

Biennial Convention 2007

Adventures in Risk

23-26 September 2007 • Christchurch, New Zealand



Institute of Actuaries of Australia



Risk Appetite: Practical Issues for the Global Financial Services Industry

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Agenda

- Definitions
- International observations
- Practical issues
- Moving forward
- Discussion



Definitions – Risk Appetite

- Definitions:

The level of aggregate risk that a company can undertake and successfully manage over an extended period of time.

A company's ability and/or willingness to absorb declines in the value of an asset, liability, trade, transaction, or portfolio.

The broad-based amount of risk a company or other entity is willing to accept in pursuit of its mission or vision.

Source: *Risk Management Terms*, Kamiya et al, University of Wisconsin-Madison

- Common themes:
 - Appropriate amount of risk
 - Enhancement of value
 - Over a given timeframe



Definitions – Risk Appetite

- Define in terms of risk only or risk-return trade off
- Measure relative to:
 - regulatory capital
 - economic capital
 - rating thresholds
 - earnings
- Can be quantitative or qualitative



Definitions – Risk Appetite

Quantitative Examples

- Economic capital and probability of ruin: require that capital is sufficient to absorb a loss of a certain magnitude, for example a 1 in 250 year event.
- Earnings volatility: avoid losing more than a defined percentage or multiple of annual earnings in a year.

Qualitative Examples

- Ratings: avoid a slip below a desired rating floor.
- Risk preferences: define certain risks that an insurer does not want to accept, such as not underwriting risks in catastrophe-prone regions.



Definitions – Risk Tolerance

- Definitions:

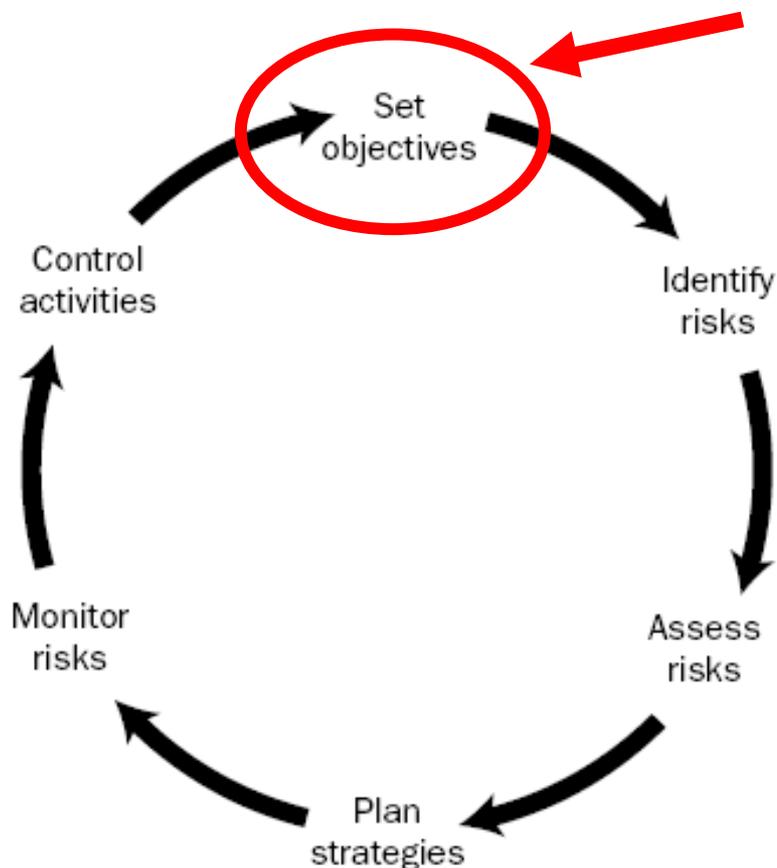
Risk appetite is a high-level view of the risks the insurer is willing to accept in pursuit of value. Risk tolerance is the acceptable level of variation around profit targets, aligned with the risk appetite. (Wason, 2006)

Risk tolerance is the acceptable variation relative to the achievement of objectives. (Kamiya et al, 2007)

- Break down high-level risk appetite into measures that are actionable at the business unit level
- Establishing boundaries for risk taking activities promotes a risk-aware culture



