



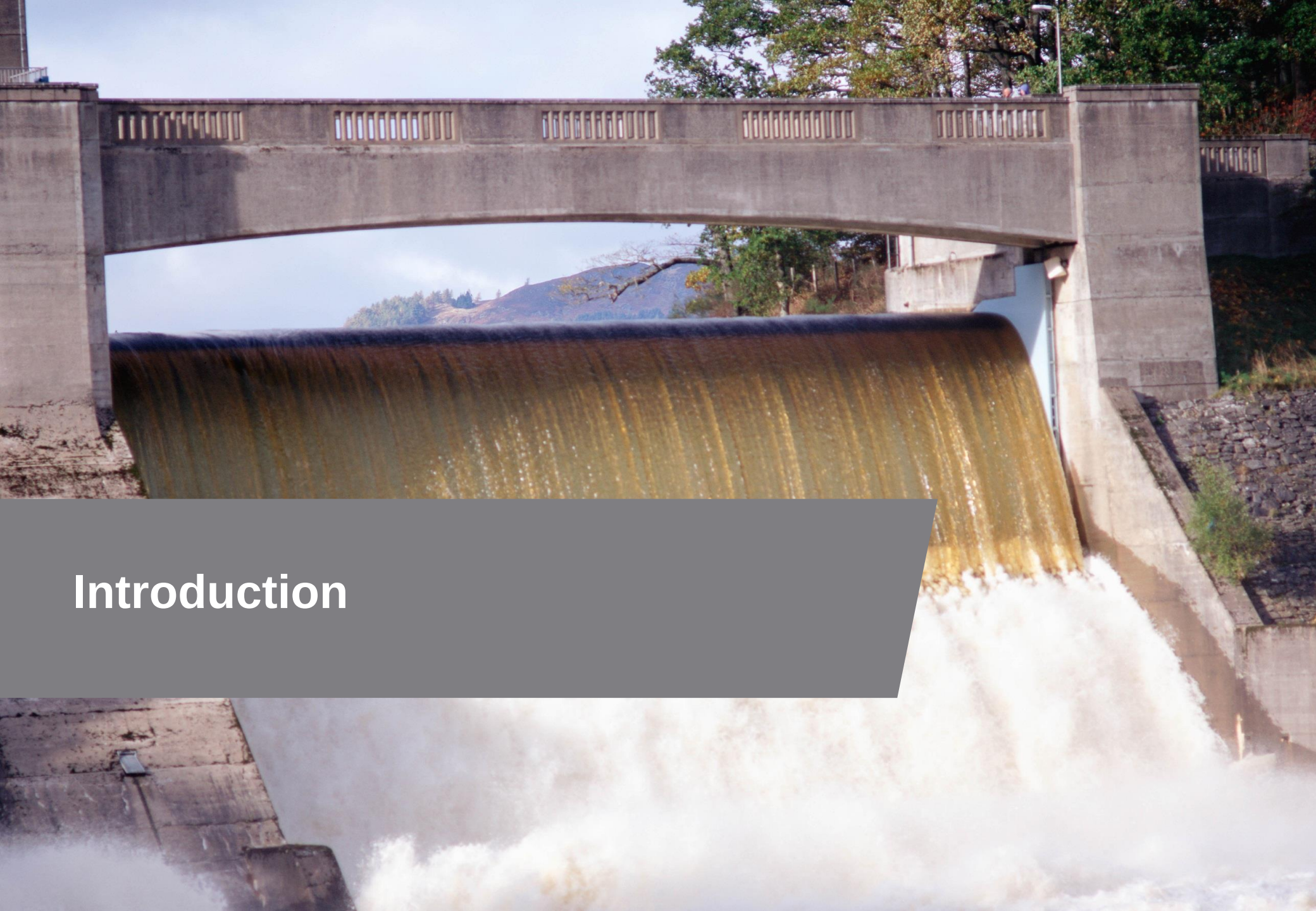
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Non-traditional investments - key considerations for insurers

Gareth Mee & Eugene Dimitriou

(on behalf of the non-traditional assets working party)

