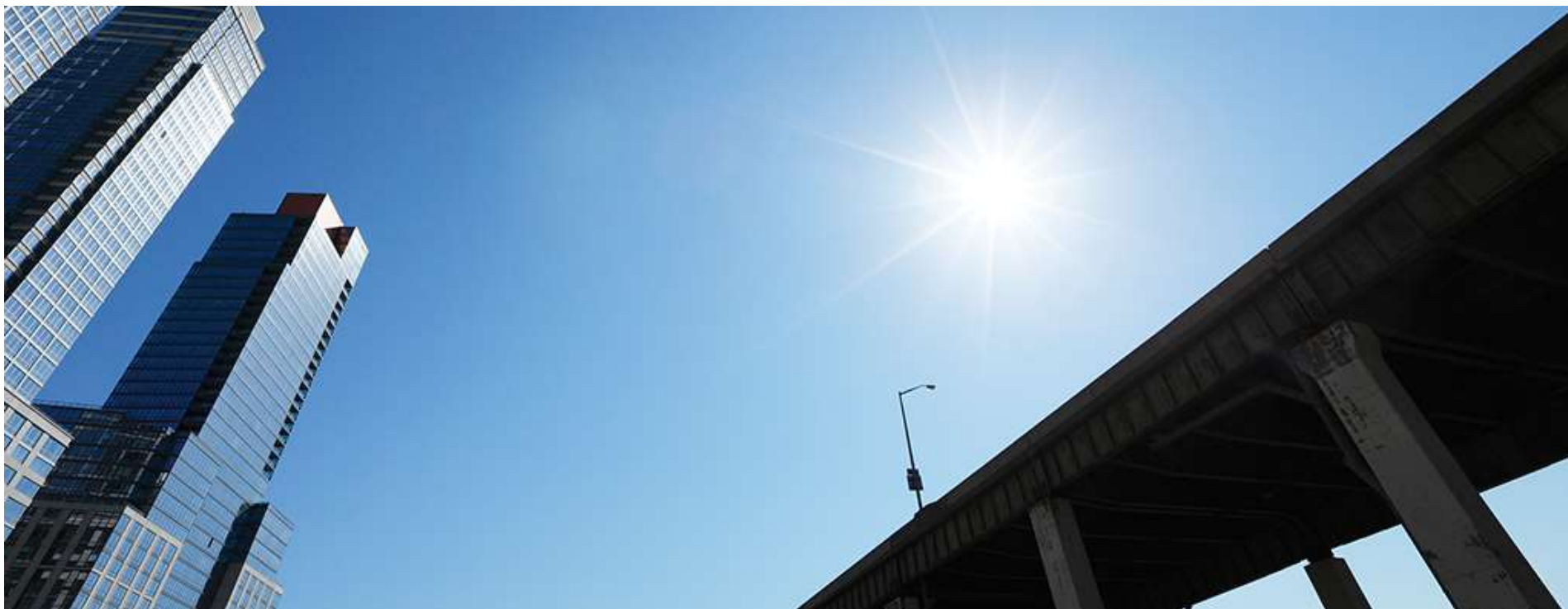




The Approaches to Review of ERM – Regulators vs. Rating Agencies

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Analytics | Rating Agency Advisory
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Agenda

Section 1	Introduction
Section 2	Regulators' Approach
Section 3	Rating Agencies' Approach
Section 4	Observations and Implications



“It is critical to clearly define ERM before delving into any discussion on ERM”.
– Sim Segal

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What is ERM?

ERM - Enterprise Risk Management

- An evolving concept.
- No universally accepted definition
- What ERM means depends on what view is taken.

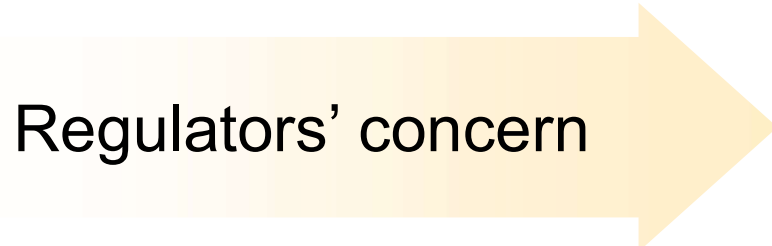
Regulators – Why they care about insurers' risk management?

What do regulators do?

Regulators care about the security of the whole industry
 the solvency of individual insurer

*Our missions are to protect the interests of **policyholders** and to promote the general stability of the insurance **industry**.*
– Hong Kong Office of the Commissioner of Insurance

Regulators' concern



Prevent Insolvency

- ☒ Financial costs
- ☒ Political costs

Information from different insurance regulators, and from Aon Benfield Analytics

Rating Agencies – How does risk management help the rating analysis?

ERM is an important factor in the rating analysis.

What do rating agencies do?

An opinion on the insurer's capability to meet obligation to **policyholders** on ongoing basis

They assign financial strength ratings to insurers.

Quantitative data
&
Qualitative Information

Ability to
Manage Risk

Future performance
&
Financial projections

Information from various rating agencies, and from Aon Benfield Analytics



Review of ERM – Regulators' Approach

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IAIS and Solvency II

Regulatory ERM requirements of many countries are

- driven by  IAIS set Insurance Core Principles (ICP)
 - ✓ ICP 16 – Enterprise Risk Management

- and influenced by

Solvency II

PILLAR 1	PILLAR 2	PILLAR 3
Quantitative Requirements and how to calculate them	Qualitative Requirements – Risk Management & Supervision	Requirements for supervisory reporting and disclosure of information

Information from IAIS, from Aon Benfield Analytics

IAIS ICP 16 – Enterprise Risk Management for Solvency Purpose

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

Enterprise risk management framework

- Risk identification and measurement
- Documentation
- Risk management policy
- Risk tolerance statement
- Risk responsiveness and feedback loop

Own risk and solvency assessment (ORSA)

- Economic and regulatory capital
- Continuity analysis

Role of supervision in risk management

Information from IAIS, from Aon Benfield Analytics

Detail of Solvency II Pillar 2 requirements – ORSA

- 1 ORSA – compulsory for every insurer & compulsory minimum elements
- 2 ORSA – tailored to each insurer's own situation and business profile
- 3 ORSA - internal model & Solvency Capital Requirement
- 4 ORSA – incorporation in business & decision-making process
- 5 ORSA – to be performed regularly
- 6 ORSA – compulsory regulatory reporting

