Welcome to Milliman’s Virtual Lunchtime Briefing

- The briefing will begin in a few minutes.

17th September 2020
Virtual Meeting Best Practices

- Mute: As an attendee, you will be on mute automatically for the duration of the briefing.
- Video: Only presenters will be on video. Video is turned off for attendees.
- Q&A: Use the chat function within the meeting for questions.

Agenda

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<th>Time</th>
<th>Topic</th>
<th>Presenter</th>
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<tr>
<td>12:00pm – 12:02pm</td>
<td>Welcome</td>
<td>Aisling Barrett</td>
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<td>12:02pm – 12:15pm</td>
<td>Recovery and Resolution Planning</td>
<td>Conor Callaghan</td>
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<td>12:15pm – 12:35pm</td>
<td>Reinsurance Strategies</td>
<td>Rik van Beers</td>
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<td>12:35pm – 12:55pm</td>
<td>Unit Matching under Solvency II</td>
<td>Kevin Manning</td>
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<td>12:55pm – 1.00pm</td>
<td>Q&amp;A session</td>
<td>Aisling Barrett</td>
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Recovery & Resolution

International Association of Insurance Supervisors (IAIS) Definitions

**Recovery Plan**
“Identifies options to restore financial strength and viability when the firm comes under severe stress”

**Resolution**
“When a firm is no longer viable or likely to be no longer viable, and has no reasonable prospect of becoming so”
CP131 - Regulations for pre-emptive recovery planning for (re)insurers

Overview

Pre-emptive of SII 2020 Review

Regulations & Guidelines

Responses 30th October

Reviewed Annually & approved by Board

PRISM High/Medium High to submit to CBI

Insurers Captives Irish Branches

These slides are for general information/educational purposes only. Action should not be taken solely on the basis of the information set out herein without obtaining specific advice from a qualified adviser.
CP131 - Proposed layout of the recovery plan

Proposed format of recovery plan

Part A
Summary

Part B
Change since last recovery plan

Part C
Approval of recovery plan

Part D
Governance

Part E
Strategic analysis

Part F
Recovery indicators

Part G
Recovery options

Part H
Scenario analysis

Part I
Communication plan

Part J
Information on preparatory measures

These slides are for general information/educational purposes only. Action should not be taken solely on the basis of the information set out herein without obtaining specific advice from a qualified adviser.
CP131 - Opening sections of the plan

Summary

- Overall recovery capacity of the insurer
- Closure to new business point and how it would be handled

Change since last recovery plan

Changes to the:
- Insurer/Group
- Governance
- Scenarios
- Options
- Indicators
- Prep. Measures

Approval of recovery plan

- Date of approval by the Insurer’s Board

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Roles & functions of those responsible for the plan (including Board)

Integration into system of Governance and Risk Management Framework

Policies and procedures governing:
- Review, update and approval of plan
- Implementation of recovery options

Internal monitoring systems

CP131 – Governance section

Governance covering development, updating and implementation of plan
CP131 – Strategic analysis section

Information for understanding plan and identifying possible vulnerabilities

- Core Business Lines
- External financial exposures & outsourcing
- Global Business & Risk strategy
- Corporate and financial structures
- Key Services
- Critical Functions
CP131 – Recovery indicators section

“Indicators that identify, in a timely manor, progression of risks that have the potential to threaten the insurer’s financial viability”

Review indicators annually and recalibrate when necessary

Trigger Framework
- Capital
- Liquidity
- Reserving
- Profitability
- Market
- Macro-economic
- Operational

Characteristics
- Business strategy
- Vulnerabilities
- Number/variety
- Quantitative/Qualitative
- Integrated in frameworks
- Forward looking
- Flag closure to new business

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CP131 – Recovery options section

Options to contribute to restoring the financial position following a stressed event and/or maintaining insurer’s ongoing viability.

- At a minimum 4 specific categories are to be included:
  - Restore financial position
  - Restore own funds through recapitalisation
  - Ensure access to liquidity
  - Reduce Risk profile, SCR

Not required of captive insurers or third-country insurers with Irish branches

- Parental support:
  - Confirmation of support
  - Possibility not forthcoming
CP131 – Scenario analysis section

Testing the effectiveness of Recovery Options and adequacy of Recovery Indicators

- At a minimum 5 specific scenarios are to be included:
  
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>System wide scenario</td>
<td>Insurer specific scenario</td>
<td>Combo of 1 &amp; 2</td>
<td>Parental support limited</td>
<td>Closure to new business</td>
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- Not required of captive insurers
- Not required of third-country insurers with Irish branches
- Consideration across both slow moving and fast moving events
- Reverse stress testing as a starting point

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CP131 - Closing sections of the plan

**Communication Plan**
- Internal/External
- Specific to recovery options
- Managing potential negative market reactions

**Information on Preparatory Measures**
- Measures already taken or necessary to take
- Address impediments flagged within the plan
- Timelines for implementing preparatory measures
CP131 – Responses to Consultation

Closing date for responses is 30 October 2020

Industry gauge

Insurance Ireland welcoming inputs
For more information:


Conor Callaghan
conor.callaghan@milliman.com
Reinsurance as a capital management tool for life insurers

Milliman Research

Rik van Beers
17 SEPTEMBER 2020
Reinsurance as a capital management tool

- Milliman published a research paper in June 2020:
  
  **Reinsurance as a Capital Management Tool for Life Insurers.**

- The paper explores a range of reinsurance strategies that could be utilised by life insurers for capital management purposes.