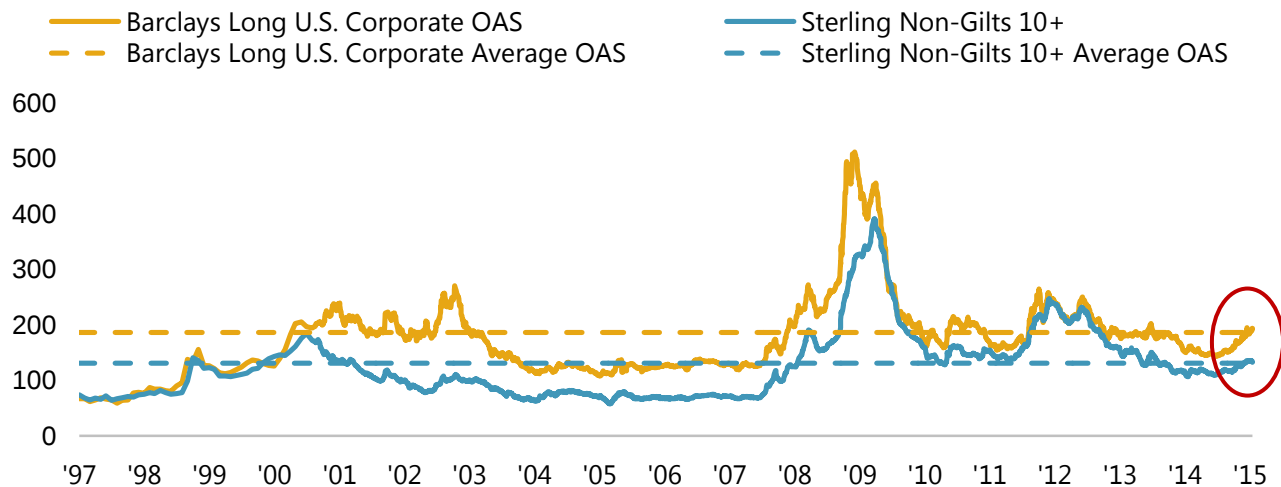
Highlights of Life Conference – March 2015



Introduction

Economic Backdrop - are Markets Overheating?

- The stock market has delivered strong returns ...



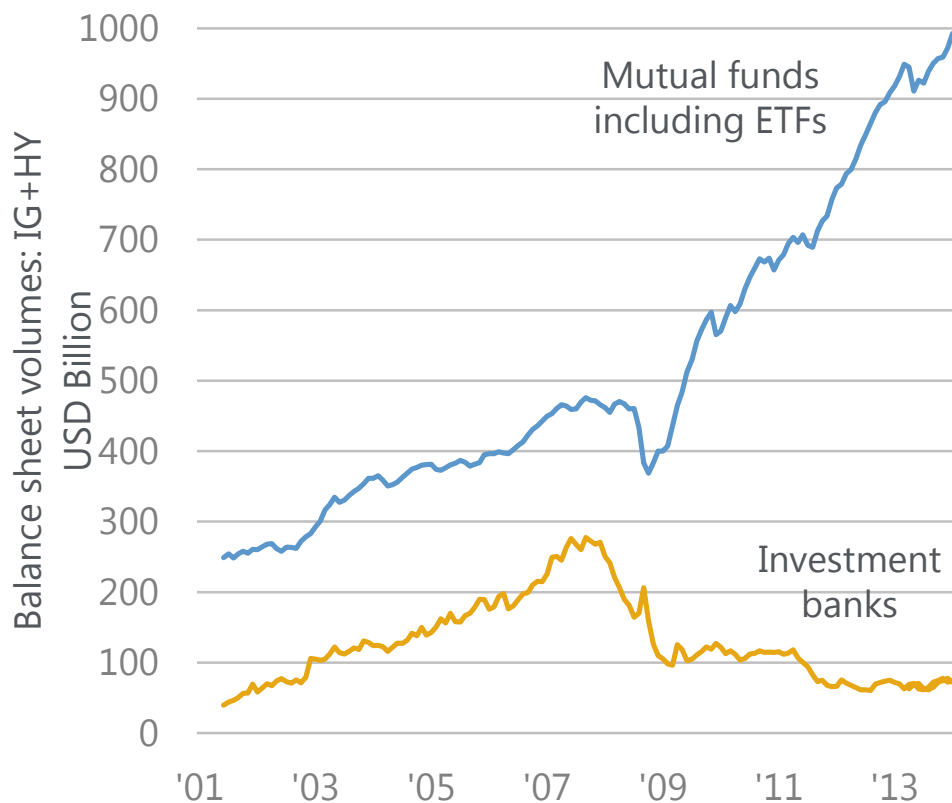
- Meanwhile, spreads in fixed income markets grind in tighter and tighter



