

A closer look at Solvency II: The Actuary's role in the ORSA
Visesh Gosrani, Barbara Illingworth



Own Risk and Solvency Assessment

Agenda

- Introduction
- Overview of the Own Risk and Solvency Assessment (ORSA)
- Discussion on role of the actuary within the ORSA
- Interesting issues for discussion

Questions for the audience

- Who is not familiar with the ORSA?
- Who does not have a role within a Solvency II programme?
- Who is completely new to Solvency II?

About the working party

- GIRO working party addressing the “Role of the actuary in the ORSA”
 - Main aim is to identify where actuaries can play a role in the ORSA process
 - Supplementary purpose is to provide guidance to actuaries tasked with establishing an ORSA process
- Although a GIRO working party, membership includes actuaries working in Life and Non-Life companies and the FSA
- Contact: WP.ORSAGmail.com

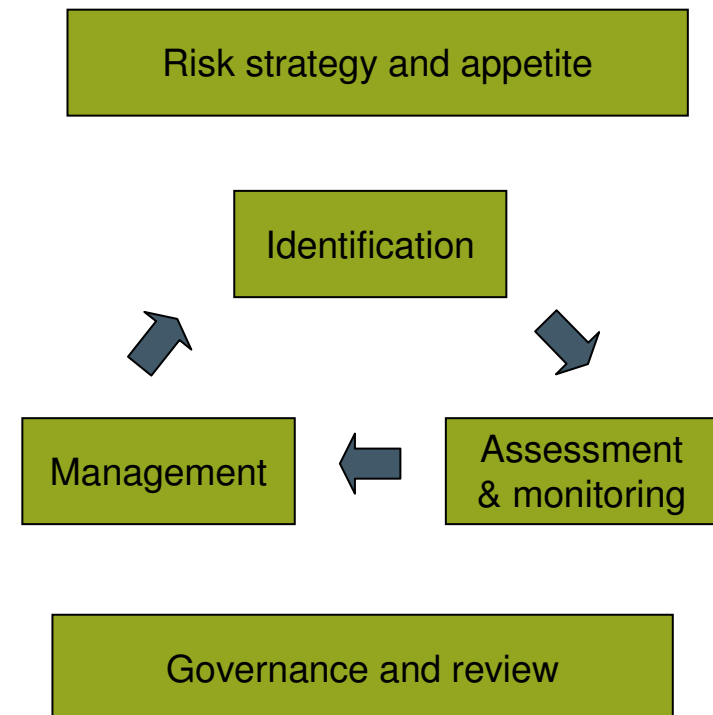
Aims of the ORSA

- Solvency II directive
 - “As part of its risk management system every insurance or reinsurance undertaking shall conduct its own risk and solvency assessment” (Article 45)
- CEIOPS defined the ORSA as
 - “the entirety of the processes and procedures employed to identify, assess, monitor, manage, and report the short and long term risks a (re)insurance undertaking faces or may face and to determine the own funds necessary to ensure that the undertaking’s overall solvency needs are met at all times” (ORSA Issues paper May 08)

ORSA focuses on process over the outcome (report)

