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IFoA Member event

Chair John Taylor, President-elect

24 September 2018



Agenda

- 18:00 – 18:10: Welcome by John Taylor, President-elect, IFoA
- 18:10 – 18:25: Monetary Authority of Singapore (MAS) The Regulatory Perspective
Jesper Pan , Deputy Director, Insurance Department
- 18:25 – 19:20: Panel session: The world is changing – are we ready?
Professor Chris Gee, Senior Research Fellow, Institute of Policy Studies, National University Singapore
Tomasz Kurczyk, Head of Digital AXA Singapore
- 19:20 – 19:50: New Qualifiers & Volunteer Recognition Ceremony
- 19:50 – 20:00: Closing remarks
- 20:00 – 21:00: Networking and buffet dinner



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The world is changing



Societal – ageing population, millennials



Technological – digitalisation, data science, cyber risk



Economic – low interest rates, financial stability



Environmental – climate change, resource constraints



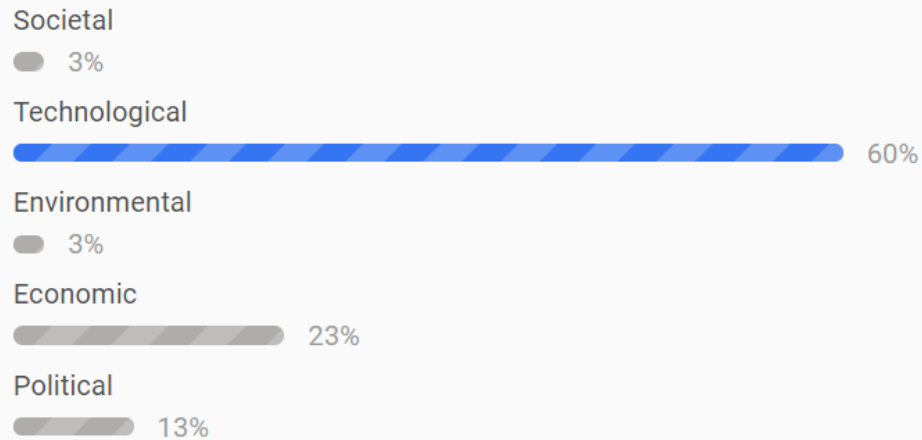
Political – increased regulation, political instability



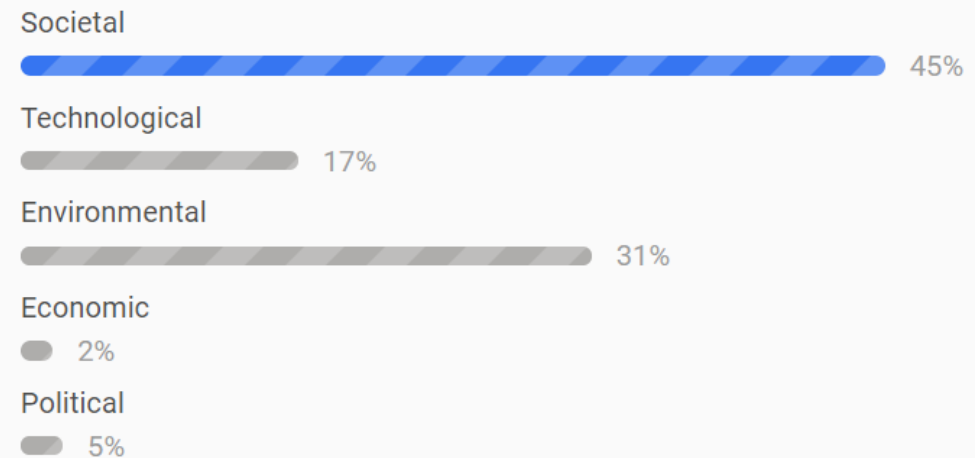
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Question time!

Which of these you think poses the most significant challenge to the actuarial profession over the next 5 years? 0 4 0



Which of these you think poses the most significant challenge to the actuarial profession over the next 50 years? 0 4 2



