



cutting through complexity

ERM for the business

Regulatory and business
drivers of ERM for general
insurers

Singapore Actuarial Society
General Insurance Conference 2012

31 May 2012

Martin Noble & John Tan



Agenda

1

**Regulatory capital & ERM developments –
International, regional and local regulatory
overview**

Martin Noble

2

**Business drivers of ERM – is it worth the
investment?**

John Tan



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1

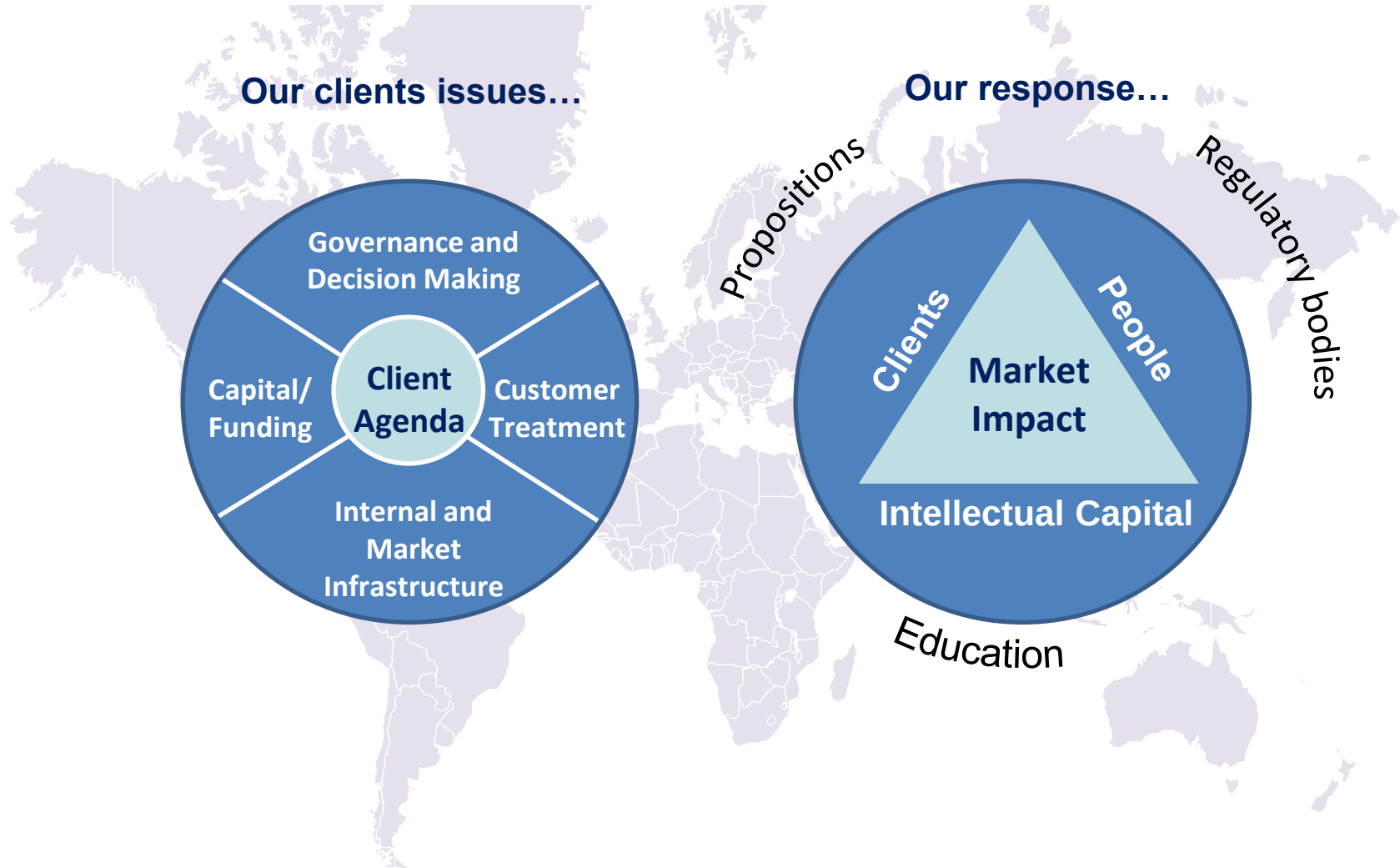
Regulatory capital & ERM developments – International, regional and local regulatory overview

Martin Noble

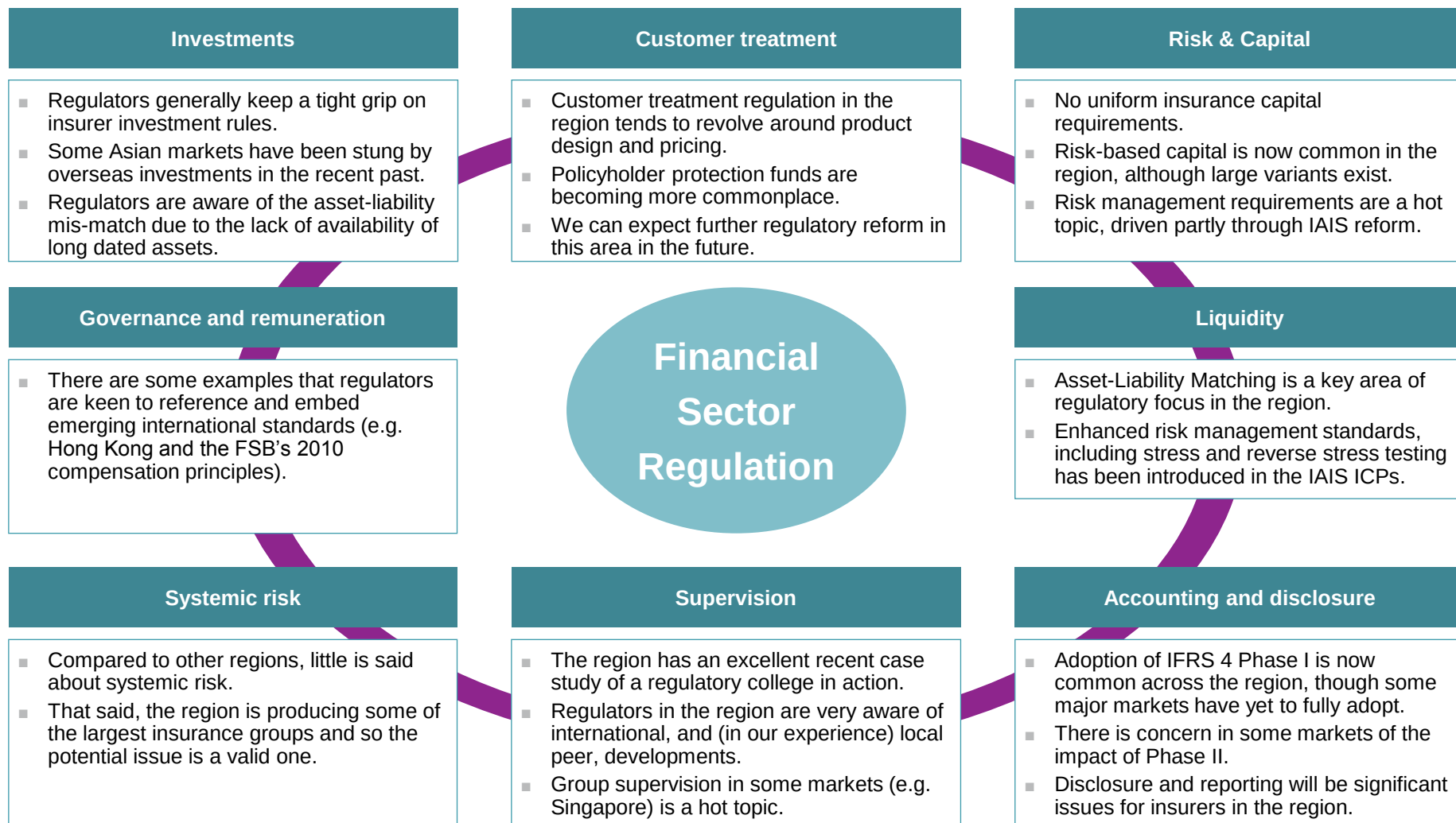
Financial Services Regulatory Centre of
Excellence, Asia Pacific