- More common strategies along with new developments and innovative strategies are covered.

- Other areas such as regulatory considerations, collateral management and operational aspects are covered as well.

- We have used our own experience and expertise across Milliman, as well as discussions with a range of reinsurers, in order to determine the strategies to include and the considerations to focus on.

- The full research paper and summary can be found here:

Main conclusions in the paper

- Capital management is an increasingly important and complex puzzle to solve
- Several new type of covers and strategies are being used
- Regulatory approval can be a challenging and lengthy process
Setting the scene: why capital management?

- Capital management is an increasingly important and complex puzzle to solve

- Low interest rate environment
- Capital pressure stakeholders
- Increased regulations
- Competition
- Optimise Risk Management
- Optimise Capital Management
- Optimise Solvency II Balance Sheet
Setting the scene: why reinsurance?

- Reinsurance is one of the tools available to help with this
- It can offer a wide variety of capital management options and ancillary benefits

- Every management action comes with its trade-offs. It’s important to evaluate these.
- A decision process could be as follows:

  1. What is my target? KPIs & KRIs
  2. Which tool to use? Evaluate trade-offs
  3. What is the impact? Evaluate run-off period
Evaluating a reinsurance strategy

When evaluating a reinsurance strategy or cover, the following areas are in scope:

<table>
<thead>
<tr>
<th>Capital requirements</th>
<th>P&amp;L</th>
<th>Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact on required capital</td>
<td>Cost of reinsurance</td>
<td>Implementation time</td>
</tr>
<tr>
<td>Additional risk introduced</td>
<td>Capital generation</td>
<td>Flexibility of the treaty</td>
</tr>
<tr>
<td>Counterparty</td>
<td>Dividend payments</td>
<td>Availability</td>
</tr>
<tr>
<td>Basis risk</td>
<td>P&amp;L volatility</td>
<td>Regulatory approval</td>
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<tr>
<td>Etc.</td>
<td></td>
<td>Board approval</td>
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<td>Renewals required</td>
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Conclusion #1 – Reinsurance is a complex puzzle to solve

- The capital optimization process has many variables to consider
- **Short-term** and **long-term impacts** can vary significantly
- The **due diligence** phase is a **lengthy process**

- It is important to get main targets clear at the start of the process
  - Agreement on what to optimise and to achieve
  - Only afterwards involve reinsurers and regulators
Conclusion #1 – Reinsurance is a complex puzzle to solve

- Effectiveness of the cover is impacted by
  1. Reinsurance premium charged
  2. Counterparty default risk introduced

- These are driven by two main factors
  1. Size of the block of business reinsured
  2. Credit rating of the reinsurer & collateral

- A fourth aspect to consider:
  4. Timing of implementation

![Impact of rating & premium on coverage ratio](chart.png)
Reinsurance treaties and strategies in the market

- The range of reinsurance covers available is expanding
- This also enables implementation of new reinsurance strategies

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Asset-Intensive &amp; Structured products</th>
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<tbody>
<tr>
<td>Quota-share treaty</td>
<td>Asset-intensive reinsurance</td>
</tr>
<tr>
<td>Surplus treaty</td>
<td>Catastrophe bonds</td>
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<tr>
<td>Excess-of-Loss treaty</td>
<td>Mortality bonds</td>
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<tr>
<td>Longevity swap</td>
<td>Mass lapse treaties</td>
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<tr>
<td>Indemnity-based</td>
<td>VIF monetisation</td>
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<tr>
<td>Index-based</td>
<td>Investment margin financing</td>
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<td></td>
<td>Contingent reinsurance</td>
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<td></td>
<td>Operational reinsurance</td>
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<td>Optimise LACDT, DTA and DTL</td>
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</table>
Example: Mass Lapse reinsurance

- Effectiveness of the reinsurance dependent on other lapse capital requirements

<table>
<thead>
<tr>
<th>Capital requirements</th>
<th>Example #1</th>
<th>Example #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass lapse risk</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Lapse up risk</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>Lapse down risk</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>SCR Lapse risk – before reinsurance</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>SCR Lapse risk – after reinsurance</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>Capital reduction</td>
<td>10</td>
<td>70</td>
</tr>
</tbody>
</table>

- Mass lapse treaties are implemented across markets.
- We are not aware of any lapse up / down treaties: Difficult to manage for the reinsurer?
Example: Mass Lapse reinsurance