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Sustainable Insurance

Jesper Pan
Deputy Director
Insurance Department, MAS

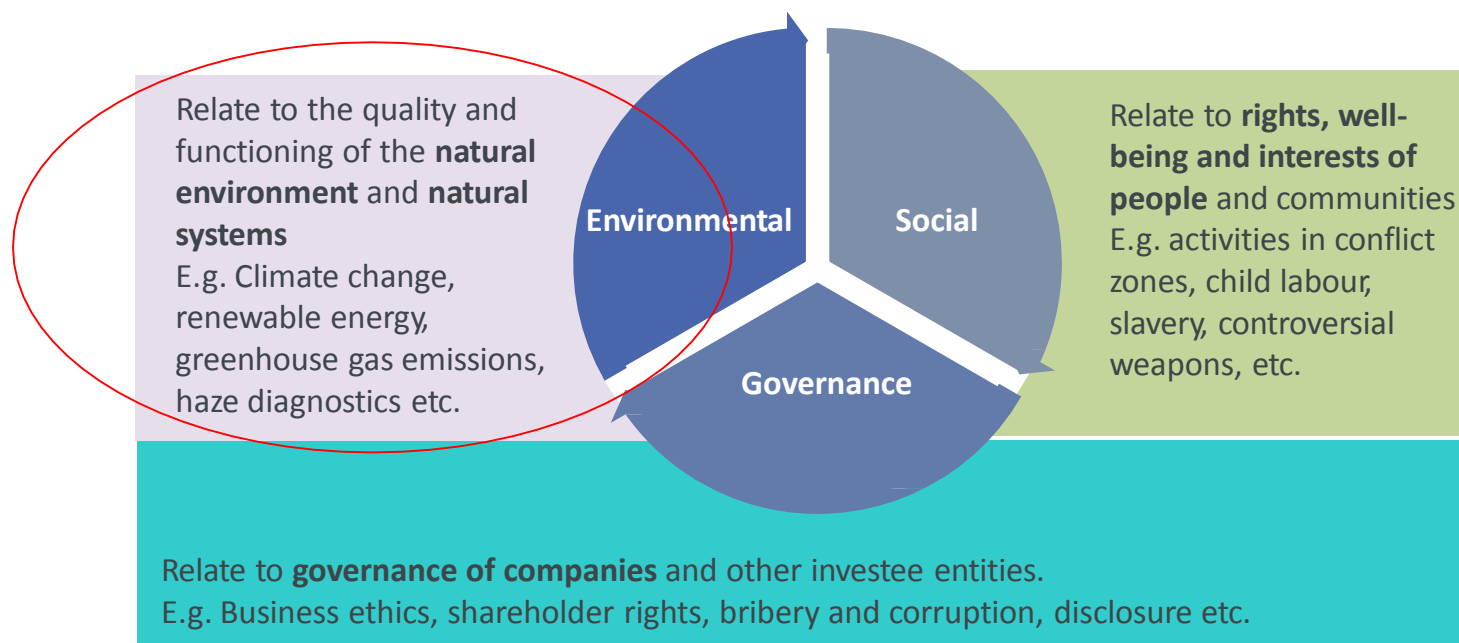
MAS

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Focus on “Environment” aspect within ESG

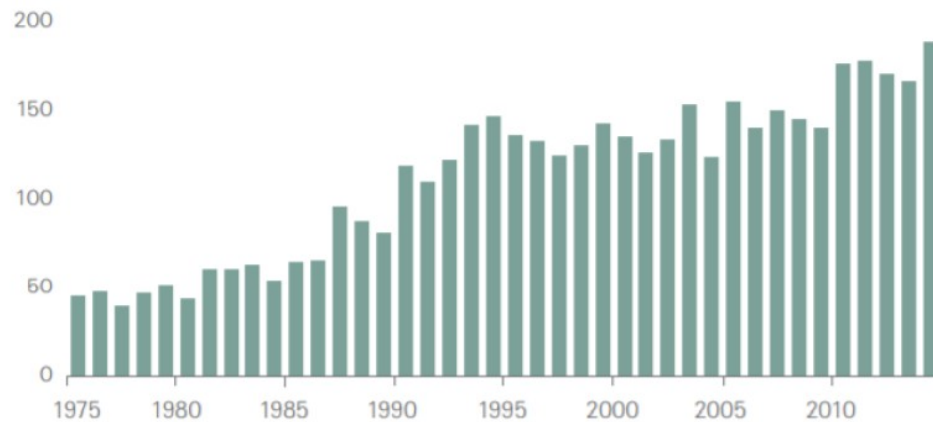




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Increasing Cost of Natural Catastrophes

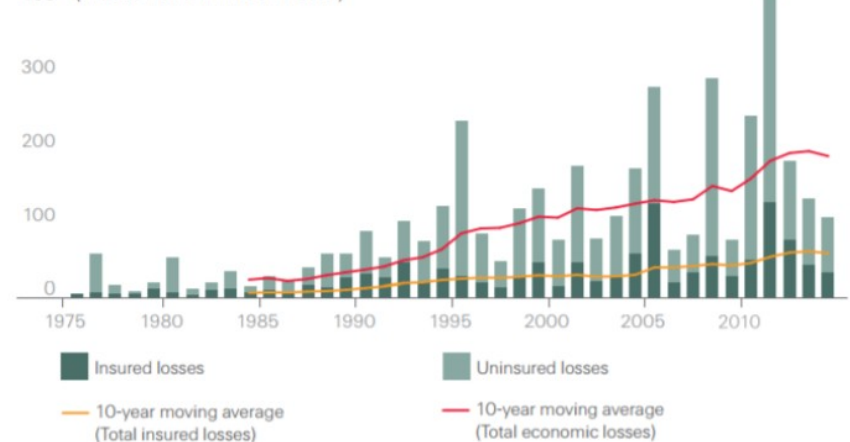
Number of natural catastrophes 1975–2014



Source: Swiss Re Economic Research & Consulting and Cat Perils

Natural catastrophe losses: Insured vs uninsured losses, 1975–2014

(in USD billion in 2014 USD)



Source: Swiss Re Economic Research & Consulting and Cat Perils

- According to Swiss RE the cost of natural catastrophes has increased significantly over the years
 - In 1980s, USD 30 billion per year
 - In the 1990s, USD 104 billion per year
 - In 2000s, USD 182 billion per year

