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Delivering Optimised Insurance Investment Strategies

Scott Robertson FFA, Phoenix Group
Craig Turnbull FIA, Standard Life Investments

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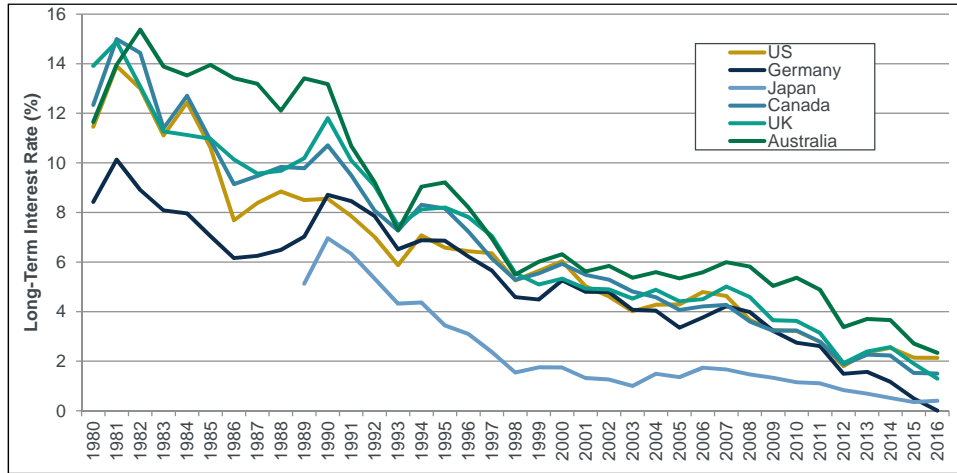


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Background: Global long-term interest rates

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Long-term trend in global 10-year Government Bond Yields

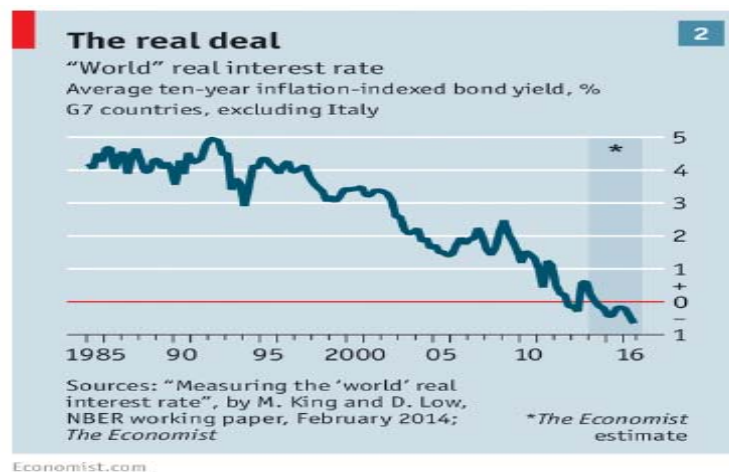


Source: OECD



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"World" Long-Term Real Interest Rates



Economist.com

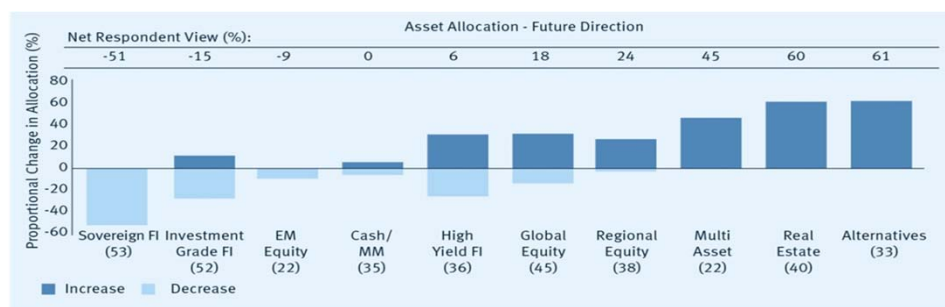


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Source: The Economist, September 2016

European Insurance Investment Survey: Asset Allocation Plans

- European insurers are undertaking significant strategic and tactical asset allocation changes, expanding their traditional investment horizons as they seek to maximise returns within context of Solvency II



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Source: Standard Life Investments European Insurance Survey 2016

Asset allocation trends in insurance asset strategy – in summary

Most European insurers are pursuing at least one of the following four routes to improving expected investment returns:

- Increasing investment risk appetite
- Reducing asset liquidity through investment in private markets
- Seeking diversification through investment in new asset classes
- Structuring risk asset exposures to be more capital-efficient



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Illiquid Assets and Solvency II

- Solvency II requires insurers to address a number of points that are especially pertinent in the context of illiquid asset investing:
- Fair valuation, including the assessment of valuation uncertainty and its impact on 'prudent valuation'
 - Base and stress
 - Objective and transparent
 - De-composition of spreads into credit and liquidity
- Approaches to Solvency Capital Requirement assessment for unrated assets in Internal Models



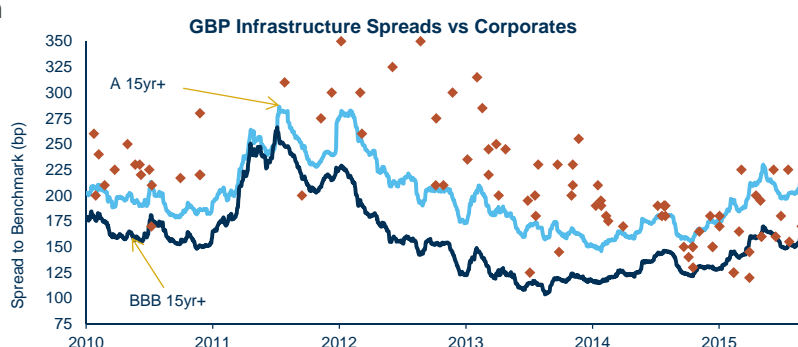
– Use of internal credit rating processes

– Consistency with implied behaviour of fair value methodology under stress

Pricing and illiquidity premium

Opportunity still to capture illiquidity premium vs. public comparables

- General market tightening in recent years has also affected infrastructure. Spreads, especially for vanilla availability-based assets, fell below 150bp, but are now increasing again



Source: Standard Life Investments, Bank of America Merrill Lynch, Barclays Capital, InfraNews. Data points include selected infrastructure primary and secondary market spreads with duration estimated by Standard Life Investments, including some public bonds and bank loans, most being transactions either pre-placed or privately placed with institutional investors. Duration curves as of 04 January 2016.





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Capital-efficient yield enhancement:

Accessing the Illiquidity Premium

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Private Markets – Illiquid Credit

- Some insurers are making significant allocations to private credit asset classes
 - Commercial mortgages (usually senior, c. A-rated)
 - Residential mortgages (equity release)
 - Private placements (corporate debt)
 - Infrastructure loans
- Expectation these assets will yield an illiquidity premium and superior risk-adjusted returns
 - For SII Matching Adjustment business, illiquidity premium estimate can be incorporated into discount rate for reserves
- And provide credit diversification



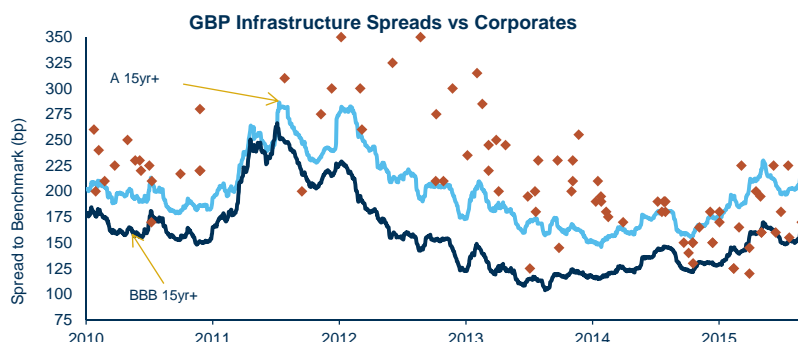
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Pricing and illiquidity premium

Opportunity still to capture illiquidity premium vs. public comparables

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Illiquid Assets and Solvency II

