Quantifying the RoE (Return on Effort)

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Return on Effort | Agenda

- **Background**: Battle of the Balance Sheets
- **Insurer Considerations**
- **Specific Challenges**: Lesson Learned
- **The Future**
Background
Battle of the Balance Sheets

Banks | Basel III Implementation in Europe

Basel III (2010)
CRD IV (2013)
CRR

Pillar 1
- Capital
- Leverage
- Liquidity

CRD

Pillar 2
- ICAAP
- SREP
- Buffers

ICG
PRA Buffer
**Banks | Capital Requirements**

**Banks under CRD IV**

- Requirements added incrementally since 2004 (Basel II)

**Buffers**

- CRD IV also introduces a number of additional capital buffers

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**Insurers | Matching Adjustment**

*Source: Solvency II Standard Formula*
**Insurers | Matching Adjustment**

**Net Impact = SCR – Decrease in BEL**

<table>
<thead>
<tr>
<th>Dur (yrs)</th>
<th>SCR</th>
<th>Decrease in BEL</th>
<th>Net Impact</th>
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<tbody>
<tr>
<td>1</td>
<td>0.8%</td>
<td>0.5%</td>
<td>0.3%</td>
</tr>
<tr>
<td>2</td>
<td>1.7%</td>
<td>1.1%</td>
<td>0.6%</td>
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<tr>
<td>3</td>
<td>2.5%</td>
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<td>0.9%</td>
</tr>
<tr>
<td>4</td>
<td>3.4%</td>
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<tr>
<td>5</td>
<td>4.2%</td>
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</tr>
<tr>
<td>7</td>
<td>5.0%</td>
<td>5.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>10</td>
<td>6.3%</td>
<td>9.9%</td>
<td>-3.6%</td>
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A-rated (Non-Financials)

**Insurers | Matching Adjustment**

**Source:** IBOXX GBP Non-Financial spreads, NWM calculation

**A-rated (Non-Financials)**

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Source: Solvency II Standard Formula
Insurer Considerations | The ever shrinking universe

- Spread
- Maturity
- HY credit
- CRE debt
- IG credit
- ERM
- Infra
- Leases
- Ground rents
Insurer Considerations | Achieving diversification

Why?
• “diversification is the only free lunch in finance”
  
Harry Markowitz, 1952

How?
More from Harry Markowitz:

• “In theory there is no difference between theory and practice.
• “In practice there is”

There is no free lunch

• MA / VA applications

• Hedging requirements and associated liquidity needs

• On-boarding new assets / new managers – direct origination?

• Internal model / regulatory interaction

• Asset restructuring

But the return may be worth the effort
Insurer Considerations | Making it work in practice

Investment strategy

Mandates

Manager

Insurer

Regulators

Credit view  Valuation  Origination  Eligibility  Capital
Rating  ALM  Operations

Collaborative approach with clearly-defined roles

Specific Challenges
Lessons Learned
Specific Challenges | Legacy Assets

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<th>Loans</th>
<th>Derivatives</th>
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<td>• Pre-payment Provisions</td>
<td>• PRA Approvals</td>
</tr>
<tr>
<td>• Complex Pay-offs</td>
<td>• Reporting</td>
</tr>
<tr>
<td>• Ultra-Long Tenors</td>
<td>• Ratings Requirements</td>
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• Compatibility with Existing Mandates
• Conduct Risk
• Lack of Comparables

Specific Challenges | Pre-Payment Provisions

Solvency II Directive Article 77b

“In the event that issuers or third parties have the right to change the cash flows ... the investor receives sufficient compensation to allow it to obtain the same cash flows by reinvesting in assets of equivalent or better credit quality”

Example
• (modified) SPENS i.e. PV (future cashflows | ref. + Xbps)
Specific Challenges | Pre-Payment Provisions

Example

The Borrower will be required to pay any amount the Bank reasonably determines to be its total loss, cost, liability or expense from:

- loss of the right to receive interest for the balance of the Term
- arrangements to protect the Bank from movements in interest rates

Does this language describe “sufficient compensation”?}

Specific Challenges | Pre-Payment Provisions

Poll

Does this language describe “sufficient compensation”?

