

# 17TH EAST ASIAN ACTUARIAL CONFERENCE

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# ORSA Requirements and its Key Building Blocks

ORSA Working Party
17 October 2013







# **CONTENT PAGE**

- Introduction
- Risk Governance & Culture
- Risk Profile & Appetite
- Stress Testing & Continuity Analysis
- Economic Capital Modeling & Allocation
- Emerging Risk Management
- Concluding Remarks
- Appendix I Comparison of ORSA by Jurisdiction
- Appendix II Examples of ERM Building Blocks
- Appendix III Members of the ORSA Working Party





"The ultimate objective of managing risk is to maximize the likelihood of meeting strategic objectives. Strategic objectives are realized through a coordinated management of profit, growth and risk."

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# Introduction



# **ORSA Objectives – Companies' roles**

### **Extract from IAIS**

- 1. Forward looking identification and quantification of risks, corresponding to capital requirements and capital resources
- 2. Perform ORSA -> assess adequacy of risk management and current, and likely future, solvency position
- 3. Board and senior management responsibilities
- Encompass all reasonably foreseeable and relevant *material risks*: underwriting, credit, market, operational, liquidity risks, group risks
- Identify relationship between risk management and the level and quality of *financial resources* needed and availability

Strategic planning



**ERM** processes





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# **Comparison of ORSA across jurisdictions**

### **Similarities**

- Scope of risk categories Insurance, Market, Credit, Liquidity, Operational
- Forward looking requirements
- Approval process (including requirements on independent review)
- 4. Frequency of report submission mostly annual
- Regulatory intervention on Economic Capital mostly none

### **Differences**

- Scope of risk categories Reputational, legal, strategic
- Exclusions certain types/profiles of insurers excluded from ORSA requirements
- Target capital level
- **Group ORSA** reporting requirements

### Other points

- All jurisdictions are silent about mutual recognition on ORSA reporting requirements
- No mention of actuarial involvement in most jurisdictions

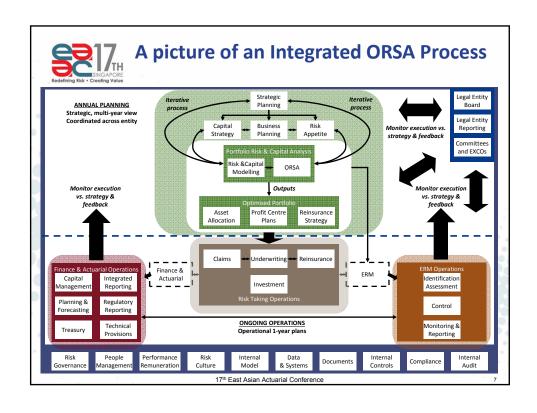
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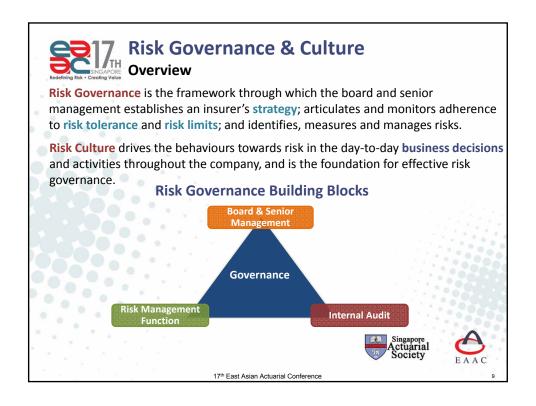


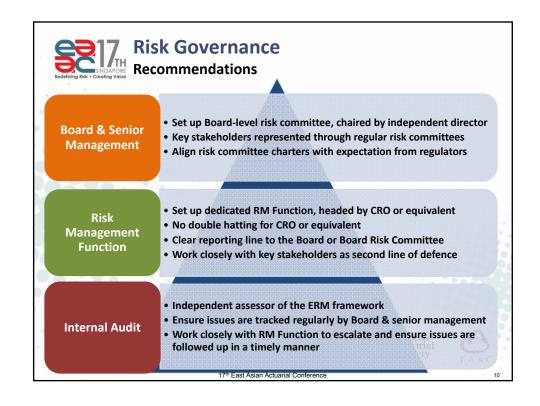
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3











ERM shouldn't be a threat to business or a compliance exercise. Rather, ERM is a new business model, a new way of thinking, a positive culture & a competitive advantage...

