

Quo vadis

Solvency II?

Bob Gibson

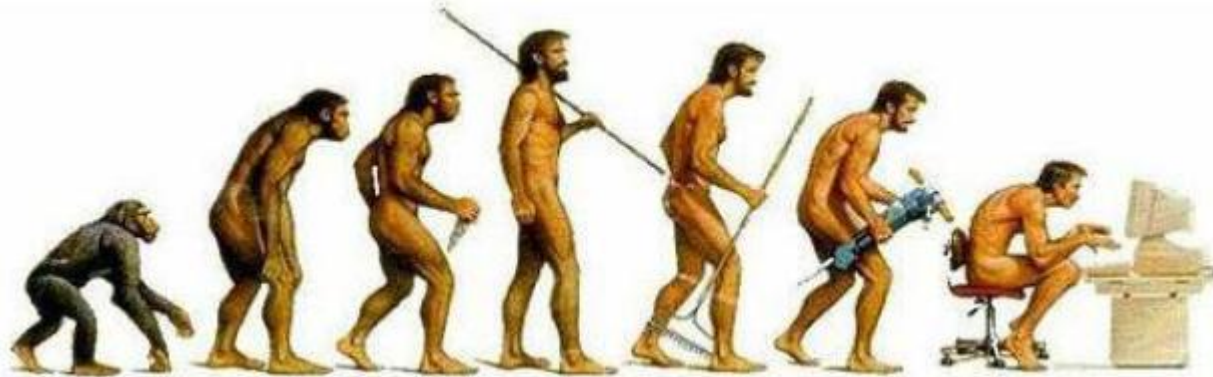
3rd Nov 2011

Singapore Actuarial Society

Agenda

- Risk-based regulation for insurers
- Main issues coming out of QIS5
- Where does Solvency II go next?
- Next steps companies are taking in the EU
- Questions

Evolution of regulatory approaches



Rules-based



Principles-based

Reserving

Net premium reserving

Gross premium reserving with PADs

Market value liability

Solvency

Formulae of % multiplied by basic drivers (4% of reserves + 0.3% of SaR)

Dynamic solvency testing under prescribed scenarios

Formulae with risk related drivers

$$C_0 + \sqrt{C_1^2 + C_2^2 + C_3^2}$$

Risk factors + prescribed stress tests and some judgment

Risks and stress tests specific to each company

Market consistent valuation

HK, China







US, Japan, Taiwan

US, Singapore, Malaysia, Thailand

US, UK, Europe (Solvency II)

Solvency capital regimes in different countries




RBC

	Thailand	}	2011
	South Korea		
	Malaysia	}	2009
	Singapore		
	Taiwan	}	2003
	Indonesia		