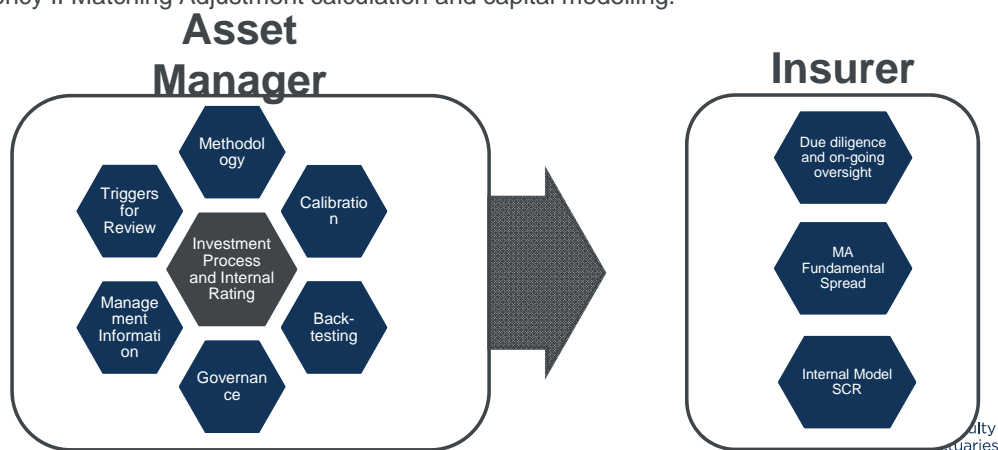
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Internal credit ratings and Solvency II

- Private credit assets will often not be rated by an external credit rating agency
- Insurer, possibly with assistance of their asset manager, may use internal credit rating processes in their Solvency II Matching Adjustment calculation and capital modelling.



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Liquidity Demands on Assets Backing Illiquid Liabilities

- Changes in long-term liability cashflow expectations
 - Cashflow matching tests may require prompt asset re-balancing when liability cashflow expectations materially change
- Credit risk management policy of re-balancing to maintain credit quality of portfolio
 - Note allocation to non-tradable private credit implies greater re-balancing of more liquid portion of the credit portfolio
- Cash collateral requirements of derivatives
 - e.g. Long-term cross-currency swaps



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Capital-efficient yield enhancement:

Obtaining diversification through absolute return investing

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SCR analysis for Absolute Return Funds

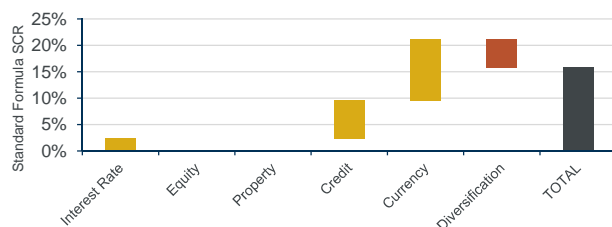
- Absolute Return funds can obtain a highly attractive capital treatment under Solvency II
 - Recognition of the diversification in portfolio construction
- Standard Formula SCR can be calculated using portfolio risk software
 - Full line-by-line look-through treatment



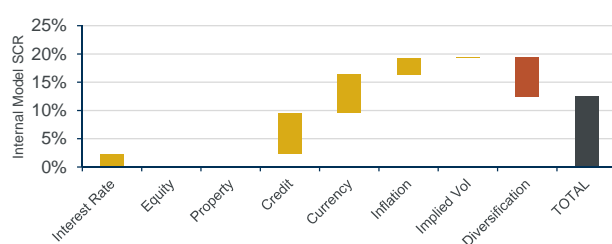
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Look-through SCR Calculation for Example Absolute Return Bond Fund



- SII SF SCR estimated at 16%
- Combination of yield curve, credit and currency exposures



- Internal Model SII SCR estimated at 12%
- FX requirement reduced by realistic diversification
- IM recognises inflation risk which partially offsets the FX diversification impact

Source: Standard Life Investments, December 2015



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SCR: Calculation questions

- Standard formula / internal model
- Look-through to underlying strategies / based on target volatility range
- “Point in time” calculation / “potential exposure” calculation
- Allowance for materiality and proportionality



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Summary

- Absolute Return funds can provide insurers with capital-efficient expected return
- To deliver the capital benefits, the insurance company will need to:
 - Demonstrate their compliance with the Solvency II requirements, including the Prudent Person Principle
 - Work collaboratively with their investment manager to source the required risk information and asset data reporting



Square peg in a round hole

Investment strategies for Matching Adjustment Portfolios

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Implementing investment strategies for MAP

- Investment objectives under a SII regime
- The trend in MAP investment strategies
- Different approaches to sourcing assets
- Case study 1: traditional credit mandates
- Case study 2: Direct sourcing and restructuring complex assets



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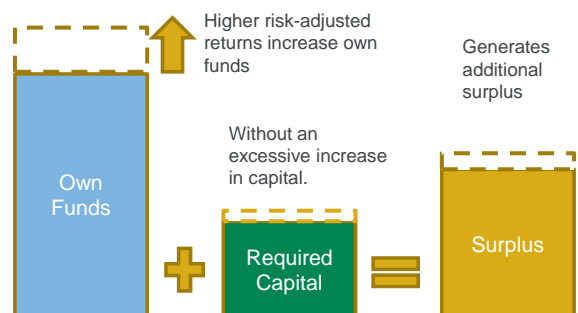
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A SII friendly investment objective

In a Solvency 2 environment, the investment strategy might aim to maximise the balance sheet strength within the constraints of the insurer's investment risk appetite, regulatory and liquidity requirements.