Definitions – Interaction with ERM



- Key guiding document for ERM program
- Senior Mgmt and Board arrive at risk appetite and risk tolerances during objective setting phase
- Integrated into subsequent phases and business mgmt decision-making process



Definitions – Interactions with ERM

- According to a recent Deloitte survey, two-thirds of institutions with an ERM program have formal, enterprise-level statements of risk appetite that are Board approved
- Financial services organisations tend to have more sophisticated risk appetite statements than other industries
 - Regulated industry
 - In-house resources



International Observations

	EU	UK	US
Regulatory pressures	<ul style="list-style-type: none"> • Basel II • Solvency II 	<ul style="list-style-type: none"> • Basel II • FSA – ICA • Solvency II 	<ul style="list-style-type: none"> • NAIC - RBC • Sarbanes-Oxley
Market pressures	<ul style="list-style-type: none"> • Shareholder expectations • Rating agencies 	<ul style="list-style-type: none"> • Shareholder expectations • Rating agencies 	<ul style="list-style-type: none"> • Shareholder expectations • Rating agencies



International Observations

	Australia
Regulatory pressures	<ul style="list-style-type: none">• Basel II influence on ADIs, flow-on effects to insurers• Risk Management prudential standards• Risk Management commentary in FCR• Solvency II influence
Market pressures	<ul style="list-style-type: none">• Shareholder expectations• Rating agencies• Overseas parent and global competitive pressures