We tend to observe 3 different types of Risk Culture models in practice:

### 1. Offence and Oppose

 Business units and ERM have different objectives – business units focus on maximizing income and ERM focuses on minimizing losses

(Results: potentially destructive)

### 2. Policy and Policing

Business units operate within rules, set and policed by ERM, audit and compliance function

(Results: Compliance mindset)

### Best Model

## 3. Cooperation and Collaboration

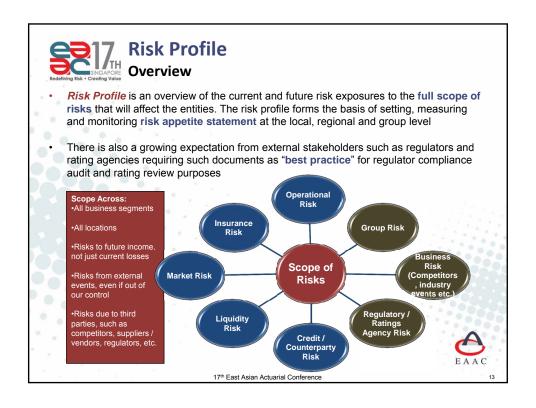
- Business units and ERM staff work together in a client-consultant type relationship to manage risk
- ERM and business units staff share some measures of risk-return performance (Results: long-term partnership)

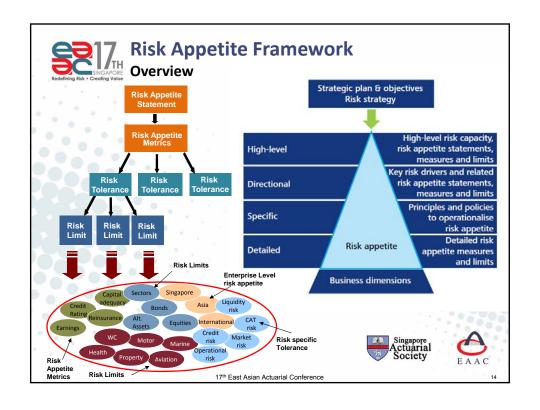
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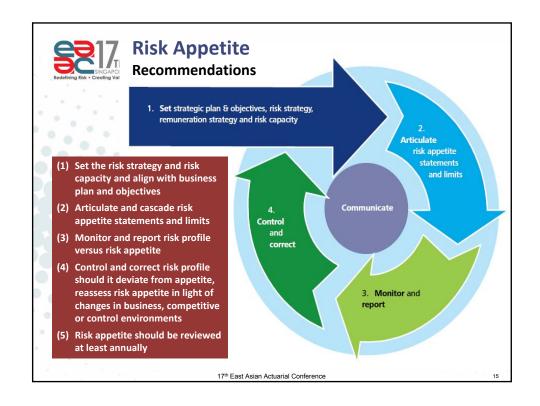


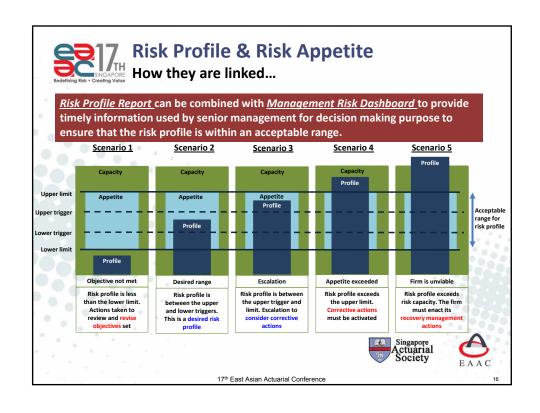
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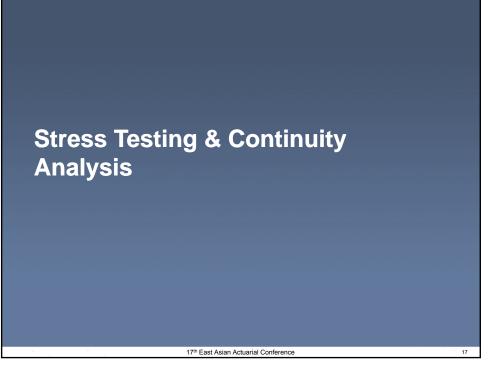
# Risk Profile & Appetite