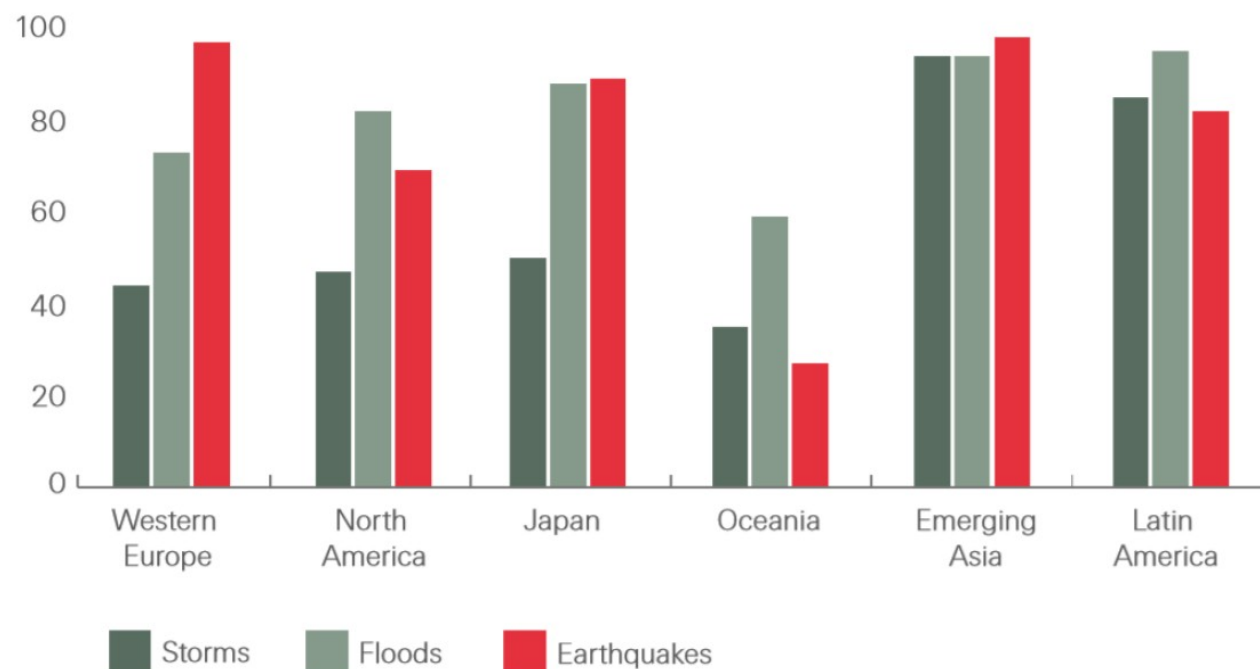


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Most Natural Catastrophes losses in Southeast Asia are uninsured

- Natural catastrophe losses in Southeast Asia have mostly been borne by individuals, firms and governments.
- *Note : Graph based on events where economic losses were known and for which total losses were larger than USD 500 million (2014 prices).*

Natural catastrophe uninsured losses as a % of economic losses, by region, 1975–2014



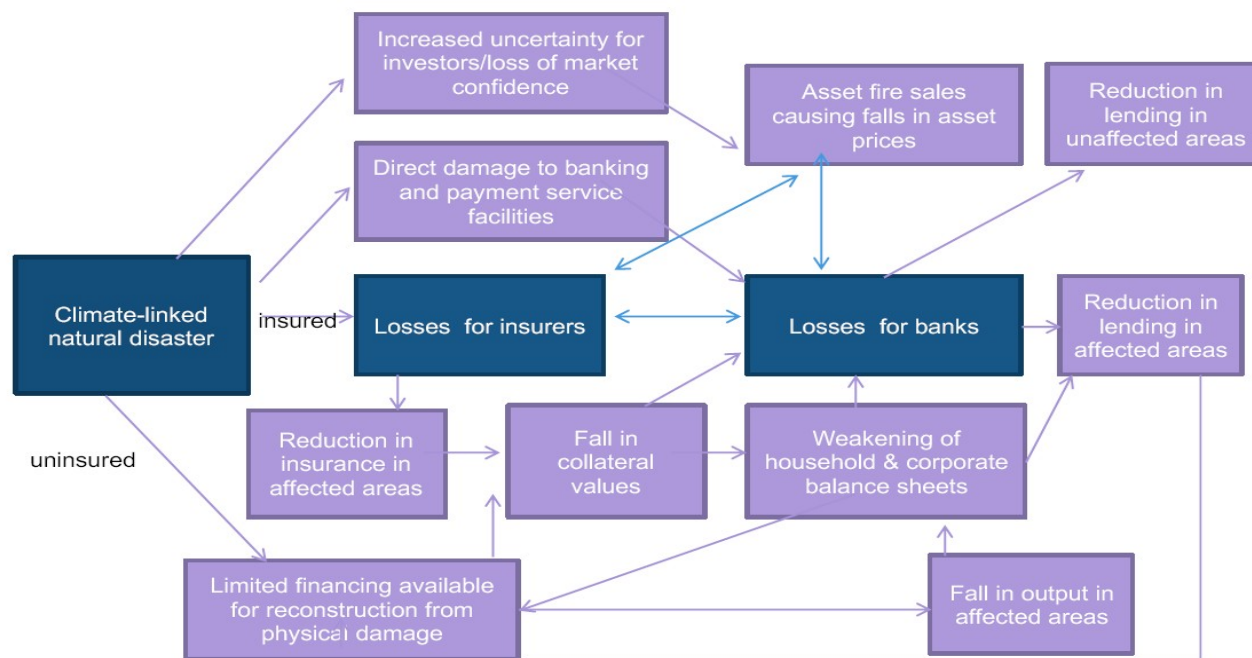
Source : Re Economic Research & Consulting and Cat Perils



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Environmental risk impact on financial institutions warrant closer monitoring

.. With not only prudential risk impacts..