These objectives are achieved by:

- Investing in a disciplined and efficient manner
- Leveraging your strengths as a market participant
- Spreading your risks to reduce your overall diversified risk exposure

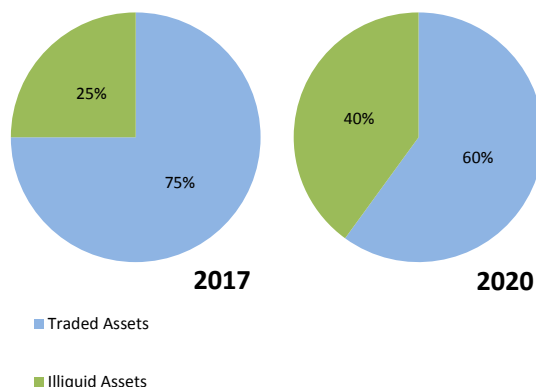


Investment strategies are moving more illiquid

Illiquid asset classes such as CRE debt, Infra Debt and Equity Release Mortgages are attractive because:

- Insurers with illiquid annuity liabilities are natural buyers
- Illiquid assets command additional yield over publicly traded assets, aka “illiquidity premium”, to compensate investors for the private, niche nature of the asset
- Illiquid assets improve diversification of investment risk

“currently around 25% of annuities are backed by such illiquid assets but firms have plans for that proportion to increase to 40% by 2020. This trend is welcome and may have wider economic benefits.” David Rule Executive Director of Insurance Supervision PRA, Feb 17



Approaches to sourcing assets

Direct Sourcing

- Equity Release Mortgages
- Private placements

Traditional Asset Managers

- Bespoke credit mandates aligned to insurers' return and risk measures
- Mandates can cover traded assets and private placements across UK and overseas.
- Regular dialogue with Portfolio Managers on asset selection / turnover and performance

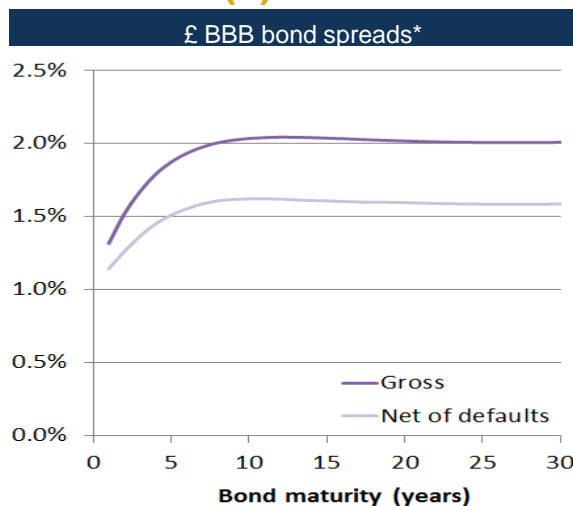
Specialist Managers

- Specialist managers can be used for specific strategic investments e.g. CRE debt, Infrastructure debt.
- Insurers will tend to work closely with Portfolio Manager on each transaction to make sure it delivers added value



Case study: Traditional credit mandate (1)

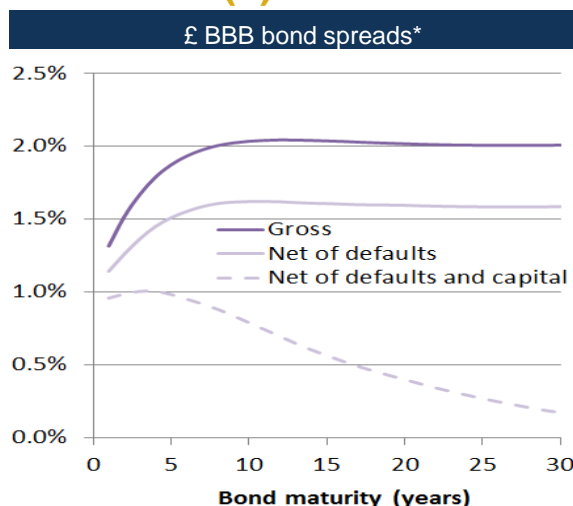
- A “buy & maintain” approach
 - Hold to maturity principle
 - Turnover constrained by regulatory constraints
 - No benchmark to index
 - **Awareness of SCR and MA balance sheet implications**
- Emphasis on credit returns
 - Excess return over risk-free
 - Liability matching requirement limits scope for duration-based returns
- **Step 1:** adjust spreads for expected defaults
 - Default haircut to spreads based on Moody's
 - Can be forward looking instead