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As of May 2014 SOURCE: Bloomberg, BofA Merrill Lynch (BofA Merrill Lynch Sterling Corporate Index and BofA Merrill Lynch UK Gilt Index)

The Changing Complexion of Fixed Income Investing



■ Challenges for Insurers as Investors:

- Need to invest as a function of liabilities
- Wide number of Constraints (regulatory, rating agency, tax, etc)
- Perceived inability to act quickly

■ Advantages of Insurers as Investors

- Size of balance sheets
- Ability to divorce funding from risk taking activities
- Low liquidity requirements/ability to be patient

Does this create investment opportunities for insurers?

Key 2015 trends in European insurance investment management

- The trend to diversify away from Euro and Sterling government bonds and to go global remains intact
 - More global credit, including U.S. credit
 - More emerging market debt
 - Peripheral credits with the exception of Greece are acceptable
 - Renewed interest in financials as a source of reasonable yield and liquidity
- Secular interest in income generating high quality substitutes for bonds:
 - Asset classes with attractive yields / low default risk
 - Secured lending, e.g. commercial real estate, aircraft leasing
 - Infrastructure debt
- Some appetite for private equity and hedge funds as alternatives to equities
- Ongoing evidence of hedging the tail risk in rates (both rates up and down), equities and credit
- Increasing buy and hold orientation, prompted in part by regulation e.g. Solvency II
- Acute ALM problems for continental life insurers vis-a-vis low rates

The dominant current trend is the search for yield

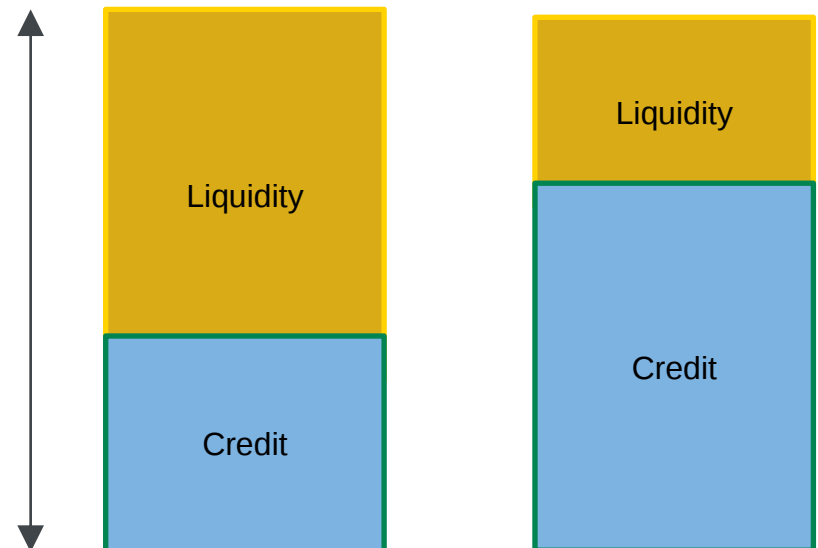


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Illiquidity in the market

In a sustained low interest rate environment illiquid assets are becoming more and more appealing investments, providing insurers with predictable and stable cash flows over the long term.

- For example, annuity business cannot be commuted and requires a matched asset portfolio that can be held to maturity.
 - Other institutional investors with long term liabilities, e.g., with profits providers, general insurers with long tailed business, and pension funds, will similarly require a long term investment horizon.
 - To date institutional investment in illiquid assets has been quite limited. Insurers have traditionally tended to be holders of liquid assets (gilts, cash and highly rated corporate bonds).
 - However, the highly collateralised nature of certain illiquid assets compared with the liquid equivalent implies a lower credit risk and therefore a favourable capital treatment.
- In summary illiquid assets may provide insurers with a higher risk adjusted return on the assets used to back long term liabilities.