KPMG's Regulatory Centre of Excellence



Asia Pacific: Profiling the extent of regulatory change in the region



Risk and capital reform: IAIS reforms are expected to be a key regulatory driver in Asia

- The new suite of IAIS Insurance Core Principals (ICPs) were adopted on 1 October 2011 (ICPs on ERM and Capital Adequacy are receiving much attention)
- Many regulators in the region, and elsewhere in the world, are now citing the ICPs publicly as a driver of their regulatory reform packages
- That said, regulators are often keen to emphasise they will implement change that will work in their local markets – as a result, uniform change across the region is perhaps not to be expected

IAIS members:

Africa - CIMA / Albania / Anguilla / Argentina / Armenia / Aruba / Asian Development Bank / **Australia - APRA** / Australia (NSW) / Australia - PHIAC / Austria / Republic of Azerbaijan / Bahamas / Bahrain / Barbados / Belarus (Republic of) / Belgium / Belize / Bermuda / Bhutan / Botswana / Brazil - ANS / Brazil - SUSEP / British Virgin Islands / Brunei Darussalam / Bulgaria / **Cambodia** / Canada - OSFI / Canada, Quebec / Cape Verde / Cayman Islands BWI / Chile / **China** / **China Hong Kong** / **Chinese Taipei** / Colombia / Costa Rica / Croatia / Curacao and St Martin / Cyprus / Czech Republic / Denmark / Ecuador / Egypt / EIOPA / El Salvador / Estonia / European Commission / Finland (Authority) / Finland (Ministry) / France (ACP) / Georgia / Germany, BAFIN / Germany (Ministry) / Ghana / Gibraltar / Guatemala / Guernsey / Guinea / Hungary / Iceland / IME / **India** / Iraq / Ireland / Isle of Man / Israel / Italy / Jamaica / **Japan** / Jersey / Jordan / Kazakhstan / Kenya / **Republic of Korea** / Kosovo / **Labuan, Malaysia** / Latvia / Lebanon / Lesotho / Liechtenstein / Lithuania / Luxembourg / **Macau** / Macedonia / Malawi / **Malaysia** / Malta / Mauritius / Mexico / Moldova / Mongolia / Montenegro / Morocco / Namibia / Nepal / Netherlands DNB / **New Zealand** / Nigeria / Norway / OECD / Sultanate of Oman / Pakistan / Palestine / Panama / Papua New Guinea (Department of Finance & Treasury / Papua New Guinea (Bank of Papua New Guinea) / Paraguay / Peru / **Philippines** / Poland / Portugal / Qatar / Republic of Maldives / Romania / Russia / Rwanda / Samoa / Saudi Arabia / Serbia / **Singapore** / Slovakia / Slovenia / South Africa / Spain / Sri Lanka / Sudan / Suriname / Sweden / Switzerland / Swaziland / Syria / Tanzania / **Thailand** / Trinidad & Tobago / Tunisia / Turkey / Turks & Caicos BWI / Uganda / Ukraine / United Kingdom / United Arab Emirates / Uruguay / USA FIO / NAIC & 56 jurisdictions in USA / Uzbekistan / Vanuatu / **Vietnam** / World Bank / Zambia

Selected IAIS ICPs

ICP 15: Investments

The supervisory regime establishes requirements for solvency purposes on the investment activities of insurers in order to address the risks faced by insurers.

Key Points:

- Rules and Principles-based requirements
- Strength of assets
- Matching assets and liabilities
- Risks involved in investments
- Investments involving special financial instruments.

ICP 16: ERM

The supervisory regime establishes enterprise risk management requirements for solvency purposes that require insurers to address all relevant and material risks.

Key Points:

- Identifying and measuring risk
- Risk management policies
- Investment Policy
- Tolerance limits
- Own Risk and Solvency Assessment (ORSA)

ICP 17: Capital adequacy

The supervisory regime establishes capital adequacy requirements for solvency purposes so that insurers can absorb significant unforeseen losses and to provide for degrees of supervisory intervention.

Key Points:

- Establishing regulatory capital requirements and their structure (Solvency Control Levels)
- Determining and calibrating regulatory capital requirements
- Determination and assessment of capital resources
- Provisions on the use of an internal model
- Validation and supervisory approval of internal models

What regulatory developments are happening in key overseas markets?

United States

- Currently undergoing the '**Solvency Modernization Initiative**' (SMI)
- The SMI is focused on a number of areas, including a review of the **Risk Based Capital** requirement, governance for insurers, and **group supervision**
- The SMI includes development of the **ORSA**