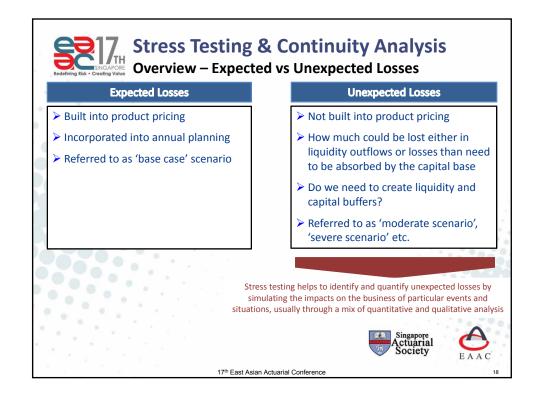


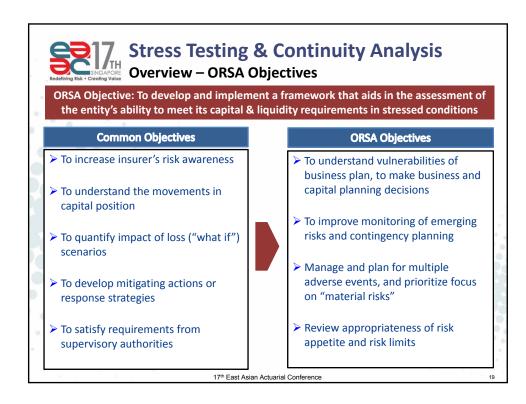


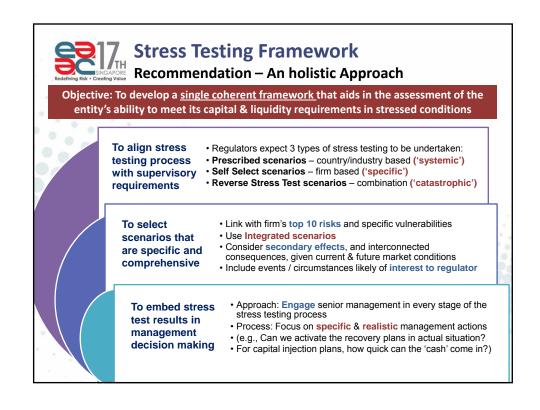


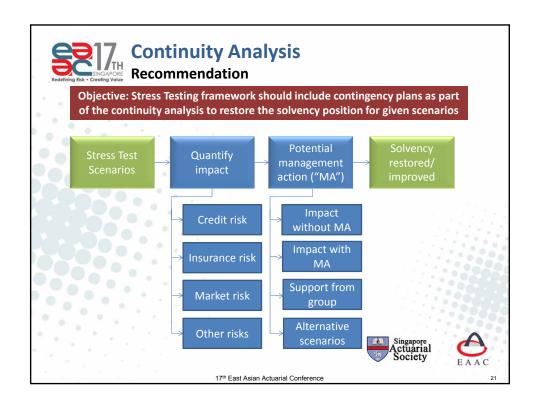


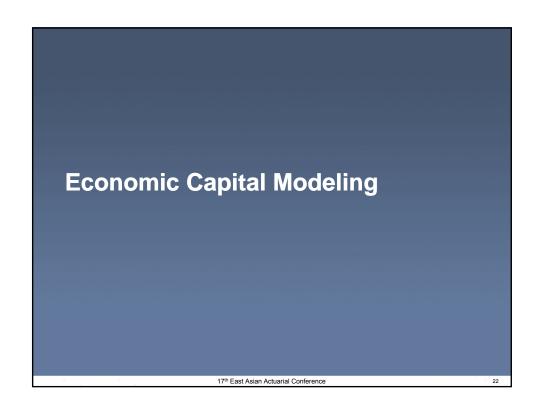














# **Economic Capital**

## Overview - Definition

EC is the surplus needed to maintain a given level of solvency (i.e., cover all potential outgoings including reductions in assets and/or increases in an entity's liabilities) at a given level of risk tolerance over a specified time horizon