The scale of the illiquid asset opportunity (pre-budget...)

British insurers commit
£25bn to UK
infrastructure

Prudential plans to plough
nearly £300m into the
construction of around
1,000 new (affordable)
homes.

L&G plans
to begin
lending to
larger
SMEs

Friends Life... announces a new £500m
mandate ... to the commercial
mortgage business of Pramerica
Investment Management Ltd

Insurer Aviva has completed the
purchase of around 7,000 solar
photovoltaic systems, totalling
around 23MW



But are they diving in too fast?

- ▶ *“We are also alert to the possibility that financial markets may be mispricing risk. As the FSB concluded last week, “there are increased signs of complacency in financial markets, in part reflecting search for yield amidst exceptionally accommodative monetary policies...”*
- ▶ *...An understandable response would be to move towards less traditional types of investments – such as infrastructure...*
- ▶ *...All these strategies bring new risks that must be well understood and prudently managed...*
- ▶ *...As supervisor, the Bank of England is monitoring closely how these new risks are being managed and how your business models are evolving.”*

[Source – “Putting the right ideas into practice” – Mark Carney, Governor of the Bank of England]



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Working party

- Working party formed in late 2013 to:
 - educate insurers on the types of alternative assets and their characteristics and risks
 - work with regulators / other professional bodies on behalf of the profession
- Research so far focused on
 - Development of research material on five subgroups of alternative assets, with a focus on fixed income
 - Development of research material on potential constraints and issues for insurers investing in alternative assets
 - Staple Inn presentation on 19th January and related paper (<http://www.actuaries.org.uk/events/one-day/sessional-research-event-benefits-and-challenges-insurers-considering-non-traditional>)



The working party

Niall Clifford	Mercer	Irina Kendix	Aviva Plc
Eamon Comerford	Milliman	Brian McCormack	Aviva UK Life
Edward Conway	Bank of America Merrill Lynch	Gareth Mee (chair)*	EY
Eugene Dimitriou	PIMCO	Stephen Metcalfe	Prudential Plc
Ross Evans	Hymans Robertson	Lucian Rautu	Independent consultant
Thomas Gormley	Assured Guaranty	Nick Sinclair	Standard Life Plc
Justin Grainger	Alpha Real Capital	Grisha Spivak (vice chair)	BlackRock
Eliza Gu	Rogge Global Partners	Jelena Strelets	Nomura International Plc
Andrew Hammacott	Independent consultant	Russell Ward	Milliman
Belinda Hue	Independent consultant	Keli Zhang	Towers Watson
Gareth Jones	MGM Advantage		

A large offshore wind turbine with a yellow base and white upper section stands in the sea. A red and white service vessel, named 'DELIVERER', is positioned to the right of the turbine. The sky is overcast and the water is choppy. A semi-transparent grey banner with white text is overlaid on the middle of the image.

