A Case Study on IFRS 17

Joseph Sloan
19 SEPTEMBER 2019
IFRS 17 Timeline

IFRS 17 Issued
18th May, IFRS 17: Insurance Contracts is issued

Proposed Effective date
IFRS 17 is effective from 1/1/2022

Transition Period

2013
Exposure Draft
20th June 2013, the IASB issue the Revised Exposure Draft ED/2013/7

2017
IFRS 9 effective date
Overlay approach

2018
IFRS 9

2019
Revised Standard Issued (latest)
IASB expected to have issued Revised Standard

2020
Proposed Transition date
Start of the comparative period

2021
Proposed Effective date
IFRS 17 is effective from 1/1/2022

2022
Reporting

2023

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General Model - Risk Adjustment

- Reflects the compensation the entity requires for bearing the uncertainty in the fulfillment cashflows arising from **non-financial risk**

- Similar concept as Solvency II risk margin but method and confidence level are not specified

- Two possible approaches for most standard formula European insurers:
  - Cost of capital
  - Quantile approach

- **A higher Risk Adjustment will mean a lower CSM and vice versa**

<table>
<thead>
<tr>
<th>PV of Premium</th>
<th>CSM</th>
</tr>
</thead>
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<td></td>
<td>Risk Adjustment</td>
</tr>
<tr>
<td>PV of Benefit and Expense CFs</td>
<td></td>
</tr>
</tbody>
</table>
Risk Adjustment – 2018 Global Survey

RA Calculation Method
- Cost of Capital
- VAR/Confidence Level
- Other

RA Confidence Level
- 90-99%
- 80-90%
- 70-80%
- 60-70%
- Other
Risk Adjustment – Case Study

- Company X is a Life insurer that writes Term Assurance business
- They are using the General Measurement Model (aka BBA)
- They have performed some sample calculations to get an initial view of the Risk Adjustment
- **VAR Approach at 80% confidence level over a 1-year time horizon**

**Approach Adopted**
1. Used the Solvency II BEL and SCR results as a proxy
2. Removed market risk and operational risk
3. Adjusted the percentile from 99.5th (Solvency II) to 80th using a standard normal adjustment
4. Re-calculated the SCR shocks for the lower confidence level
5. Aggregate up using the relevant Standard Formula correlation matrices (allows for diversification between risks)
VAR Approach at a 80% Confidence Level

- One approach: Adjusted SII SCR shocks assuming a standard normal distribution

![Standard Normal Distribution ~ N(0,1)](image)

- 99.5th Quantile = 15% shock
- 80th Quantile = 5% shock
- 99.5% of observations fall below this point
Confidence Level - Examples

Risk Adjustment (€m)

110
44
36
29

99.5th percentile
85th percentile
80th percentile
75th percentile

Remember – a higher Risk Adjustment will mean a lower CSM and vice versa

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Risk Adjustment – which risks to include?

- Some companies are investigating if catastrophe risk should be included at a lower confidence level.
- We investigated if there is a need for this company to hold mass lapse risk at 80th percentile.
- Used historical lapse data for at least 10 years.
- Assessed whether historical experience shows a mass lapse event at this confidence level.
Risk Adjustment – Other Key Considerations

- **Level of Aggregation**
  - RA should be determined at the entity level – how to allocate the diversification benefit to Groups?
  - Proportional Approach
  - Marginal Approach

- **Frequency of calculation**

- **Reinsurance**
  - Both gross business and ceded risk adjustments are required
## Transition – three approaches

<table>
<thead>
<tr>
<th>Full retrospective approach</th>
<th>Modified retrospective approach</th>
<th>Fair value approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required where not ‘impracticable’</td>
<td>Retrospective with simplifications to address data gaps</td>
<td>Comparison of fulfilment value to IFRS 13 fair value</td>
</tr>
<tr>
<td>Requires day 1 data and assumptions and full history to date of transition</td>
<td>Simplifications can be applied on a piecemeal basis</td>
<td>Could result in limited CSM and hence future profits</td>
</tr>
<tr>
<td>If impracticable, choose between modified retrospective and fair value approach</td>
<td></td>
<td>Determination of fair value of insurance contract is unclear</td>
</tr>
</tbody>
</table>

**Inception**

<table>
<thead>
<tr>
<th>CF_{t=0}</th>
<th>CF_{t=1}</th>
<th>CF_{t=2}</th>
<th>CF_{t=3}</th>
<th>CF_{t=n}</th>
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**Transition**

<table>
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<th>Full retrospective and modified retrospective approaches</th>
<th>FV=Forward looking</th>
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Modified Retrospective Approach - Process