BANK OF ENGLAND

.. But also potential systemic risk
implications

Source: Bank of England



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Where Singapore Stands

Government

- Commitment under Paris Agreement to **reduce emission intensity by 36% (below 2005 levels) by 2030**
- **Carbon tax** on large direct emitters of greenhouse gases from 2019 & increased tariffs on water and electricity

Corporates

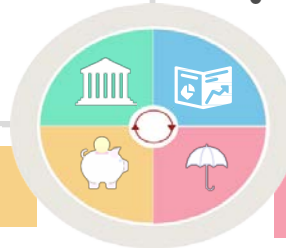
- Mandatory for all listed companies to report according to **Sustainability Reporting Guidelines** on a “comply or explain” basis – SGX
- From Jan 2018, all listed companies will **produce annual sustainability reports**

Banking

- In response to ABS' 2015 Guideline on Responsible Financing, banks have started **integrating ESG criteria in their lending and risk assessments**, and **develop in-house capacity** through training

Insurance

- Industry associations, such as LIA and GIA, have **pledged support for global standards** (e.g. UN Principles for Sustainable Insurance) and conducted **masterclasses on sustainable insurance** for their members.





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Active international engagement by MAS...

Sustainable Insurance Forum (SIF)



- SIF, convened by the UN Environment Program held its inaugural meeting in Dec 2016. It is a global network of insurance supervisors and regulators working together to address sustainability challenges facing the insurance sector.
- In July 2018, SIF and the International Association of Insurance Supervisors (IAIS) released a joint Issues Paper on Climate Change Risk to the Insurance Sector.
- SIF currently consists of 21 members and supporting institutions.

Network for Greening the Financial System (NGFS)



- MAS is one of the founding members, and the network currently consists of 16 members representing central banks and supervisors.
- NGFS held its inaugural meeting in Jan 2018, and aims to
 - strengthen the global response required to meet the goals of the Paris Agreement;
 - enhance the role of the financial system to manage risks; and
 - mobilise capital for green investments in the context of environmentally sustainable development.



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MAS Supervisory Actions

Risk Identification & Assessment

- **Published an information paper in June 2017** on insurers' Own Risk and Solvency Assessments (ORSA), which emphasised that insurers should give greater attention to emerging risks such as environmental risks
- **Introduced a climate variability scenario** for insurers writing general business in the upcoming industry-wide stress testing exercise. For the stress testing exercise, the focus is on physical risks. In future stress testing exercises, MAS may consider broadening the scenario to consider other risk transmission channels.
- Encourage insurers to **enhance climate-related risk disclosures** to support informed investment, insurance underwriting decisions and improve understanding and analysis of climate-related risks and opportunities



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Role of Actuaries

Risk Management

- Gathering and analysing of credible data to measure and manage climate-related risk
 - Knowledge gaps and uncertainties in catastrophe models
 - Major catastrophic event not being appropriately considered in rate setting and reserving
 - Potential impacts of climate change on mortality in relation to insurance, annuity and pension programmes
- Research, development and validation of models for financial projections for economic capital and
- stress testing purposes

Product Design, Development and Pricing

- 'Green' insurance products
 - 'Green' pricing for 'Green' features
 - 'Green' Terms and Conditions for Insurance Contracts
-

