

Solvency II

15 April 2010



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Solvency II

Agenda


- Welcome & Introduction (Glenn)
- Financial Regulator Update (Tony Jeffery)
- Developing the ORSA (Dick)
- The QIS4/5 model (Zora)
- Timeline (Glenn)
- Questions

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Solvency II Update

Tony Jeffery, Deputy Head Insurance
Supervision, The Central Bank & Financial
Regulator



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Financial Regulator
Deloitte Insurance
Briefing



FINANCIAL REGULATOR
Rialtóir Airgeadais

Tony Jeffery

Overview

- Internal Model Pre-Application process
- QIS 5
- Regulator on Tour!
- Company Readiness
- Mini- Case Study

Please note all these comments are on an evolving process

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Internal Model Pre-Application process

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Internal Model Pre-Application process

“does NO mean YES?”

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Internal Model Pre-Application process

Questionnaire

- Available now from our web site
- 53 Questions
- Max length!
- May 31st

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Internal Model Pre-Application process

- Readiness Assessment Process
 - Questionnaire
 - Follow up inspection – Desk Team plus Actuarial
 - Recommendation to Separate Panel
- Assessment as one of
 - Ready for assessment now
 - Will be ready in near future
 - Not Ready
- Decision may be reassessed following further work by Company

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Internal Model Timetables *cont*

- Process targeted to be done by late summer
- In parallel we are building our more detailed assessment processes
- Then begin formal assessment
- Detailed assessments to start this year
- Expect there to be a learning process on all sides
- Will be resource intensive on both sides
- No decision yet on whether to charge
 - If company is serious should not affect decision

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Some points on Internal Models

- We want to approve (!)
- Bar is high
- Large Group – Local Company must pass the local use test
- This is not just for big groups – SSO's are important too!
- Do not obsess about start date

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QIS 5

- QIS 5 August to mid November 2010 (end October solo)
- First release of spec imminent
- FR expects companies to participate
- Why is it important to take part?
 - Feedback for SII process
 - Establish that solution is workable
 - Get to understand capital requirements
 - Establish that it works for you
- Workshops to be held by FR – Not introductory sessions!

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Where Should you be Now

- GAP Analysis Complete
- Developing plans to meet gaps
- Developing staffing/training/recruiting plans
- Decision made on internal models
- Time (and money?) budgeted for QIS 5

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FCR & ORSA

- For life companies 2011 is a 60% FCR year
- Is there value in strict Solvency 1 based FCR?
- Encouraging Profession to morph the FCR

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Regulator on Tour

- Solvency 2 Forum
- May 11th morning
- At Radisson Golden Lane
- Tickets limited to 2 per company
- Available from today
- It's FREE but limited to 120 places
- E mail solvencyii@financialregulator.ie

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Mini Case Study – Term Insurance

Should I increase or decrease my premiums?

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Mini Case Study – Term Insurance

A : Capital

- What are my capital requirements?
- Do I have an internal model or not?
- Will it get approved?
- Does my shareholder use the same model?
- If it does do I wish to price on it?
- Are there diversification benefits from this business or not?

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Mini Case Study – Term Insurance

B : Reinsurance

- I have to worry about credit risk on my capital, so do I have the right reinsurer?
- Can I reduce credit risk with financial structure
- Is original terms the best structure or should the rates I pay change with age
- Should it be quota or surplus
- What about cat, is that an issue?

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Mini Case Study – Term Insurance

C : Investments

- Is there investment risk does it matter?
- Do technical provisions change with investment conditions?
- How does SCR change with investment conditions?

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Mini Case Study – Term Insurance

D : Other

- Options?
- ORSA?