NAIC RBC / MCCR

	US	}	1993
	Canada		

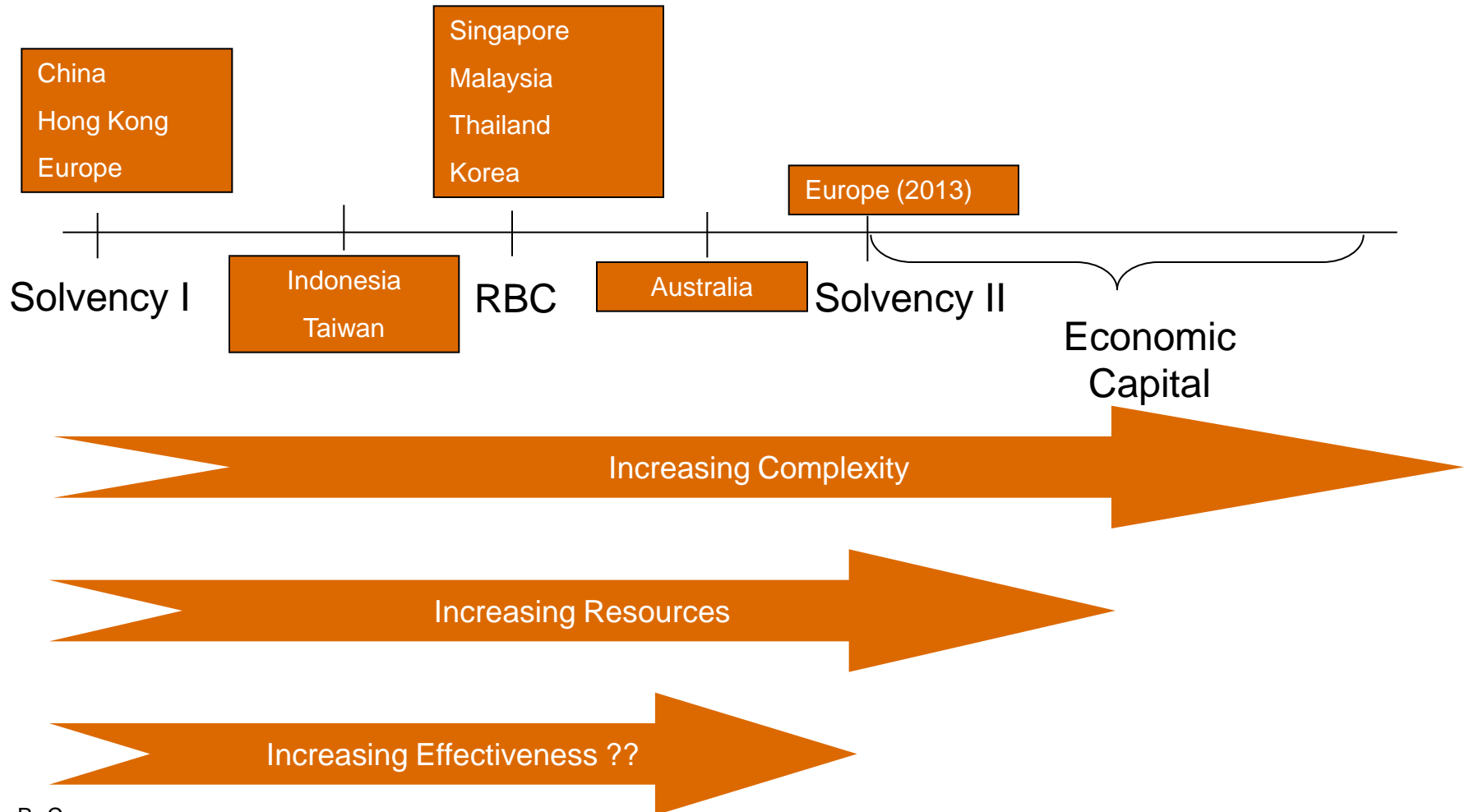
ICA / SST Solvency / Solvency II

	All EU Countries	}	2014
	Switzerland		
	United Kingdom	}	2005

Solvency I

	Vietnam
	The Philippines
	China
	Hong Kong
	India

The global drive towards risk based capital



Capital Frameworks in Asia Pacific Region

Statutory Solvency Requirement across the Region

Solvency Framework	Country	Market Risk	Asset conc. Risk	Credit Risk	Insurance Risk	Int. rate Mismatch Risk	Op Risk	Business Risk
RBC	Australia	√	√	√	√	√		
	Indonesia	√		√	√			
	Malaysia	√	√	√	√	√	√	
	Singapore	√	√	√	√	√		
	Taiwan	√	√	√	√	liability only		√
	Thailand	√	√	√	√	√		
No RBC	China		*		√			
	Hong Kong		*		√			

Note:

*Not Explicit

Statutory Solvency frameworks differ across markets. However, they are all aimed at capturing the common risks faced by insurers in the region, e.g. asset risk & insurance risk.

Solvency II – EU taking the global initiative in insurance regulation

“This is an ambitious proposal that will completely overhaul the way we ensure the financial soundness of our insurers. We are setting a world-leading standard that requires insurers to focus on managing all the risks they face and enables them to operate much more efficiently.”

Charlie McCreevy

Internal Market and Services Commissioner

Speaking at the launch of the Solvency II draft Framework Directive

- It is a risk-based “economic” capital approach, that builds upon the FSA’s ICA regime;
- It is not just a technical actuarial calculation; it introduces requirements that are fundamentally consistent with the wider concepts of Enterprise Risk Management (ERM); and
- Two options for calculating capital requirements: Solvency Capital Requirement (SCR) standard formula or use of an Internal Model
- It is a framework within principles based regulation which still gives wide scope for interpretation by insurers

Framework of Solvency II

The three pillar approach

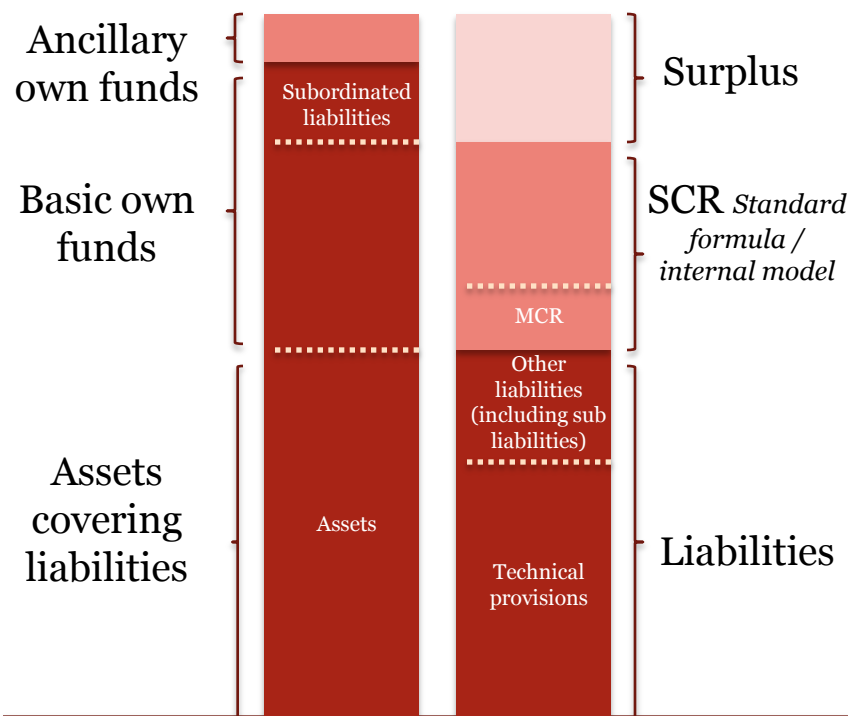
Solvency II

PILLAR 1	PILLAR 2	PILLAR 3
<p>Quantitative requirements</p> <p>Technical provisions Investment rules and ALM Capital rules</p>	<p>Supervisory review</p> <p>Internal controls and sound management Supervisory intervention</p>	<p>Disclosure Requirement</p> <p>Disclosure</p> <p>•Frequent, Forward Looking, Relevant</p>
<ul style="list-style-type: none"> • Assets and Liabilities – market consistent valuation • Solvency Capital Requirement (SCR): <ul style="list-style-type: none"> • European Standard Formula; or • Internal Model • Minimum Capital Requirement (MCR) 	<ul style="list-style-type: none"> • System of governance • Own risk and solvency assessment (ORSA) • Supervisory review process • Supervisory intervention including capital add-on 	<ul style="list-style-type: none"> • Public Disclosure – annual solvency and financial condition report • Information to be provided for supervisory purposes
<ul style="list-style-type: none"> • Financial resource requirement for solvency purpose 	<ul style="list-style-type: none"> • Additional capital evaluation based on internal assessment of risks and controls, subject to supervisory review 	<ul style="list-style-type: none"> • Requirement to disclose information relating to risk and capital levels, designing to help exert discipline of market influence.