Information from IAIS, from Aon Benfield Analytics

ORSA vs. ERM

ERM

Enterprise Risk
Management

Versus

ORSA

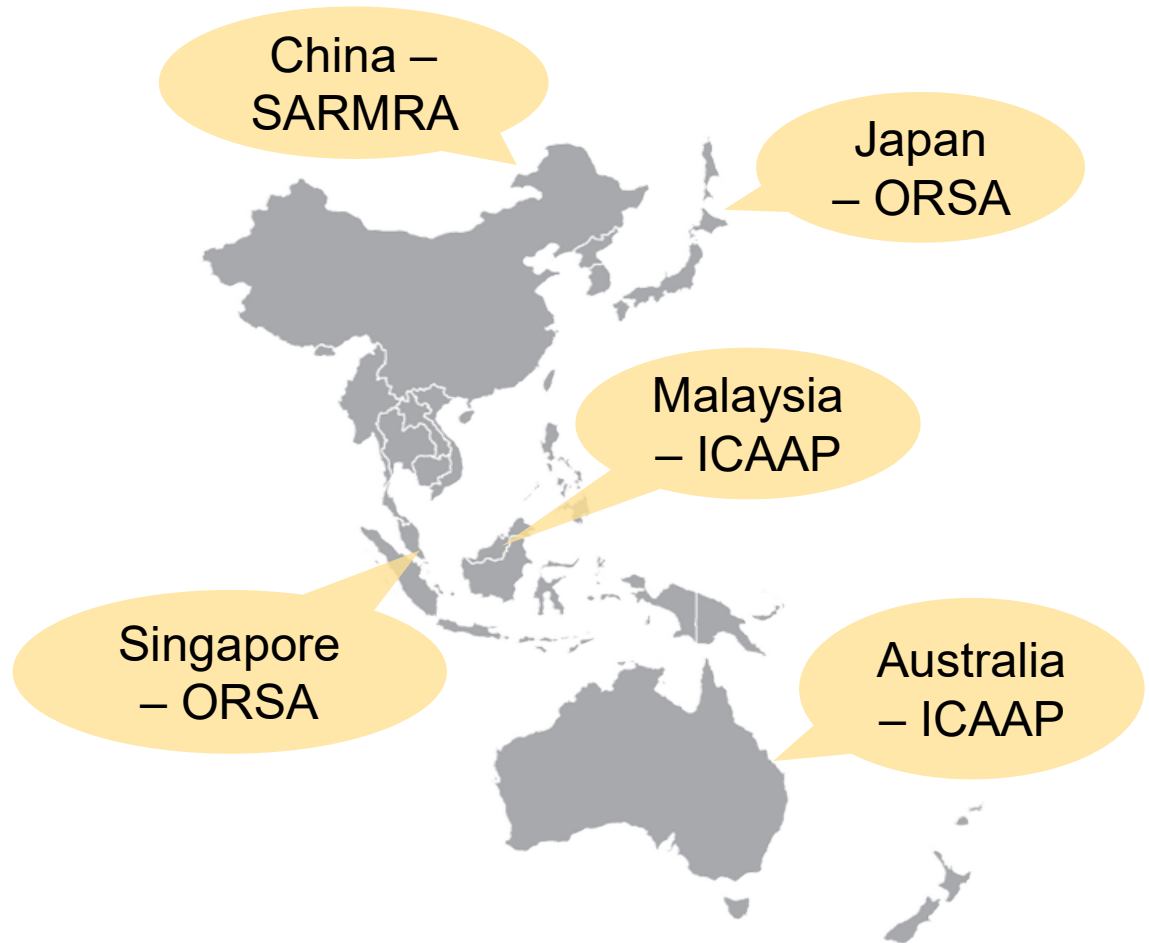
Own Risk and Solvency
Assessment

- Objective
- Practice
- Scope
- Others

Information from various APAC insurance regulators, from Aon Benfield Analytics

Various versions of ORSA

- Australia – ICAAP
- Singapore – ORSA
- Japan – ORSA
- Malaysia – ICAAP
- China – SARMRA
- Others



Information from various APAC insurance regulators, from Aon Benfield Analytics

Japan – Regulatory ERM Assessment Viewpoints

ERM assessment main category	Overview	Sub-category
Risk Culture & Risk Governance	Examine to what extent a risk-based management approach focusing on the risk-return balance of insurance products, etc., rather than a sales-focused approach, is entrenched in insurance companies among the management and employees.	ERM's position in management strategies, the management's awareness, development of risk culture
		ERM organization & system
		Development of risk management policies
		Setting, disseminating & entrenching risk appetite framework
		Audit system
Risk Control & Capital Adequacy	Examine the system where financial soundness, at the core of business management, is ensured through the management of risk tolerance level/risk limit.	Ensuring company-wide (group-wide) financial soundness
		Ensuring financial soundness for each risk category and business line
		Status of stress testing
Risk Profile & Risk Measurement	Examine risk quantification methodologies and approaches to capture unquantifiable risks that support ERM.	Risk identification & analysis, appropriateness of targets
		Risk quantification and aggregation methodologies
		Measures against unquantifiable risks, such as liquidity risk
		Measures against emerging risks
		Model governance system
Application to Business Management	Examine whether insurance companies operate sound and profitable businesses through ERM, such as capital allocation, etc., and through risk-return analyses of insurance products.	Confirmation as to mid- to long-term capital adequacy, incorporation of ERM in setting management plans and target ROEs
		Implementation of the capital allocation program, etc.
		Establishment of profitability indices and evaluation of performance thereof
		Application to product development, premium rating, business decisions, etc.