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Developing the ORSA Pillar 2

Dick Tulloch



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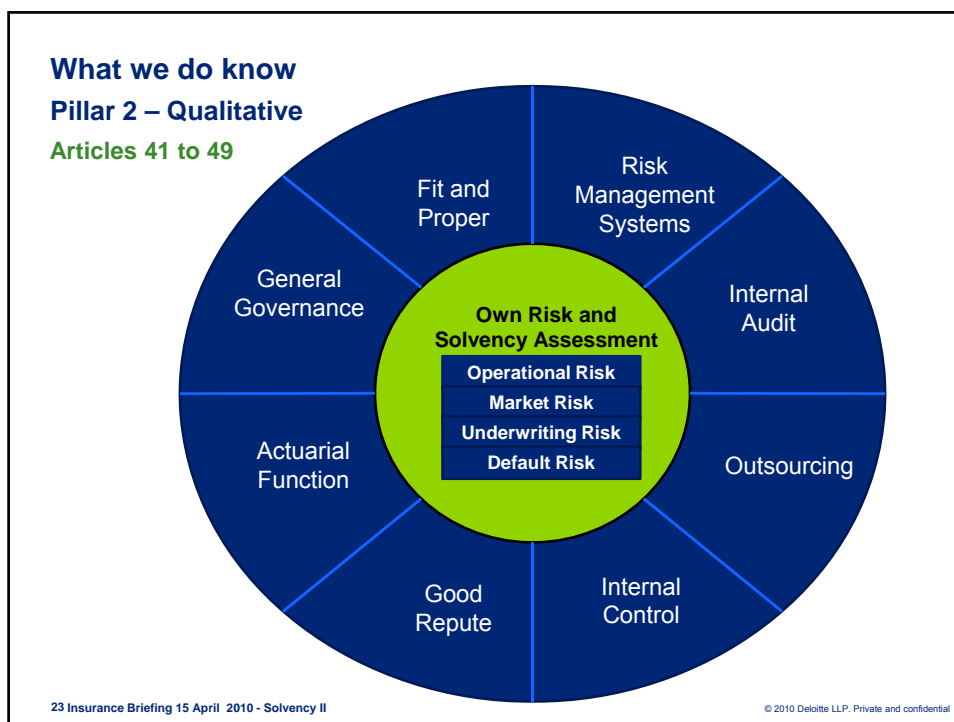
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Looking at most failures - What went wrong?

- 1) The potential interaction of multiple risks was underestimated or disregarded.
- 2) Probabilistic modelling was overemphasised; shortcuts were taken; scenario planning was underutilised; transparency into potential issues was absent.
- 3) Risk managers were isolated in silos.
- 4) Warnings were ignored; those who delivered them were dismissed as naysayers or criticized for not being team players.
- 5) A short-term perspective with a single-minded focus on making the quarterly numbers predominated.
- 6) Companies lacked a comprehensive approach to firm-wide risk management; authority and responsibility were poorly controlled and defined.
- 7) Risk management often focused on compliance rather than performance.

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Level 2

Article 41 General Governance

- Effective system of governance for sound and prudent management
- Transparent organisational structure
- Clear allocation and segregation of responsibilities
- Free flow of information
- Proportionate
- Written policies subject to annual review and approval
- Plans to ensure continuity under proportionate contingencies

Article 42 Fit and proper

- Persons who effectively run or who have key functions must
 - Be of good repute and integrity
 - Have appropriate professional qualifications , knowledge and experience

Level 2

Article 43 Proof of good repute

- May require formal documentation or oath to confirm
 - Proof of good repute
 - No previous bankruptcy

Article 44 Risk Management

- Strategies, processes and reporting procedures to:
 - identify, measure, monitor, manage and report (on a continuous basis) the risks to which the company is exposed
- To include those in the SCR calculation and others including liquidity and reputational
- Demonstrate compliance with “*Prudent person principle*” in respect of investment risk
- Risk Function to oversee the risk management system and any internal model development

Level 2

Article 46 Internal control

- To cover at least administrative and accounting procedures
- Provide for a compliance function in relation to laws and regulations in respect of the areas of operation of the undertaking

