Liquidity Risk: the Insurance Industry’s Elephant in the Room

Gareth Sutcliffe and Sam Tufts, EY

04 May 2017
Understanding liquidity requirements

How do we think about managing liquidity risk?

Opportunities – leveraging your liquidity management framework
Section 1
Understanding liquidity requirements
Current liquidity challenges for insurers

Regulatory reform

Increasing allocation to illiquid assets

Drying up of liquidity resources during financial stress

Lower market liquidity
The regulatory requirements

Governance
- Monitoring
- Reporting to Regulator
- Stress Testing/ Scenario Analysis
- Specific Limits
- Cash Flow Projections
- Liquidity Needs & Buffer
- Contingency Funding Plan

Improved capacity of the insurers to remain viable and be resilient during periods of severe stress
Key notions and examples

Liquidity Risk
Is covered by cash or cash equivalents to meet obligations in the immediate future (up to 12 months)

Capital
Portfolio of assets structured to meet long-term obligations under base and stress scenarios

Collateral
Often government bonds, AAA corporate bonds and cash

Examples of stress scenarios
Lapse rates on illiquid unit-linked are temporarily heavier
Reserving bases are strengthened
Interest rates rises require collateral to be posted against interest rate swaps
Possible liquidity resources

- Sale of assets: changing asset composition
- Cancellation of planned purchases of assets
- Usage of committed bank lines
- Repurchase agreement
- Cash pooling transfer of funds
- Contingent liquidity facility
- Debt or equity issuances
- Intercompany loans
- Short-term revolving loans
### Typical sources of liquidity for insurers

<table>
<thead>
<tr>
<th>Source of Liquidity</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash in bank accounts</td>
<td>100%</td>
</tr>
<tr>
<td>Debt investments</td>
<td>94%</td>
</tr>
<tr>
<td>Equity</td>
<td>65%</td>
</tr>
<tr>
<td>Cash pooling balances</td>
<td>59%</td>
</tr>
<tr>
<td>Highly fungible cash or investments from legal entities</td>
<td>59%</td>
</tr>
</tbody>
</table>

What are the main sources of liquidity used for ongoing management of the firms liquidity position? *

* Source: EY survey
Section 2

How do we think about managing liquidity risk?
Components of the LM Framework

- **Strategy and ambition**
  - Liquidity specific risk appetite statements to specify how much risk the company is willing to take.
  - Linkage to overall risk appetite.

- Liquidity buffer and limits
- Contingency funding plan
- Governance
- Risk identification
- Risk exposure
- Stress testing & liquidity projections
- Liquidity reporting and MI
- LMF
Components of the LM Framework

1. Risk identification
   Identifying the precise liquidity risks such as:
   - collateral calls
   - expected / unexpected defaults in annuity fund
   - mass lapses, etc.

2. Risk Exposure
   Assess liquidity risk exposure over different time horizons
Components of the LM Framework

- **Stress testing**
  - Idiosyncratic factors
  - Systemic factors

- **Liquidity reporting and MI**
  - Liquidity measurement, modelling and monitoring
  - Liquidity reporting and MI
  - Process flows

- **Liquidity buffer and limits**
  - Assess the size of buffers
  - Understand the vulnerabilities of the business
  - Articulate the primary liquidity sources

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Confidence levels for stress scenarios

What level of confidence is the group liquidity requirement calibrated to? *

* Source: EY survey
## Setting stress scenarios

### What features are reflected in scenarios? *

<table>
<thead>
<tr>
<th>Feature</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth and liquidity of capital markets, including liquidity characteristics of assets</td>
<td>100%</td>
</tr>
<tr>
<td>Features of insurance policies and products</td>
<td>100%</td>
</tr>
<tr>
<td>Changes in behaviours of policyholders and other market participants, both gradual and sudden</td>
<td>85%</td>
</tr>
<tr>
<td>Nature, frequency and severity of exposures to insurable events, including catastrophic events</td>
<td>85%</td>
</tr>
<tr>
<td>Encumbrances on assets and rehypothecation of assets</td>
<td>77%</td>
</tr>
<tr>
<td>Trigger clauses and other contingent obligations for cash or collateral</td>
<td>77%</td>
</tr>
</tbody>
</table>