Japan – Regulatory ERM Assessment Levels

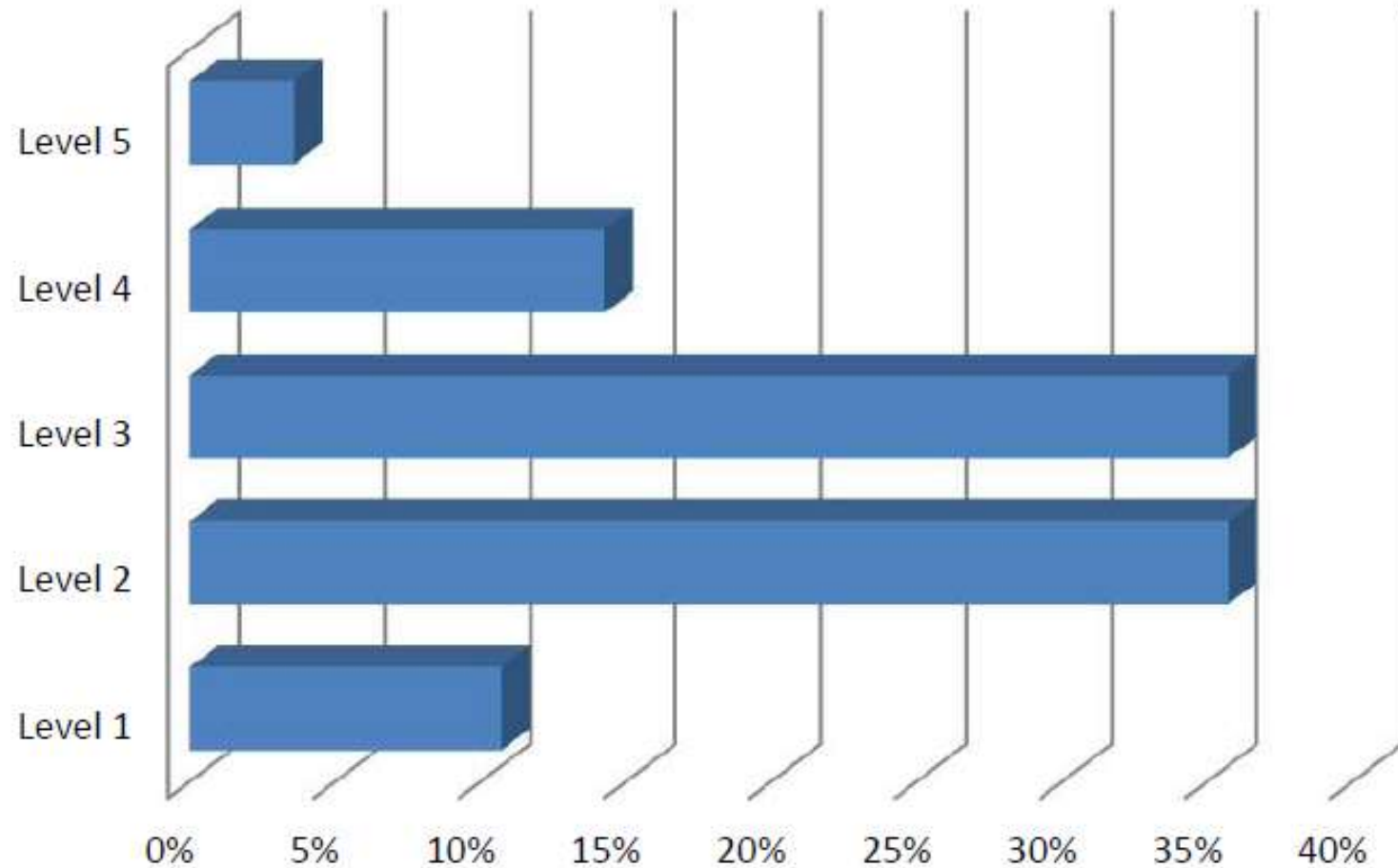
ERM Assessment Levels Overview

Assessment level	Financial soundness	Profitability
Level 5	The amount of capital is well above the amount of risk taken, and a robust system is in place to ensure financial soundness.	An advanced approach to enhance profitability while ensuring financial soundness is entrenched in the organization.
Level 4	The amount of capital is well above the amount of risk taken, and a system is in place to ensure financial soundness, but not considered robust; or A system is in place to ensure financial soundness, and financial soundness is maintained to some extent, but not considered sufficient.	An advanced approach is implemented to enhance profitability while maintaining financial soundness.
Level 3	Financial soundness is maintained to some extent, and a system is in place to ensure financial soundness.	An advanced approach to enhance profitability, while ensuring financial soundness, is under consideration.
Level 2	While maintaining financial soundness to some extent, the system ensuring financial soundness is weak; or While there are some problems as to financial soundness, a system for ensuring financial soundness exists.	Measures to enhance profitability while maintaining financial soundness are recognized as a challenge for the future.
Level 1	There are problems as to financial soundness, and the existing system to ensure financial soundness is weak.	No recognition of the issue.

Comprehensive assessment of financial soundness & profitability

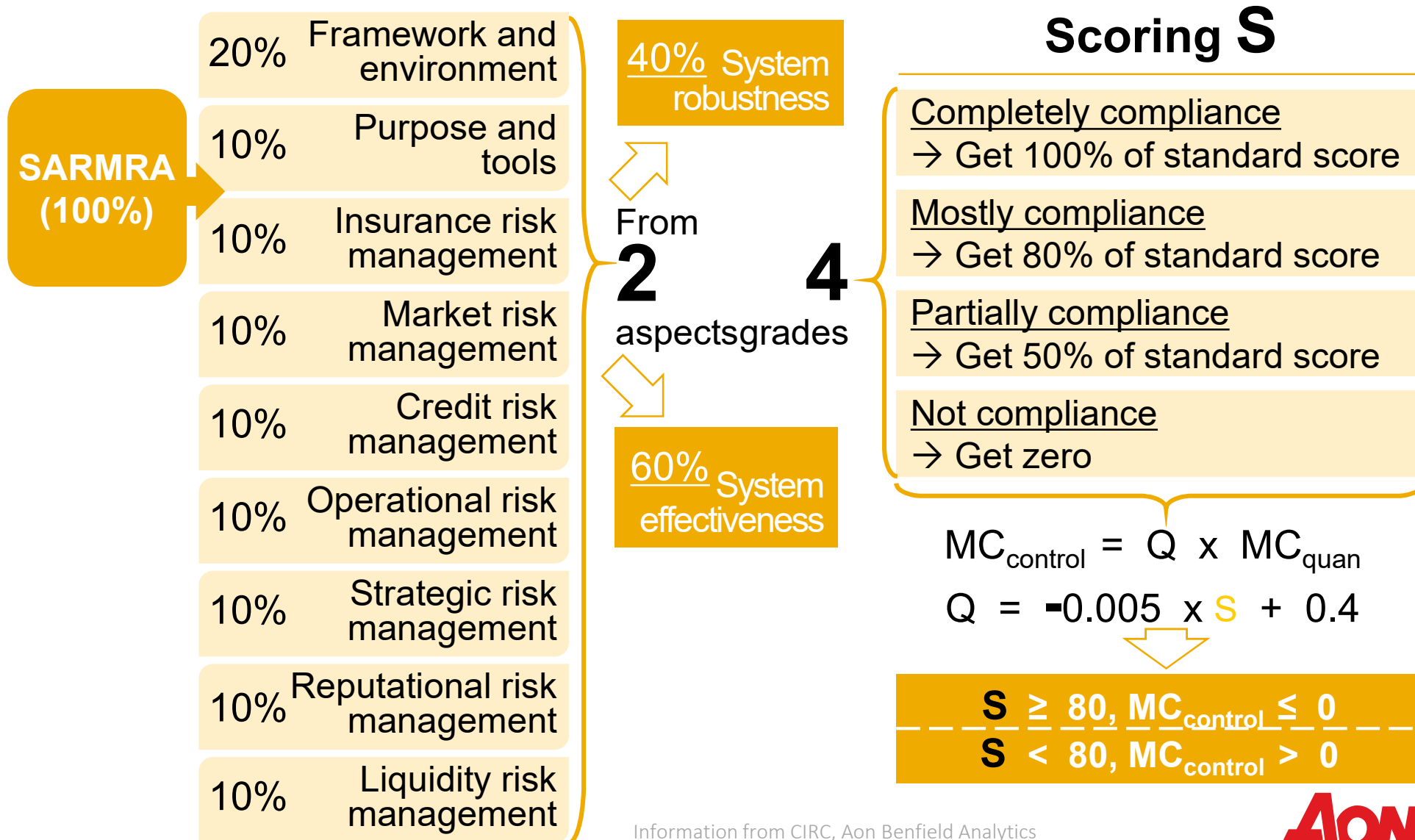
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Japan – Distribution of Regulatory ERM Assessment Levels (for 2015)