Framework of Solvency II

Pillar I

Proposed framework for Pillar 1



- Technical provisions to cover obligations at fair value (best estimate plus risk margin)
- Assets at market value
- Minimum Capital Requirements (MCR) defines the safety net
- Solvency Capital Requirement (SCR) to absorb unforeseen losses
- Between the SCR and MCR there is 'ladder of intervention' that allows increased scrutiny from the regulator

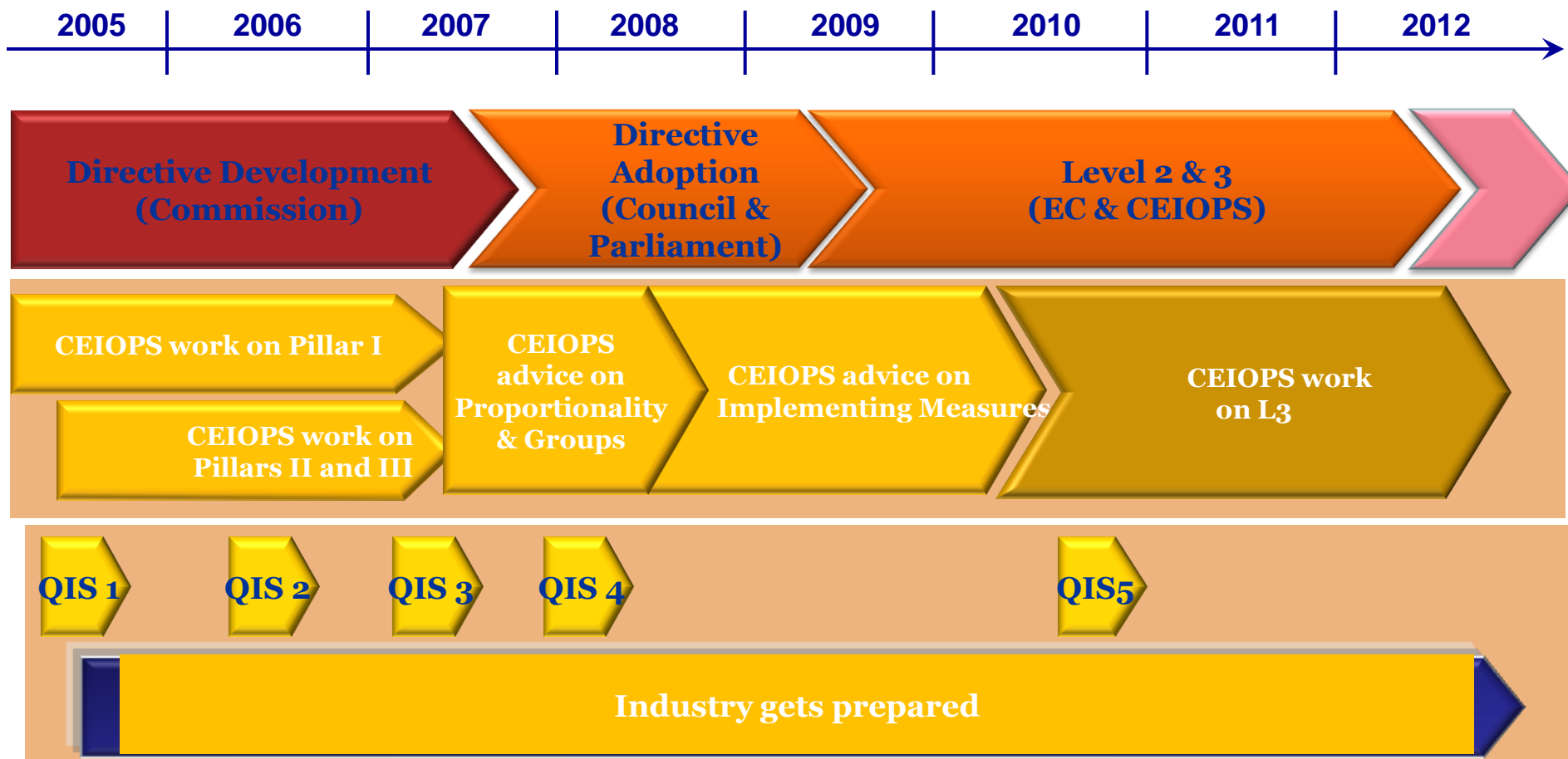
Potential Impact of Solvency II in the Region

- In the region, Solvency II would initially impact European Insurance subsidiaries, who will be required to report Solvency II back to their Group;
- Adopting Solvency II will require resources, stochastic model for life insurance liability valuation. Insurers are also encouraged to develop internal models (both general insurers and life insurers); and
- Solvency II will highlight and quantify risks in a consistent way in life insurance and general insurance product lines.

Some questions to consider

- Will European insurers become less competitive vs. local insurers?;
- Are Solvency II concepts applicable to the region? e.g., less developed capital markets, risk management in less developed economies; and
- Should regulators attempt to supervise internal models for regulatory reporting?
- How do you build models for operational risk where information on operational failure is suppressed ?

Where do we stand in the Solvency II process?



**Transposition
1 Jan 2013?**

The Omnibus II issue

- Omnibus II sets the transition arrangements, technical measures, gives powers to EIOPA (and national regulators)
- EU Council needs to approve, EU Parliament needs to develop and implement the legislation
- EU council and European Parliament have different views on transition
- Committee on Economic and Monetary Affairs, ECON (represents the EU Council) published its proposals on 21/6/11, key proposal is 1st Jan 2014 start
- Both agree on implementation date of 1st Jan 2014. One year later than previous.
- 2013 to be the year of preparation and transition
- Parliament to hold plenary vote Jan 2012

Examples of transitional differences, as published

	Parliament	Council
Transposition into national law	31/ 12 /2012	31/3/2013
Power for granting of supervisory approvals, e.g. internal models, specific parameters in the standard formula SCR	1/ 1/ 2013	1/6 /2013
Pre implementation reporting	1/7/2013 – full S2 balance sheet and Regular Supervisory Report (RSR)	1/6/2013 – to publish an implementation plan (disclosure info would be prescribed)

Examples of transitional differences, as published

	Parliament	Council
Non compliance with SCR	12 months to achieve compliance	24 months if balance sheet totals less than Euro500bn
Systems and controls for RSR / SFCR	None	Member states can give 2 year lead in and only publish SFCR info they have ready
Discount rate in technical provisions based on asset yields	7 year lead in	None
SCR – exposure to other member states or central banks	2 year lead in without spread risk charge for foreign currency debt purchases	None
Technical standards issued	1/6 /2012	Staggered between 30/9/2012 – 31/12/2016

QIS5 results: An industry perspective

- 68% of total European insurance undertakings (target 60%) and 167 of groups participated

“The overall health of the European insurance industry has been demonstrated by the results of the fifth and last comprehensive quantitative impact study (QIS 5)”

- Overall 12% reduction capital surplus vs current Solvency I
- For Groups 42% reduction in capital surplus vs current Solvency I
- 15% of companies would not meet the SCR
- A number of practical issues identified

Main issues arising out of QIS5 , expecting revision in the Implementing Technical Standards (ITS)

- **Illiquidity Premium**

an explicit adjustment to discount rates on technical provisions for illiquid liabilities

- **Expected future profits in future premiums**

Currently treated as Tier 1 capital

Too generous?