The European Union

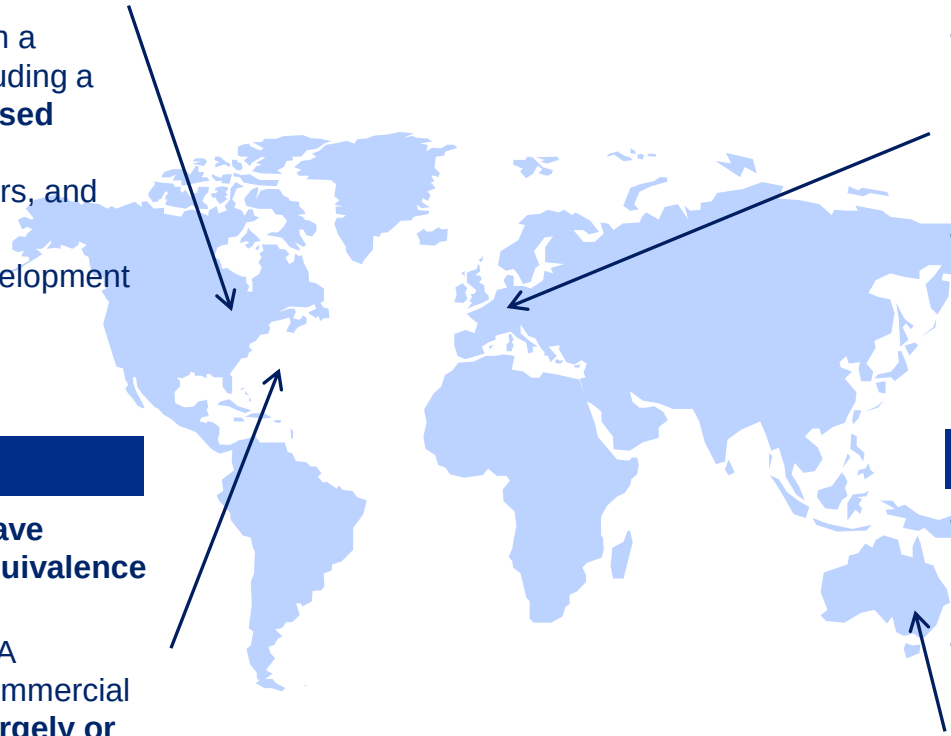
- **Solvency II** has been in development since the turn of the century
- Despite various announcements and delays, 2012 is expected to see the **finalisation** of most of the outstanding Solvency II **framework rules and guidance**
- There are still a number of **important technical components** of Solvency II that remain to be finalised

Bermuda

- Bermuda is a **first-wave country** in the **EU equivalence** process
- In broad terms, EIOPA concluded that the commercial non-life sector was **largely or partially equivalent**

Australia

- New Life and General Insurance Capital (**LAGIC**) standards are poised for release
- These proposals are widely expected to **increase capital requirements**
- The proposals will introduce a Three-Pillar approach to solvency regulation



What regulatory developments are happening in other key Asian markets?

Singapore

- RBC 2 under review...
- Group risk consultation
- ERM and the ORSA

Indonesia/Philippines

- Raising the bar in terms of minimum capital standards
- ERM regulations are yet to emerge
- IAIS membership as a driver of reform?

Malaysia

- Expansion of the RBC regime to Takaful operators
- Provisions in the RBC regime point to internal model development
- ERM on the agenda?

China

- The second phase of solvency reform is under review by the CIRC
- Detailed ERM regulations are already in place for life and health insurers

Hong Kong

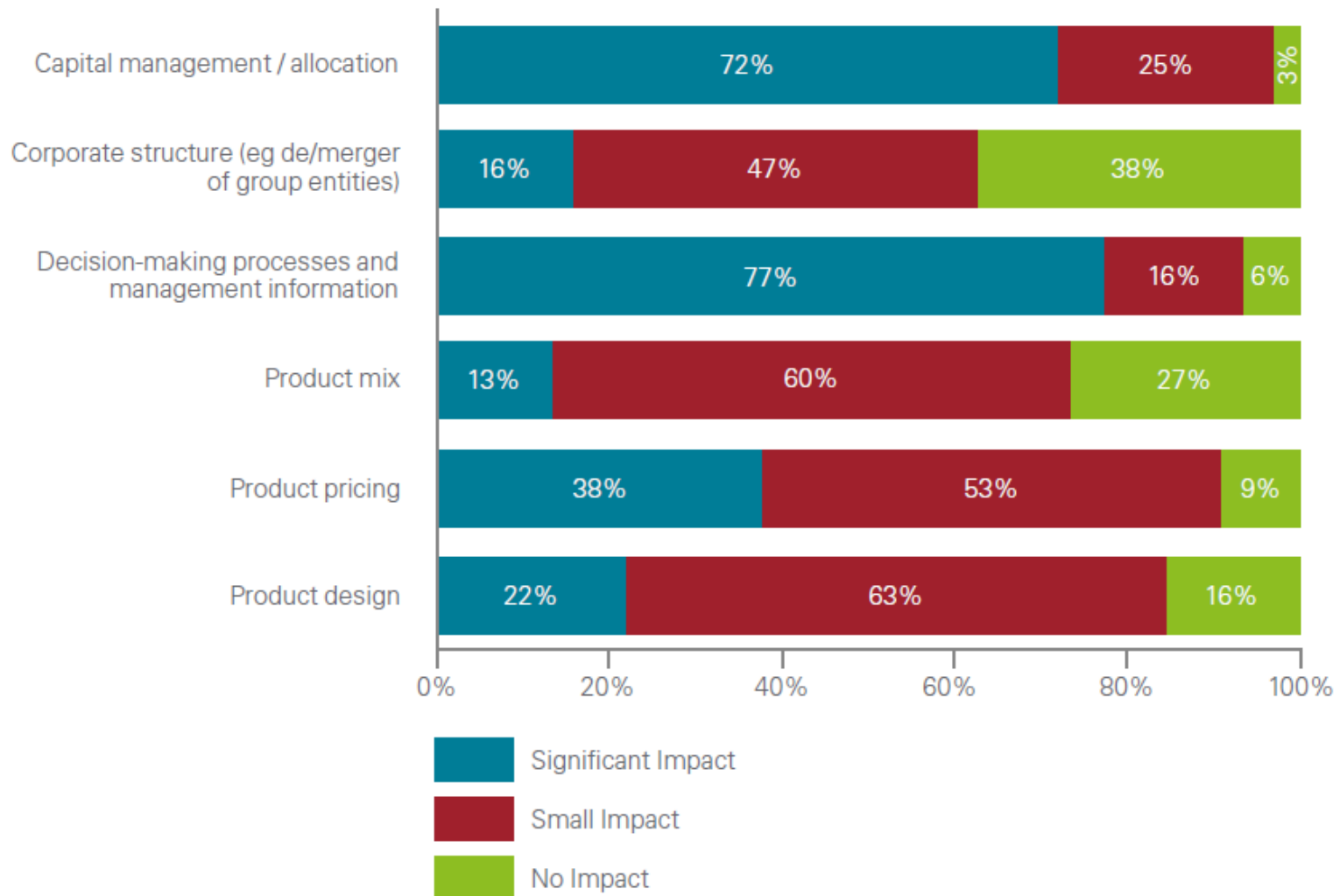
- RBC in development by the OCI
- The market is expecting reform in risk management regulations
- A focus on group risk

Japan

- Regulation similar in vein to Solvency II is widely thought to be in development
- ERM is in development in many firms in reaction to a growing number of business drivers