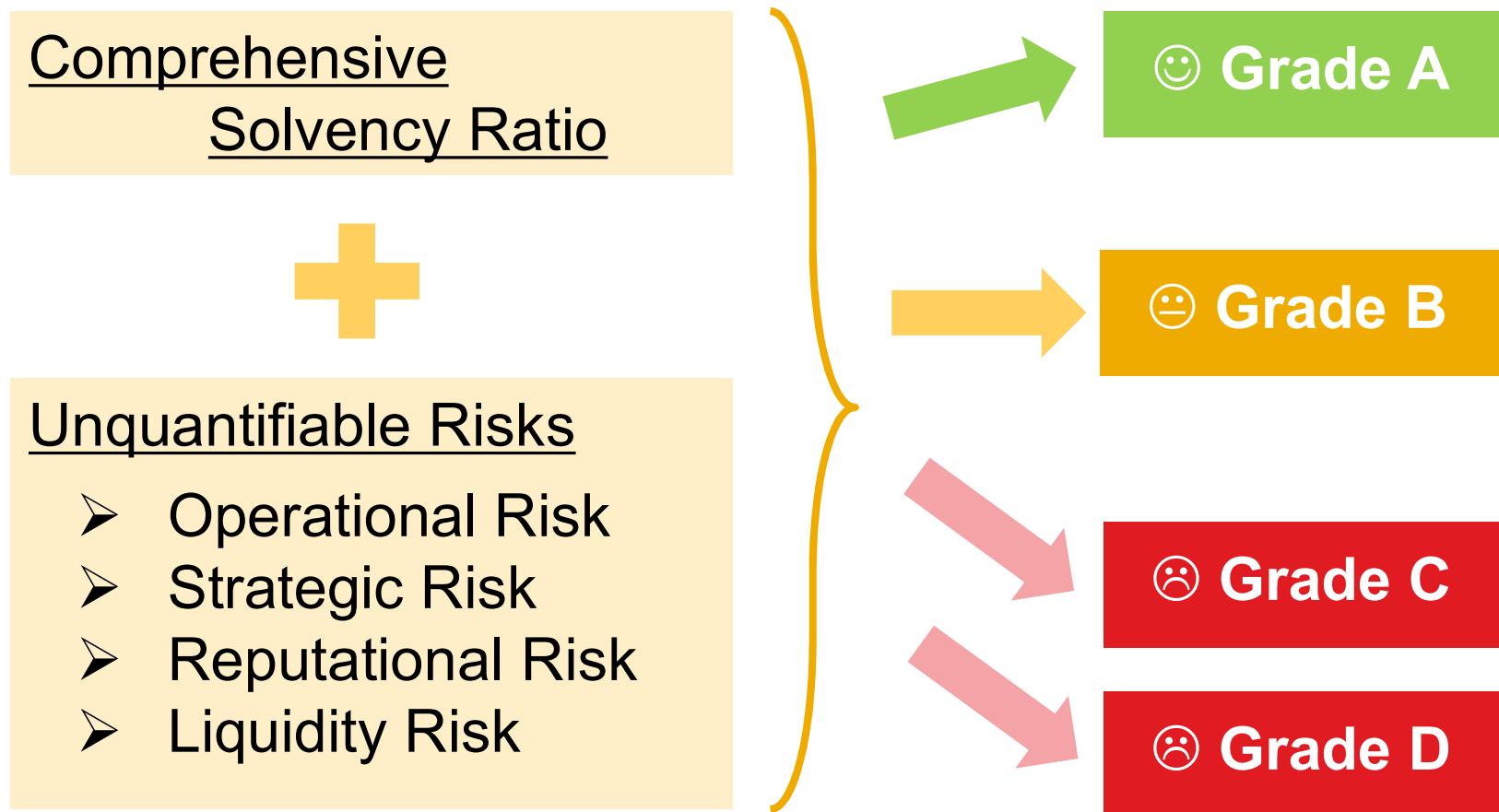


Information from Japan FSA website

China - SARMRA



China – Comprehensive Assessment of Risk Grading



Information from CIRC, Aon Benfield Analytics



Review of ERM – Rating Agencies' Approach

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Section 2	Regulators' Approach
Section 3	Rating Agencies' Approach
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Standard & Poor's Approach to Evaluating Insurer's ERM

Important driver of insurance ERM

In 2005, ERM was added as an additional distinct rating category for insurers' credit ratings.

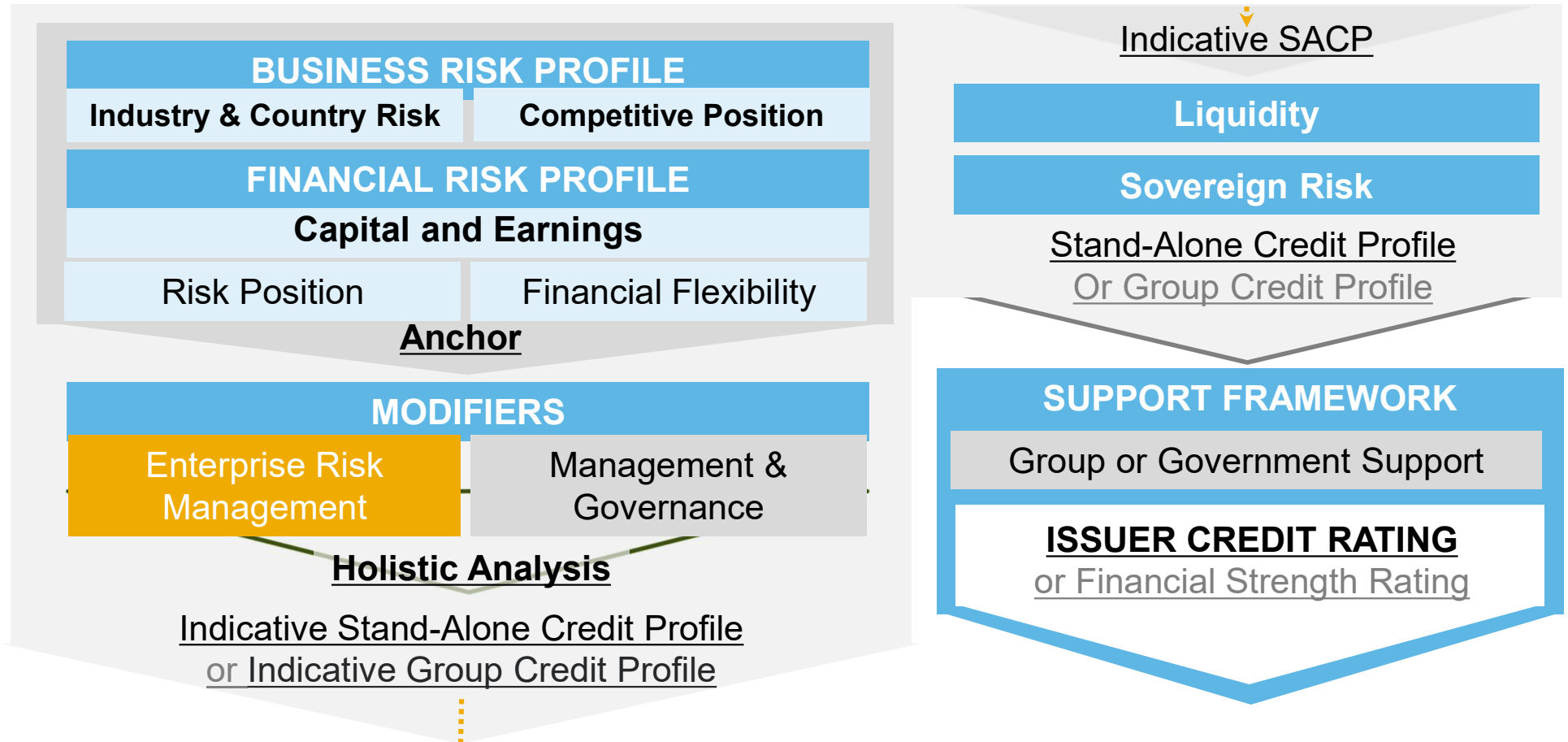
S&P's ERM analysis is

- tailored to each insurer's risk profile;
- an adjustment item to the final rating decision;
- decided to the specific insurer being assessed.

Information from Standard & Poor's, and from Aon Benfield Analytics

S&P's approach

- ERM is used as modifier in the process to generate the insurer's final rating.