A. Yes

B. No

C. Maybe
Specific Challenges | Pre-Payment Provisions

“Expert Judgement” Required

• “Bank”, “reasonably”, “total loss”, “protect”, “interest rates”

Mitigation Options

• Individual firms’ policies (PRA approval)
• Legal side letter

Specific Challenges | Ultra-Long Tenors

Overview

• Often, lending lies outside of a bank’s risk appetite because it has a long tenor
• Insurers / pension schemes are more natural funders
• At very long tenors, insurers’ cash flow needs are small
Specific Challenges | Ultra-Long Tenors

Mitigation Options

- Cash flow swap
- Restrict appetite to shorter tenors only
- Bifurcation

Specific Challenges | Ratings Requirements

Overview

Often, derivatives with corporate counterparties have ratings-based triggers which can require:

- One-way collateralisation
- Posting an independent amount
- Counterparty replacement
Specific Challenges | Ratings Requirements

Option A
- Swap MtM re-packed and sold as a note
- Residual balancing swap transferred to a rated counterparty

Option B
- Overlay third-party ratings guarantee

Option C
- "Borrow" rating from a connected entity

Which option provides the best Return on Effort?

Poll
Which option provides the best Return on Effort?

A. SPV repack
B. 3rd party ratings guarantee
C. Borrowed rating from connected entity
Specific Challenges | Existing Mandates

Can your mandates accommodate

• **Credit** analysis

• Investment **format** (e.g. loans)

• **Unrated assets**

• Analysis of **MA criteria** / exercise of **judgement**

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Specific Challenges | Existing Mandates

Relationship Challenges

• Do you know what opportunities your asset manager says “no” to?

• Do third parties know how decisions are made across different parts of your organisation?

An effective relationship between **annuity writers** and external / internal **investment managers** can be a key source of **competitive advantage**
The Future | Bespoke Cash Flows

- Delayed draw
- Specific tenors

Example
The National Trust (2063):
- £100m split into two tranches
- Delayed draws: 2020 and 2022
The Future | Bespoke Amortisation

• Repayment profile
• Issuer ratings considerations

Example
Porterbrook Rail Finance Ltd (2028):
• £250m across two tranches
• Bespoke amortisation schedule
• Delayed draws: 3m and 9m

The Future | Bespoke Inflation

• Reference index
• Caps / floors

Example
University of Cambridge (2068):
• £300m
• CPI(0, 3)
• Amortising profile: 2028-2068
The Future | Investment Partnerships

Overview

• Leverage existing origination relationships
• Originator awareness of MA requirements / funders
• Co-Investment
• Secured Funding

Return on Effort
Closing Thoughts
Return on Effort | Closing Thoughts

Old Model
“Public markets” model

- Effort to identify existing asset universe…
- Effort to solve legacy issues…

Return on Effort | Closing Thoughts

New Model
“Private markets” model

- Effort to share information…
- Effort to build / leverage relationships…
Capital = Assets – Liabilities

### Battle of the Balance Sheets | Capital Adequacy

**Available Capital**

<table>
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<th>Banks</th>
<th>Insurers</th>
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<tbody>
<tr>
<td>IFRS equity</td>
<td>IFRS equity</td>
</tr>
<tr>
<td>- intangibles</td>
<td>- intangibles</td>
</tr>
<tr>
<td>- expected losses</td>
<td>+/- valuation differences (incl. risk margin)</td>
</tr>
<tr>
<td><strong>Common equity tier 1 (CET1)</strong></td>
<td>+ future profits</td>
</tr>
<tr>
<td>+ other regulatory capital</td>
<td>+ other regulatory capital</td>
</tr>
<tr>
<td><strong>Total Capital</strong></td>
<td><strong>Available Own Funds</strong></td>
</tr>
<tr>
<td>- eligibility restrictions</td>
<td>- eligibility restrictions</td>
</tr>
<tr>
<td><strong>Total Eligible Capital</strong></td>
<td><strong>Eligible Own Funds</strong></td>
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Banks | Pillar 2

**Pillar 2A**

**Individual capital guidance** and risks not covered (at all, or fully) in Pillar 1. For example:
- Credit concentration risk
- Interest rate risk in the banking book (IRRBB)
- Pension scheme risk
- Under-estimation risk (e.g. operational)

**Pillar 2B**

**Stress tests** review a bank’s ability to withstand a supervisor-defined stress event

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Banks | Other Regulatory Considerations

In addition to solvency capital, banks also have formal requirements for:
- (max) **leverage**
- (min) **liquidity**
- (min) **stable funding**

![Bar chart showing percentage of RWA and Leverage Ratio](chart.png)

- Min
- Typical UK Min
- Dutch Bank

- % RWA
- Leverage Ratio

- 8% 3% 79.8%
- 3% 4% 2.1%
- 13%
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