Thank You



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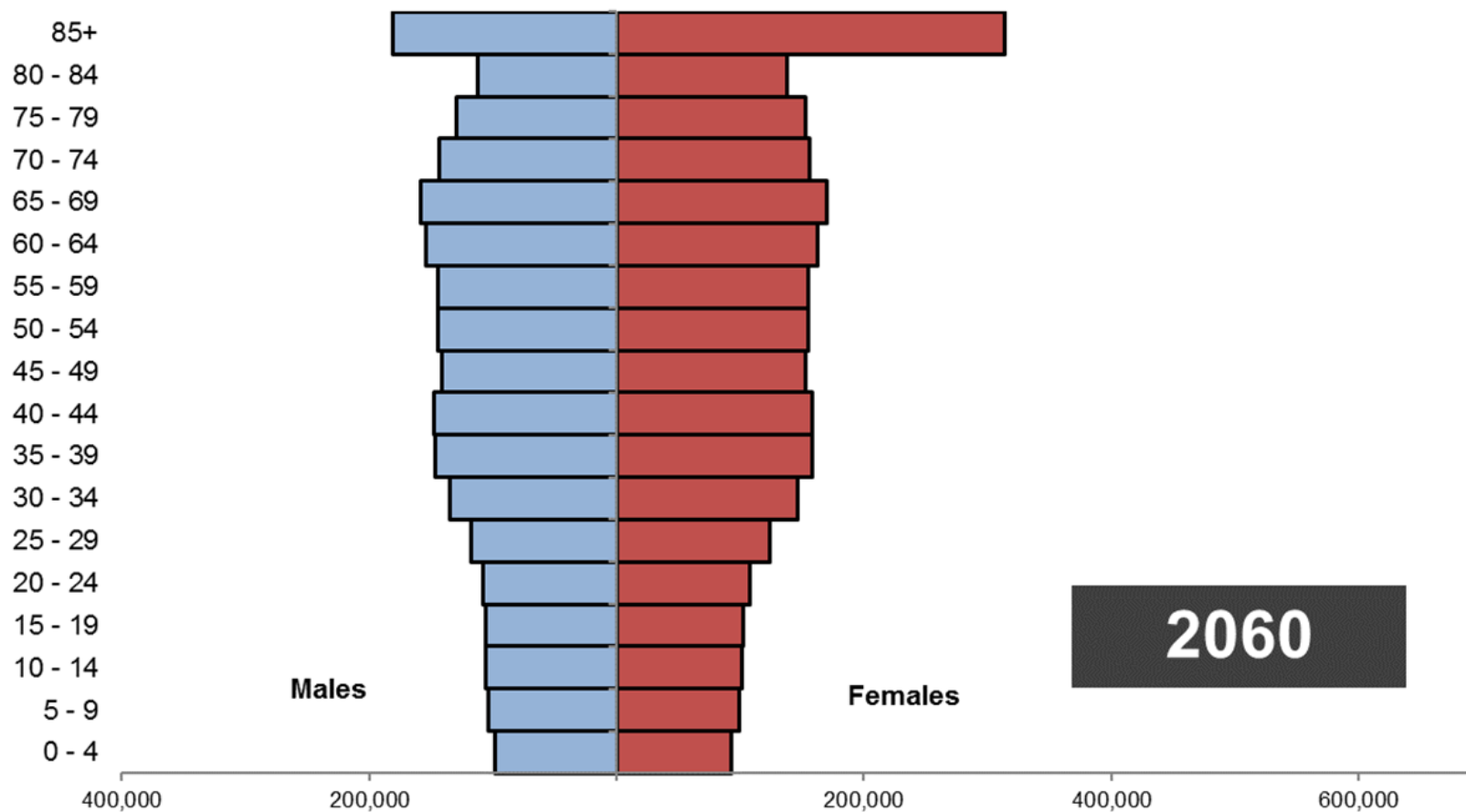


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Ageing populations – are we ready?

Christopher Gee, Senior Research Fellow, Institute of
Policy Studies, National University Singapore

Singapore Population Pyramid (2060)





Source: Terrence Horan/MarketWatch at
<https://www.marketwatch.com/story/6-lessons-for-the-sandwich-generation-2015-09-10>



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Digitalisation – are we ready?

