ORSA for a Life Company

How to go about the Life ORSA –
Some practical considerations on the technical aspects
of completing an initial ORSA for a life company
ORSA for a Life Company

• Set up by Life Committee to look at some of the practical aspects of producing a Life ORSA
  – No one way to complete an ORSA
  – Likely to be an iterative process
  – Will certainly evolve

• But worth setting out some possible approaches to
  – Encourage discussion
  – Share views

• Working Party
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ORSA for a Life Company

- Overview
- Users and Expectations
- Policy
- Report
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- Projections
- Continuous Monitoring
- Risk Management
- Conclusion
ORSA for a Life Company

• ORSA what is it?

• The Company’s Own Risk and Solvency Assessment

• Company’s view of its risks and its solvency requirements
  – In light of its particular business, market and plans
ORSA for a Life Company

• As companies begin to plan their ORSA they have
  – Article 45 of the Directive
  – EIOPA guidelines
  – Little else

• This is not a mistake
  – Risk Management ≠ Compliance
Overview

• ORSA is expected to:
  – take account for the Company’s risk profile, risk limits and business strategy
  – demonstrate continuous compliance with the capital requirements
  – identify and assess the short and long term risks
  – be used in strategic decision making
  – be performed regularly and following any significant change to the risk profile
  – form part of the regulatory reporting process

• And at the same time be
  – Useful
  – Comprehensive
  – Readable and Concise
Overview

• Benefits
  – better risk awareness
    • more insightful decision making
    • proactive risk management
  – focus on the risks that matter
    • regular, current and relevant information
  – increased alignment of risk appetite and business strategy
  – improved capital efficiency*
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Users and Expectations

• Key Parties
  – Actuarial and Finance – 1st Line – Much of the quantitative
  – Risk Management – 2nd Line – Assessment of risks and output
  – Management – need to buy into and use the ORSA
  – Board – need to oversee and understand the ORSA

  – Because of this vital that these last two groups take part in the journey along the way

  – Other Contributors and Users
CEO and Senior Management Team

- Risk Management
  - a journey not a destination

- Developing the ORSA will help companies to formalise how they:
  - measure the risks
  - compare the risks
  - articulate the risks

- Important that SMT engage appropriately along the way.

Because it’s not there.
I’m a Board Member what should I know?

• The ORSA process should be such to allow the Board to understand:

  • The risk profile of the company and the key drivers
  • Is there sufficient capital to support the current business plan
  • Is the company likely to be in line with its risk appetite going forward
  • What risks should be monitored more frequently
  • Material changes to the risk profile over the most recent period;
  • Risks not covered in the regulatory Capital
  • Key sensitivities in the balance sheet
  • Key drivers of expected profits
Supervisors and the ORSA

• Supervisors tasked with ensuring that Companies are prudently managed.

• By boards and staff that understand the market environment and business risks they are carrying

• ORSA is a tool to
  – Help management articulate their stewardship
  – Allow supervisors challenge and comment

• As risk management evolves so too will the ORSA
  – As they see all ORSA reports
  – Supervisor likely to be instrumental in shaping best practice
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Policy

• Breadth of ORSA process is very wide

• To ensure that process is coherent and valuable important to have a clearly defined policy that sets out: -

  – What you are aiming to do
  – How are you going to do it
  – Who is going to do it
  – When are they going to do it
  – How are you going to validate and challenge it
  – What actions will it lead to
  – What will make you change any of the above

• Guidelines 3, 4, 5 and 15
Policy

• Should be approved by the board
  – Which helps to ensure appropriate engagement with Senior Management and the Board

• Policy should
  – Set out responsibilities, goals, processes and reporting procedures.
  – Justify the frequency of the regular ORSA and circumstances for a non-regular ORSA.
  – Help the board to challenge the ORSA process.
  – Describe how the process and outcome will be evidenced.