* Source: EY survey

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### What is included in the liquidity reporting framework? *

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidity targets, limits of usage (e.g. group, legal entity)</td>
<td>94%</td>
</tr>
<tr>
<td>Available liquidity following impact on stress scenarios (behavioural CFs)</td>
<td>94%</td>
</tr>
<tr>
<td>Excess (available) liquidity</td>
<td>88%</td>
</tr>
<tr>
<td>Cash flow and outflow projections (operating, investment and funding)</td>
<td>88%</td>
</tr>
<tr>
<td>Liquidity coverage ratio</td>
<td>82%</td>
</tr>
<tr>
<td>Contingency funding sources</td>
<td>82%</td>
</tr>
</tbody>
</table>

*Source: EY survey*
## Metrics used for controlling liquidity

Which liquidity measures are included in the group liquidity policy? *

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<tr>
<th>Measure</th>
<th>Percentage</th>
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<tr>
<td>Liquidity coverage ratio</td>
<td>82%</td>
</tr>
<tr>
<td>Minimum liquidity reserves</td>
<td>59%</td>
</tr>
<tr>
<td>Excess liquidity</td>
<td>53%</td>
</tr>
<tr>
<td>Funding considerations</td>
<td>24%</td>
</tr>
</tbody>
</table>

* Source: EY survey

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Components of the LM Framework

Contingency funding plan
- Strategy Drivers
- Quantitative and qualitative triggers
- Escalation procedures
- Recovery planning
- Key Assumptions

Governance
- Clear definition of roles and responsibilities at group and legal entities levels
- Clear allocation of tasks across the three lines of defence
## Contingent liquidity sources, EY survey

What contingent liquidity sources may be used to manage the firm's liquidity position? *

<table>
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<tr>
<th>Source</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Committed credit or liquidity facility</td>
<td>44%</td>
</tr>
<tr>
<td>Lines of credit</td>
<td>44%</td>
</tr>
<tr>
<td>Uncommitted credit lines</td>
<td>31%</td>
</tr>
</tbody>
</table>

*Source: EY survey*
### Potential contingent liquidity options

<table>
<thead>
<tr>
<th>Category of cash</th>
<th>Contingent Liquidity</th>
<th>Available Liquidity</th>
</tr>
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<tr>
<td>Additional debt</td>
<td>Contingent</td>
<td>Contingent</td>
</tr>
<tr>
<td>Funds realisable from sales of businesses</td>
<td></td>
<td>Local excess assets</td>
</tr>
<tr>
<td>Alternative investments</td>
<td></td>
<td>Bilateral credit facilities</td>
</tr>
<tr>
<td>Revolving credit facilities</td>
<td></td>
<td>Letters of Credit</td>
</tr>
<tr>
<td>Local excess assets</td>
<td>Strategic</td>
<td>Global Cash Pool - operational cash pooling (overnight)</td>
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<td>Repo eligible securities</td>
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<tr>
<td>Treasury Shares</td>
<td>Operating</td>
<td>Cash and cash pooling balances</td>
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Effective governance is crucial

Board of Directors:
- Tone at the top
- Oversight and reporting

Senior Management:
- Committee and organization structure
- Escalation

Report
Liquidity working group
Risk (second line)
Treasury (first line)

Tone at the top
Oversight and reporting
Committee and organization structure
Escalation
Section 3
Opportunities – leveraging your liquidity management framework
Extracting additional value from your liquidity framework
Management of Liquid Resources - Overview

View of Future Liquidity Position

Cash
High liquidity
Low return

Cash-Like Assets
Similar liquidity
Higher return

Requirements
LMF
Opportunities
Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

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