* Source: Bank of America Merrill Lynch 31-Dec-15 | U of Actuarial

Case study: Traditional credit mandate (2)

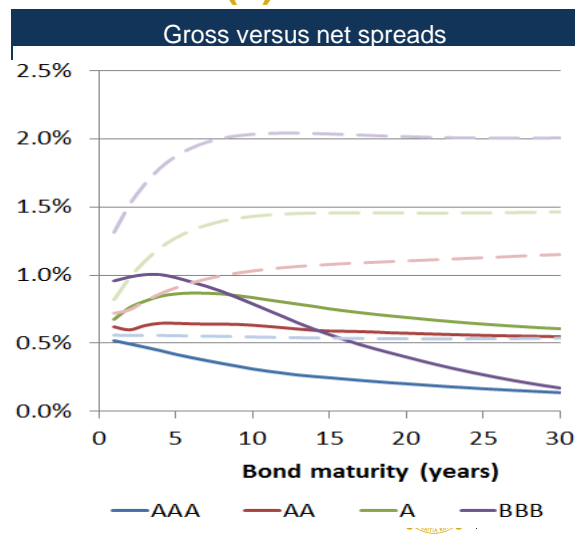
- Holding capital over the lifetime of the bond creates an additional strain on returns
- Asset manager should be aware of it
- **Step 2:** translate into an additional haircut. We assume 10% cost of capital
- Several levels of refinement:
 - Include transitions
 - Include up-front MA benefit of purchasing a bond (spread dependent)



* Source: Bank of America Merrill Lynch 31-Dec-15 | U of Actuarial

Case study: Traditional credit mandate (3)

- Chart across repeats the process across all ratings
- Taking cost of capital and default losses into account changes the relative value picture across term and rating
 - Long-dated credit is capital intensive
 - A-rated credit is attractive
 - BBB is only really attractive at the short end
 - AAA spreads are not high enough to justify the capital and default costs
- Under internal model each company will see a different relative value picture
- **Combine top-down preferences based on MA and SCR with asset manager single name expertise to build better portfolios**

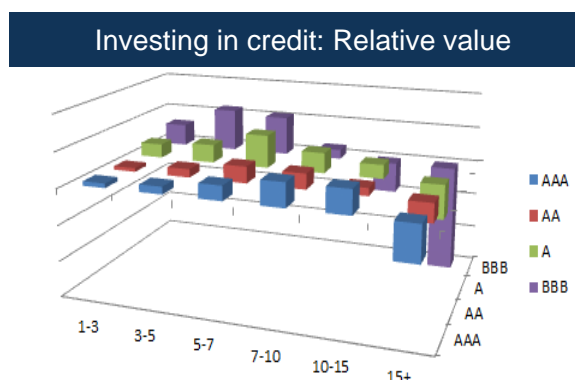


Bottom-up asset allocation

Bottom-up optimisation

- Implementing the asset class within SII constraints
 - Eligibility criteria
 - Reporting and look-through requirements
 - SCR categorisation
 - Capital efficiency

Investment discipline required and communication needed between asset owner and insurer



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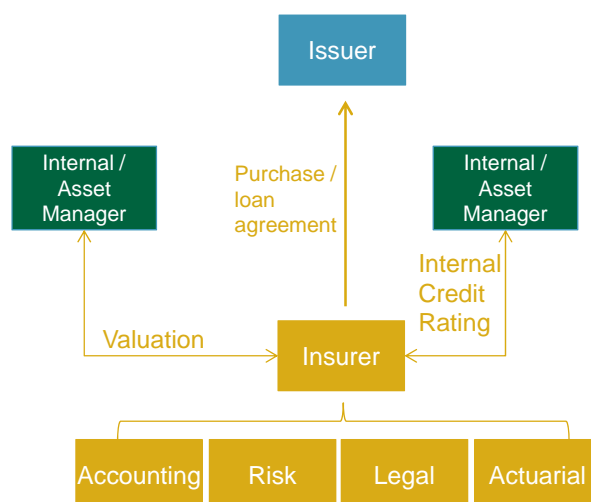
Case Study: Direct Sourcing