Tomasz Kurczyk, Head of Digital, AXA Singapore



Future of insurance in the ecosystem economy

Tomasz Kurczyk
September 2018 Singapore

Intro



Tomasz Kurczyk

Digital Transformation Director
AXA Insurance



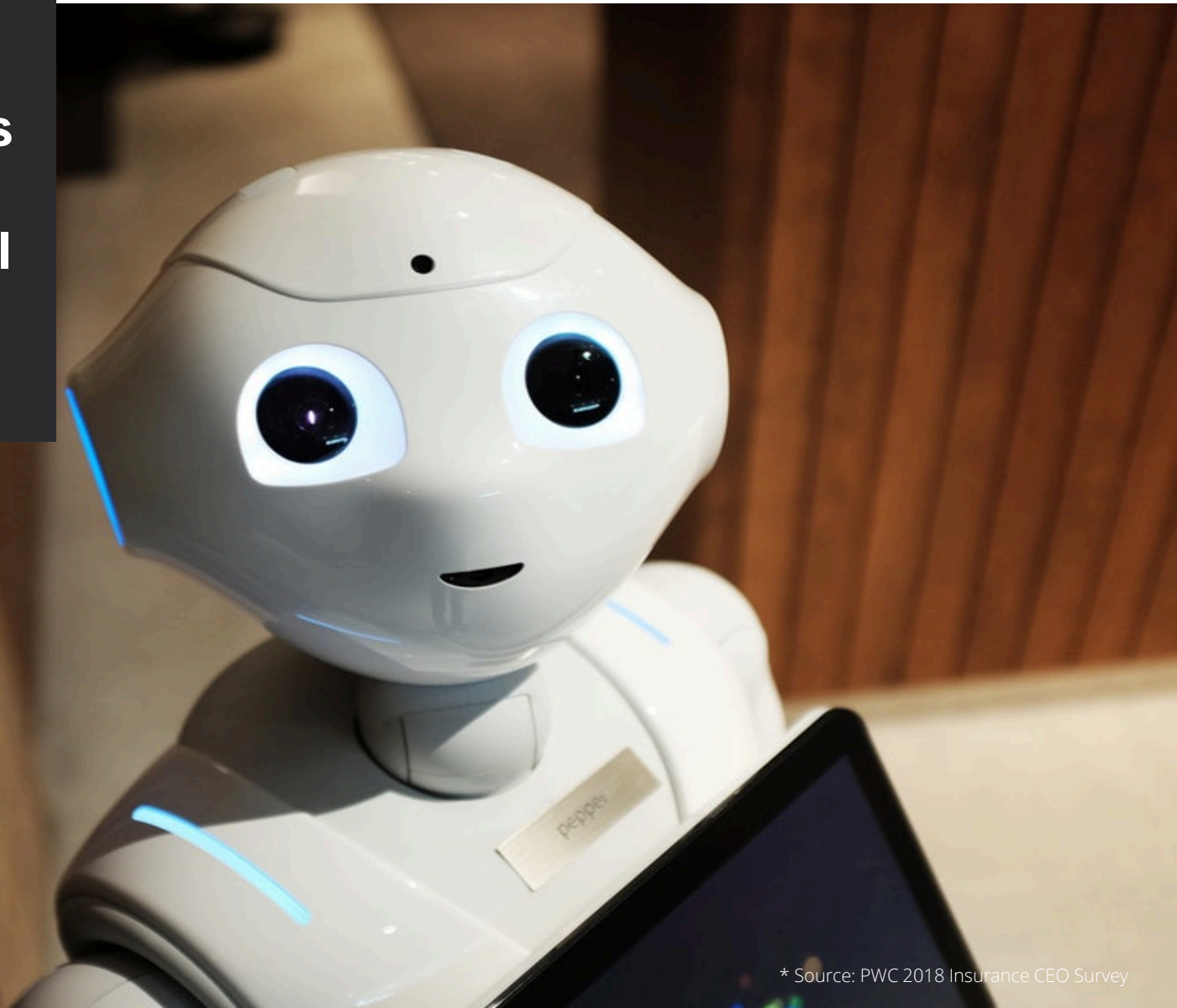
@tkurczyk



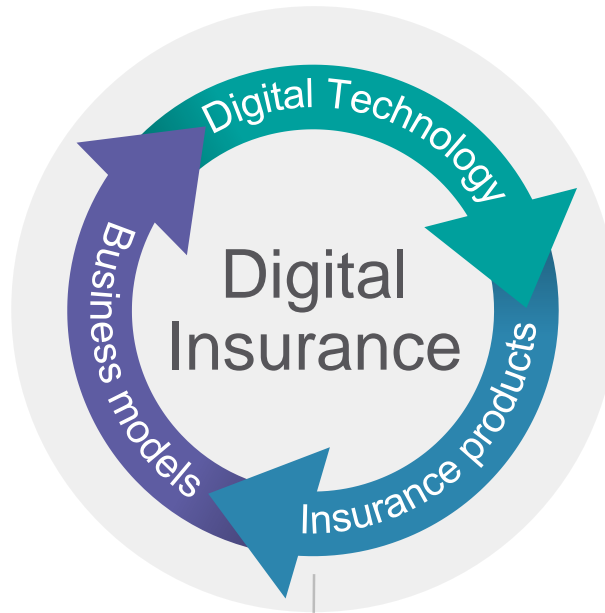
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- Geek at heart that started career as entrepreneur to be turned along the way into corporate challenger focused on growth and business impact
- Digital business leader driving P&L and accelerating organization future-proofing and transformation, focusing on Digital Commerce, InsurTech, Customer Experience, Technology and Innovation.

**85% of
Insurance CEOs
see the speed
of technological
change as a
threat***



New reality for insurance



Digital technology

Technology enables delivery of products and services with flexibility at scale while driving efficiencies

Insurance products

Product Innovation and new type of risks enabled by and shaped by technology

Business models

Business model innovation is driving adoption and commercial success, leveraging ecosystem models

**Ecosystems will
account for 30%
of global
revenues by
2025***

Source: unsplash.com

* Source: "Competing in a world of sectors without borders," McKinsey Quarterly, July 2017

Ecosystems and platform economy

Technology platforms
+
Interconnected
business models
=
Ecosystem

01

Ecosystems are foundation for new **value creation** blurring boundaries between traditional industries

02

Create value externally through **digital partners and communities of users**

03

Open entirely **new paths to growth** at scale

04

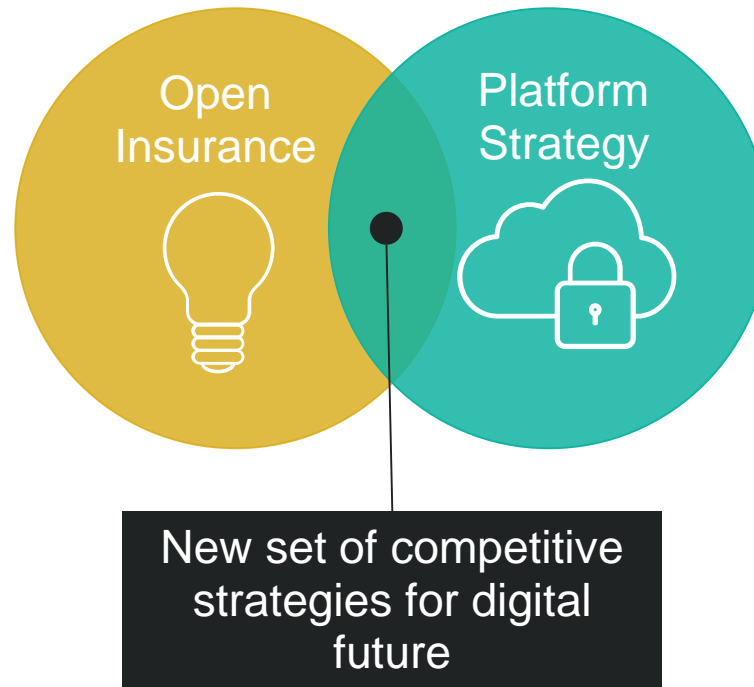
Disrupt existing competitive **strategies and business models** for everyone... including **Insurance**