Article 47 Internal Audit

- Evaluation of the effectiveness of the internal control system and all other elements of the governance of the company
- Must be objective and independent from operational functions
- Must provide reports to the audited functions and verify that any recommendations are implemented

Level 2

Article 48 Actuarial Function

Must be provided by those who have appropriate actuarial knowledge and be responsible for:

- Calculated technical reserves
- Ensuring appropriate assumptions and methodologies used
- Assessing quality of data
- Comparing actual v expected
- Informing on the reliability and adequacy of calculations
- Overseeing case estimate provisions
- Expressing an opinion on the underwriting policy
- Expressing an opinion on the reinsurance arrangements
- Contributing to the risk function

Article 49 Outsourcing

- Company remains responsible despite any outsourcing arrangements
- Outsourcing must not impair or undermine ability to control operational risks, monitor compliance or provide policyholder service

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Level 2

Article 45 Own risk and solvency assessment

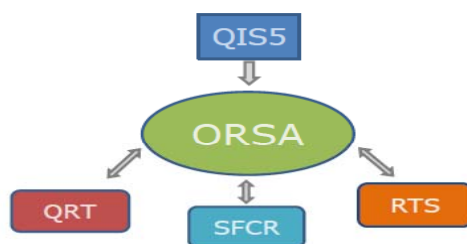
- Must conduct own ORSA to include all material risks:
- An Assessment of the overall solvency needs as relates to future business plans, approved risk limits and risk profile
- Confirmation of continuous compliance with SCR and MCR requirements
- Confirmation of continuous compliance with Articles 41- 44 & 46 – 49
- An assessment of the validity and appropriateness of any internal model
- Some verification of the internal use and applicability of the ORSA
- Indication of the risk changes which would trigger a revision and reassessment of the ORSA
- An assessment of the impact of key management decisions (Stress testing)
- Shall inform the Regulator of the results and conclusions of the ORSA

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The Solvency II Regulation

- Quantitative: ORSA (Own Risk and Solvency Assessment), QRT (Quantitative Reporting Templates), RTS (Report To Supervisor), SFCR (Solvency and Financial Condition Report), QIS 5
- Qualitative: ORSA, SFCR, Site inspection
- The ORSA coordinates your contact with the Regulator



Level 2

ORSA - CEIOPS advice Issues Paper May 2008

Principles:

- ORSA is the responsibility of the undertaking and should be regularly reviewed and approved by the undertakings administrative or management body
- The ORSA should encompass all material risks that may have an impact on the undertakings ability to meet its obligations under insurance contracts
- The ORSA should be based on adequate measurement and assessment processes and form an integral part of the management process and decision making framework of the undertaking
- The ORSA should be forward-looking, taking into account the undertaking's business plans and projections Independently assessed
- The ORSA process and outcome should be appropriately evidenced and internally documented as well as independently assessed

Level 2

ORSA - CEIOPS advice Issues Paper May 2008

General Guidance:

- Management must regularly approve and review assumptions and sign off
- ORSA should be integral to business strategy and strategic decisions
- Management must understand the implications of the ORSA analysis
- Set out details of all assumptions and justify
- Relate to risk appetite and limits
- Consider all risks in SRC but also liquidity, reputational and strategic
- Consider any inadequacy of existing governance structure
- Consider any inadequacy of existing function structures
- Consider differences between SCR model and company risk profile
- Consider impact of any abnormal concentrations of risks, relationships or dependencies
- Should be proportionate but be inclusive of all aspects of the undertaking
- Needs to include an assessment of own funds and sources thereof
- Consider both current and future plans

Level 2

ORSA - CEIOPS advice Issues Paper May 2008

Documentation should at minimum include :

- a) A description of the areas that are included in the ORSA
- b) A description of the process of conducting the ORSA and the responsibilities of key personnel involved in the process
- c) Stress tests used and their results
- d) The amount of overall solvency needs and the financial condition of the undertaking, signed -off by the administrative or management body
- e) Any strategies for raising additional own funds where necessary
- f) A description of the independent assessment and the results of the last assessment
- g) Frequency and contents of internal reporting