### **Economic Capital must have the 3 components:**

- 1. Capital to cover adverse outcomes (e.g., major CAT event)
- 2. With a given level of risk tolerance (e.g., 99.5%)
- 3. Over a specified time horizon (e.g., 1 year)

**Economic Capital Models (ECMs)** are used to simulate the environment in which the insurer is operating and indicate the future levels and volatility of profitability. Best practice models are able to allocate capital across the entity.

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# **Economic Capital**

### Overview - What do we want out of ECM?

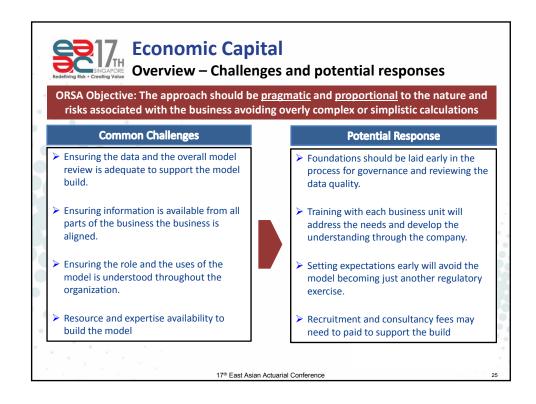
- ECM should be part of the capital management process to provide a way to assess the need for capital to cover the risk assumed
- They should provide a unified way of **communicating about risks** within the entity and with outside stakeholders (e.g., solvency requirements, rating agencies, investors)
- They should set the framework for taking **strategic decisions**, balancing risk and return
- They should allow the optimization of both the asset and liability portfolios by modelling the diversification benefits
- They should make it possible to measure the **economic performance** of the various lines of business

MAS requirements: "To adopt a simplified approach to economic capital calculations, articulated and justified in ORSA report"



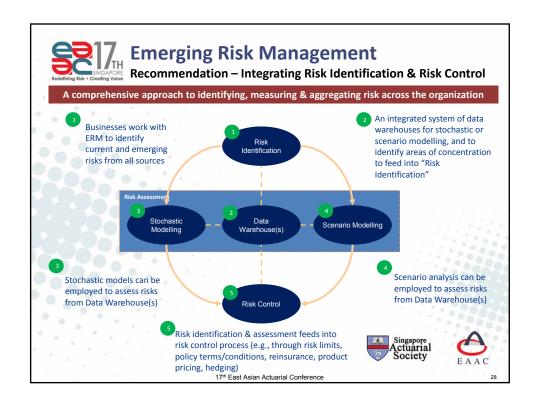
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24