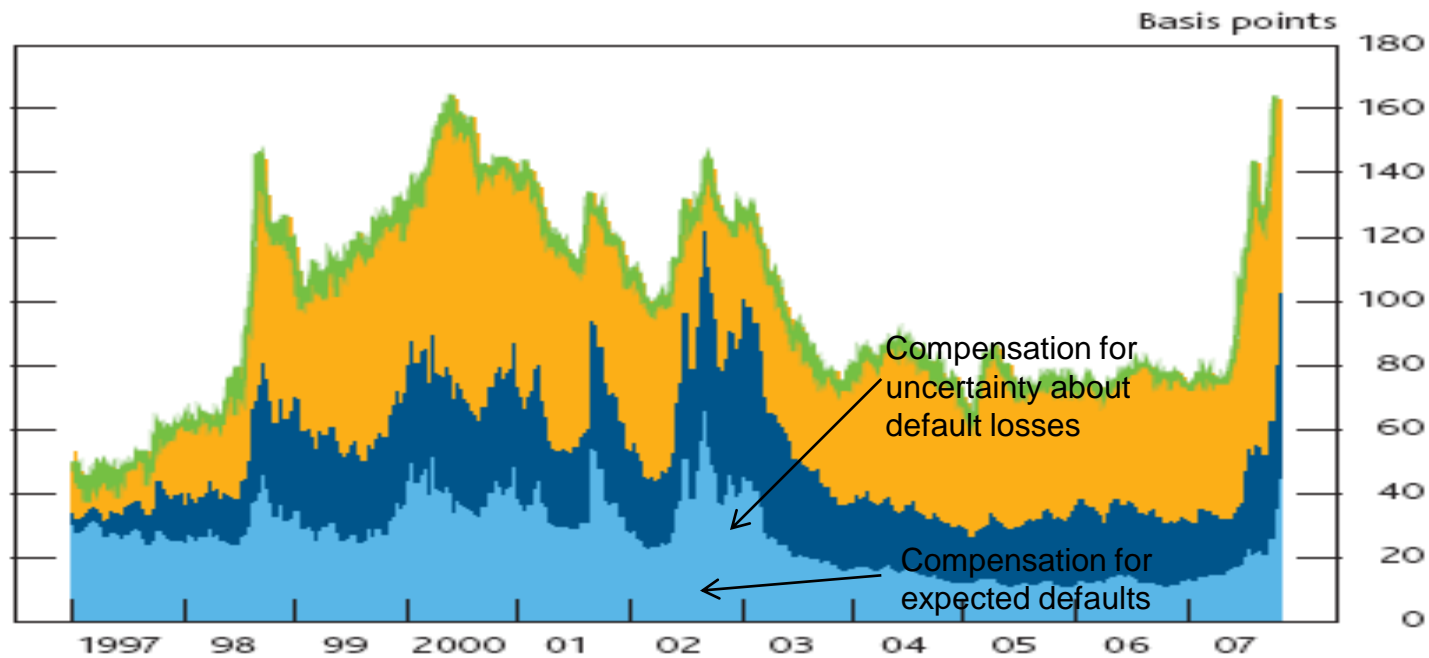
- **Contract boundaries**

Differences in definition between IFRS4 ED2

S2 boundary at point of collective review, ED2 based on individual review

What is the illiquidity premium?

Corporate Bond spreads



Decomposition of sterling-denominated investment-grade corporate bond spreads. Source : Bank of England

Contract Boundaries in QIS5

- Future premiums related to the insurance (and reinsurance) obligations of the existing contract or the guarantee or option should be allowed for
- However, future premiums should not be included if the insurer has an unlimited ability to amend the premium or benefits.
- Q+A issued by EIOPA stated, for example:

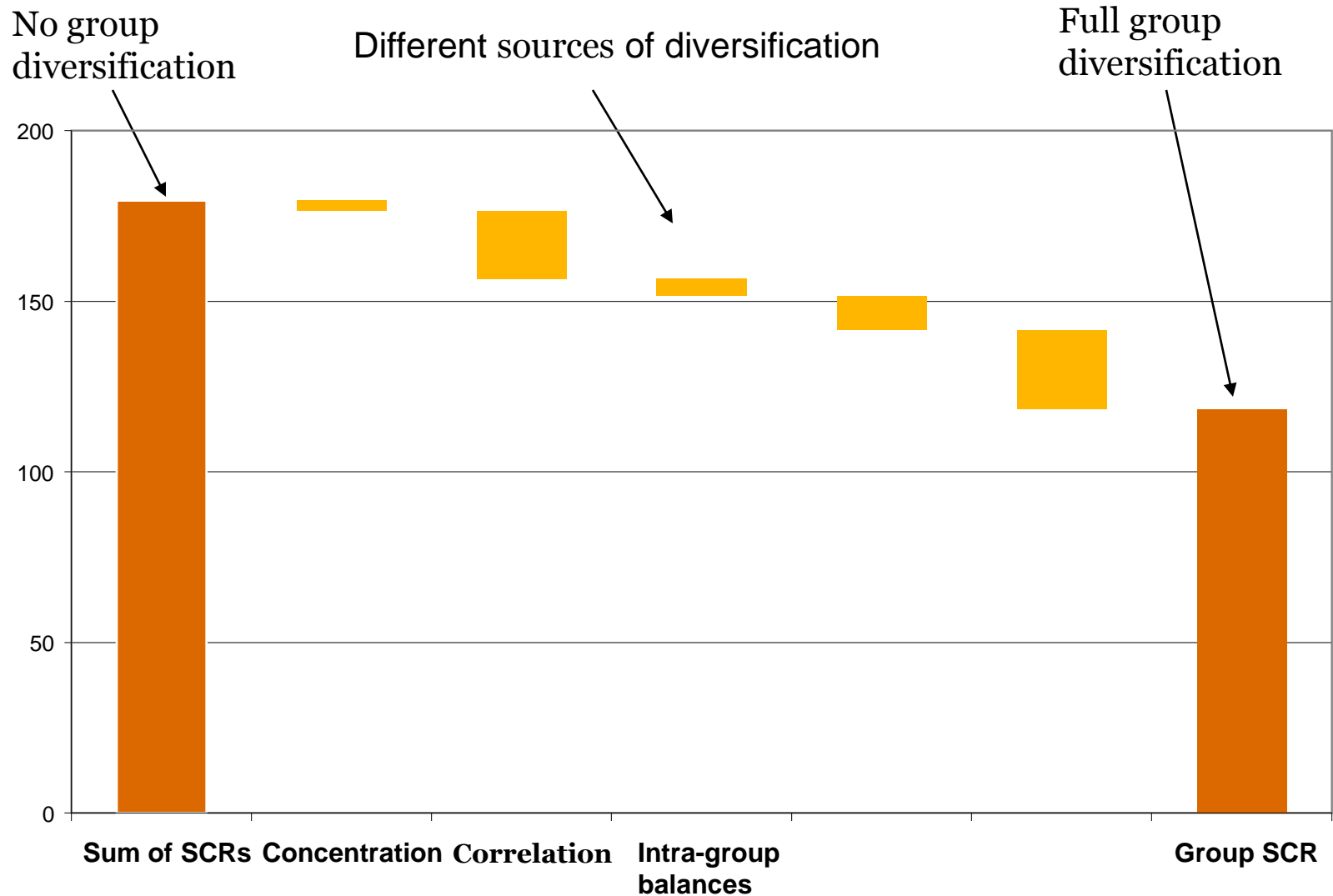
Conditions	Treatment
Restriction on insurer's ability to amend premiums is economically relevant, e.g. inflation	Include premiums beyond boundary
Undertaking can only amend premiums based on a published mortality table	Include premiums beyond boundary
Undertaking can increase policy charges to offset potential future losses	Exclude premiums beyond boundary