Level 2 ORSA Process/Report

ORSA Report	Directive	ORSA Principle	ORSA Documentation
1. Contents Report Introduction Executive summary Undertaking Governance Assessment of Solvency			a
2. Report Introduction a. Who by b. Who for c. What date d. When previous e. Who wrote f. Who reviewed g. Who contact		A A A A A A A	b b b b b b b

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Level 2 ORSA Process/Report

ORSA Report	Directive	ORSA Principle	ORSA Documentation
3. Executive Summary a. Current Solvency Position – SCR & MCR b. Current Solvency Model c. Current Capital Position – Own Funds d. Current Risk Appetite & Tolerance e. Current Risk Mitigation policy f. Current Governance Status g. Planned budget forecast h. Capital needs arising from budget i. Sources of Capital – Current & Future j. Summary of budget stress tests	Article 45 Article 45 <i>To consider and comment on</i> Changes Movements Authorisation Approval Review Article 45 Article 45 Article 45	C C C D D B D D C D	<i>To consider and comment on</i> assumptions sign-off involvement integration actions justify confidence d & f f f f f c e & f e & f c
4. Detail of Undertaking Info (also be in the SFCR) a. Ownership b. Business c. Objectives d. Organisation Structure e. Board f. Officers g. Risk Appetite and Tolerance (process, agreements, control & verification) h. Risk Mitigation Policy	Article 51 Article 51 Article 51 Article 51 Article 51 Article 51 Article 45 Article 45	<i>To consider and comment on</i> Changes Movements Authorisation Approval Review A B B E E E E E	<i>To consider and comment on</i> assumptions sign-off involvement integration actions justify confidence b b b b b b b b

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Level 2 ORSA Process/Report

ORSA Report	Directive	ORSA Principle	ORSA Documentation
5. Detail of Governance structure and compliance (also in the SFCR)			
a. Fit & Proper - process & proof	Article 42	E	f
i. List of key function holders			
b. Proof of Good repute	Article 43	E	f
i. List of key function holders			
c. Risk Management System & Function	Article 44	B & E	f & g
i. Underwriting & Reserving		<i>To consider and comment on responsibilities strategy review period review triggers reporting process</i>	
ii. Asset-liability management			
iii. Investment (including "prudent person principle")			
iv. Liquidity & Concentration			
v. Operational Risk Management			
vi. Reinsurance & risk mitigation			
d. Internal Control	Article 46	B & E	f & g
i. At minimum to cover Administration and accounting procedures		<i>To consider and comment on assumptions sign-off involvement integration actions justify confidence</i>	
ii. Reporting arrangements			
iii. Compliance function and assessment of compliance risk			
e. Internal Audit	Article 47	B, C & E	f & g
i. Responsibility			
ii. Evaluation of effectiveness of internal controls & system of governance			
iii. Reporting structure and action processes			
f. Actuarial Function	Article 48	B, C & E	b, c, d, f & g
i. Role			
ii. Responsibilities (as per Article 48)			
iii. Reporting structure			
g. Outsourcing	Article 49	B & E	b
i. Use of			
ii. Controls and selection of providers			
iii. Regulatory cooperation agreements			
iv. Access to			