Practical Issues - External

Policyholders

- Obligations met

Management & employees

- Profitability and growth
- Achieve strategic goals
- Protect reputation

Shareholders & rating agencies

- Reasonable return
- Stable earnings

Regulators

- Obligations met
- Stable financial environment



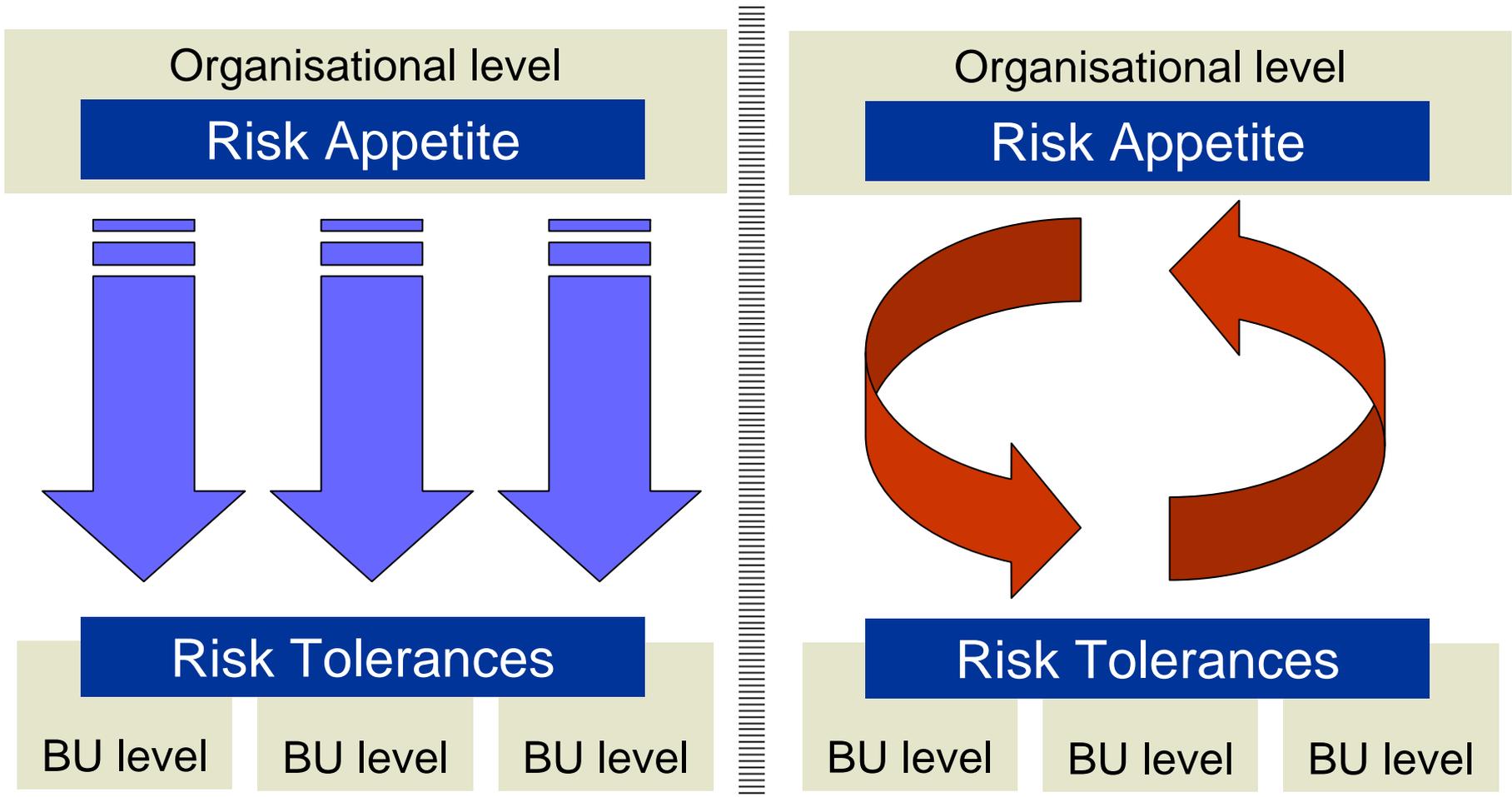
Practical Issues - Internal

Financial risks often easier to measure than non-financial risks

APRA Material Risks	
General Insurance	Life Insurance
Balance Sheet & Market Credit Operational Insurance Reinsurance Concentration Strategic	Asset & Liability Management Operational Insurance (incl Reinsurance) Strategic



Practical Issues – Internal



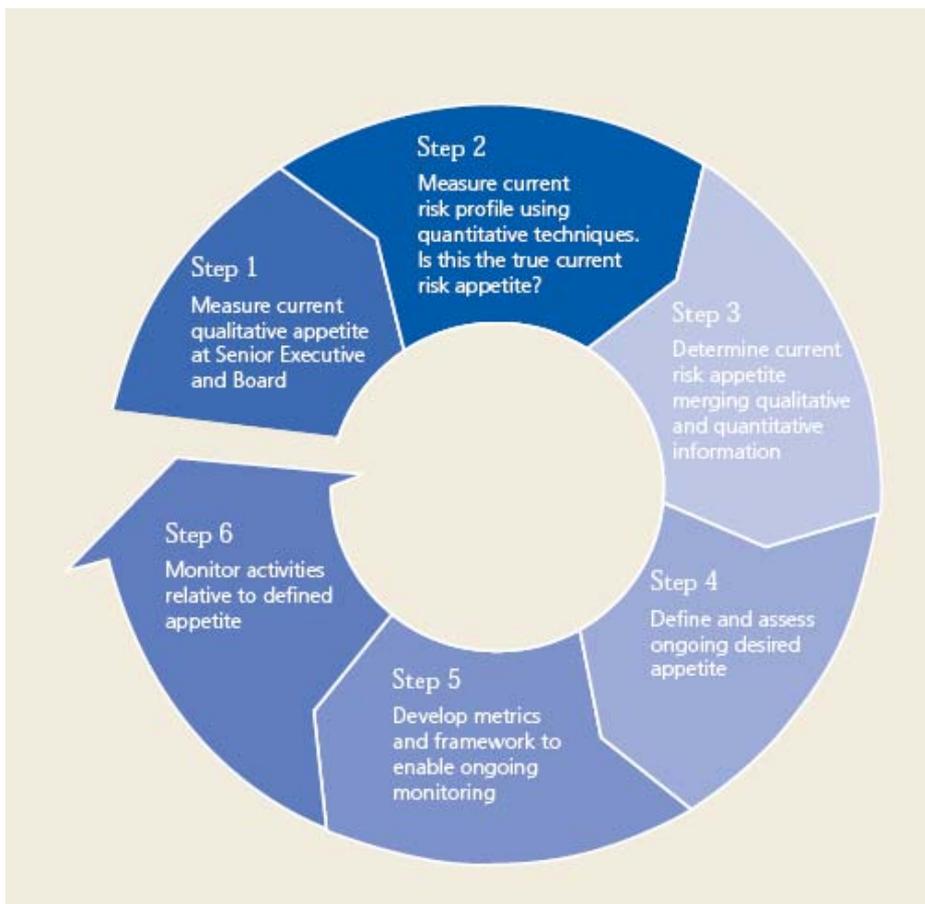


Practical Issues - Modelling

- Capital centric measures may not be as useful for certain risks
- Availability of data
- Change in risks over time
- Complexity
- Concentration of risks
- Ability to explain to users of results