The Exposure Draft explained – the future of insurance accounting

ED2 definition means cut out valuation at the review boundary only if price adjustment is policyholder specific

Definition:	Examples of review which do not set the boundary:
<ul style="list-style-type: none">• Contract boundary is the point at which the insurer:<ul style="list-style-type: none">✓ is no longer required to provide coverage OR✓ has the right to reassess the risk of the particular policyholder and, as a result, can set a price that fully reflects that risk.• Ignore restrictions w/o commercial substance• If insurer is constrained in the pricing to below market levels, this would be within the contract boundary.	<ul style="list-style-type: none">• Contractual repricing determined by an index (e.g., CPI)• “Reasonable” portfolio-wide adjustments: price change for entire class of insureds w/o individual re-underwriting• Contractual discretionary adjustment with specified maximum per year, e.g., 3% per year

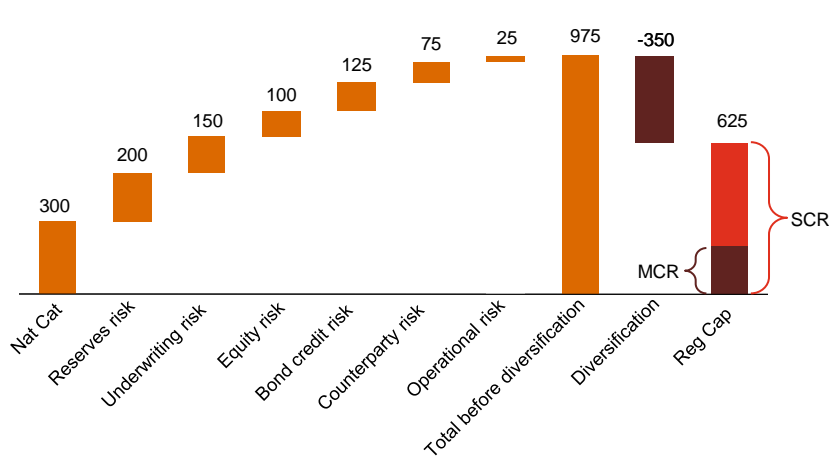
Other issues still needing addressed – understanding of Group diversification effects and transferability



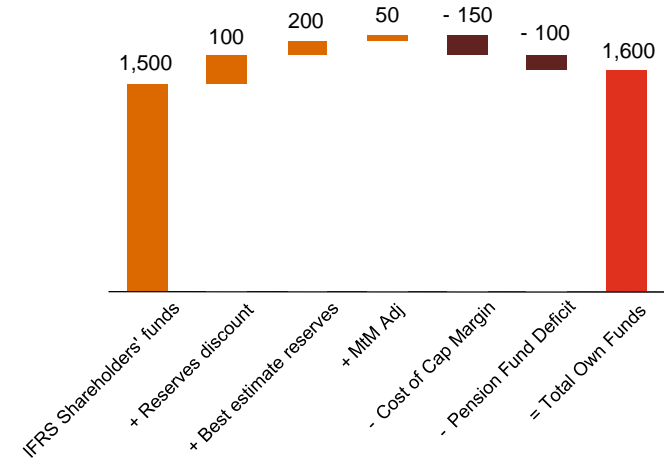
What are companies doing at the moment?

Reconciliations of EC/ IFRS / MCEV to SCR

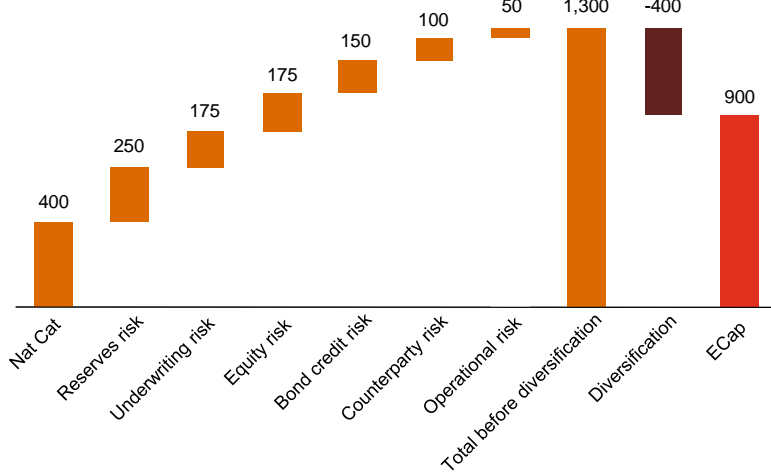
Required capital: Regulatory Capital (\$m)