Information from Standard & Poor's, and from Aon Benfield Analytics

S&P's approach – ERM as modifier

Anchor	ERM and Management Assessment				
	Very Strong	Strong	Adequate	Less than adequate	Weak*
aa+	aa+	aa+	aa-	a	bbb
aa	aa	aa	aa-	a	bbb
aa-	aa-	aa-	a+	a	bbb
a+	a+	a+	a+	a-	bbb-
a	a+	a	a	a-	bbb-
a-	a	a-	a-	bbb+	bbb-
bbb+	a-	bbb+	bbb+	bbb	bb+
bbb	bbb+	bbb	bbb	bbb-	bb+
bbb-	bbb	bbb-	bbb-	bb+	bb
bb+	bbb-	bb+	bb+	bb	bb-
bb	bb+	bb	bb	bb-	b+
bb-	bb	bb-	bb-	b+	b
b+	bb-	b+	b+	b	b-
b	b+	b	b	b-	b-
b-	b	b-	b-	b-	b-

Note: SACP--Stand-alone credit profile.

*Additionally, the outcome is no higher than 'bb' if both the ERM and management assessments are assessed in the weakest category, or if either is assessed as potentially harmful to the insurer's overall risk profile.

S&P's approach

- S&P's ERM analysis Focuses on five main areas



Information from Standard & Poor's, and from Aon Benfield Analytics

S&P's approach

➤ Determining An Insurer's Enterprise Risk Management Score

Sub-factor		Positive	Neutral	Negative
<div> Risk management culture <div>Risk controls</div> Emerging risk management Risk models Strategic risk mana </div>		<i>Evidences with respect to different performances of ERM sub-factors.</i>		
Sub-factor		Positive	Neutral	Negative
Risk Controls				

Information from Standard & Poor's, and from Aon Benfield Analytics

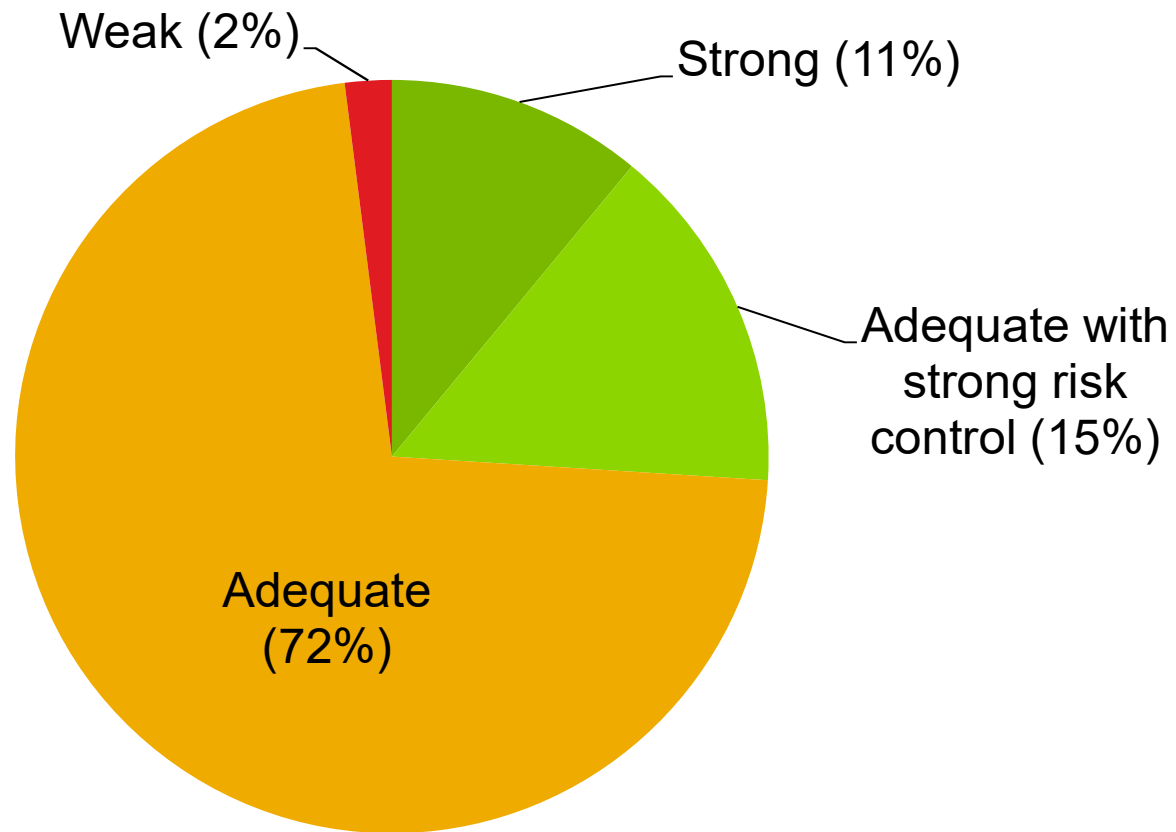
S&P's approach

<u>Sub-factor</u>	Positive	Neutral	Negative
Risk Controls			

Score	Guideline
Positive	Risk controls of materials risks are predominantly scored positive; no risk controls of an individual risk is scored negative
Neutral	All other combinations
Negative	One or more risk controls of material risks is scored negative

Information from Standard & Poor's, and from Aon Benfield Analytics

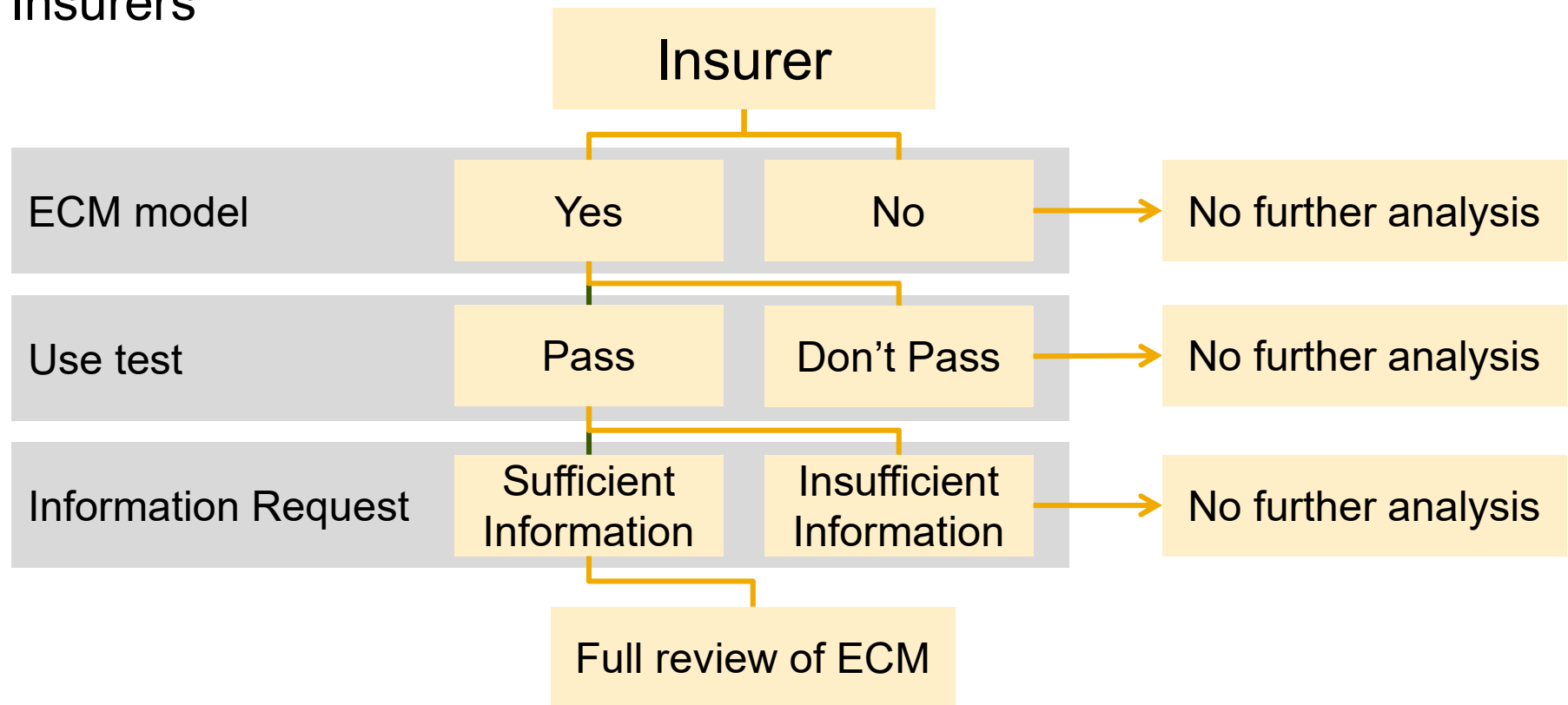
S&P's ERM rating distribution of APAC insurers (July 2013)