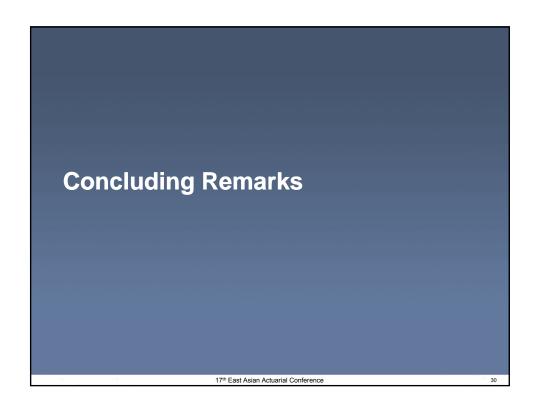


# Emerging Risk Management 17® East Asian Actuarial Conference 26









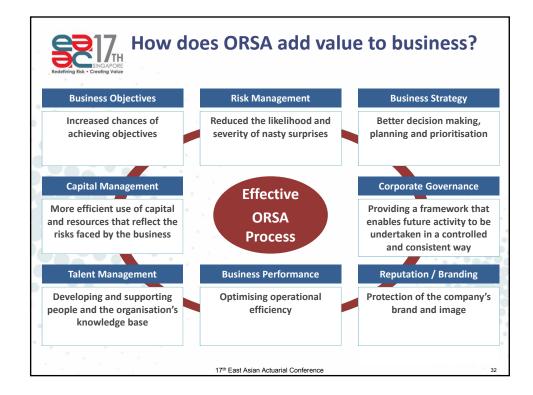


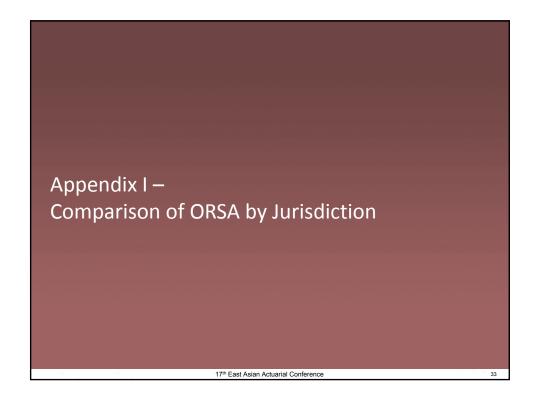
# **ORSA Key Messages**

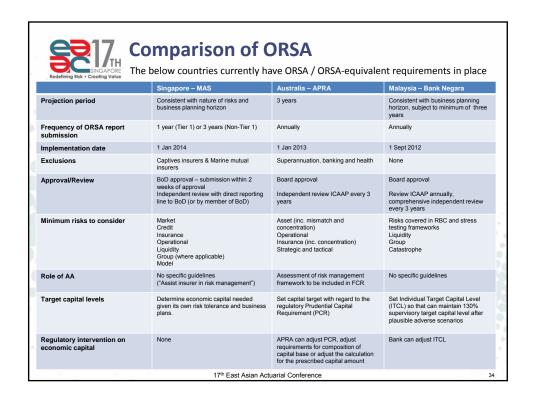
- ORSA involves a holistic approach in reporting and assessing risks
   on the aggregated levels spanning across organisational boundaries
   and silos
- 2. ORSA must add value to business and should not be viewed as merely ticking-the-box reporting exercise
- 3. ORSA requires early planning and careful execution through the engagement process with different level of stakeholders
- 4. Comprehensive training program is required for the key stakeholders to understand the risk profile of the organization via the dynamic ORSA process
- 5. We must be able to produce evidence that we are managing risks effectively via management information reports

