Long-term guarantees conundrum

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<table>
<thead>
<tr>
<th>Outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defining the problem</td>
</tr>
<tr>
<td>Potential valuation curve solutions</td>
</tr>
<tr>
<td>Potential cash flow solutions</td>
</tr>
<tr>
<td>Conclusion</td>
</tr>
</tbody>
</table>
How to value long-term cash flows?

Typical whole life policy - 20 year premium tenure

- Premium
- Benefits
Source of the problem

- Valuing long-term cash flows has the same issue as short-term cash flows ... Only the problem is magnified
- It all comes down to basis risk between assets we can invest in and the curve used for liability valuation!
- Basis risk can be mitigated by
  - Construction of the liability valuation curve
    - Creating a curve we can invest in
    - Introducing a reasonable dampener (counter cyclical element) in the curve
  - Cash flows that change to offset basis risk
    - Through product design
    - Through the operating model of the insurer
Source of the solution

- Insurers need a way to recognize not only diversification across risk classes and risk types but also...
  - Access time diversification effectively
  - Time diversification can be managed effectively through continuity tests (Solvency II Pillar 2 process)
Outline

- Defining the problem
- Potential valuation curve solutions
- Potential cash flow solutions
- Conclusion
Method 1: Using Government bond rates (ECB rates)

“Discount liabilities using a high quality ECB curve (such as AAA)”

**Advantages**
- Arguably close to risk free
- Investable

**Disadvantages**
- Local competition
- Fallen angel risk
- Dependency on government financing needs
- Limited counter cyclical element
- ALM mismatch with derivatives

**Behavioral implications**
- Invest in the Bonds comprising the index
- Discourages corporate financing support
Method 2: Using Government bond rates (local rates)

“Discount liabilities using the government curve for in the sovereign nation. Netherlands curve in The Netherlands, Spanish curve in Spain, etc.”

Advantages

- Local competition
- Investable
- Some counter cyclical element
- Addresses sovereign issue

Disadvantages

- Systemic risk
- Question of risk free
- Cross member state inconsistency
- Dependency on government financing needs
- ALM mismatch with derivatives

Behavioral implications

- Invest in local sovereign bonds (concentration and systemic risk)
- Product availability dependent on government bond issuance
- Discourages to some extent corporate financing support
Method 3: Using Swap market rates

“Discount liabilities using the swap curve in the applicable currency”

Advantages
- Swaps are an important ALM tool
- Highly liquid and deep market
- More objective

Disadvantages
- No counter cyclical element
- Does not address sovereign issue
- Not directly investable
- Local competition

Behavioral implications
- Invest short to eliminate basis risk (low spread duration)
- Disincentive to support (long) corporate financing needs
- Extensive use of derivative markets for ALM reasons
Method 4: Using Swap market rates + Volatility Adjuster

“Discount liabilities using the swap curve + an objective liquidity premium in the applicable currency”

Advantages

- Swaps are an important ALM tool
- Highly liquid and deep market
- More objective
- Counter cyclical element

Disadvantages

- Not fully investable
- Local competition remains (although less so)

Behavioral implications

- Encourage matching of asset and liability illiquidity
- Encourages investment in corporate bonds, sovereign bonds and illiquid asset classes
- The broader the liquidity premium reference, the more diversification is encouraged
Outline

Defining the problem

Potential valuation solutions

Potential cash flow solutions

Conclusion
Address pro cyclicality through product design

If valuation does not address pro cyclical issues, “risk sharing” will gradually be introduced in product design

- Adjust premiums & charges and/or benefits & guarantees
- Needs to be objective and transparent
- Problems will emerge
  - Increased product and administrative complexity
  - Customer understanding of terms and conditions
  - Customer’s ability to manage economics or adapt lifestyle to accommodate product dynamics
  - Generation risk
  - Will reduce appetite for long-term asset risks as the link to adjusting premiums and benefits will fail the objectivity and transparency requirements

Consequence – insurer’s ability to help client’s “secure” their financial future and support for long-term financing and investment will diminish
Another way to accomplish the same result as “product design” changes is to change the operating model:
- From stock form to mutual form or profit sharing pools

Mutuals are increasingly positioning mutuality as a cornerstone of policyholder communication and marketing efforts:

“Sometimes a simple, old-fashioned idea becomes the wave of the future. Consider wind power, organic produce, and electric cars. Similarly, “mutuality”, as in New York Life Insurance Company’s long-standing status as a mutual company owned by its policyholders, is a tried and true concept that is being widely recognized for its inherent purpose – for the good of the policyholders.”

Source: NY Life website

Consequence to customers:
- Higher premiums for the same product
- Increased complexity in product design (similar issues as previous slide)
- Opportunity for upside potential through participation in results
- May be more effective in support for long-term financing
Outline

Defining the problem

Potential valuation solutions

Potential cash flow solutions

Conclusion
Conclusions

- What is the purpose of the insurance industry and behavior are we trying to encourage?

**Purpose?**
- Help consumers secure financial futures
- Support functioning of the economy through
  - Investment
  - Spreading and pooling of risk

**Desired behaviour?**
- Pro cyclical behaviour or patience
- Diversification or concentration
- Active or passive risk management
- Local competitiveness or EU consistency

“Decide on the purpose and desired behavior first, then the decide on the solution”

- Every choice has its own impact on financial markets and the wider economy and the products that are available to consumers
- Best options to appropriately access time diversification
  - Include a sufficient counter-cyclical element in the valuation curve
  - Change the operating model for offering long-term guarantee products
Thank you