“What’s dangerous is not to evolve.”
and not take advantage of new opportunities
- Jeff Bezos

New set of strategies for the ecosystem economy

Open Insurance strategies:

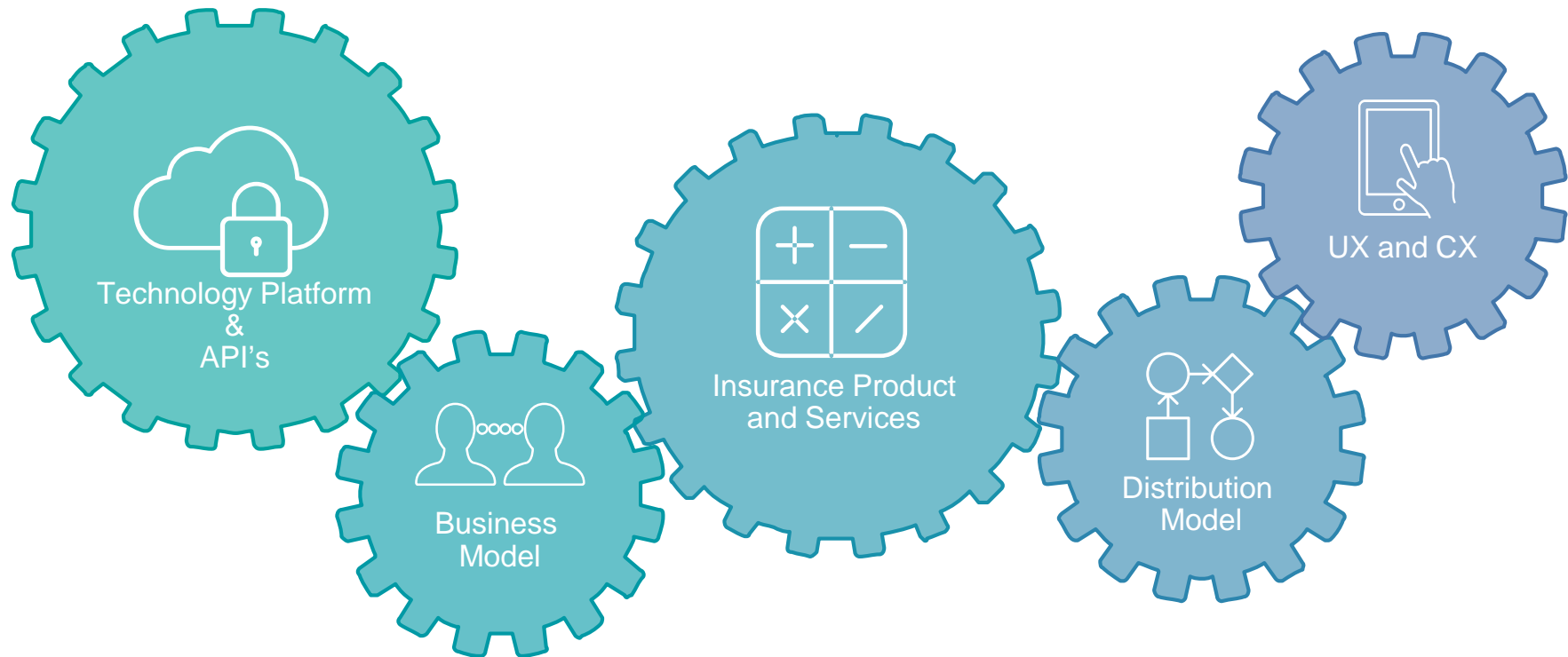
- Create value through connecting partners along value chain
- Growth opportunities through collaboration with adjacent and new industries e.g. PropTech, WealthTech, HealthTech etc.
- Opening up data and leveraging external data
- Insurers as potential orchestrators



Platform strategies:

- Open API's and Open Architecture
- Deep integration into the platforms vs product provider
- Development of Internal capabilities and becoming Tech lead
- Digital enablement for all channels not only direct

Platform strategy is about enabling end-to-end value chain





Thank you



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The world is changing – are we ready?

John Taylor, President-elect, IFoA



Sustainability: Climate Change

Video can be found at

<https://www.youtube.com/watch?v=EYWWfTgxJ58>



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Risk Alert



RISK ALERT Climate Change

KEY MESSAGE

Actuaries should ensure that they understand, and are clear in communicating, the extent to which they have taken account of climate change implications in any relevant decisions, calculations or advice.

What are Risk Alerts?

A series of email alerts drawing members' attention to specific issues where the IFoA asks members to think carefully about the consequences of actions they are taking.

The information in the Risk Alert is non-mandatory guidance which we publish to protect the public interest.