• One possible policy outline provided in report
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One possible outline*

1. Company Risk Profile
2. Current and future solvency position
3. Validation, Challenge and Assessment

* Adapted from “The ORSA: What is it and why is it good for you.” Willis Re:
1. The company’s risk profile

   - The company, its business, market and drivers
   - Company’s risk identification and assessment
   - Risk appetite
     - capital strategy
     - capital aims in terms of shocks and extreme shocks
   - Strategic plan and link to risk appetite
2. The Company’s current and future solvency position

- Base case - forecasted solvency on current business plan.
- Stress testing and scenario analysis
- Capital Management Plan
- Risk Mitigation and Risk mitigation strategies
- Management Actions
3. Validation, Challenge and Assessment

- Management review and conclusions
- Board review and challenge. Specifically in relation to:-
  - Policy
  - Process
  - Scenarios
  - Results
- Reconciliation to SCR and assessment of additional risks considered as part of the ORSA process.
- Evidence of link between ORSA process, strategy and capital management.
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ORSA and Economic Capital

• What is Economic capital? No single definition but key features are:
  – sufficient capital to protect against adverse outcomes
  – with a given confidence level
  – over a given time horizon

• Should be consistent with how a company manages its business and its business strategy

• For example:
  – a business in run off has no opportunity to make future profits so may require a high confidence level; and also may consider the time horizon to the end of the run off
  – a company selling annuities may consider a longer time horizon
  – a large group may decide to target a particular credit rating
  – a subsidiary may look to the regulatory requirement for capital efficiency
Economic Capital vs. Regulatory Capital

- The purpose of regulatory capital is to protect policyholders
  - sufficient capital to pay out even in the event of some adverse event or experience

- The purpose of economic capital is:
  - to protect against adverse experience
  - to support business plans and strategy
  - to ensure the viability of the company

- If the regulatory capital is to protect policyholders then economic capital is what the company needs achieve its business plans and protect the future performance and viability of the business.

- The ORSA is an assessment of the adequacy of the Economic Capital not an alternative measure of Regulatory Capital
How to calculate Economic Capital

• Generally need a financial model of the underlying business
  – capturing all the assets and liabilities
  – projecting the development of the business over the time period
Benefits of Modelling Economic Capital

- Improve understanding of the business dynamics
- Understand sources of profitability
- Calculate the capital used by different business lines
- Help consider different strategies
- Understand the impact of possible extreme events
Developing a Standard Model into an EC Model (1)

- **Need to Consider**
  - How to incorporate new business
  - What confidence level and time horizon to use
  - Impact of the stresses on different risk factors
  - How to aggregate risks
  - What additional risks need to be included

- **Additional risks include:**
  - Pricing risks – loss of profitability/pressure on margins
  - Liquidity risk
  - Sovereign bond risk
  - Changes in the legal or fiscal environment

  - Emerging Risk
  - Hard to quantify risks such many operational risks
  - Particular Scenarios which may lead to actions rather than Capital eg Eurozone breakup
Developing a Standard Model into an EC Model (2)

• Calibration of stress factors
  – Could start with the standard model calibrations
  – Or start with Group calibrations - adjusted if required
  – Larger / long established companies could use their own data, if they can meet the tests and standards required
  – Expert judgement – a topic in itself

• Validation of the standard model
  – Even if using the standard model, for the ORSA a company needs to consider at least:
    • Company specific risks
    • If the standard parameters/methods are appropriate
Economic Capital and Risk Appetite

• A company’s risk appetite statement is an important element of the ORSA

• Economic Capital can define overall capital objectives
  – eg a company may have a risk appetite statement saying that they wish to maintain 1X0% of the required capital

• Economic capital can be used to:
  – define risk limits in terms of an economic capital measure
  – ensure overall solvency
  – help understand the impact of proposed business decisions
    • e.g. changes in volume mix, new products, changes to investment strategy etc

• Guideline 4(b) – The ORSA policy should ….. include additionally at least consideration of the link between the risk profile, the approved risk tolerance limits and the overall solvency needs;
  – Economic capital should provide that link
Practical obstacles

• No magic answers unfortunately

• Some obstacles to think about are:
  – availability of resources
  – balancing the use of approximations with having sufficient detail
  – setting assumptions for risks, in particular ones specific to the company
  – allocating overall economic capital to specific risks/products
  – IT resources e.g. if using a stochastic model
  – developing a model that is understandable to management and the Board
    • if not readily understandable then unlikely to be practically useful
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Stress and scenario testing

• Stress and scenario testing is very important in the ORSA

• Advantages
  – Focus on the key risks
  – Independence
  – Can reflect realistic and extreme stresses and scenarios
  – Can address key management concerns:
    • e.g. long term contraction in the marketplace or a prolonged low interest rate environment

• Also reverse stress testing
  – ‘How much of a particular stress can I withstand?’

• Helps Companies articulate and communicate their approach to risk management
Scenarios

• Business Scenarios
  – Flexing the business plan and assumptions

• Stress Tests
  – What happens if

• Economic Scenarios
  – What economic scenarios would result in stresses
  – Knock-on impacts

• Reverse Stress Tests

[Diagram showing the process of Scenarios]

[Diagram showing the steps: Determine Scenario, Calculate Impact, Identify Outcome]
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Guideline 10 – Forward-looking perspective

The undertaking’s assessment of the overall solvency needs should be **forward-looking** and at least **cover separately each year of the business planning period**.