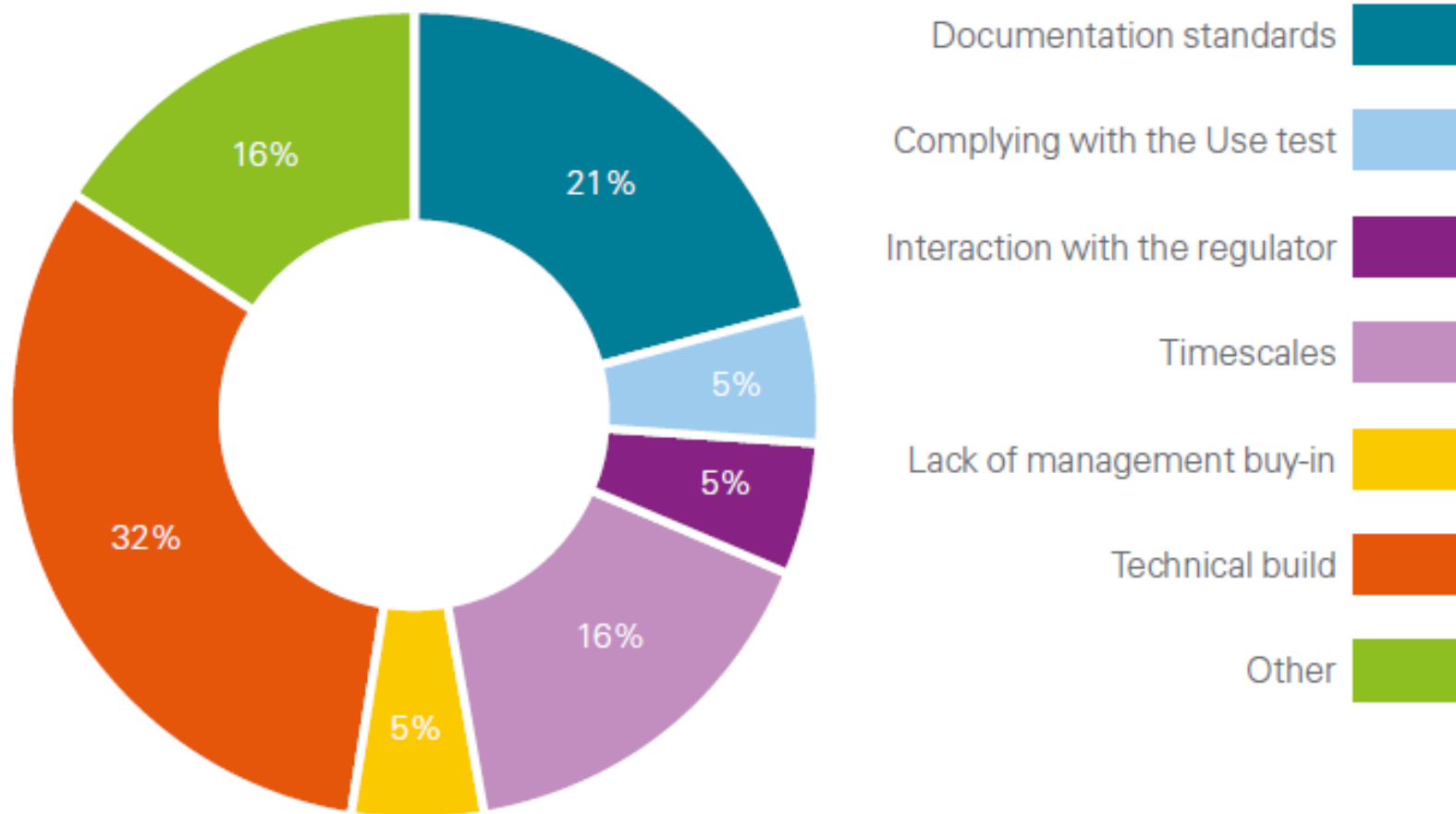
And our survey said...

Fig 1.3 Impact of Solvency II on business areas



And our survey said...

Fig1.7 Challenges on the use of an IM





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2

Business drivers of ERM – is it worth the investment?

John Tan

Director
KPMG Singapore

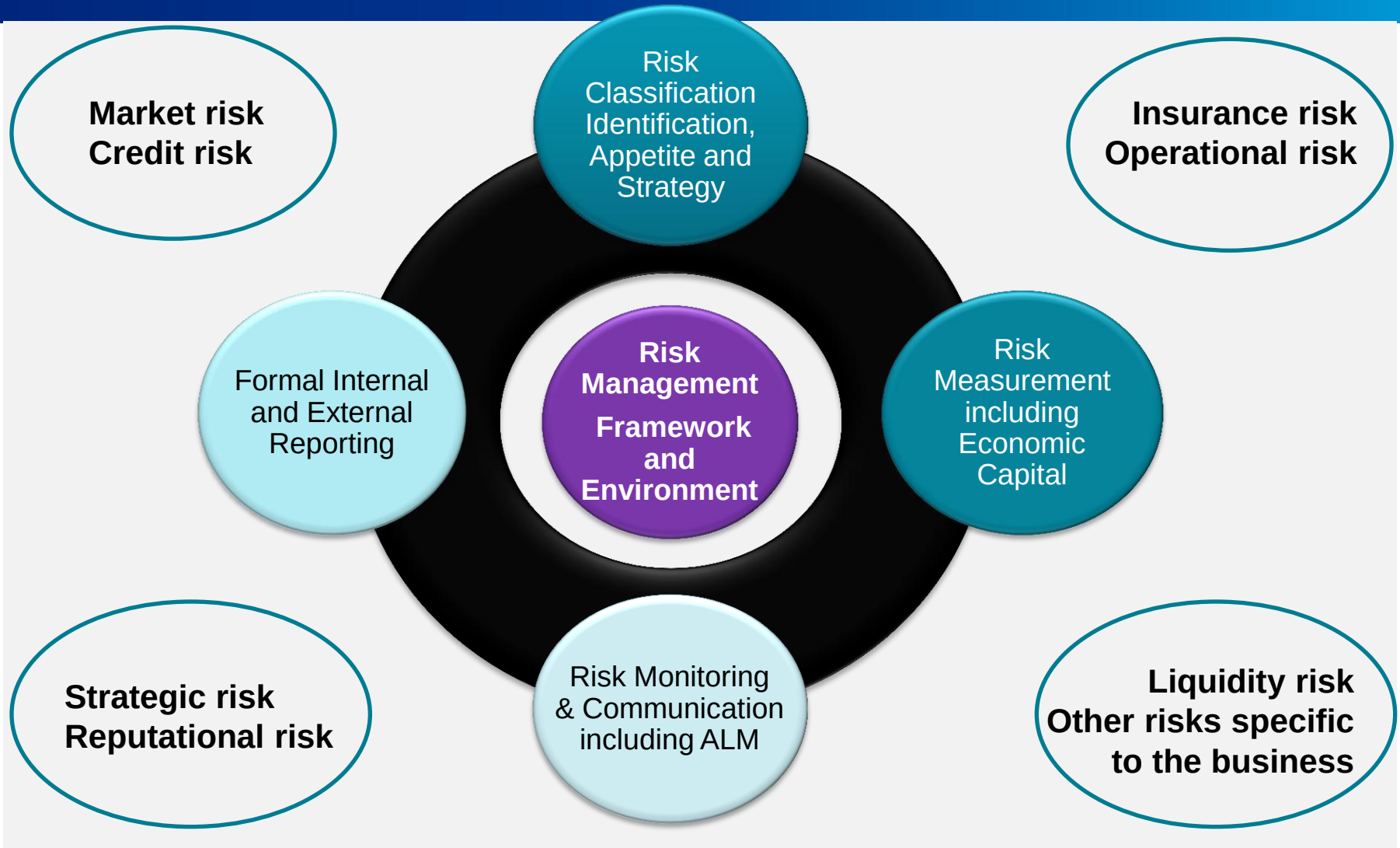


Market reaction to recent regulatory developments

Let us pause for a moment, and look for a quick show of hands...

