



Agenda

- 1 The RBC journey
- 2 Capital Models
- 3 Is there a best capital regime, or a just a better one?
- 4 RBC regime
- 5 The benefits of an RBC regime
- 6 Closing comments





No Solvency Standard

Factor-based solvency standard

Risk-based solvency standard

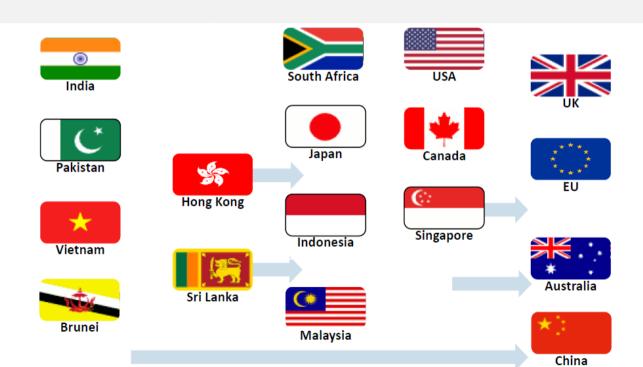
Internal model based solvency standard

Global points of reference



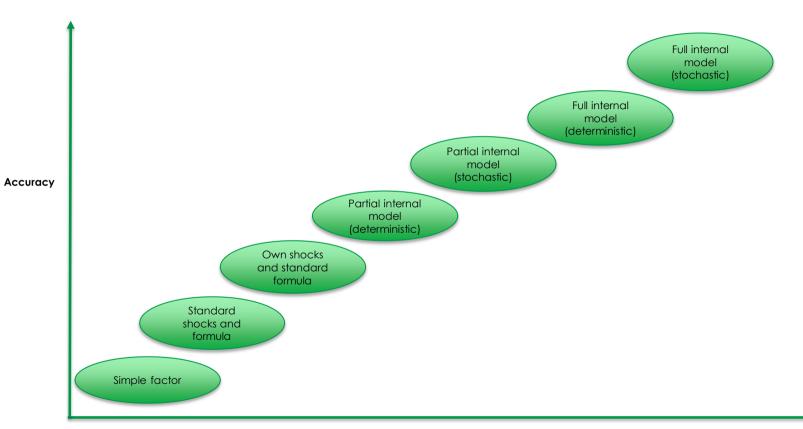








Capital Models





Is there a best capital regime, or just a better one?

Some characteristics to consider

- 1. Comparisons
- 2. Probability of solvency
- 3. Liability basis
- 4. Asset basis
- 5. Relevance
- 6. Credit for risk mitigations, e.g.
 - . Reinsurance
 - ii. Management actions
 - iii. ALM
 - iv. Internal governance and controls
- 7. Early warning
- 8. Cost effective
- 9. Scope of risks covered
- 10. Monitoring and consequences of breaches

Capital regimes

- Fixed amount
- Tiered fixed amount
- 3. Function of premiums and or reserves
- 4. Market based solutions
- 5. Reliance on a profession to self govern
- 6. Risk based capital

Also consider

- 1. Impacts on asset classes
- 2. Impacts on product classes
- 3. Systemic risks
- 4. Equivalence
- 5. What happens if there is an insolvency?



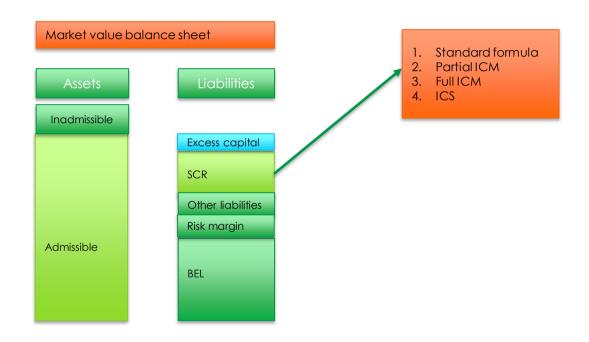
RBC regime - overview

What is a risk based capital regime?