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Level 2 ORSA Process/Report

ORSA Report	Directive	ORSA Principle	ORSA Documentation
6. Assessment of Solvency (current & future)			
a. Current Position - SCR & MCR	Article 45 & 51	C & E	d
b. Current Solvency Model (Standard, Partial or In-house)	Article 45	C & E	d
c. Appropriateness of model	Article 45 & 51	B, C & E	d & f
i. Market Risk			
ii. Default Risk			
iii. Underwriting			
iv. Cat Risk			
v. Operational Risk			
d. Other Risks	Article 45	B, C & E	d & f
i. Liquidity			
ii. Reputational			
iii. Strategic			
e. Current Asset structure & Own Funds	Article 45	B, C & E	d & f
f. Current Solvency Status	Article 45 & 51	B, C & E	
g. Business Plan (5 yrs) - Standard	Article 45	C, D & E	
a. Balance sheet, P&L and Solvency		<i>To reflect and comment on future risks future plans future objectives economic changes stress impacts confidence</i>	c
b. Sources of funds			e
c. Assumptions			c
h. Business Plan (5 yrs) - Stressed A	Article 45	C, D & E	
a. Balance sheet, P&L and Solvency			c
b. Sources of Funds			e
c. Assumptions			c
i. Business Plan (5 yrs) - Stressed B	Article 45	C, D & E	
a. Balance sheet, P&L and Solvency			c
b. Sources of Funds			e
c. Assumptions			c

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Summary guidelines for an ORSA

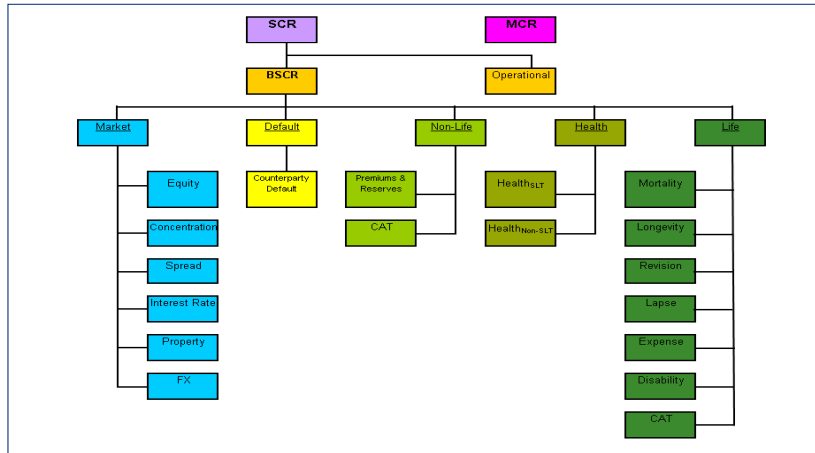
- A clear and documented ORSA should set out
 - What are your plans (continuous view of the business)
 - What are your business risks (appetite & limits)
 - What is material (impact on current capital)
 - What you are doing about it (responsibility, control & mitigation)
 - Why you are taking that approach (evidence & documentation)
 - What might be the range of outcomes and costs (stress tests)
 - How can you cope with such outcomes and costs (capital sources)

QIS4/5
Pillar 1

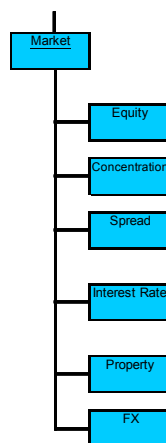


Pillar I

- Model broadly unchanged
- **Standard model is a conservative assessment**
- Internal or partial model likely to give lower assessments



What we do know Pillar I SCR Market Risk



Correlation matrix factors increase

Equity stress test: Global 32% → 45%, Others 45% → 55%

Concentration threshold 3 - 5% → 1.5 - 3%

Bonds: F(Rating) 0.25 - 2% → 1.3 - 3%

Structure Credit: G(Rating) → G(Rating, Tenure), R(Rating)

Credit Derivative: widening spread 300% → 600%

Interest rate stress tests:

Up 95 - 37% → 70 - 26%

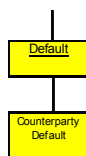
Down 51 - 31% → 75 - 29%

Property stress test 20% → 25%

FX stress test 20% → 25%

What we do know

Pillar I SCR Default Risk

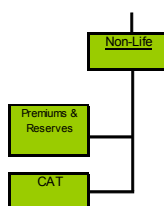


Type 1 Exposure
(Reinsurance, Securitisation, Derivatives, Cash, Deposits, Guarantees...)
Loss Given Default, capped by 3/5 times standard deviation of loss distribution