- Are Asian general insurers in development of economic capital models?
- Are companies in development of enhanced ERM?
- Can ERM and economic capital techniques add value to the business – or are they a drain on expenses?
- For those implementing Solvency II – are you generating value?

Risk management in practice



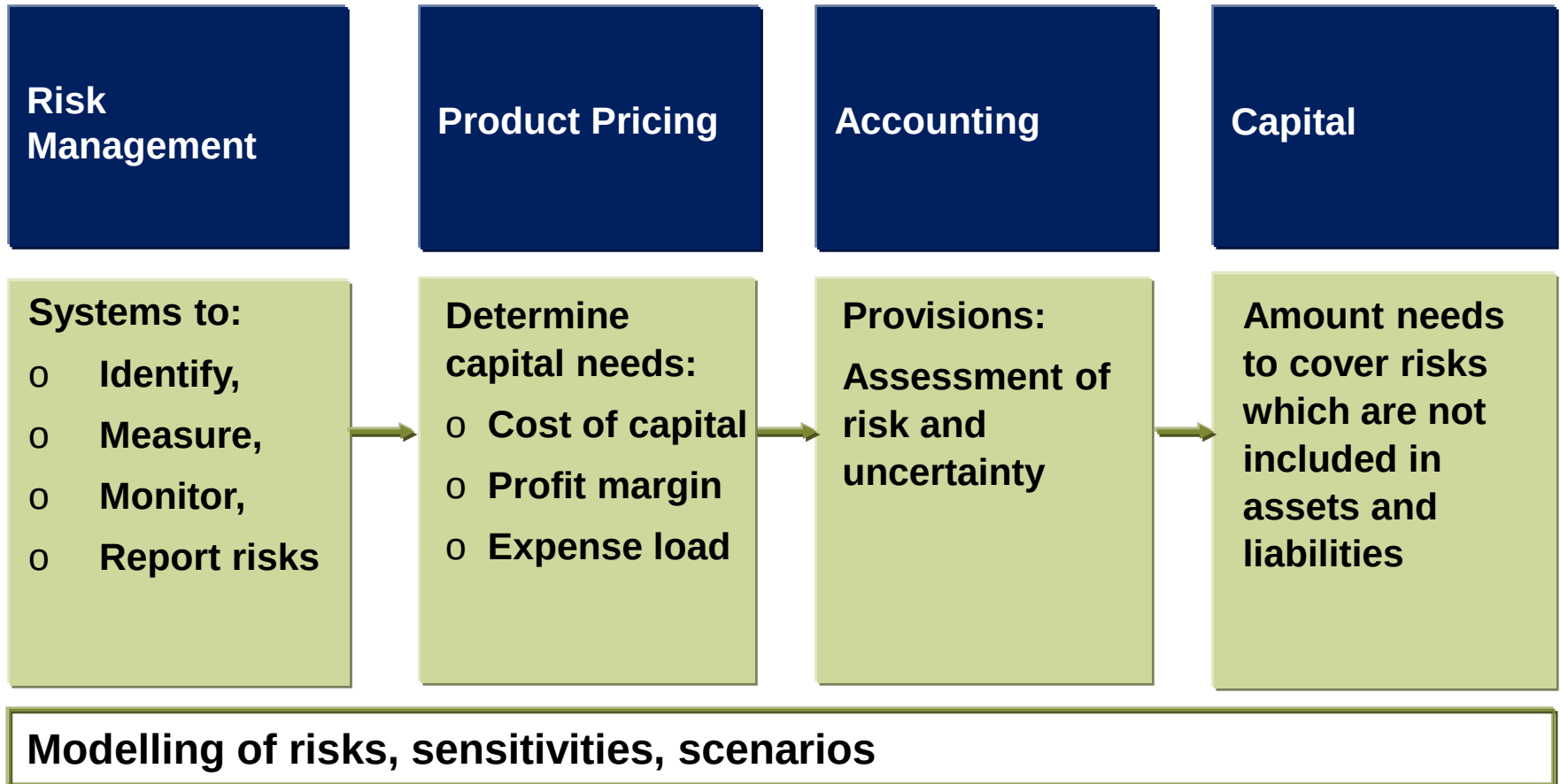
Risk Universe

Overview of business drivers

It provides a safe level of capital to guard against disasters and meet regulatory requirements

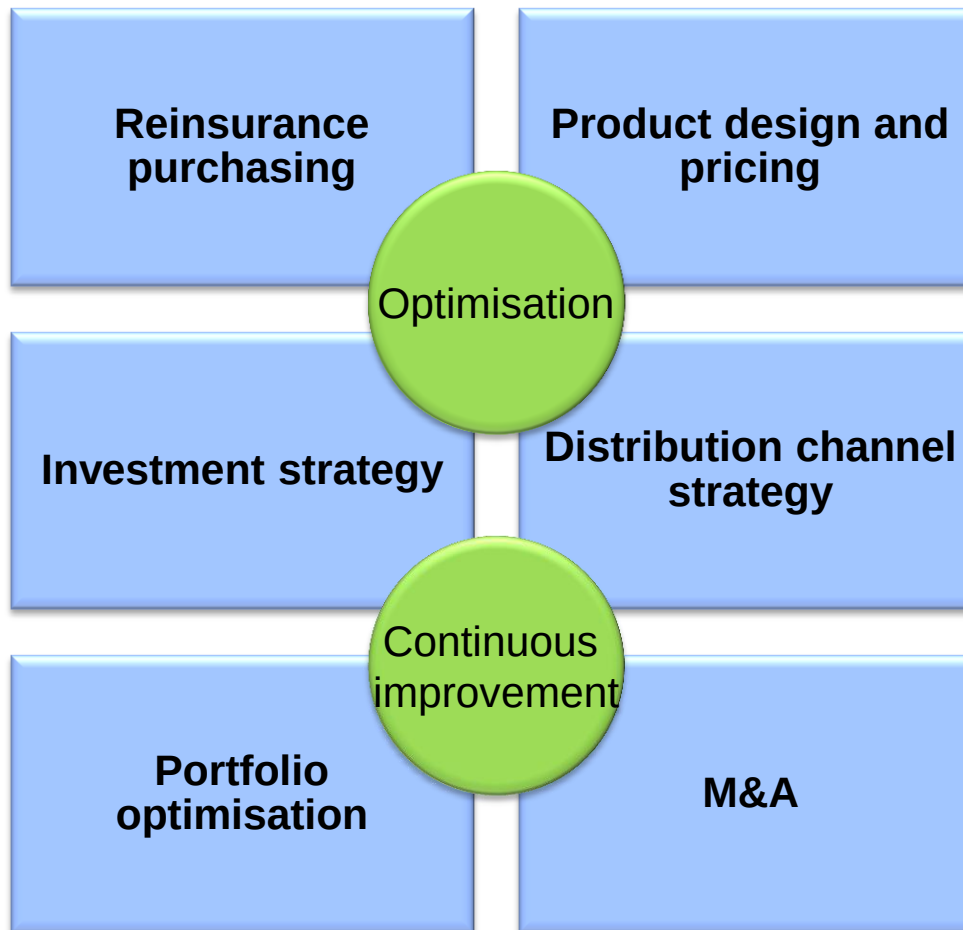


Linking risk to capital



Building a competitive advantage

Value to the business



Common uses of economic capital models to help business decision making

Example: Reinsurance Optimization

Benefits to be gained through:

- Stress testing reinsurance / retro structures
- Price vs. protection
- Risk vs. reward

ERM

considerations:

- Risk appetite
- Capital availability, fungibility and allocation of capital

A RANGE OF CONSIDERATIONS

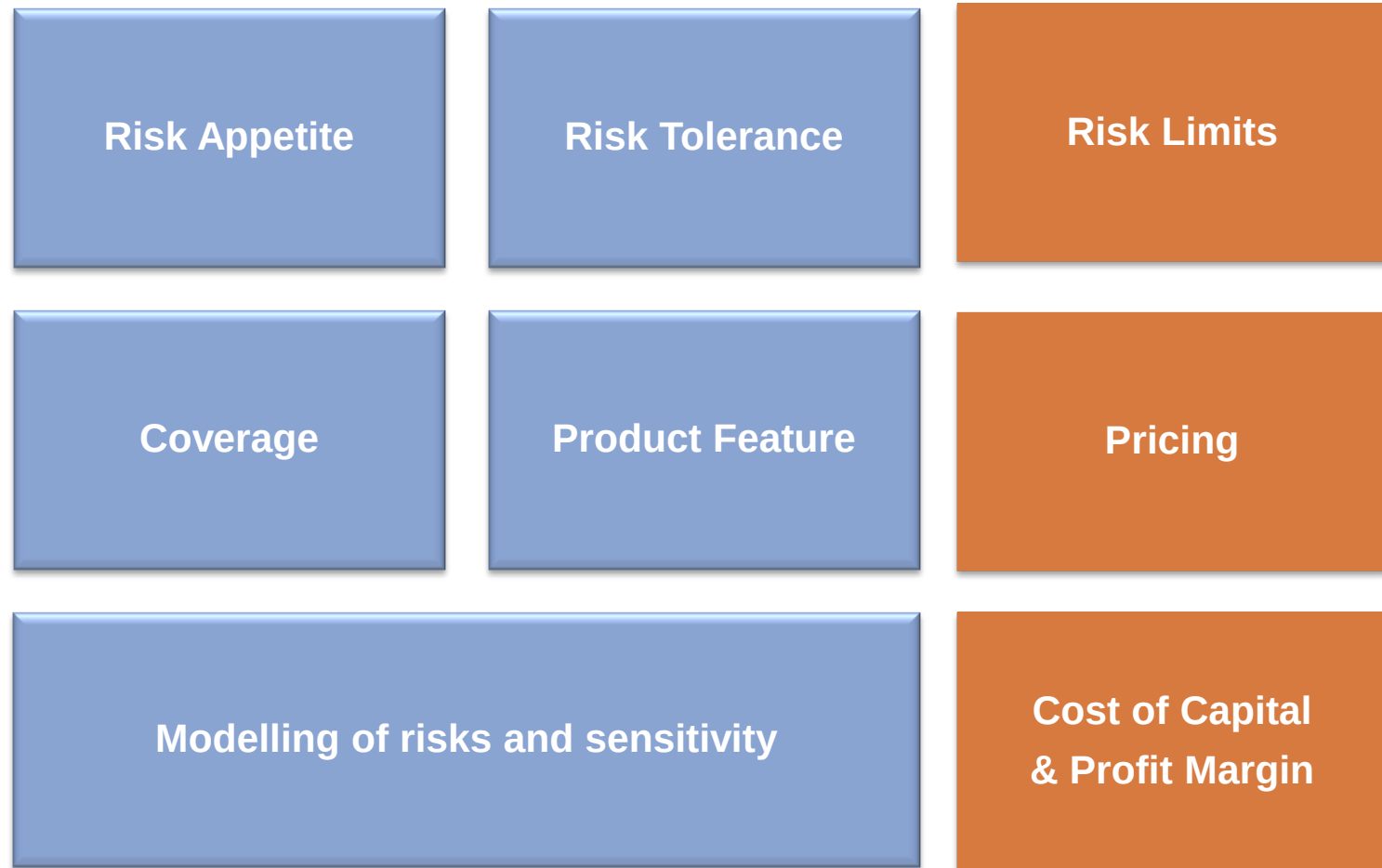
Group-wide considerations:

- Group-level diversification
- Efficiency of group reinsurance structure

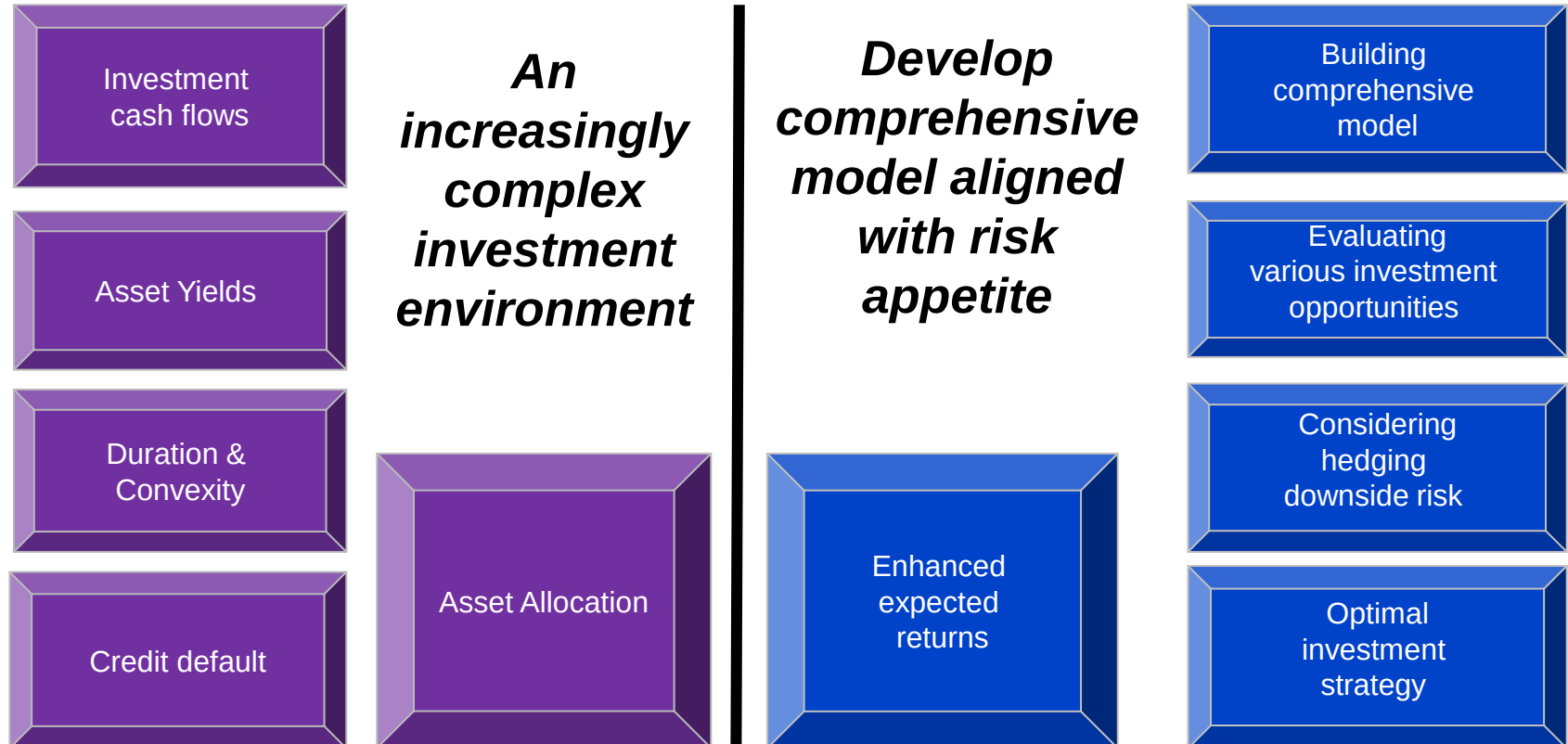
Other considerations:

- Other forms of protection including ART and cat bonds
- Added value into pricing process

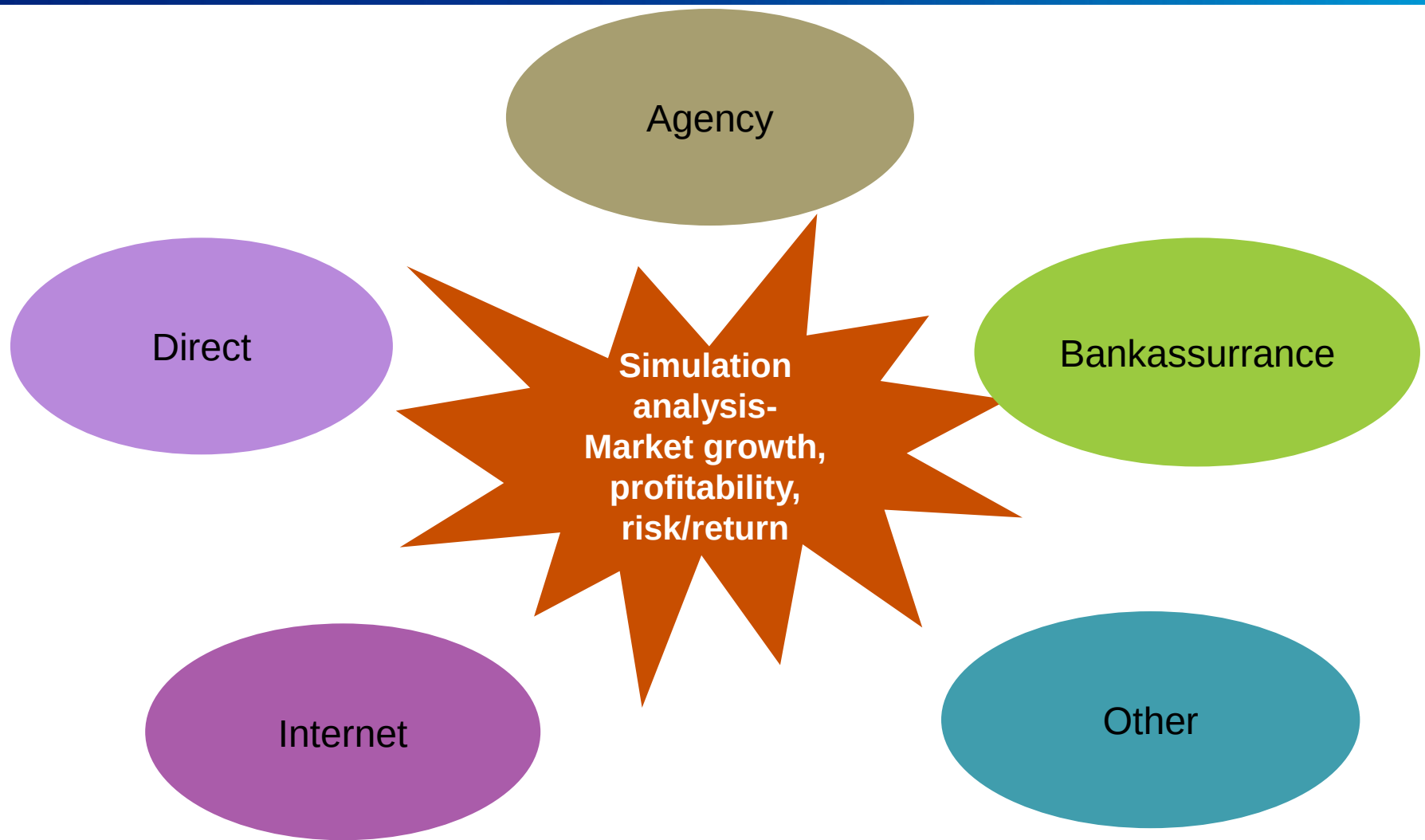
Example: Product Design & Pricing



Example: Investment Strategy



Example: Distribution channel strategy



Example: Portfolio Optimization

RISK
APPETITE



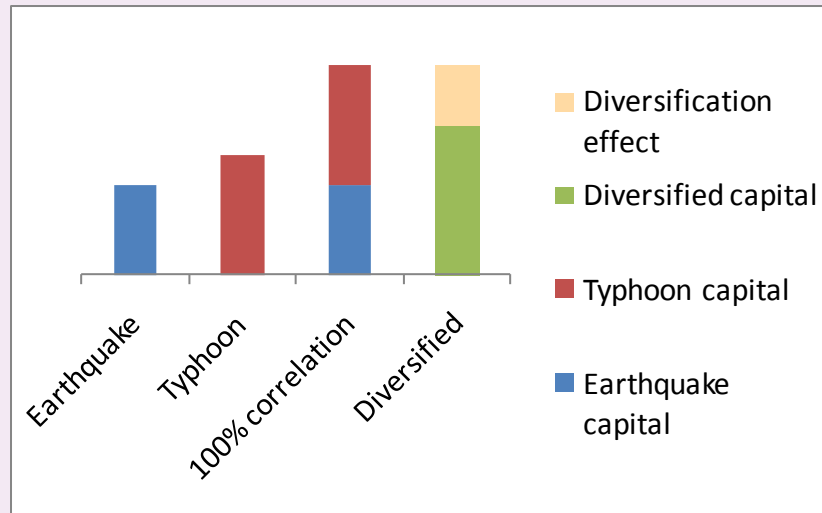
STRATEGY



Considerations:

- Lines of business
- Geographies
- Perils
- Underwriting limits
- Reinsurance structure
- ART
- Asset strategy
- ALM

Diversification across perils



What does all this mean for me?