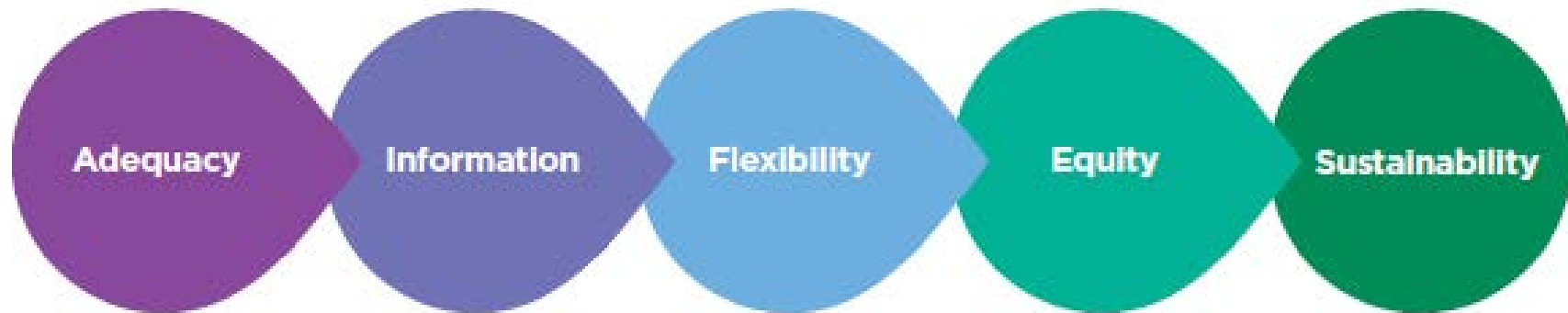


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SUSTAINABLE DEVELOPMENT GOALS



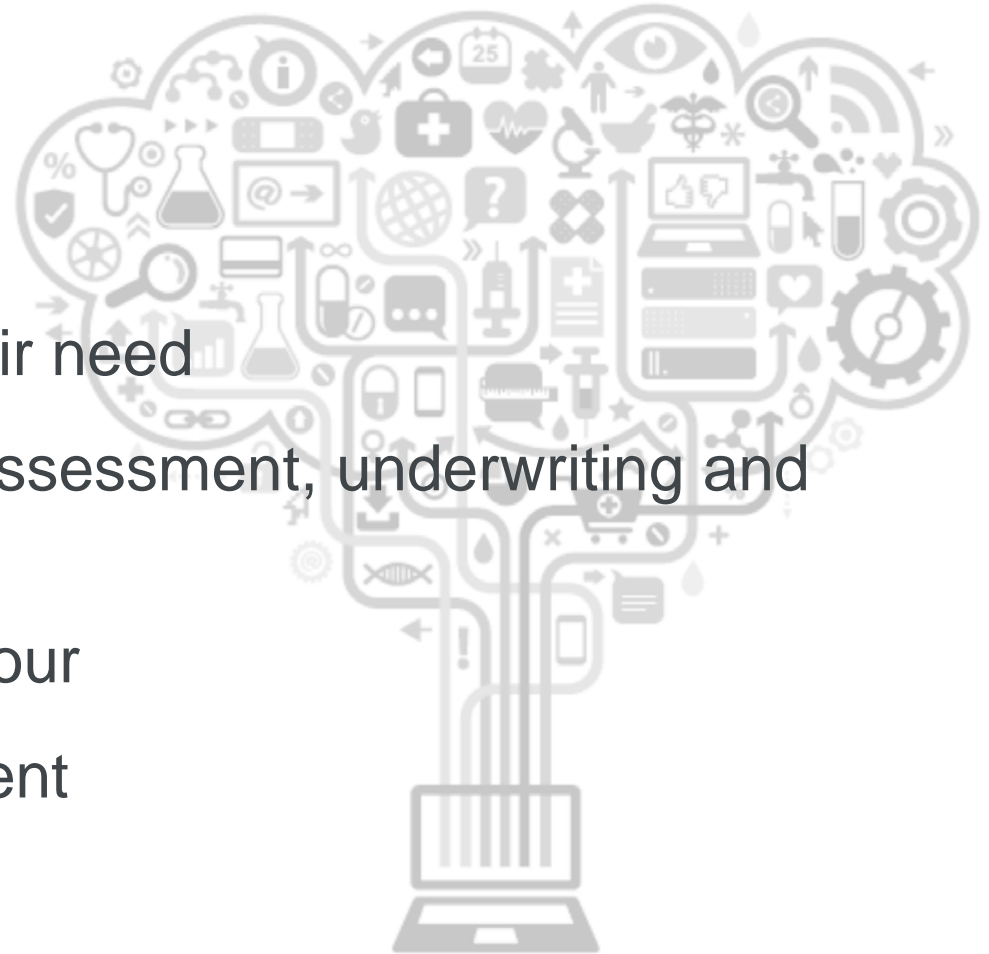
Ageing population



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Technology

- Target consumers
- Design products to meet their need
- Deliver more accurate risk assessment, underwriting and pricing
- Change policyholder behaviour
- Improving claims management





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Panel discussion: The world is changing – are we ready?

Slido link: [www.slido.com](https://www.slido.com/join/174) #Y174

New Qualifiers Ceremony

Congratulations!



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Volunteer Recognition Ceremony

Thank you!



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★ LET'S ★ CELEBRATE ★

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