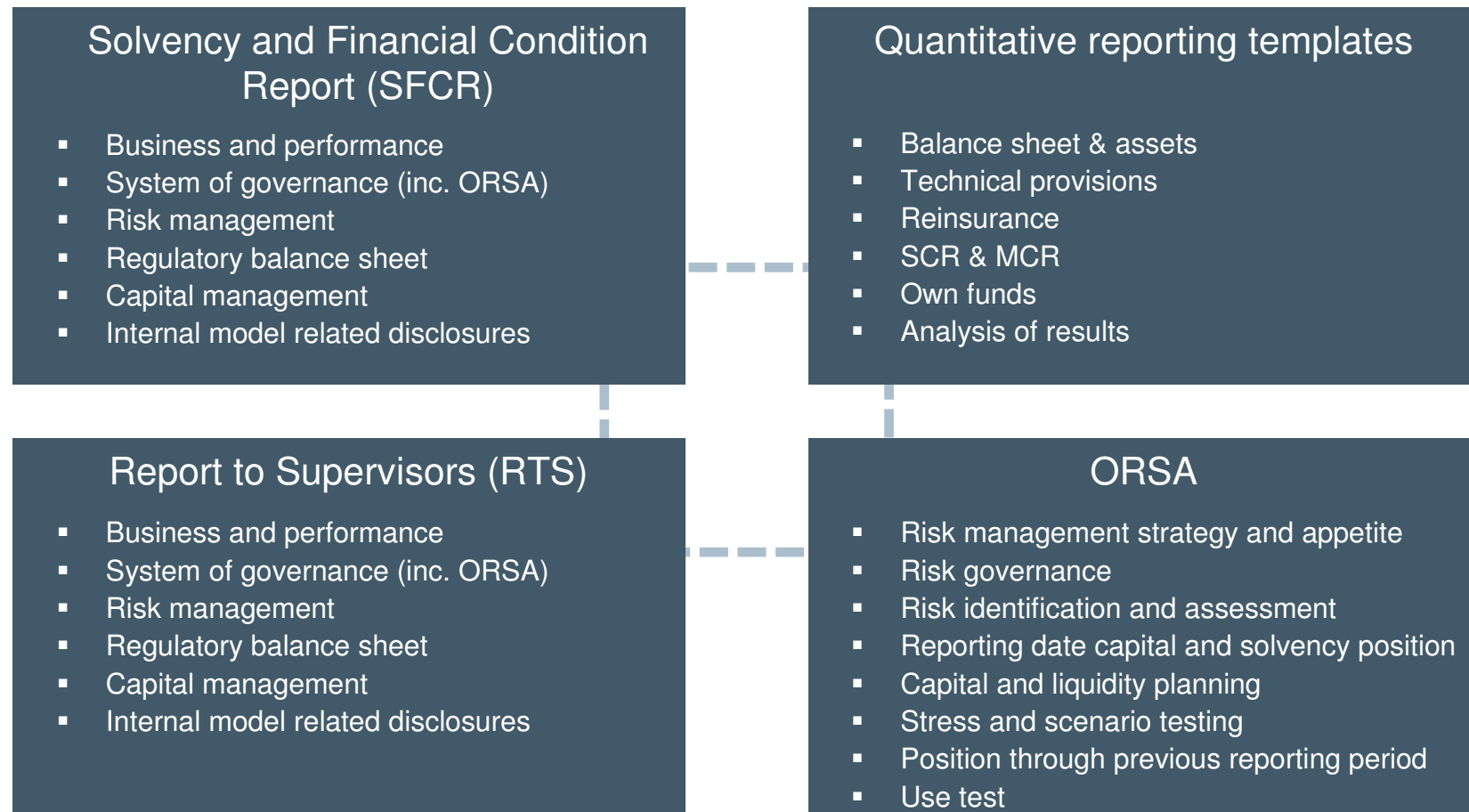
- CEIOPS: “The ORSA process is as important for the undertaking as the final outcome itself
- Performing the ORSA helps the undertaking to obtain a real and practical understanding of the risks it is assuming
- [If the supervisor identifies issues] ...the non-identification of issues in the ORSA may prove to be of just as much concern to supervisors as the issues themselves”¹

An ORSA process (one view)



1. Bullets are from the CEIOPS ORSA Issues paper May 2008 (Articles 16 and 17)

ORSA has overlaps with other Solvency II information



1. and 2. Towers Perrin analysis of CP 58, 3. Based on FSA presentation on informal industry consultation on QTR (Apr 2010), 4. GIRO working party template

Key milestones impacting development of an ORSA

ORSA milestones	2010	2011	2012
FSA expert group (Pillar 2) meeting	1		
CEIOPS ORSA guidance (level 3)	2		
Use test entry point (latest)		3 3	
Internal model application (latest)			4 4
Solvency II 'go live'			5

1. 21 May 2010
2. October 2010 (Groups-related elements may be released earlier or later, timing is still to be finalised)
3. October 2011 (Cross border Groups – August 2011)
4. April 2012 (Cross border Groups - February 2012)
5. October 2012 (widely expected to move to 1 Jan 2013, which would delay 3 & 4)

Approach taken by the working party

- Develop an ORSA results report template
 - From which ORSA processes can be ‘back engineered’
- Identify key and peripheral actuarial roles involved in different sections of the report
 - Note non-actuaries expected to be extensively involved
 - Also actuarial skill set highly applicable to ‘non-traditional’ roles
- This is a work in progress – your feedback is very welcome!