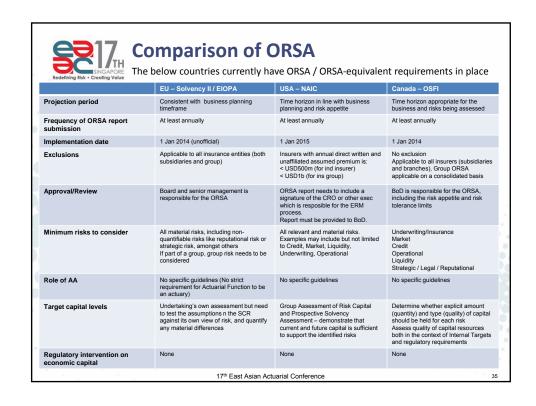


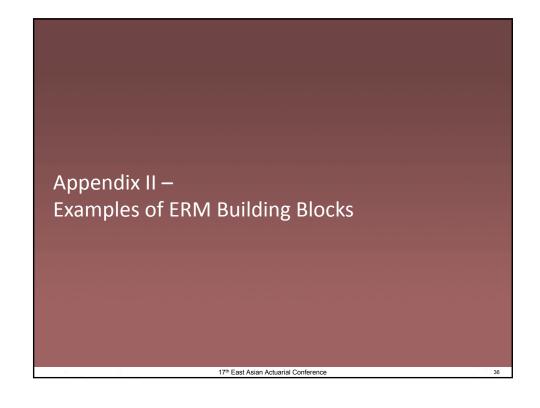


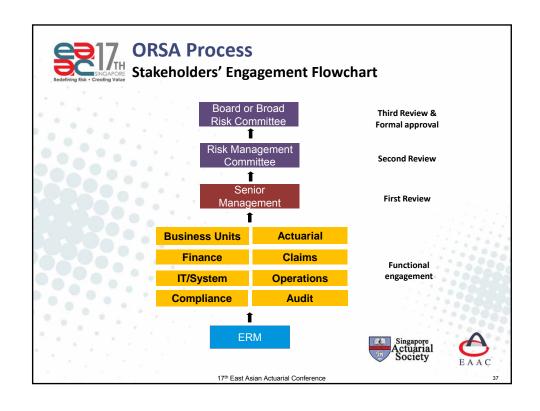


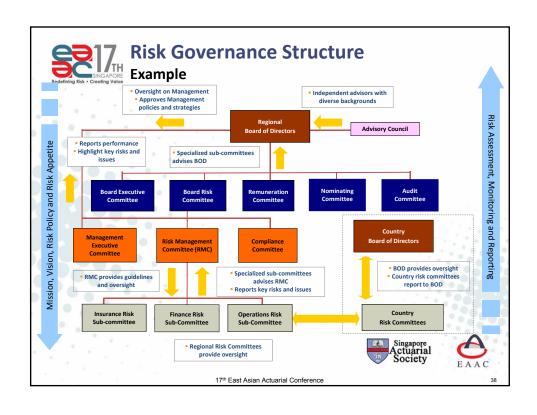


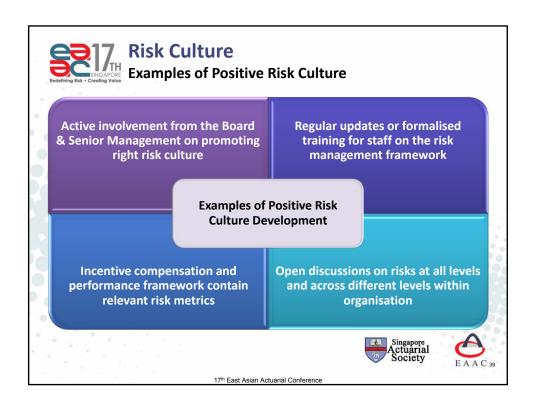


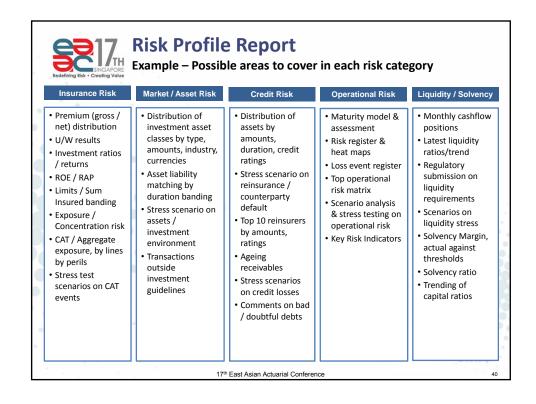


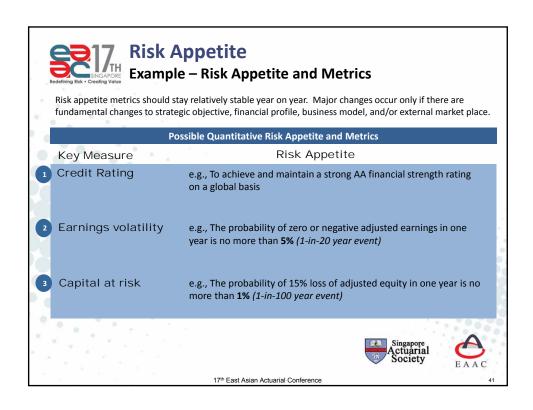


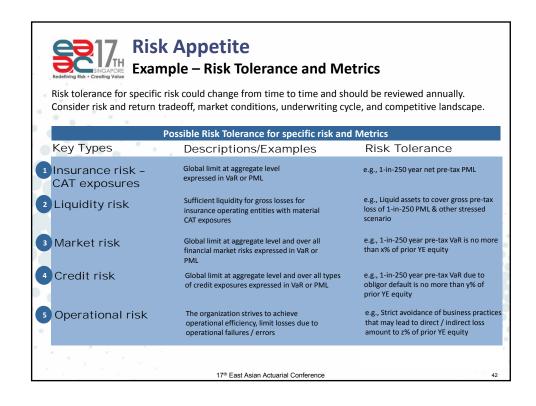


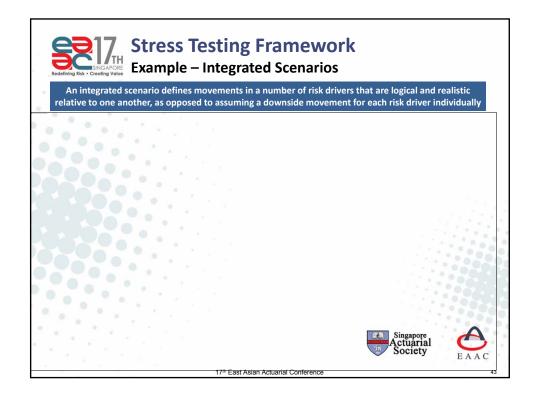














# **Economic Capital**

### **Overview – Common Challenges**

There are a number of challenges facing insurers beginning their build of an economic model

- Laying the foundations: Data frameworks should be established with all limitations known and documented. The governance around the model should be setup to ensure the reviewers are independent and are able to provide sufficient challenge throughout the model build to results production (in particular the judgements made due to limited data). The required uses of the model within the business should also be determined.
- Aligning the business: The information and review of results will need to be provided by all teams and subject matter experts across the whole organisation.
- **Using the model:** The economic capital team will need to demonstrate the usefulness of the model for business decisions to avoid the model becoming another regulatory exercise. Examples include risk adjusted performance measurement and assessing reinsurance effectiveness.
- Resource and expertise availability: Recruitment or consultancy fees may be needed to support the build and development of the model to ensure in line with generally accepted principles. This may be able to be leveraged from overseas resources however familiarity with local limitations (such as data Singapore Actuarial Society quality) should not be taken for granted.





# **Economic Capital**

### Recommendation – Approach considerations

Objective: To ensure capital available is <u>optimized</u> avoiding pressure from regulators if too little is held and pressure from stakeholders if too much is held lowering the return.

- 1. Method (Deterministic/Stochastic/Fair Market Value)