Information from Standard & Poor's

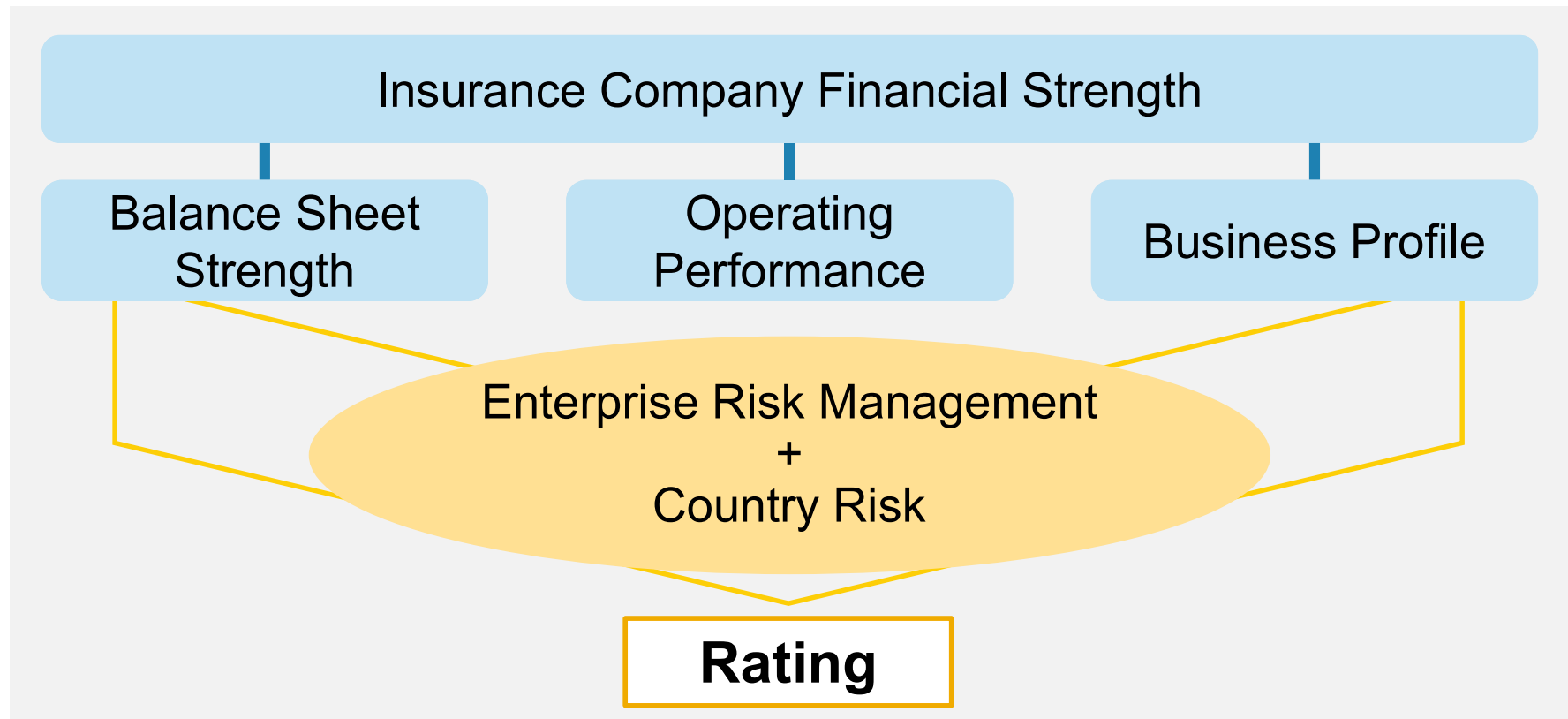
S&P's approach – a New Level of Enterprise Risk Management Analysis

