A Novel Approach to Valuing an Insurance Company's Economic Surplus

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Introduction – What is the Problem?

- Valuation of a block of business or an insurance company requires the value of the liabilities
  - Assets: Could observe market value
  - Liabilities: Need an "illiquidity spread" over risk-free rate
- Traditional US accounting models, Stat & GAAP, ignored it to a large degree
- "Market Consistent" reporting models won't allow you to ignore this any longer
- Solvency II tries to deal with the issue with complex tools
  - Regulatory liquidity premium
  - Matching adjustment
  - Volatility adjustment
- IFRS simply tells you to figure it out

The Devil Is in the Details

- How is the “illiquidity spread” evaluated
  - Many issues if “<u>purely</u>” independent of assets backing the liabilities
    - ALM concerns
    - Inappropriate management of the business
  - Many argue for independence
    - Market demands “one price”
  - The paper proposes a middle ground
    - Resolves many, if not all, of ALM concerns
    - Results in a stable economic surplus

ALM Pitfalls

- Use of two different risk neutral scenario generators
  - It's common (e.g., one for assets and one for liabilities)
  - May result in values that are different by as much as 10%
  - Results in ALM metrics that are wildly different than they should be
- Value of spread used impacts ALM metrics
- OAS for assets are generally kept unchanged for shock scenarios
- Use of ALM metrics alone misses the importance of cashflow mismatch
- The discount curve may not be reflective of the investment strategy

Proposal

- Discount net cashflows (assets' less liabilities')
- Discount curve s/b default-adjusted return based on the investment strategy
- Results in more stable economic surplus / MCEV
- Results in more appropriate ALM metrics
- Forces attention to cashflow mismatches