Type 2 Exposure
(Intermediaries, Policyholders, Debtors...)
Risk factors (15%/90%) applied to market value

What we do know

Pillar I SCR Non Life Underwriting Risk



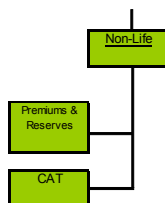
Correlation: 0 → 25%

Prem stddev 5 - 15% → 5% - 28% *(NCR/GCR)
Res stddev 7 - 15% → 9% - 25.5%

CAT standardised scenarios to be finalised
CAT factor method: 7.5% - 150% by lob → 30% - 250% by event

What we do know

Pillar I SCR Non Life Underwriting Risk (Captives)



Correlation: 0 → 25%

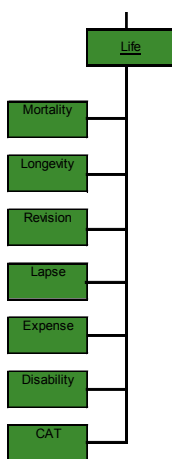
Prem stddev 5 - 15% → 5% - 28% *(NCRi/GCRi)
 Res stddev 7 - 15% → 9% - 25.5%

Captives CAT factors: 225%, 540%, 920%

Gross Premium (lob) x Factor, applied to Reinsurance limit (lob)
 CAT Risk = All lob summed using Sq root of Sum of Squares
 Overall CAT Risk = Max (CAT Risk , any all business Aggregate Limit)

What we do know

Pillar I SCR Life Underwriting Risk



Correlation matrix factors increase

Mortality: increase in mortality rate 10% → 15%

Longevity: decrease in mortality rate 25% (same)

Revision: increase of 3% in annual amount (same)

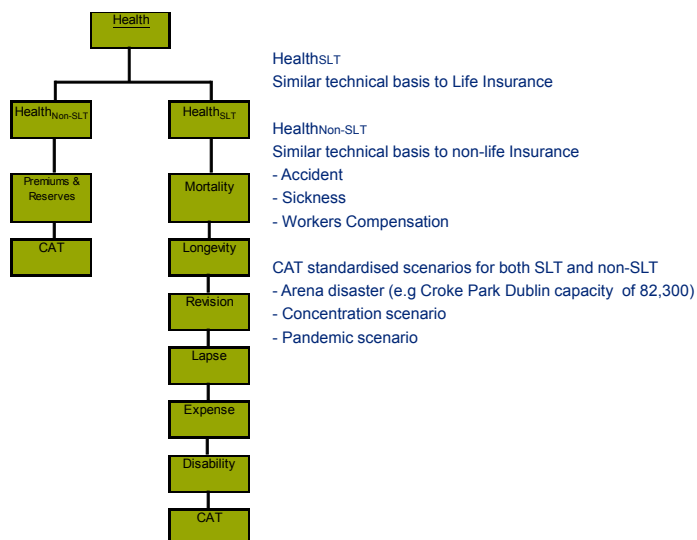
Lapse up 50% (same), down 50% (same), mass 30% → 30% / 70% (non-retail)

Expense: increase of 10% in future expenses + 1% increase in Inflation (same as QIS4)

Disability: 1st year Increase rate 35% → 50%, subsequently 25% (same) + decrease of 20% in recovery rates

Scenario based stress of an absolute increase of 1.5 per mille in mortality rate (same as QIS 4), morbidity stress removed