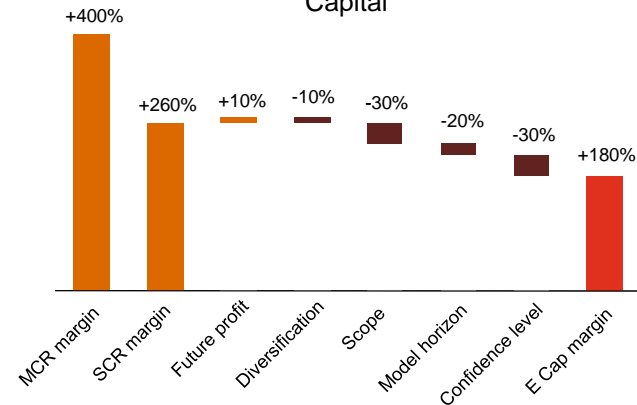
Reconciliation: Shareholders' Funds to Own Funds (\$m)



Required capital: Economic Capital (\$m)



Reconciliation of solvency margin: Regulatory Capital to Economic Capital



What are the biggest S2 implementation issues:

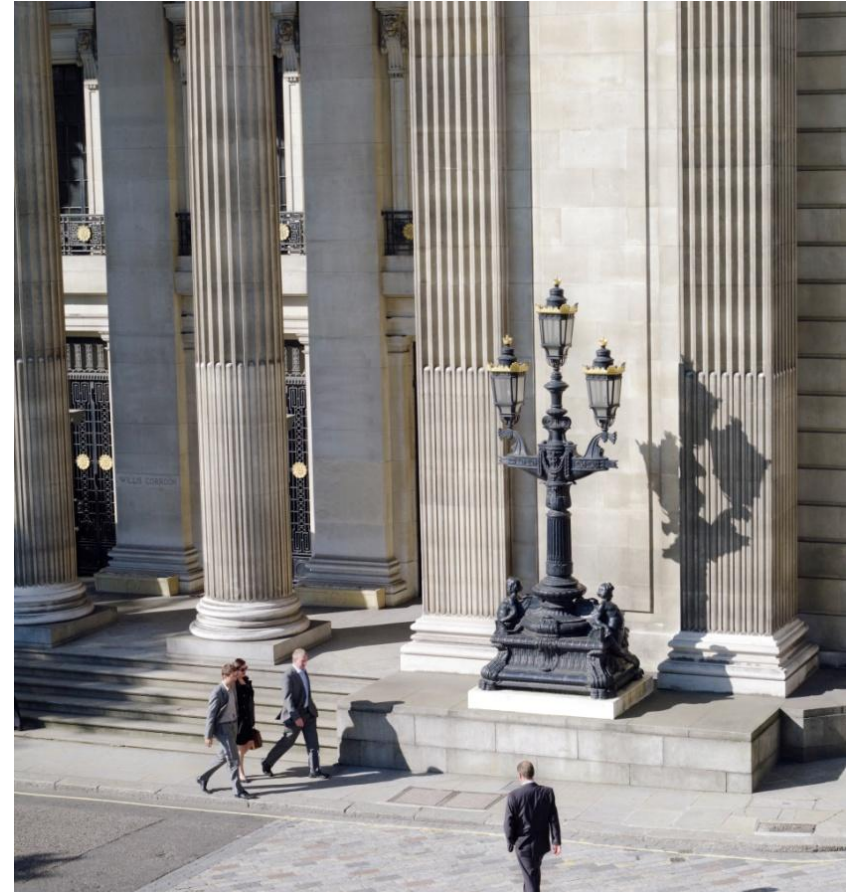
Key themes emerging from 100 Gap analyses done by PwC in Europe

- Risk appetite not defined (or in adequate detail)
- ERM and ORSA concepts not embedded – risk registers present but not linked directly to capital consequences
- Integration of risk management functions and linkage to operational side of the business
- Strategic business planning does not include a dynamic concept of risk nor SII requirements
- Risk-based performance frameworks not in place or often not used in practice

System of Governance	
What does governance look like?	
Fit and proper	
Risk Management	Internal Control
Internal Audit	Actuarial Function
ORSA	

Solvency II governance challenges

- Lack of senior management support
- Poor project governance
- Failure to define project scope
- Insufficient planning
- Undefined deliverables
- Lack of ownership / accountability for deliverables
- Underestimating dependencies
- Insufficient resources
- Inadequate resources
- Poorly defined roles & responsibilities
- Inadequate communication
- Change in business priorities
- Inadequate control / change management procedures



Solvency 2 - development resourcing issues in EU

e.g. Reuters News Feb 4 2011

PWC quote

Solvency II costs to top Euro3bn – est Euro5bn

UK insurers typically spending GBP100m each

Euro 300m for one EU player

Munich Re CFO quote

Costs significant for Munich Re, wants simpler rules

Insurers fear overshooting S2 budgets

I

Hays quote

High demand for actuarial staff

ABI quote

Solvency 2 schedule on knife edge

The concept-what is the ORSA asking?

- How would you manage your risks if there were no regulations?
- Your own assessment of the capital you need to hold given
 - The risk profile of your business, and how it is expected to change over the business planning period, and
 - The controls you have in place to manage risk
- Pillar 1 only sets the minimum amount insurers need to hold
 - **99.5%** over **1 year** is the risk appetite of policymakers
- Why IAIS 16 (ERM) / 17 (EC) matters to Asian economies
- Getting ready for the US (NAIC) ORSA
 - currently in consultation

Example ORSA policy – contents

Board engagement

- Ownership
- Board understanding of risk profile
 - Integral part of key business decisions and strategy
 - Approval by appropriate governance committees
 - Link between Group risk appetite and Capital Policy

Effective risk management

- Individual risk exposures across the group
- Inclusion of all risks
- Stress and scenario testing

Internal model

- Continued appropriateness of internal model

Own assessment of balance sheet

- Recognition and valuation of assets and liabilities

Outputs and documentation

- Internal reporting
- Regulatory reporting (SFCR and RTS)
- Documentation

Capital calculations

- SCR
- Current and future management decisions
- Own capital assessment
 - Assumptions are consistent with the chosen level of risk for the assessment
- Capital policy