Directly sourcing assets has advantages:

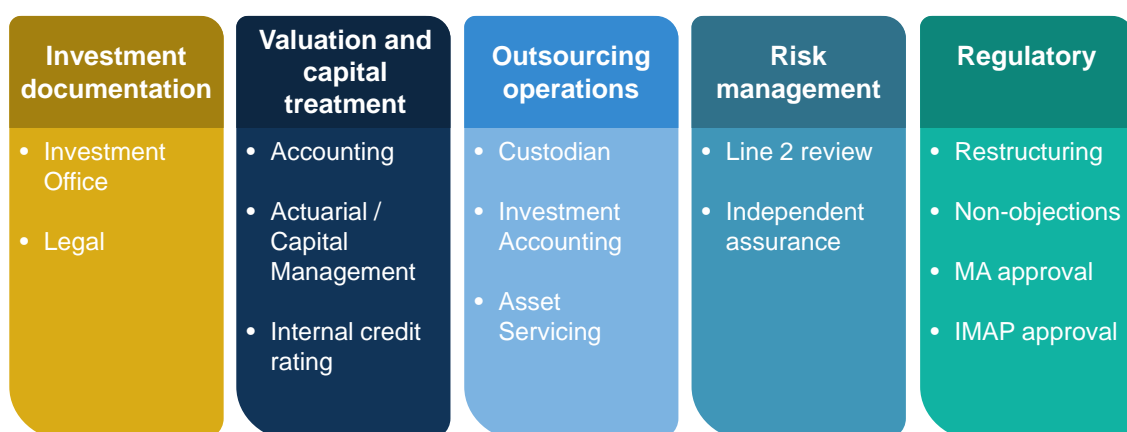
- Bespoke investment structure
- Identify small pools of niche assets with attractive illiquidity premium
- Can provide significant social as well as financial benefits

Direct sourcing does present a number of challenges, in particular:

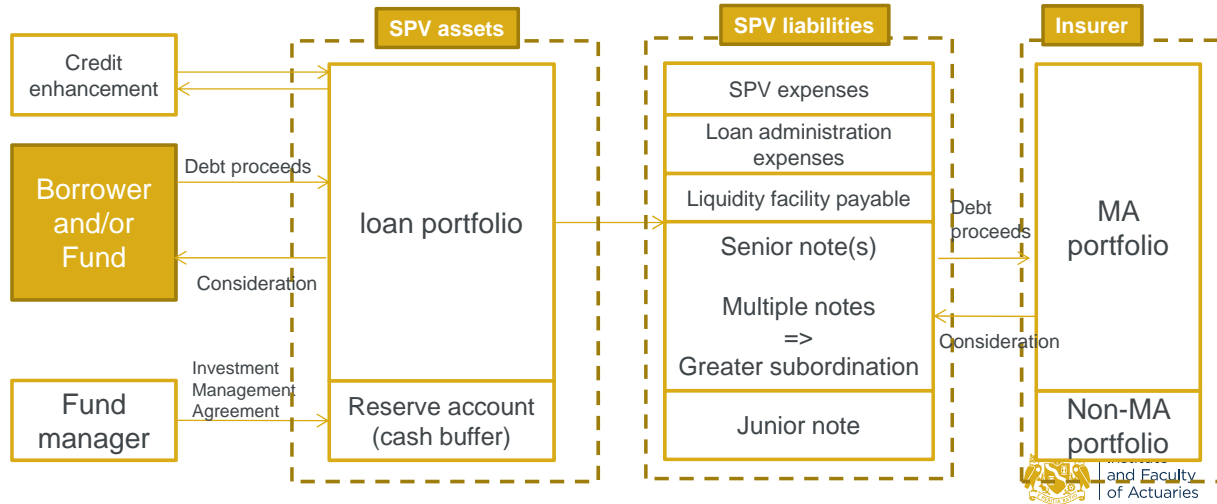
- Internal capabilities, systems and processes to manage the assets
- Is the asset Solvency II friendly?



The on-boarding of illiquid asset touches every area



MA restructuring not for the faint hearted



Questions

Comments

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