- Quantitative element of the ORSA
- Time horizon: business planning period (likely 3-5 years)
- Content: Economic Balance Sheet, SCR, MCR...
- Sufficient granularity to enable:
  - Assessment of Own Funds
  - Monitoring of Risk Profile vs. Risk Appetite & Tolerance metrics
Projections – Practical difficulties

- Different levels of complexity depending on method for calculating SCR and Economic Capital:
  - Standard Formula vs. Internal Model
  - Deterministic vs. stochastic

- Likely that estimations will be required
Projections – Possible Methodologies

<table>
<thead>
<tr>
<th>Methodology</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll Forward</td>
<td>• Simple roll-forward of BS components and SCR</td>
</tr>
<tr>
<td></td>
<td>• Adjustments based on key risk drivers</td>
</tr>
<tr>
<td>Deterministic projection</td>
<td>• Projections over pre-defined deterministic paths</td>
</tr>
<tr>
<td></td>
<td>• BE “path” + a series of scenarios</td>
</tr>
<tr>
<td>Replicating Portfolios</td>
<td>• Replicating portfolio for the Liabilities</td>
</tr>
<tr>
<td></td>
<td>• Projection based on market indicators</td>
</tr>
<tr>
<td>Partial Nested Stochastic Projection</td>
<td>• Limited number of stochastic projections</td>
</tr>
<tr>
<td></td>
<td>• Series of “paths”</td>
</tr>
<tr>
<td>Nested Stochastic Projection</td>
<td>• Nested stochastic projection over the time horizon</td>
</tr>
<tr>
<td></td>
<td>• Practical difficulties</td>
</tr>
</tbody>
</table>

- Appropriate to the nature, scale and complexity of the risks inherent to the business.
Projections – Deterministic projection

Calibration of scenarios:
- Company’s objectives
- Likely deviations from BE over the ORSA horizon
- Company’s responses to risks/events
- Risks not covered by SCR
- Facilitate business decisions and assessment of risks
- Include management actions (responses to stressed situations)
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Guideline 11- Regulatory capital requirements
The undertaking should ensure that the ORSA includes:

   a) procedures that enable the undertaking to reliably monitor its **compliance on a continuous basis with regulatory capital requirements** whilst taking into account potential future changes in the risk profile and considering stressed situations;

   b) processes and procedures to allow the undertaking to **monitor and manage the quality and loss absorbing capacity of its own funds** over the whole of its business planning period.

- Risk management (and so the ORSA process) is a continuum
Continuous Monitoring – How?

- Focus on key risk drivers
- Establish regular monitoring
- Triggers for management actions

- Possible methods
  - Approximations based on Key Risk Indicators
  - Estimates based on Sensitivities and Scenarios
  - Internal or Economic Capital Model: Partial or Full model runs
    - Consider triggers for model runs

Similar processes probably already in place
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Risk Management

- Qualitative part of the ORSA

<table>
<thead>
<tr>
<th>Non-quantifiable risks</th>
<th>Emerging risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deviation of risk profile from SCR assumptions</td>
<td>Deviation from Risk Appetite</td>
</tr>
<tr>
<td>Adequacy of Internal Model/Economic Capital Model</td>
<td>Management actions and risk mitigation techniques</td>
</tr>
<tr>
<td>Quality of ORSA sub-processes</td>
<td>Adequacy of the risk management system</td>
</tr>
</tbody>
</table>

- Development of risk responses: mitigate, transfer, accept
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ORSA Process

Business planning
Capital planning

Business strategy
Investment strategy
Product development
Risk mitigation strategy

Assessment and Conclusions
Quantitative elements

Risks over the time horizon
Review and analysis
Conclusions

Key aspects to consider for the first ORSA:

- Identify and engage all stakeholders at an early stage – Education is important!
- Bring management along the way throughout the whole process

- Use the ORSA Policy as a tool for planning how to approach the ORSA
- Internal Economic Capital might be a new calculation for many companies (although most will already have existing building blocks that can serve as a foundation)

- Connect the ORSA with the Company’s strategy
- Ensure the ORSA adds value to the Company

- Use stress tests, reverse stress-tests and scenario analyses
- Iterative process
- Trial runs (“pilots”) in advance of 2014 helpful