What we do know Pillar I SCR Health Underwriting Risk



What we do know Pillar I SCR Other changes

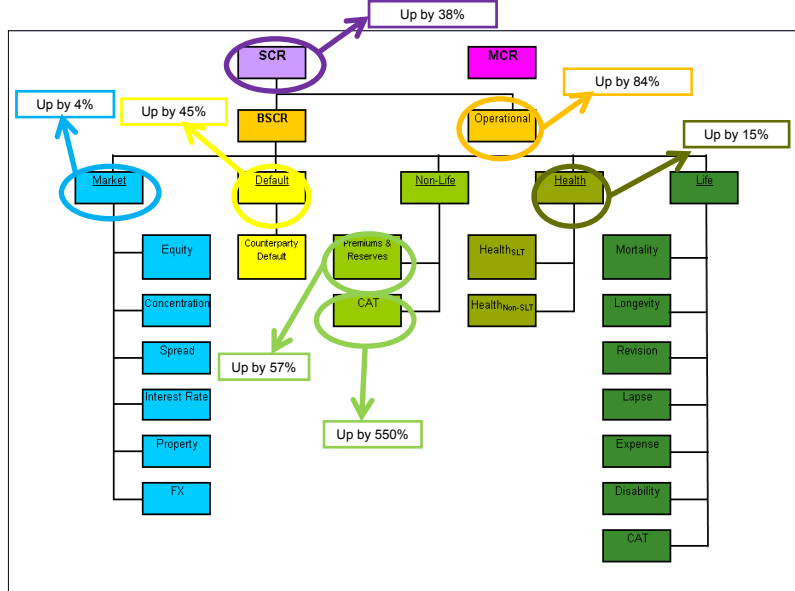
MCR

Absolute Floor (€1m, 2.2m, 3.2m) and SCR corridor (25% - 45%) in Level 1 Text
Non-life factors: α 9 - 20% → 11 - 30% β 4 - 20% → 6 - 33%
Life TP and capital-at-risk factors have also revised

Operational

Factors: 0.3 - 3% → 0.6 - 5.5%

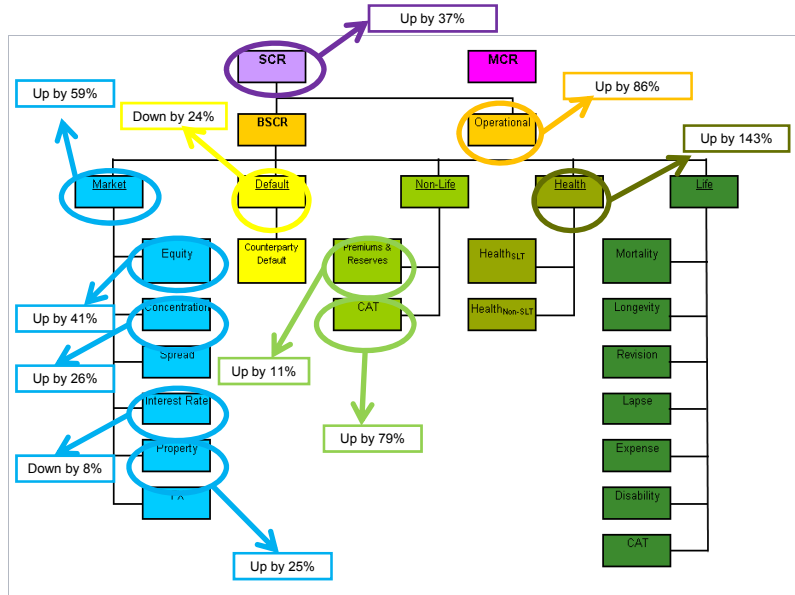
Impact QIS4 to QIS4.5/5 on Non-Life Captive (Re)insurers