S&P's Decision Tree for the Extent of ERM Level III Reviews for Insurers



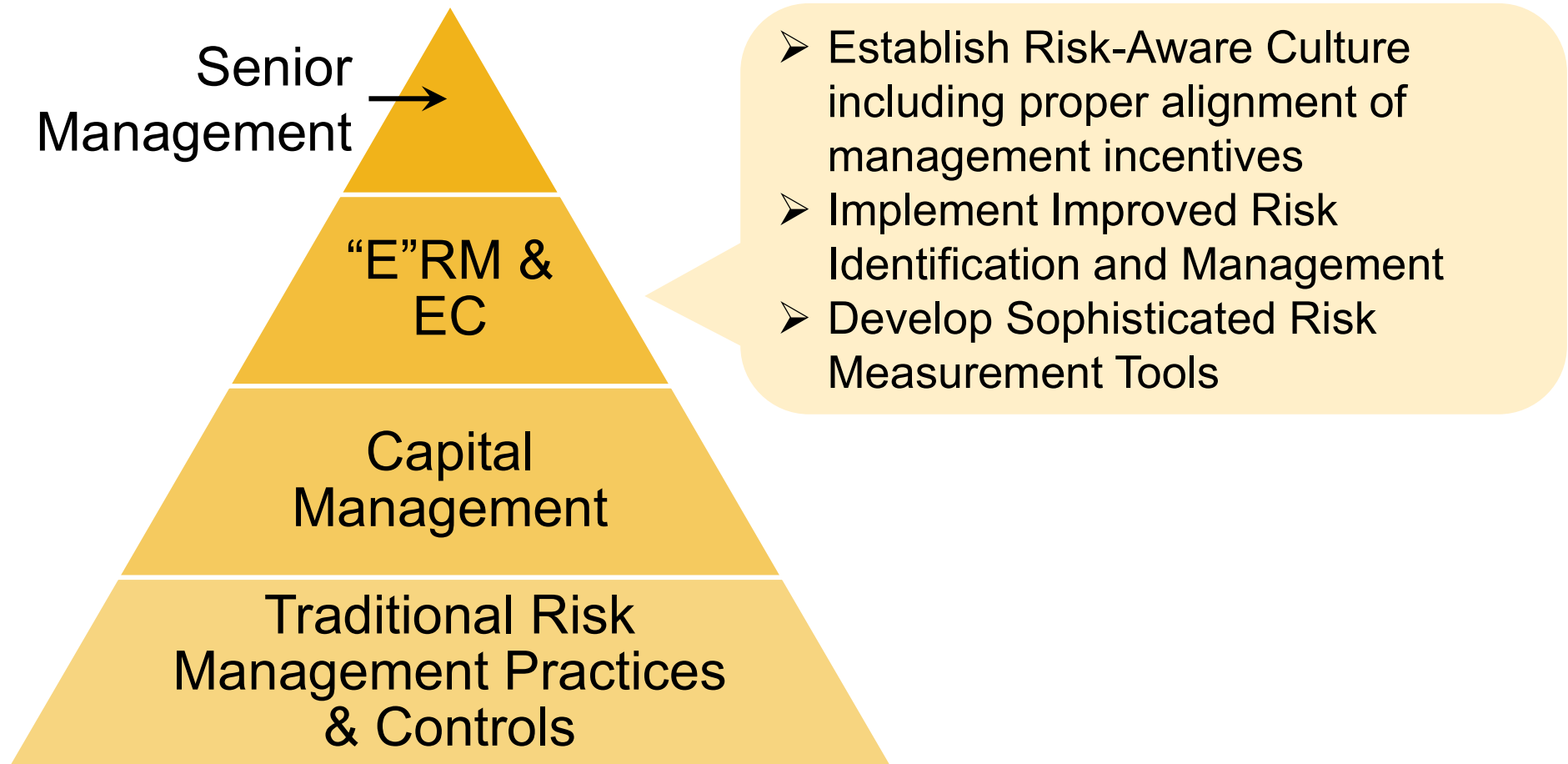
Information from Standard & Poor's, and from Aon Benfield Analytics

A.M. Best – Current approach towards evaluation of ERM



Information A.M. Best, and from Aon Benfield Analytics

A.M. Best – ERM methodology



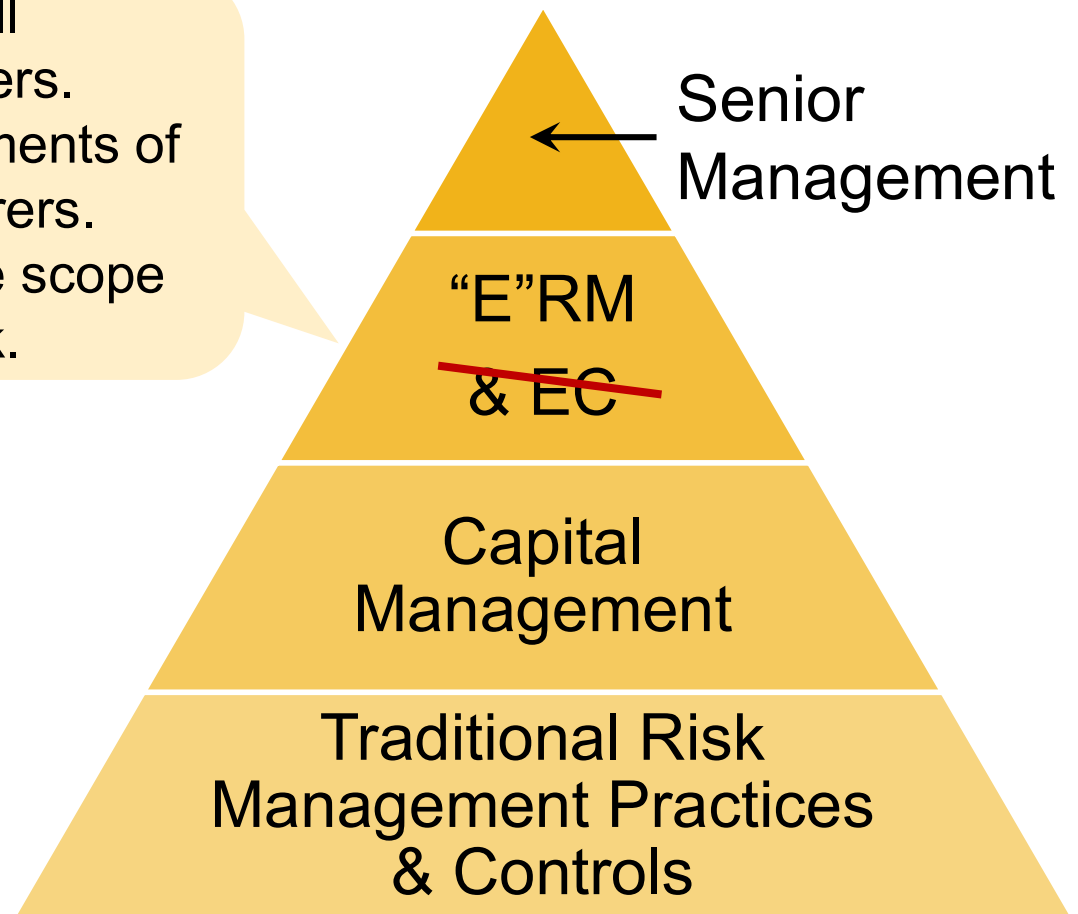
Information A.M. Best

A.M. Best – ERM methodology: difference on EC

- Traditional framework is still appropriate for many insurers.
- Incorporating selected elements of ERM is prudent for all insurers.
- However, EC is beyond the scope of the traditional framework.

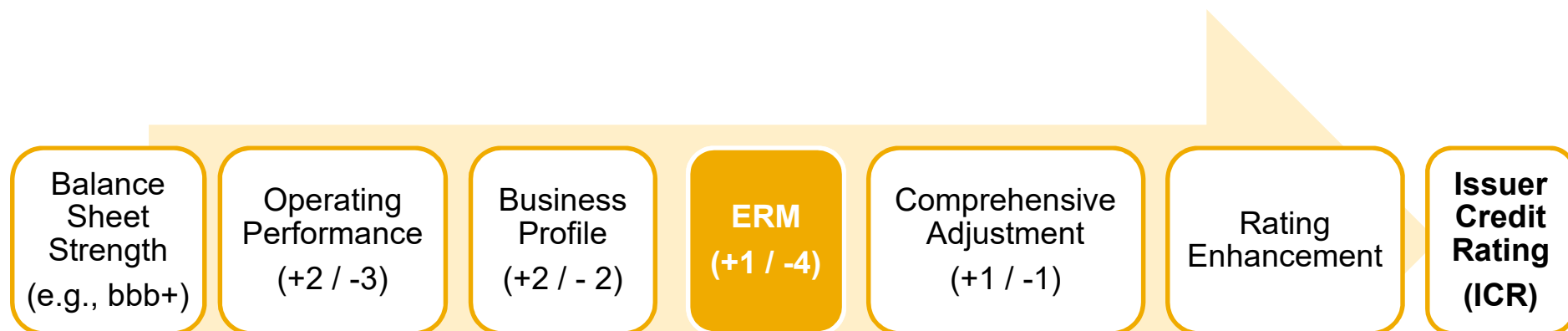
5 types of Traditional Risks

- ① Credit Risk
- ② Market Risk
- ③ Underwriting Risk
- ④ Operational Risk
- ⑤ Strategic Risk