- 1. It is a component of an effective ERM framework
- 2. There are many different versions of RBC methodology
- 3. It isn't just a capital calculation, usually 3 pillars, e.g. SAM, S2, C-Ross

Pillar 1	Pillar 2	Pillar 3
Capital requirements	Supervisory review	Market conduct
Assets Liabilities	Corporate governance	Reporting and disclosure
NAV	Risk management	
SCR	ORSA	
Quantitative	Qualitative	Transparency







1. Corporate governance framework

- i. Applies to pension funds, companies, etc.
- ii. Ensures effective governance
- iii. Board constitution
- iv. Board fit and proper
- v. Board compensation
- vi. Board transparency
- vii. Committees

2. Risk management framework

- i. Models of risk management
 - a) Three lines of defence: "interaction between lines"
 - b) Offence and defence model: "confrontation"
 - c) Policy and policing model: "hands-off"
 - d) Partnership model: "independence"
- ii. Risk management time horizon: \$2 requires a 99.5% probability of solvency over 1 year, is this the same as withstanding a 1 in 200 year event?
- iii. Risk management strategy
 - i. Objectives
 - ii. Risk exposure identification (current and future risks) leading to a risk profile; how much risk are you currently taking
 - iii. Risk appetite = f(risk tolerance, risk capacity), how much capital do you have and what is your loss aversion
 - iv. Risk appetite should be consistent with risk management strategy and business plan
 - v. Risk classification
 - vi. Risk preference statements
 - vii. Risk management policies
- iv. Risk management: accept, reduce, remove, transfer



3. ORSA

Purpose:

- a) to ensure that the insurer is adequately capitalized, and has access to additional sources of capital if needed, to deal with a wide range of future scenarios
- b) Assess the overall solvency needs of the insurer taking into account the specific risk profile, risk appetite and business strategy
- c) Assess future compliance with financial soundness requirements
- d) Assess the significance of future deviations in risk profile
- e) Evidences that the Board has considered the risks and solvency of the business
- f) Establishes the link between risk and capital

ii. Requirements:

- a) Insurer must demonstrate that ORSA is aligned with the risk profile of the insurer and that it is used in the capital planning and management of the insurer
- b) Must assess the current and likely future financial soundness of the insurer across a range of scenarios
- c) Must justify the use of an ICM rather than the standard formula
- d) Must address reasonably foreseeable and relevant material risks
- e) Must identify the relationship between risk management and the level and quality of capital available and needed
- Assess future changes to the insurer's risk profile under stressed conditions
- g) Must be conducted over a longer time frame than conventional risk assessments and justify choice of period
- h) Verified by independent appropriately qualified persons
- iii. Owned by the Board



Public disclosures Confidential disclosures





The benefits of an RBC regime?

Benefits society as a whole

- 1. Global Financial Crisis
- 2. Systemic risks and integrity of the financial system
- 3. Protects the "real economy" from the "financial economy"

Reputational risk

- 1. Intermediary
- 2. Regulator
- 3. Management
- 4. Board
- 5. Brand

Financial risk

- 1. Policyholder
- 2. State
- 3. Creditors
- 4. Tax payers



Trust in the industry

Insurer's operations

- 1. Survival
- 2. Business model is to price risk and thus take on risk or transfer risk
- 3. Efficient capital allocation
- 4. Informs business strategy
- 5. Encourages insurers to focus on risk and use more sophisticated tools
- 6. Informs dividend policy



Closing comments

1. Calibration

- i. Data
- ii. Changing economic regimes
- iii. Lack of derivatives
- iv. Correlations/diversification
- v. Bond yield curve

2. Internal capital model

- i. Cost
- ii. Comparability
- iii. Relevance
- iv. Resourcing: regulator, industry
- v. Spurious accuracy
- vi. Integration with business strategy
- 3. Fair values, market consistency and price discovery
- 4. Recognizing illiquidity
- 5. Risk free assets
- 6. Is the life industry ready
- Transition period
- 8. ORSA

The benefits of RBC are wide ranging – choose the appropriate implementation

THANK YOU