Point in time assessments

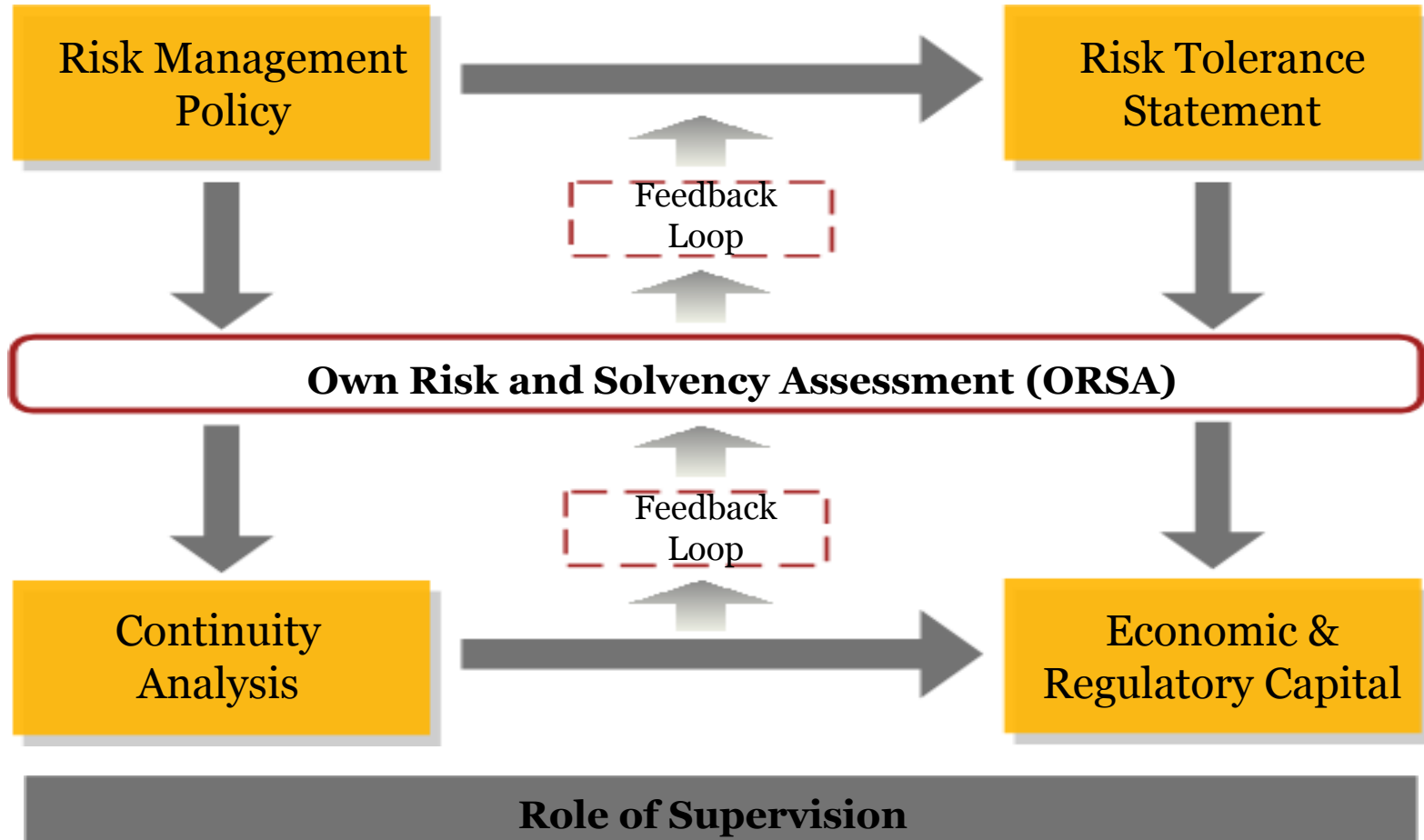
- Daily capital position
- Point in time Regulatory assessment
- Point in time Pillar 2 assessment
- Point in time Solvency assessment
- Frequency
- Out of cycle ORSAs

Projections over business planning period

- Projection of own solvency requirements
 - Continuous compliance with regulatory capital requirements and requirements regarding technical provisions