Step 1
- Inception Date
- Historic cashflows
- BEL at inception

Step 2
- Transition Date
- BEL projected future cashflows
- Current BEL

Step 3
- RA at inception
- CSM at inception = Max (0, - (BEL at inception + RA at inception))
- CSM at transition

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Lessons learned from MRA application

- Large data exercise to collate data:
  - Historical policy data
  - Actual accounting data

- The CSM can vary dramatically depending on:
  - The allocation of historic cashflows / BEL / RA to cohorts
  - The coverage units selected

- Dependency on other methodologies e.g. RA, discount rates
- Inflexibility and complexity of MRA
- Time and resources for the MRA vs Fair Value approach
Fair Value Approach

- Involves applying a ‘fair value approach’ in which the entity should:
  - Define the CSM at transition date as the difference between the fair value at exit (IFRS 13) and the fulfillment cash flows (IFRS 17) at that date

- FVA is entirely prospective

- Most companies leveraging off Embedded Value or Solvency II calculations
Fair Value Approach - Challenges

- Main challenge is how to measure the Fair Value of liabilities under IFRS 13
- Adjusting Embedded Value / Solvency II – possible adjustments required:
  - Non-performance risk
  - Contract boundaries
  - Discount rates
  - Risk adjustment

- EFRAG paper (May 2019)
  - One participant’s view was that CSM should only capture small proportion of MCEV VIF (10-30%)
Practical Considerations for Transition

- The initial impact on retained profits at the transition date will need to be explained to and understood by all stakeholders
  - Higher CSM means lower retained earnings and vice versa
  - Companies may want a higher CSM to smooth future profits

- Applying the retrospective approaches clearly requires a large amount of historical data

- Demonstrating the impracticalities of applying the Full Retrospective approach

- Calculation of Fair Value CSM requires adjustments and judgement

- Most companies likely to use a blended approach
Closing Thoughts....
Solvency II 2020 Review
The story so far...

Aisling Barrett
19 SEPTEMBER 2019
Directive

By 1 January 2021, the Commission shall review:

- LTG measures and equity risk measures
- Calculation of the MCR
- Methods, assumptions & parameters used in calculating standard formula SCR
- Group supervision & capital management
The Commission (1)
11 February 2019 – Call for Advice to EIOPA

- Risk Margin
- Risk mitigation techniques
- Recovery & Resolution
- Reporting & Disclosure
- Reliance on External Ratings
- Own Funds
- Insurance Guarantee Schemes
- FoS FoE powers
- Proportionality & Thresholds

SCR
- Market risk (in particular equity & spread)
- Interest rate risk (low interest rate environment)
- Counterparty default risk (simpler approach)
- Life, Health SLT & non-life lapse (additional simplifications)
- Natural catastrophe risk calibration
- Underwriting risks calibration

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Macro Prudential Issues – How to improve:

• ORSA
• Systemic risk management plan
• Liquidity
• Prudent person principle

Best Estimate – report on divergent practices:

• ESGs
• Contract Boundaries
• Future management actions
• Expenses, investment costs, options & guarantees

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# Timeline

## 2020 review of Solvency II

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Experts are currently assessing the need for further information requests in 2019.

Source: https://eiopa.europa.eu/Publications/Meetings/06._EIOPA-IRSG-19-12_Slides%202020%20review.pdf
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**EIOPA Consultation Papers**

**Reporting & Disclosure**
- General Issues on Supervisory Reporting and Public Disclosure (55 pages)
- QRTs (131 pages + Annexes)
- SFCR (60 pages)
- Financial Stability Reporting (9 pages)

**To be reviewed later in 2019:**
- Group QRTs
- RSR
- Technical aspects of the reporting and disclosure process
- Data quality aspects
- Issues linked to other areas of the Solvency II 2020 review, including long-term guarantees templates.

**Insurance Guarantee Schemes**
- Harmonisation of National Insurance Guarantee Schemes (67 pages)

**Deadline:** 18 October 2019

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### EIOPA Proposals
Insurance Guarantee Schemes, General Issues & Financial Stability Reporting

#### Insurance Guarantee Schemes
- Every member state should have an IGS
- Minimum set of harmonised features
- Home country principle

#### General Issues
- Split QRTs into core and non-core
- Change annual reporting deadline to be as for 2018 (16 weeks instead of reducing to 14 weeks)

#### Financial Stability Reporting
- Some fields added & some deleted
EIOPA Proposals

QRTs (1)

- Some deleted, replaced, merged or new format; addition and removal of fields
- New QRTs on underwriting of cyber risk and on non-life product information

Asset QRTs:

- Deletion of S.06.01 (Summary of assets); Addition of fields to S.06.02 (List of assets)
- S.06.03 (Collective investment undertakings - look-through approach)
  - Only for assets where insurer does not have full look-through information nor does not have an influence on investment strategy of the CIU
  - Change in thresholds: Ratio of collective investments to total investments from 30% to 50% (for quarterly reporting); Country level identification threshold from 90% to 80%
- New QRT S.06.04 (Collective investment undertakings - look-through approach)
  - Where insurer has full look-through information or where it has an influence on investment strategy of the CIU
  - Much more detailed information than S.06.03, such as issuer name, sector, group, country

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EIOPA Proposals

QRTs (2)

- New QRTs for internal model SCR

- Existing variation analysis templates:
  - S.29.01 (Excess of Assets over Liabilities)
  - S.29.02 (Excess of Assets over Liabilities - explained by investments and financial liabilities)
  - S.29.03 (Excess of Assets over Liabilities - explained by technical provisions)
  - S.29.04 (Detailed analysis per period - Technical flows versus Technical provisions)

- New variation analysis templates:
  - S.29.05 (Variation of the best estimate in life insurance)
  - S.29.06 (Analysis of changes of best estimate for non-life business)

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EIOPA Proposals

SFCR (1)

- Split into policyholder and non-policyholder section (more technical information)

- Policyholder section:
  - Only required if external policyholders (so captives and reinsurers excluded)
  - Statement on consideration of environmental, social and governance factors in investment policy
  - Outsourcing policy including jurisdiction of service providers where this affects policyholders

- Non-policyholder section:
  - Some content moved to RSR
  - No requirement to translate
  - EIOPA proposes publishing further guidelines to strengthen principles outlined

- Minimum requirement for external audit of balance sheet only

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EIOPA Proposals

SFCR (2) – Information gaps identified

- Variation of Own Funds

- Sensitivities of SCR and Own Funds
  - Economic Assumptions:
    - Equity markets (+/-25%)
    - Interest rates (+/-50bps)
    - Credit spreads of government bonds (+/-50bps)
    - Credit spreads of corporate bonds (+/-50bps)
    - Real estate values (+/-25%)
  - Non-economic Assumptions:
    - Expenses (+10%)
    - Gross loss ratio (+10%)
    - Lapse rates (+10%)
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How low can you go?

Insurer challenges in a low interest rate environment

Eamon Comerford

19 SEPTEMBER 2019
Agenda

- Progression of interest rates
- Monetary policy developments
- Impact on insurers
- Solvency monitoring framework
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EUR Swap rates 10-Sep-2019 (Forward)

=> Market risk-free rates are c. 40-60bps for 20-30 year durations
Impact of LLP and UFR (EUR)

Well, this is awkward…
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EIOPA RFR spot rates (no V.A.) - USD

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Monetary policy - What has been said?

**TIME**
Christine Lagarde Defends the European Central Bank's Low Rates as She Prepares to Take Over

**FINANCIAL TIMES**
Bank of England may have no choice but to join race to the bottom

**The New York Times**
*Fed Chair Powell Speaks and Leaves Investors Expecting a Rate Cut*

---

Trump says Fed ‘boneheads’ should cut interest rates to zero ‘or less,’ US should refinance debt

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Impact on insurers

- Captured fully by the SCR shock for interest rates?
Impact on insurers – **Annuity / VA liabilities**

- Increase to **BEL**
- Increase to longevity and expense **SCR**
- Substantial increase to **risk margin** – double impact
- Biggest impact on longest-term business

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Impact on insurers – Protection liabilities

- Usually increase in **BEL** (future premiums vs. outgo)
- Increase to expense and mortality/morbidity **SCR**, particularly for high-persistency business
- Increase to **risk margin**
Impact on insurers – Unit-linked liabilities

- Change in negative BEL (VIF) (exps vs. income)
- Increase to expense SCR, particularly for high-persistency business
- Increase to risk margin

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Impact on insurers – Assets

- Increase in bond values
- Lower yields in future / on reinvestment
  => impact on pricing, profitability and product attractiveness
- Liability impact may be mitigated by hedge assets
- Reinsurance arrangements impacted?
- Search for yield?
Solvency monitoring framework

- Falling solvency cover?
- Close to risk appetite limits?
- Ensure continuous compliance with capital requirements

Develop a tool for monitoring intra-quarter?
Solvency monitoring framework

- Use:
  - TP sensitivities
  - ORSA stresses

- Track:
  - EIOPA curves or proxy
  - Symmetric adjustment
  - FX rates
  - NB volumes
  - Fund performance
  - Asset allocations
  - Expenses
  - Large claims
  - …
Solvency monitoring framework - benefits

- Early insight into results/problems
- No surprises
- Can plan in advance
- Can develop mitigating solutions

Better management information