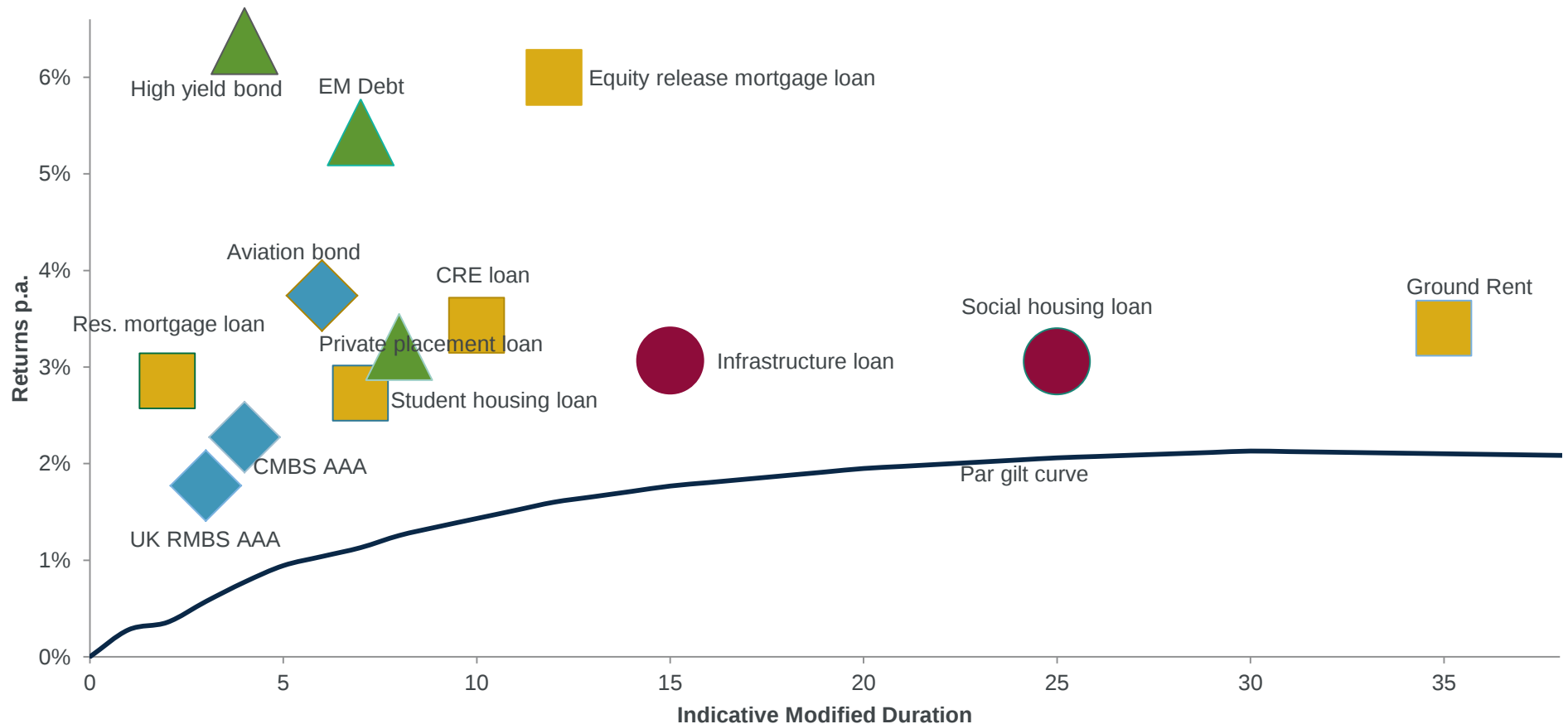
Asset classes considered

What might be considered alternative?

Type of investment	Examples	Key features
Infrastructure	Social infrastructure, economic infrastructure, energy (including renewables)	Loan to a project; no security; highly illiquid
Real estate backed	Residential & commercial lending, social housing, student accommodation, equity release, ground rent	Formally secured on a property; highly illiquid
Other asset backed	Asset backed securities, collateralised loan obligations, aircraft financing, shipping financing	Formally secured on real assets; often highly structured
Other unsecured	Private placements, SME lending, high yield, overseas (including emerging market) debt	Unsecured; most closely related to corporate bonds
Other	Private equity, hedge funds, insurance linked securities	Various risk / return profiles



Potentially interesting asset classes - returns



As of 31 March 2014, with updates to January 2015. SOURCE: Institute of Actuaries Non-Traditional Working Party, PIMCO
Refer to Appendix for additional investment strategy, issuer and risk information



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Challenges and constraints to investment