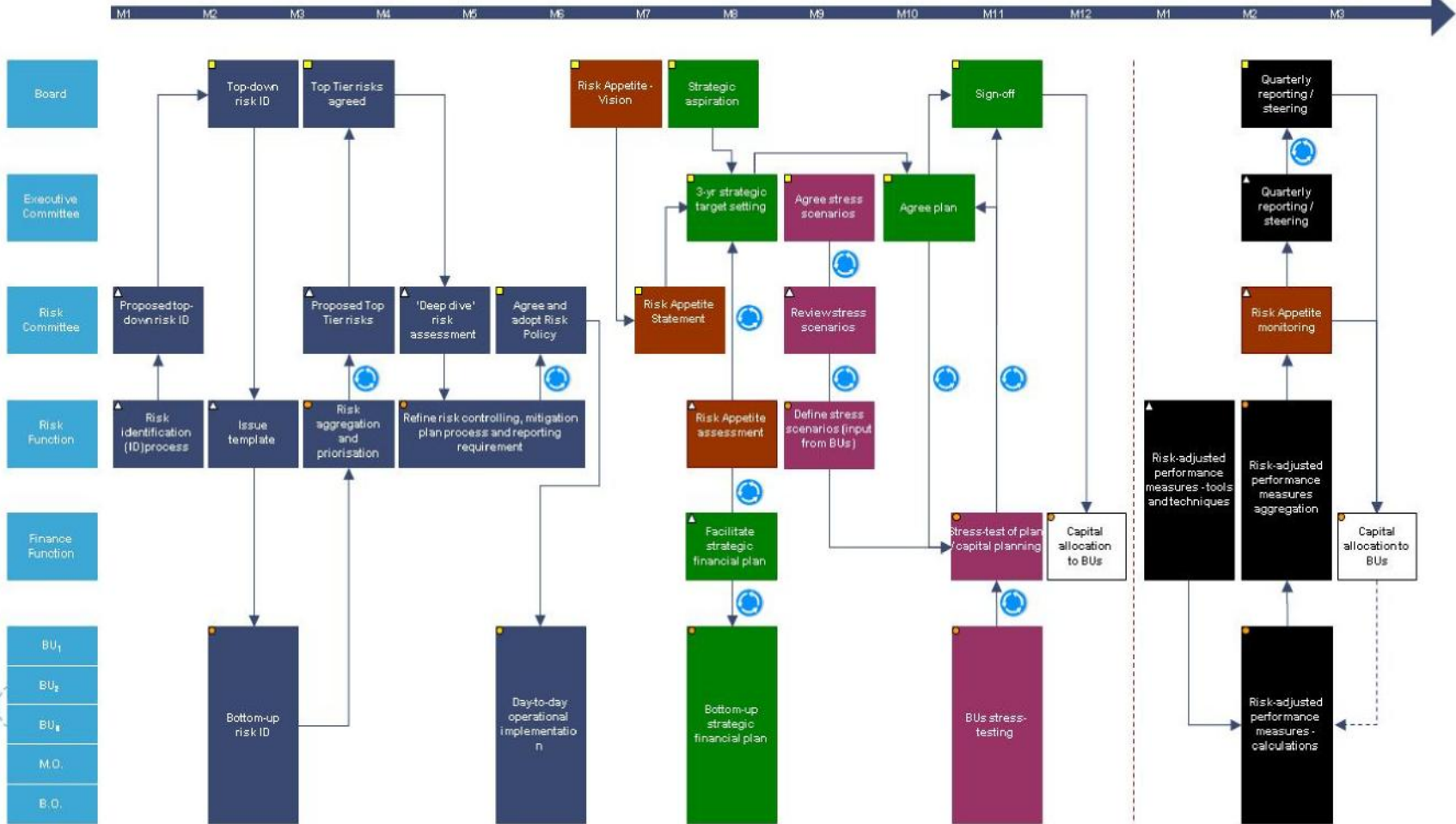
Enterprise Risk Management

Enterprise Risk Management Framework



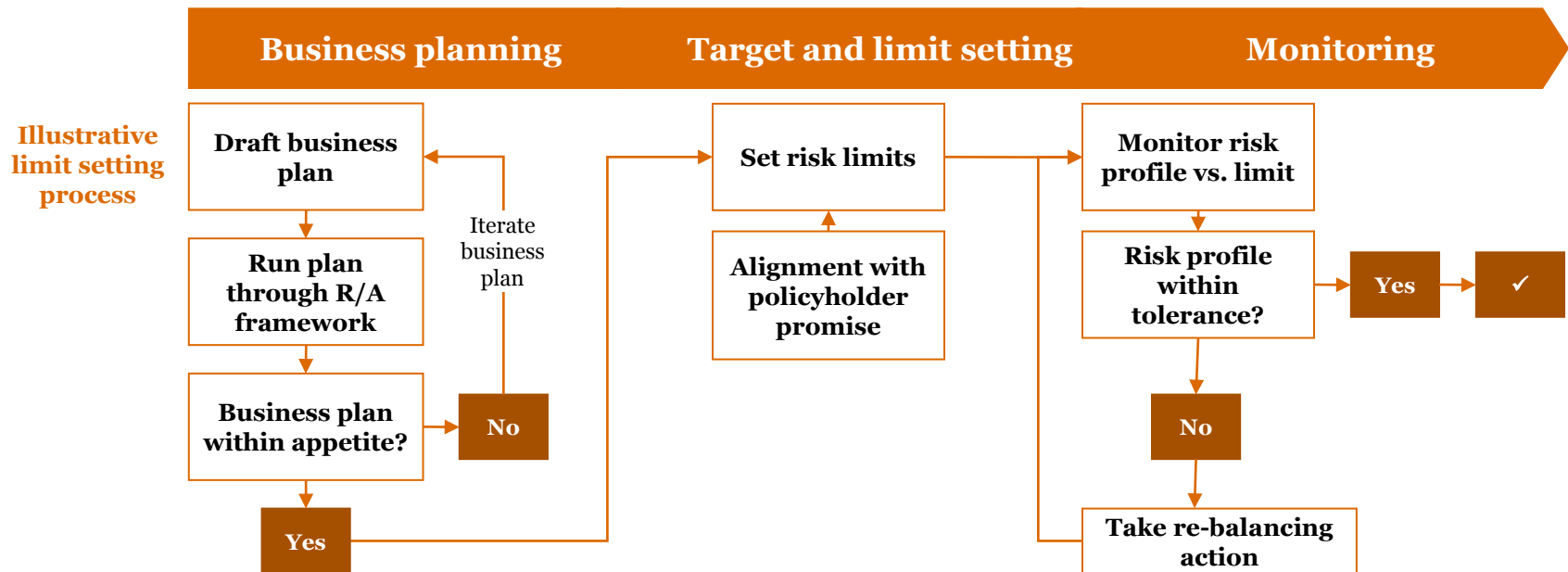
ORSA process map – example

- Illustrative -



Risk appetite framework: Risk limits

Developing limits within the business planning process



Illustrative limit setting process

Example – setting a credit risk limit

Business plan

We plan to write \$100m of new volume in life protection

Check vs. risk appetite

Increase in mortality risk and credit risk but remain within CaR & EaR tolerance

Limit setting

- Running capital model on business plan suggests:
 - Mortality risk = 12% ecap
 - Credit risk = 24% ecap
- At the start of the year we set limits:
 - Mortality < 15%, Credit < 25% of required capital
 - New protection risk volumes < \$110 m

Monitoring

- After 6 months, credit markets deteriorate meaning even though only \$60m of new protection business written, credit accounts for 23% of ecap
- You take action to reduce new volumes and look to rebalance FI portfolio in to high quality issuers

Closing remarks

- Close attention being placed on the Solvency II debate.
- The QIS's are a good indicator on what the impact will be on the Balance Sheet and in the final technical regulations. But the true test is how will it be integrated into business decisions?
- RBC regimes across Asia are considering taking aspects of Solvency II and application to own framework so as not to have competing regulatory drivers
- Underlines the need to develop risk and capital frameworks overall in the region for better capital optimisation and fungibility

Thank you

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