by new technologies. This is an important step towards unlocking untapped insurance solutions and markets, and will go a long way in managing risks in this uncertain environment.

To reinforce this Fintech ecosystem and as part of our broader efforts to modernise the insurance marketplace, we are supporting the establishment of an electronic reinsurance trading platform to enhance the efficiency of trading risks electronically.

### New risk management and insurance major

As the industry seeks out profitable growth and new horizons, it is critical that the right talent and skills are available to support this.

In the face of new and emerging risks, as insurance roles evolve and become more complex, different and deeper skillsets will be essential. Skillsets will also need to be widened as technology and financial services converge.

To this end, I am glad to announce that the Nanyang Technological University will be launching the Risk Management and Insurance major next year.

Beginning in August 2016, this new Insurance major will be structured as a major specialisation under the NTU Business Degree. It is expected to produce 50 new graduates every year starting from 2018, providing a strong and sustainable talent pipeline to support industry growth. Alongside a robust curriculum, the students will get to build up their research, analytical and modelling capabilities, through working on research projects like the Nat Cat DAX and Cyber Risk Test-bed.

#### Conclusion

Insurance will continue to increase its relevance in an uncertain world. In these times of new risks, capital and technology, it is not sufficient to rely on a red ocean strategy. We need to open new horizons, and open them together. MAS will be a partner of the Singapore insurance industry as you forge a blue ocean strategy, manage risks and capitalise on the opportunities in the new reality.

Thank you, and I wish all of you a successful conference and a productive time at the SIRC and in Singapore.

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