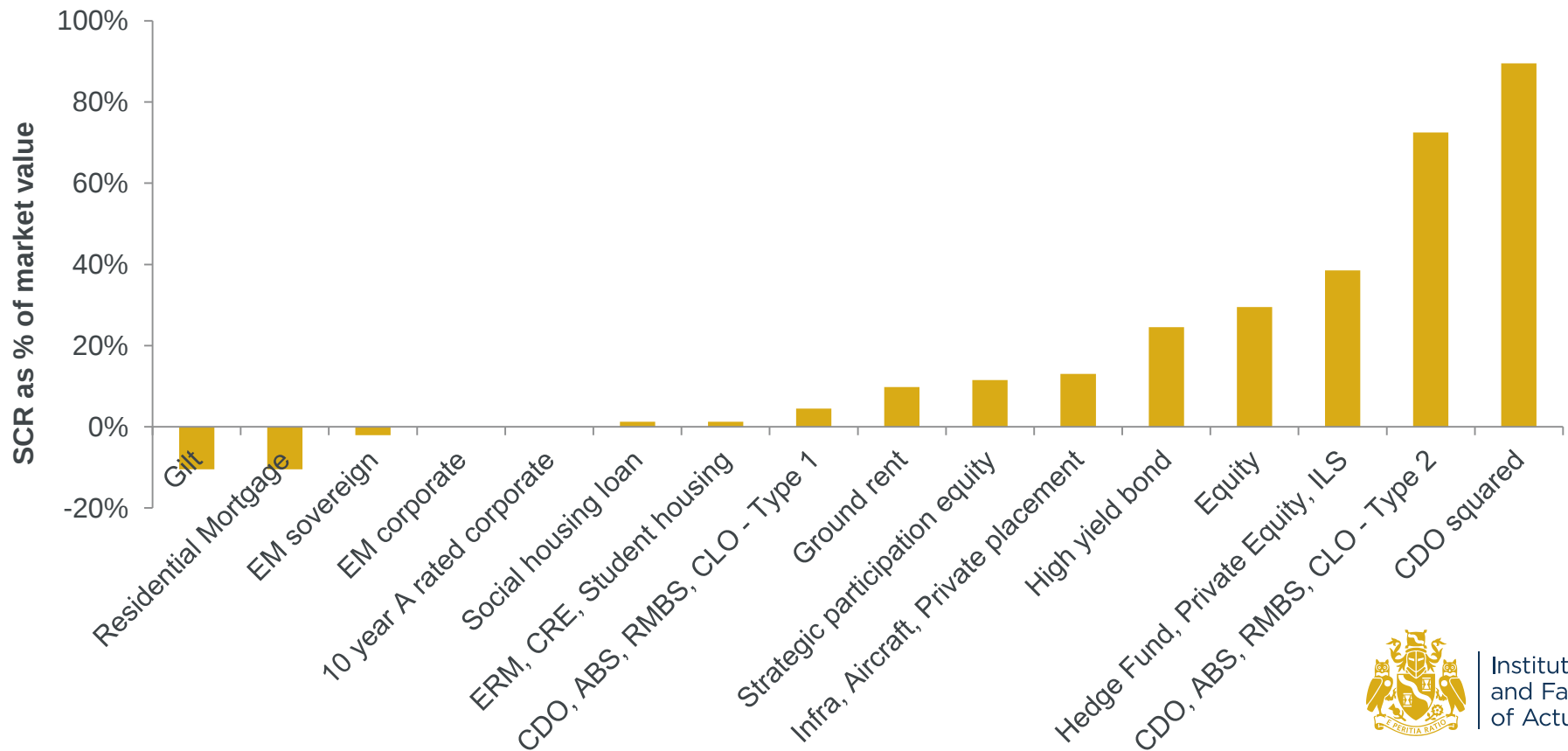
Challenge 1 – how do I get hold of one?

- Unlike corporate bonds or equities, an insurer generally can't buy non-traditional assets easily. It could buy one through:
 - Pooled fund
 - Segregated mandate
 - Syndicated loan or through a “club”
 - Securitisation
- Or it could lend money directly in the “origination” market or through the secondary market
- If I find one, can I price it?
- And perform a credit assessment?



Challenge 2 – is it going to cost me lots of capital?

This graph shows the relative capital charges for a range of assets against an A rated corporate bond (all assets have 10 year duration aside from securitisations which have 5 year duration).



Challenge 3 – what if the assets are not in sterling?

	Pros	Cons
No hedge	• No obvious pros	• No risk mitigation; currency charge is expensive
Cross currency hedge	• Risk mitigating and provides certainty on cashflows • Potentially useful under matching adjustment	• Market value volatility through cross currency basis risk • Geared exposure to overseas default risk • Still not simple under matching adjustment • Expensive
Rolling forwards	• Mark to market protection • Relatively inexpensive	• Doesn't fix cashflows (so problematic for matching adjustment)