**What is my
company's
ambition for ERM**

**How might my role
change as an
actuary or risk
manager?**



**What value can
the risk team add
to management of
the business?**

**Have we
considered our
relationships with
regulators?**

Thank you



John Tan – CV



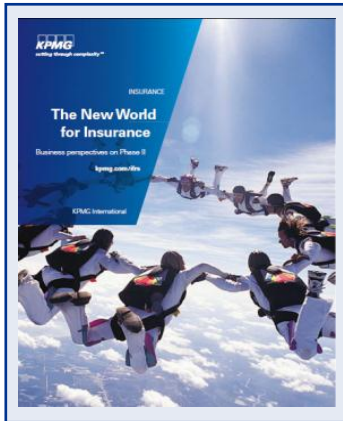
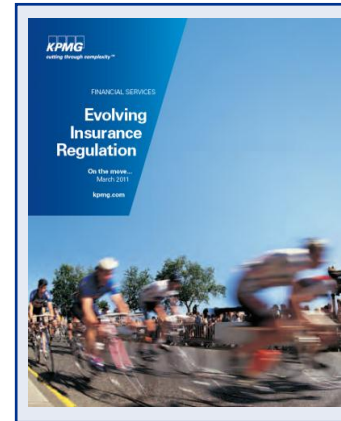
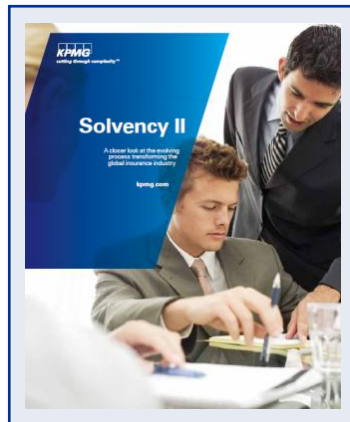
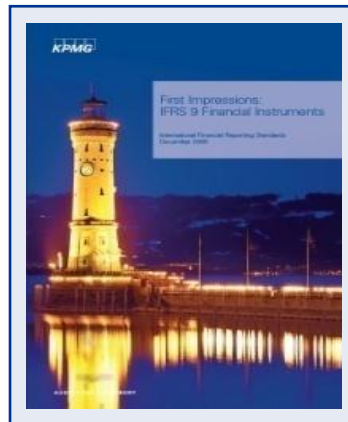
Name	John Tan
Position	Director, Actuarial Services, KPMG Singapore
Contact	Direct Line: (65) 6411 8058 E-mail: johntan1@kpmg.com.sg
Qualifications	<ul style="list-style-type: none">● Bachelor & Master of Mathematics, University of Waterloo, Canada● Fellow of the Canadian Institute of Actuaries, Canada● Fellow of the Society of Actuaries, USA● Fellow of Singapore Actuarial Society, Singapore
Experience	<ul style="list-style-type: none">● John has more than 14 years of experience in actuarial financial reporting and asset liability management in the insurance industry. He started his career in Canada and had held various positions with increasing responsibilities with major life insurance companies prior to relocating to Singapore in 2007.● His areas of experience include actuarial valuation, earnings analysis, stress test, experience study and stochastic modeling. Through out his career, John has been involved in various types of capital management project such as Economic Capital Assessment and Dynamic Capital Adequacy Testing.● John has extensive experience in managing insurance funds covering interest rate risk, credit risk, liquidity risk, currency risk, equity risk and strategic asset allocation. He was also involved in developing investment strategies to improve portfolio return through yield enhancement strategies. He had assisted companies to develop ALM framework to identify, measure, and monitor market risks.● Early in his career John worked in the Investments and Pensions department responsible for valuing retirement benefit products including group payout annuities and individual segregated funds. John has also participated in various pension valuation projects to determine the defined benefit obligation under the International Accounting Standard 19.● As part of the audit support function, John is regularly involved in reviewing the embedded value and new business contribution of our life insurance clients in Singapore. He has also participated in product pricing and reserving review for various insurance clients in the region.
Clients	<ul style="list-style-type: none">● John's client base includes life insurers, general insurers and reinsurers located throughout the ASEAN region.

Martin Noble – CV



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Position	Senior Manager, Actuarial Services, KPMG China, and Financial Services Regulatory Center of Excellence, Asia Pacific
Contact	Direct Line: (852) 2685 7817 E-mail: martin.noble@kpmg.com
Qualifications	2003 – Imperial College London – MSci Mathematics (first class) 2007 – Fellow of the Institute of Actuaries (UK)
Experience	<ul style="list-style-type: none">● Martin leads KPMG China's non-life actuarial team, and leads the insurance segment of KPMG's global Financial Services Regulatory Center of Excellence in the Asia Pacific region. He joined KPMG China in 2007, after gaining experience with KPMG in the UK.● His UK experience includes extensive claims reserving and risk management experience for UK and overseas companies, including personal, commercial lines and the London Market. This includes both audit and independent reserve review work of wide-ranging insurance and reinsurance businesses, with risks located throughout Asia, Europe, and the US (including large motor portfolios located in several Asia Pacific and other worldwide portfolios).● Martin has now worked in Asia for almost 5 years, performing a variety of roles including actuarial due diligence, external audit support and internal audit. He has insurance experience in countries including China, Hong Kong, Singapore, Japan, the Philippines, Malaysia, Indonesia and Vietnam.● He has participated in several non-life insurance capital modelling engagements, including building economic capital models in addition to performing reviews of models, covering insurance, operational, market and credit risk calculations. He has facilitated workshops for the UK regulator, as part of the ICA review training given to regulator supervisors.● Part of Martin's regional role in Asia Pacific is as a subject matter expert on insurance regulation in the region, including international regulation and its impact on the region in addition to specific local regulatory change. Martin is a member of KPMG's global Insurance Center of Excellence leadership.● Martin was involved in an Enterprise Risk Management review project for a local Chinese insurer, reviewing the quantification models utilised by the insurer. Martin has presented at industry gatherings on topics including risk management and solvency in China, and Solvency II in Europe.● He has worked on a secondment basis in Hong Kong and Zurich, carrying out a Sarbanes Oxley review, restructuring and testing of a global reinsurer's reserving process.
Clients	<ul style="list-style-type: none">● Martin's client base includes a major insurance regulator in Asia, as well as global, regional and local insurers and reinsurers located throughout the Asia Pacific region.

KPMG's thought leadership for insurance, regulation, IFRS and accounting change



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