- 2. Discounting (Risk free rate/risk free rate with a premium)
- 3. Risk tolerance (VaR/TVaR...)
- 4. Correlation of risk factors (Matrices/Copula/diversification/aggregation)
- 5. Time horizon (1 year/Ultimate)
- 6. Key risks
  - Market
  - Underwriting
  - Operational
  - Liquidity
  - Credit
  - Group
- 7. Allowance for new business
- 8. Level of confidence (99.5%/other)
- 9. Validation and documentation approach

The approach should be pragmatic and proportional to the nature and risks associated with the business avoiding overly complex or simplistic calculations





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# **Emerging Risk Management**

### Recommendation - Aggregation Brainstorming

Use available tools to help identify emerging risk. This can be carried out through <u>face-to-face</u> <u>interviews</u>, <u>training workshop</u> or in the form of <u>risk survey</u>. One such tool is PEST(ELI) analysis.

- POLITICAL
  - Tax policy, labour law, environmental law, trade restriction, tariffs
  - Political unrest in the region (e.g., North Korea)
- ECONOMIC
  - Includes economic growth, interest rates, exchange rates, inflation rates etc
- Macro factors (e.g., Direct & indirect impact of Europe sovereign debt crisis)
- SOCIAL
  - Trends in cultural aspects, health consciousness, population growth rate, age distribution, education level, career attitude (e.g., ageing population, Gen-Y)
- TECHNOLOGICAL
  - R&D, automation, technology incentives, technological change, innovation, outsourcing needs (e.g., increasing use of internet, aggregators)
- ENVIRONMENTA
  - Ecological and environmental aspects such as weather, climate change, pollution (e.g., increasing flood events, more fault lines leading to earthquake, "green" movements)
- LEGISLATIVE
  - Includes discrimination law, consumer law, antitrust law, employment law, health & safety law etc (e.g., data protection regime, change in benefits, new regulatory law)
- INDUSTR'
  - "Barrier of entry", new competition (e.g., Lloyds, specialist insurers), increasing use of self-insurance (e.g., captives)

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46