Information A.M. Best

The proposed change to BCRM



ICR	FSR
aaa / aa+	A++
aa / aa-	A+
a+ / a	A
a-	A-
bbb+ / bbb	B++
bbb-	B+

Information A.M. Best, and from Aon Benfield Analytics

New BCRM – ERM (+1 to -4)

Analysts use a Risk Impact Worksheet in the ERM assessment process and measures capabilities in:

- product/underwriting
- reserving
- concentration
- reinsurance
- financial flexibility
- investments
- legislative / regulatory / judicial / economic
- management
- operational
- risk appetite / stress testing

Assessment	Notches
Very Strong	+1
Adequate	0
Weak	-1 to -2
Very Weak	-3 to -4

Information A.M. Best, and from Aon Benfield Analytics



Observations, Trends, and Implications

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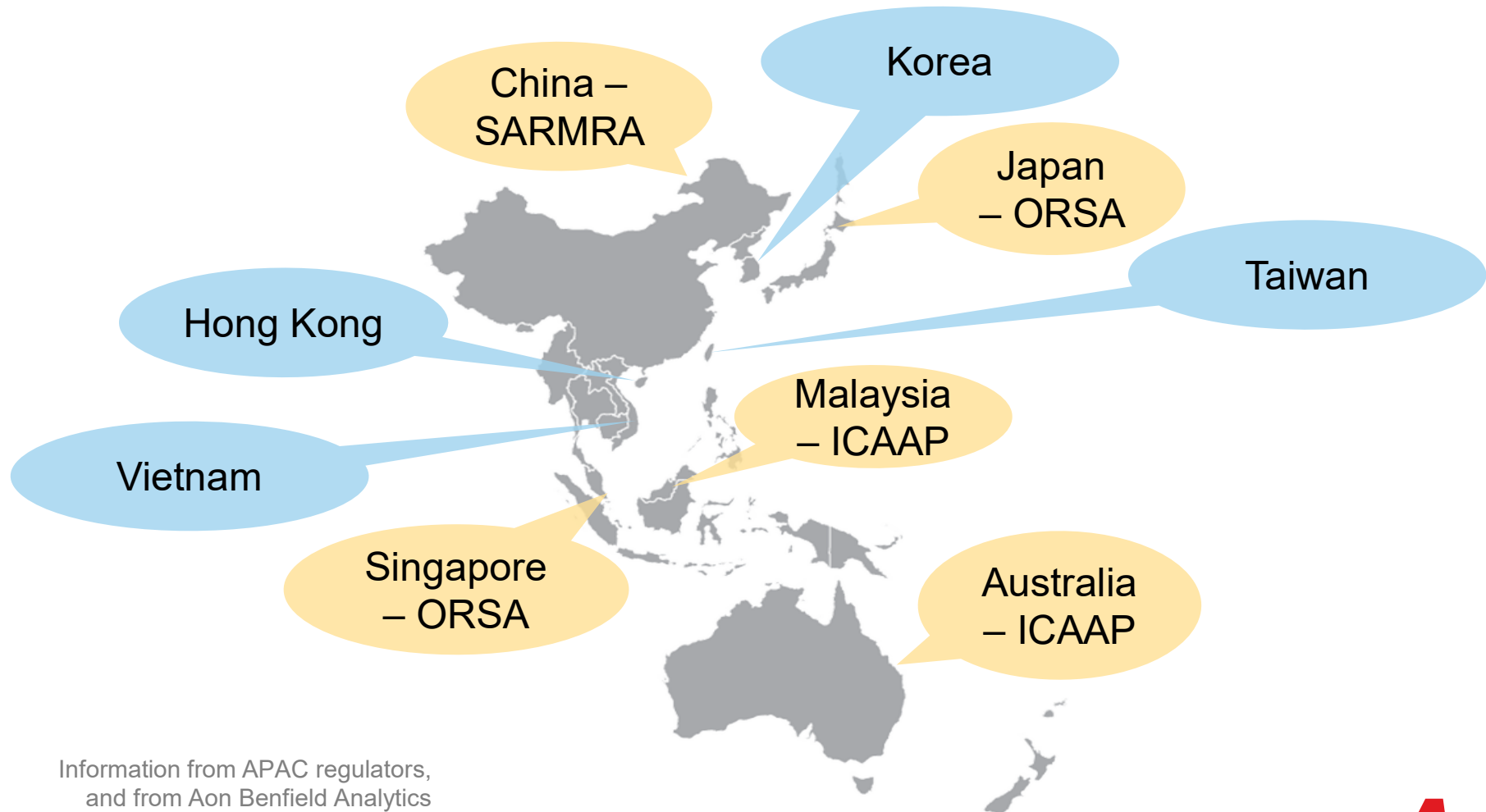
Regulators and Rating Agencies

- Not “one size fits all”
 - Regulatory ORSA is flexible, with the focus on “Own” risk and solvency assessment.
 - Rating agency ERM – benchmarked among global peers, with unified, universal and clear standards, yet modified according to company’s own risk profile.
- Forward-Looking
 - Regulators focus on prevention of insolvency.
 - Rating agencies care about rating stability. ERM is used as a modifier of entire rating assessment.
- Serve the decision-making process

To those rated insurers, the approaches to review of ERM by regulators and by rating agencies do not have major disconnections – a good foundation of ERM structure could satisfy needs of different stakeholders.

APAC insurance regulators

– in early stage of ERM, but developing



Rating Agencies' Development

Rating agencies are also continuously reviewing and updating their ERM analysis. Below is a recent example:

Sample A.M. Best inquiries on company's cyber risk management

- | | |
|---|--|
| 1. Has your company been a target of data breach or cyber attack? | 8. During the past five years, how much have you invested in upgrading hardware and software systems? |
| 2. If yes, how many times and how quickly were they identified? | 9. How much of such investment was specifically dedicated to preventive measures on cyber attacks and data breaches? |
| 3. What remedial measures were taken? | 10. How much are you planning to invest during the next two years? |
| 4. Where does the responsibility to manage cyber security reside? | 11. If you use TPA's, cloud, shared devices, storage or otherwise, how are you managing their risks? |
| 5. What internal and external controls, and policies and procedures do you have in place to manage a data breach or cyber attack? | 12. Briefly describe your efforts to ensure up to date "best practices" and latest preventive methods are used. |
| 6. How often do you conduct penetration testing? | 13. Do you buy cyber security insurance for your company? |
| 7. How often do the company's cyber security professionals receive training? | 14. If yes, what are the policy limits and what is covered and excluded under such policy? |

Information from A.M. Best, and from Aon Benfield Analytics

Regulators and Rating Agencies

- So far not all regulators have implemented ERM requirement, but no doubt regulators could be the most powerful driver.
- Meanwhile, rating agencies could have a very useful supplemental role.
- In many cases, regulators can learn from rating agencies when setting standards for local insurers.
- Rating agencies and regulators have similar roles in terms of setting industry standards for ERM
- As an insurer,
 - 1) Comply with regulatory requirements
 - 2) Refer to rating agencies' methodology as beneficial supplement.



Thank you!

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