Moving Forward - Implementation



- Sample road map for implementation
- Need to ensure meets the concerns of regulators and possibly rating agencies
- Key challenges often combination of risk measures and translation to business unit level



Moving Forward - Learnings

Capital-centric approach does not necessarily result in the optimal level of risk that maximises shareholder value

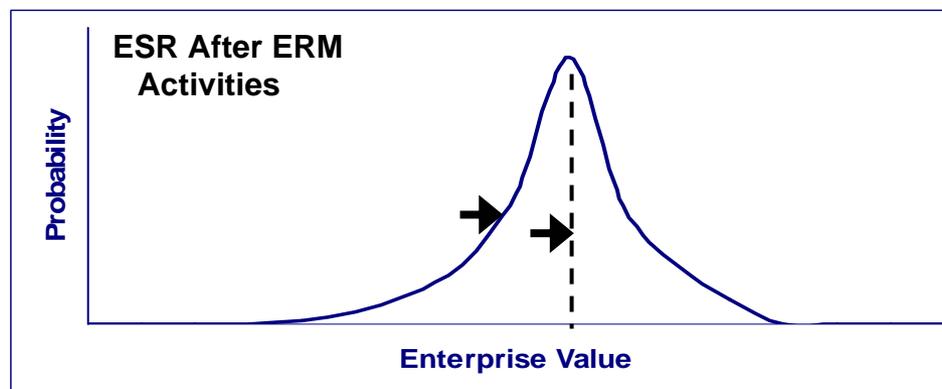
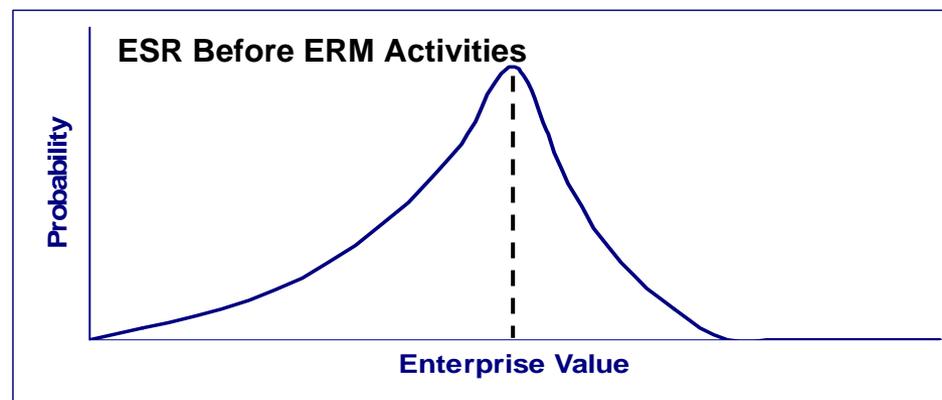
- Focus is on solvency, not on maximizing value
- Sample process:
 - Step 1: Assumption that a desired rating (e.g., AA) is optimal
 - Step 2: Assumption that a target risk level will produce desired rating
 - Step 3: Economic Capital is calculated
 - Step 4: Risk appetite defined consistent with Economic Capital
- ➔ Ignores possibility that lower/higher level of risk may enhance shareholder value



Moving Forward - Learnings

In the value-based approach, a key output is ESR, which provides an ability to better understand, evaluate and optimize the capacity to assume risk.

- **Risk exposure:** “Enterprise Shock Resistance” (ESR) is expressed as expected ranges of enterprise value, or value volatility.
- **Risk appetite:** Defined as the ERM Committee’s answer to the question, “Are you comfortable with the existing risk exposure (expressed as ESR)?” If not, decide on ERM activities that will produce the desired level of shock resistance.





Moving Forward - Learnings

- Do not get overwhelmed by complexities – choose measures related to organisation's primary risks
- Balance expectations of stakeholders
- Combine quantitative and qualitative measures
- Use metrics that are meaningful to management and used to compare with peer groups
- Tie to long term strategy but evaluate regularly (at least annually)
- Use internal surveys to assess risk awareness in the organisation

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Discussion