Discussion: report template

Current contents

- Overview of ORSA process
- Background information
- Risk management strategy and appetite
- Risk governance
- Risk identification and assessment
- Reporting date capital and solvency position
- Projections of capital and solvency position
- Capital and liquidity planning
- Stress and scenario testing
- ORSA position through previous reporting period
- Use test
- Results of independent review

Caveats

- Principles based process
 - Guidance not yet released
 - Does not differentiate between sizes and types of companies
- Assumes that those performing a function will have required skill-sets
 - Not confined to actuaries unless expressly stated
- Where small amounts of input are required from a wide range of staff we have not tried to capture a complete sub-set
- This is guidance and alternative splits of responsibility may work equally well
- Risk management is considered a separate function to compliance

Discussion: Risk management strategy and appetite

	(Non) Actuary responsible	(Non) Actuary involved
Risk management philosophy	CRO	
Summary of risk appetite setting process	CRO	
Risk appetite statement	CRO	CEO Chief Underwriting Officer Chief Actuary, Capital Actuary CFO
Framework for management of risk measures that reach limits at a level tied in with risk appetite	CRO	

Discussion: Risk Governance

	(Non) Actuary responsible	(Non) Actuary involved
Outline of the firm's risk management framework	The board is actually responsible for the ORSA and hence the risk governance. Therefore it needs to be addressed by ERM function but understood and signed off by the board	Appropriate specialists to cover various risk categories and internal audit. The assessment of risk processes and policies' adequacy will involve the ERM function, internal audit and internal or external parties for general independent review.
Assessment of remaining uncertainty with use of models	ERM skill-set/ Capital Modelling	Reserving actuaries, pricing actuaries, appropriate specialists for each risk category
Integration of ORSA into the management process and decision-making framework of the undertaking	ERM skill-set	Senior management / Board input and iterative review
Frameworks for governance processes	ERM skill-set	Any as required
Assessment of remaining weaknesses in company's risk management procedures, systems or controls	ERM skill-set	Leader of each particular area under assessment
Assessment of governance of outsourcing	Leader of each particular area under assessment	Leader of each particular area containing outsourced functions

Discussion: Risk identification and assessment

	(Non) Actuary responsible	(Non) Actuary involved
Overview of risk identification, assessment, management and mitigation process	ERM skill-set	Cat modeller/ CUO (Extreme event/ Underwriting risk) CFO (Market risk, Liquidity, Credit) ERM (Op risk)
Description of the major/material risks faced within each risk category and why it is acceptable (also the mitigating actions that have been planned)	ERM skill-set, chief actuary or capital modelling team	All departments as per risk type. For insurance risks underwriting and reserving should be able to provide significant assistance in validation of assumptions.
Quantitative assessment of risks	ERM skill-set/ Capital Modelling	Risk committee and appropriate assistance for each risk category
Qualitative assessment of risks	ERM skill-set	Risk committee and appropriate assistance for each risk category
Explanation of methods other than capital used to mitigate risks	ERM skill-set	Appropriate assistance for each risk category

Discussion: Reporting date capital and solvency position (1 of 2)

	(Non) Actuary responsible	(Non) Actuary involved
Quantification of capital requirements at the reporting date	Capital and Risk/DFA Modelling skillset, Finance (Balance Sheet) skillset, Chief Actuary	Capital Actuary/Modelling Actuary/Chief Actuary Pricing and Reserving Actuaries (Insurance Risk) Cat modeller/ CUO (Extreme event/ Underwriting risk) CFO, Finance Manager (Market risk, Liquidity, Credit, determination of available capital) ERM (Op risk) Business units (UW, Claims, Finance etc) whose help may be needed in determining assumptions / 'expert' judgement etc investment managers /actuary reinsurance manager risk management
Ensuring capital and solvency calculations are up-to-date	CRO/Chief Actuary may be ultimately responsible for providing numbers for the ORSA ERM skill-set, chief actuary or Capital and Risk/DFA Modelling skillset.	All departments as above. risk capital actuary finance strategy

Discussion: Reporting date capital and solvency position (2 of 2)

	(Non) Actuary responsible	(Non) Actuary involved
Benchmarking of capital requirements	CRO or Chief Actuary would be ultimately responsible for confirming that calcs are up to date	Capital and Modelling Actuaries - Determine capital requirements on an overall basis and at individual risk level Finance – determination of available capital resources and solvency ratio
Quality assurance and review of capital and solvency position	Chief actuary or Capital and Risk/DFA Modelling skillset / Consultancy or Independent reviewer skillset	Capital Actuary/Modelling Actuary/Chief Actuary External consultants/reviewers (actuarial and non-actuarial) Validation/Risk Analytics actuary reporting to CRO who may independently verify the capital actuaries' work Board – may need to ultimately sign off Risk management committee Business users of the model to help validate output + assumptions Auditor