- Solvency II & regulators: an effective transfer of risk is required
- Out-of-the-money contract with an attachment and detachment point included

Other points of attention are basis risk and the duration of the cover.
Example: asset-intensive reinsurance

- Asset-intensive reinsurance is a form of reinsurance where all risks are in scope
- Typically applied on long-dated liabilities, heavily weighted on asset and interest rate risk

**Advantages**

- Unlock locked-in value in capital heavy portfolios
- Extensive scope might lead to lower premiums than other treaties
- Several ancillary benefits such as new business funding.
- Alternative for portfolio transfers
- Use to lock-in value during M&A

**Disadvantages**

- Counterparty default risk can be substantial, potentially leading to capital add-ons in Solvency II
- Solvency II SF appropriateness testing is required
- Regulatory approval can be challenging due to importance of collateral management
Conclusion #2 – Reinsurance offers a range of solutions

- Traditional treaties and strategies are still widely used
- New solutions are also introduced by reinsurers, with a shift towards
  1. Asset-intensive reinsurance
  2. Structured / Catastrophe bond type covers – such as risk margin and mass lapse treaties.

- With these strategies and increased focus on reinsurance, also comes new challenges:
  1. Mitigating basis risk
  2. Assuring appropriate risk transfer
  3. Collateral management
  4. Assuring risk management systems are up-to-date
Regulatory approval

- Demonstrating that the cover is genuinely used as risk-mitigating technique is key

- Strong understanding of risks that are being transferred, risks that remain and any new risks that emerge.

- A low level of basis risk and clear understanding of this basis risk.

- Analysis and consideration of possible outcomes, including scenarios where reinsurance may not be effective.

- A financially strong (and preferably large) counterparty and stringent security in the arrangement.

- Recapture plans in case of reinsurer financial distress or default.
Regulatory approval

- Companies should carry out an **in-depth review** of how **Solvency II requirements** are met
- Risk management systems should be up-to-date
  - Analysis to ensure the appropriateness of reinsurance selected
  - Determination of the appropriate types of reinsurance for the risks ceded and to what extent the risks associated with the selected reinsurance techniques can be managed and controlled
- Important areas to consider are:
  - An assessment of **credit risk** including the effect of **concentration risk**
  - **Retrocession of risks** can have a significant impact on the effectiveness of the cover
  - In case the **risk margin** increases substantially at default, it should be **included in the CDR**
Conclusion #3 – Regulatory approval

- Regulatory approval can be a **challenging** and **lengthy process**
- Demonstrating that the cover is genuinely used as **risk-mitigating technique is key**
- This also holds for having **appropriate risk management systems** in place
- **Collateral management** can play an important role in the process

**Important:** early engagement with regulators is often the best way to achieve a positive outcome in terms of getting regulatory buy-in for a material new reinsurance arrangement
For more information:

https://ie.milliman.com/en-gb/risk/reinsurance

Rik van Beers
rik.vanbeers@milliman.com
Unit matching under Solvency II - from theory to practice
Netflix Recommends:

Because you watched Reinsurance as a Capital Management Tool for Life Insurers and Recovery and Resolution Planning:

Unit Matching under Solvency II – from theory to practice

96% Match
Previously on Unit Matching under Solvency II…

\[
D = \text{Unit-linked Technical Provisions}
\]

\[
= \text{Unit-linked BEL} + \text{Risk Margin} + \text{PV of future AMC} - \text{Surrender Value}
\]

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Room for improvement?

Surplus unit-linked assets

\[
\text{Surrender Value} - \text{PV of future AMC} = \text{Unit-linked BEL} + \text{Risk Margin} + \text{PV of future expenses} = \text{Technical Provisions}
\]

Unit-linked assets

Surplus assets

Other assets covering Technical Provisions

Unit-linked assets
The People versus Unit Matching

The Case for Unit Matching

- Reduce market risk
- Reduce SCR
- Improve liquidity
- Lapse risk management

The Case against Unit Matching

The monster under the bed
Questions arising from the UK experience

- What does the Regulator make of it?
- What are the practical challenges that arise?
- What about the impact on policyholders?
- What about other impacts like IT systems, or Accounts?

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What are the practical challenges that can arise?

- Defining which funds and products are in scope
- Defining unit-linked cashflows
- Hypothecating to fund level
- Treatment of the risk margin
- Defining an appropriate buffer
What about policyholders?

- Financial impact?
- Second order impact?
- T&Cs
What does the Regulator make of it all?

- UK experience
- Irish experience
How about impacts on IT systems, accounts etc.?

- Investing in a system to support a unit matching programme
- Trading and fund accounting
- Accounts volatility
- IFRS 17
You might also like

Unit-linked matching under Solvency II

The benefits of Solvency II unit matching

A closer look Solvency II unit matching

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For more information:

https://ie.milliman.com/en-gb/insurance/solvency-ii

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Q&A session