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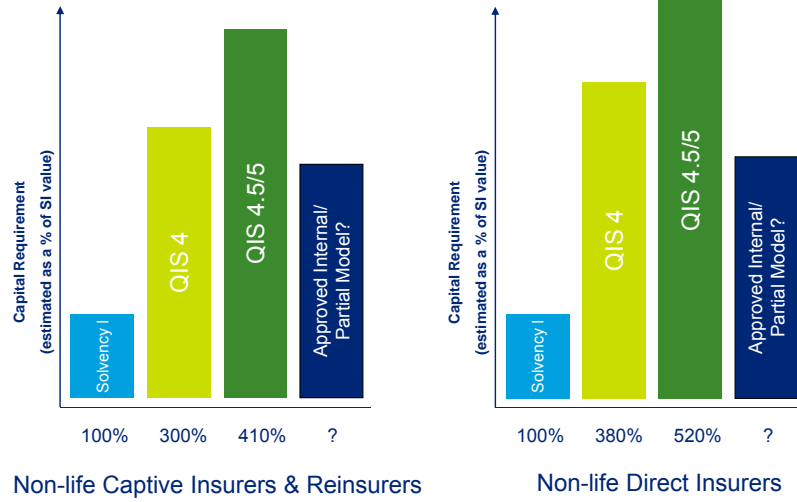
Impact QIS4 to QIS4.5/5 on Non-Life Direct Insurers



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From Solvency I to Solvency II...



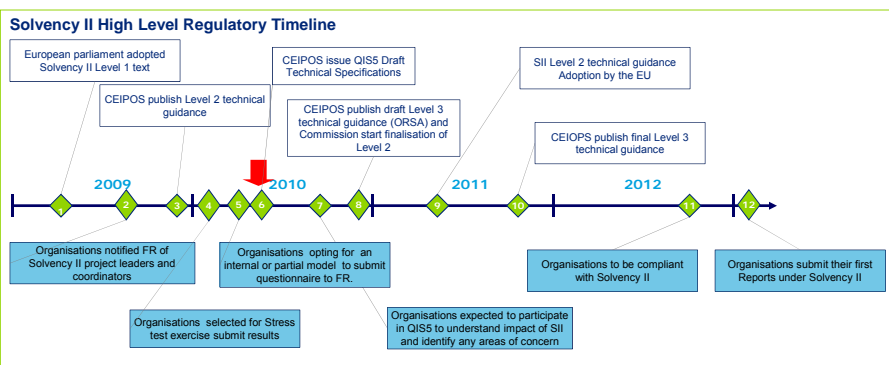
Solvency II Timelines



Time lines

Dates

- The date for Solvency II compliance is **31 October 2012**
- **The date for reporting under Solvency II is 1 Jan 2013**
- Need to notify Financial Regulator if planning to use internal or partial by **end March 2010**



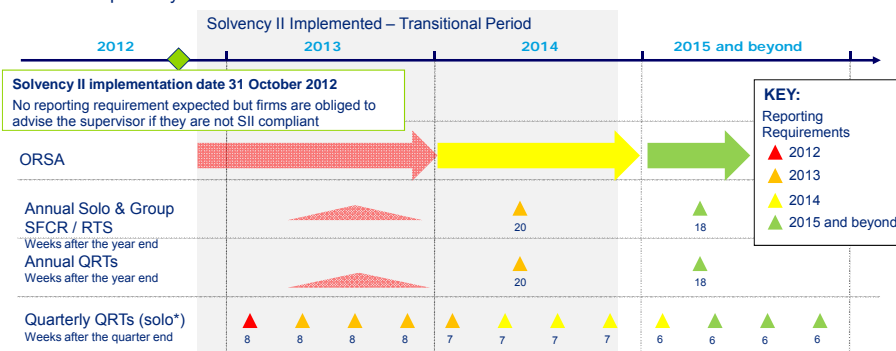
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Time lines

Dates – Meeting Solvency II reporting requirements

- Solvency II disclosure dates are set out below
- Insurers will need to implement the appropriate reporting architecture to meet these requirements.
- Assumption is that key forms i.e. Solvency Forms, Own Funds, Balance Sheet and P&L will be audited. Other components may be incorporated as well
- Key challenge will be ensuring that statistical data reconciles to financial data
- ORSA in place by 31 October 2012



Assumption: firm has a financial year end of 31 December

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Questions & Answers