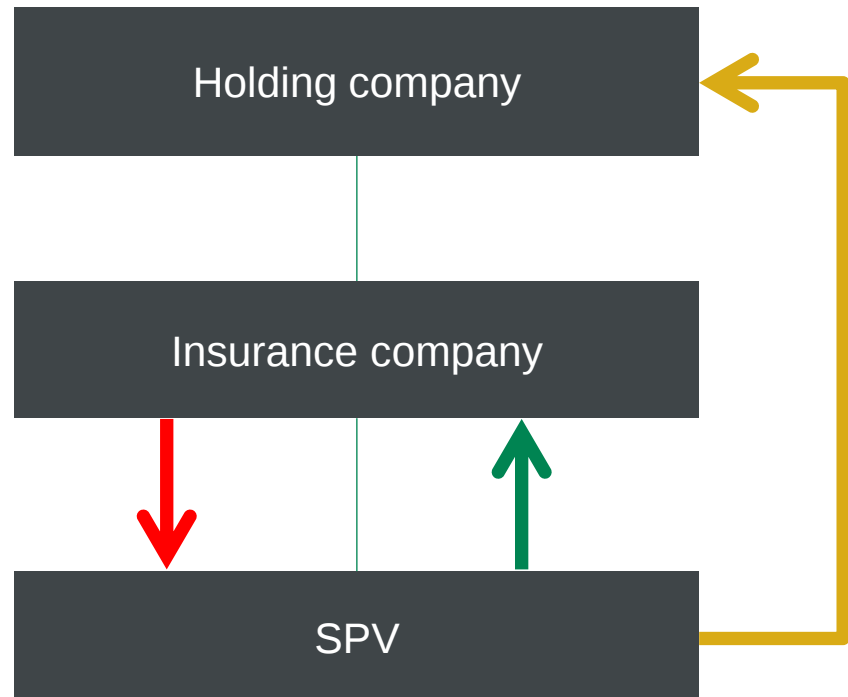
Challenge 4 – do I need to change the cash flows?

One potential structure for fixing cash flows might be to create a fixed note from the uncertain cashflows.

Equity layer held by Holding company

Debt issued by SPV and fixed coupons paid to Insurance company

Problematic assets sold into SPV



Challenge 5 – how do I manage when things change?

- As the insurer has a relationship with the borrower (potentially through an intermediary), terms can be changed either contractually or on a discretionary basis through:
 - Changes in borrower circumstances
 - Borrower optionality
 - Variations (or changes to loan terms)
- As such, insurers may wish to:
 - Hire expertise in house
 - Utilise investment management (or credit insurance) expertise
 - Outsource all management



Summary of challenges

Type of investment	Examples	Pricing Transparency	CF certainty	Ability to source	Ongoing mgmt
Infra-structure	Social infrastructure, economic infrastructure, energy (including renewables)	Low	High	Medium	Complex
Real estate backed	Residential & commercial lending, social housing, student accommodation, equity release, ground rent	Low	Medium	Medium – difficult	Complex
Other asset backed	Asset backed securities, collateralised loan obligations, aircraft financing, shipping financing	Medium - High	Medium	Easy	Simple
Other un-secured	Private placements, SME lending, high yield, overseas (including emerging market) debt	High	High	Easy	Simple
Other	Private equity, hedge funds, insurance linked securities	Low	Low	Easy - Medium	Medium



A large wind turbine is silhouetted against a vibrant, orange and yellow sunset sky filled with textured clouds. The turbine's three blades are spread out, with one pointing towards the top left. In the lower portion of the image, a dark silhouette of a landscape with trees and other wind turbines is visible. A semi-transparent grey banner with a diagonal cut on the right side is positioned across the middle of the image.

Final thoughts

Five bold predictions regarding insurers future investment activity - discussion

- Securitizations will make a comeback and European insurers will participate
- Infrastructure debt will remain a niche area
- Insurers will grow to appreciate asset liquidity
- Emerging markets have emerged and will continue to increase as a proportion of insurance company assets.
- Insurers will begin to use macro tail risk hedging as a risk and capital management tool



Final thoughts

- Insurers should continue to evaluate non-traditional opportunities, being aware of the potential benefits as well as the challenges
- Research will continue to be focused in this area- this is of strategic importance to
 - Insurance industry,
 - UK government
 - Our profession
- Thoughts, suggestions and contributions for future research are very welcome



Questions

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



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