Discussion: Projections of capital and solvency position

	(Non) Actuary responsible	(Non) Actuary involved
Projections of capital and solvency position on a regulatory basis	Capital Modelling/Management skillset, Financial forecasting and planning skillset, ERM Skillset	Capital actuary Underwriting Planning Finance Risk Board Fund manager ERM actuary
Projections of capital and solvency position on an economic (business) basis	Capital Modelling/Management skillset, Financial forecasting and planning skillset, ERM Skillset	All departments as above.
Projection Approach and validation	Chief actuary or Capital and Risk/DFA Modelling skillset.	Business units eg Underwriting Capital Actuary Finance and Planning CRO /Risk Management Risk Management Committee External consultants/reviewers (actuarial and non-actuarial) Board – Ultimate signoff / endorsement of projection approach

Discussion: Stress and scenario testing

	(Non) Actuary responsible	(Non) Actuary involved
Identification of scenarios and stress tests	CRO / ERM type skillset would lead the process	Wide range of experts from across the business (Execs, strategy & planning, HR, reinsurance brokers etc.)
Quantification of scenarios and stress tests	Capital Modelling/Management skillset, with process being driven by ERM Skillset	Capital actuary Risk Manager (Risk Analytics) Business areas concerned eg Underwriting/Reinsurance Finance UW and Business units
Use of scenarios and stress tests	CRO/ERM Skillset to help challenge/validate the capital required numbers from other calcs eg Internal model / Standard formula	Capital actuary Risk Exec /Board UW Finance
Quality assurance and review	CRO/ERM Skillset to help challenge/validate the capital required numbers from other calcs eg Internal model / Standard formula	Board Risk Capital actuary External reviewers or Independent review by actuary/quantitative professional within risk Compliance

Discussion: Capital and liquidity planning

	(Non) Actuary responsible	(Non) Actuary involved
Quantification of future cashflows and capital requirements	CRO / ERM type skillset would lead the process ; Planning & Capital skillset would help quantify cashflows	Capital actuary Reserving actuary Underwriting Asset management Strategy Finance & Planning
Use of capital and liquidity planning in business decisions	Financial Planning and ERM skillset could lead the process	Board Finance Strategy Capital actuary Asset manager UW and business units
Quality assurance and review	CRO/ERM Skillset to lead the challenge process	Executive Capital actuary CRO Independent review by external consultants / Risk Management

Discussion: Use test

	(Non) Actuary responsible	(Non) Actuary involved
Embedding of ORSA	ERM skill-set, Solvency II sponsor	Key users, Risk committee, capital modelling, compliance
Management buy-in	ERM skill-set, Board	Risk committee, capital modelling
Ensuring ongoing appropriateness	ERM skill-set, key users	Risk committee, capital modelling, compliance

Discussion: ORSA position through reporting period

	(Non) Actuary responsible	(Non) Actuary involved
Risk and solvency profile monitoring process	ERM skill-set, capital modelling	All departments as per risk type Risk committee and appropriate assistance for each risk category
Own risk assessment through reporting period	ERM skill-set	Risk committee and appropriate assistance for each risk category Capital modelling actuaries and risk management
Solvency assessment through reporting period	ERM skill-set, chief actuary	Capital modelling actuaries, reserving, pricing

Discussion: Results of independent assessment

	(Non) Actuary responsible	(Non) Actuary involved
Independent assessment process	Board / Management	ERM skill-set, Senior management, risk management, chief/capital actuary
Results of independent assessment	Board / Management	ERM skill-set, chief/capital actuary All departments as per assessment responsibilities, senior management, risk management, internal audit

Discussion: Overview of ORSA process

	(Non) Actuary responsible	(Non) Actuary involved
Principles and purpose of process and report. Relation of sophistication and depth of ORSA to nature, scale and complexity of the business	CRO	
Discussion of entities and risk areas included within the ORSA	CRO	
Governance of ORSA process	CRO	
Commentary on major issues going forward that require further analysis and decisions. Planned improvements to process	CRO	

Discussion: Background information

	(Non) Actuary responsible	(Non) Actuary involved
Legal and organisational structure	Company secretary	
Company history	Company secretary	
Core business	Chief Financial Officer, Chief Underwriting Officer	
Target market	Chief Financial Officer, Chief Underwriting Officer	

Challenges faced by companies in the roll-out of an ORSA process

- Different audiences for ORSA results
- Group vs solo requirements
- Timing of ORSA processes
 - ‘Continuous’ compliance with solvency requirements
 - Perform ORSA ‘without delay’ following significant change in risk profile
- Including impact of non-insurance entities
- Lack of detailed guidance available
- How to avoid focusing on reporting only

Further questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

