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Asset Duration Management – How Low Should You Go?

GIRO Conference 2014

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25 September 2014

Contents

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Observations

- Our understanding of a typical short-tail insurer:
  - A specific duration is not *particularly* targeted, nor positioned for
  - It is usually just last year's position plus or minus 6 months
  - Key considerations are often Earnings Volatility and "Don't be too different from peers"
  - Hence, it doesn't matter what the market environment is, the duration position doesn't change much!
  - Those insurers who do not discount liabilities on their balance sheet are nearly always short duration
    - Usually about 50% short
  - But rates exposure is such a key driver of returns for General Insurers
  - And the risk of an outsized rates rise has increased
    - surely not optimal to continue "as before"

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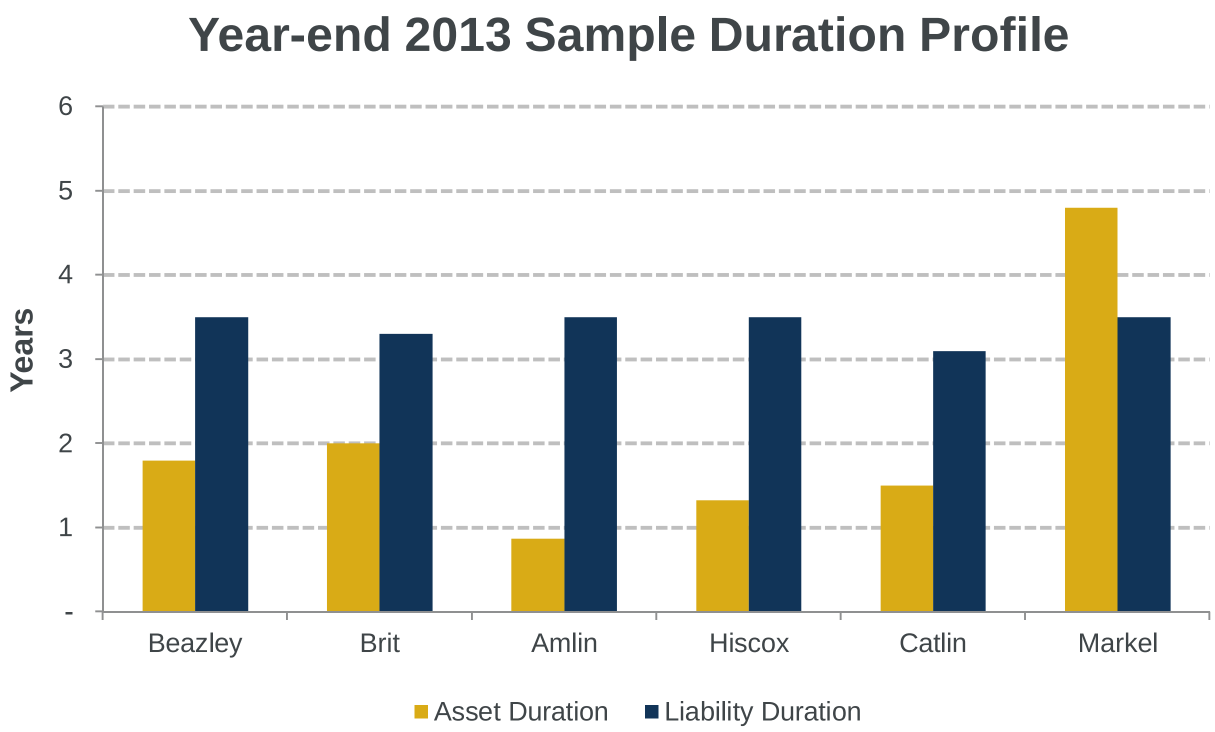
Sample Duration Positions



Source: Published company information, Mercer assumptions and calculations where:

- Published company information includes year-end 2013 Annual Reports, as well as IPO documentation for Brit
- Assumed liability durations are based on approximate underwriting profiles where not published

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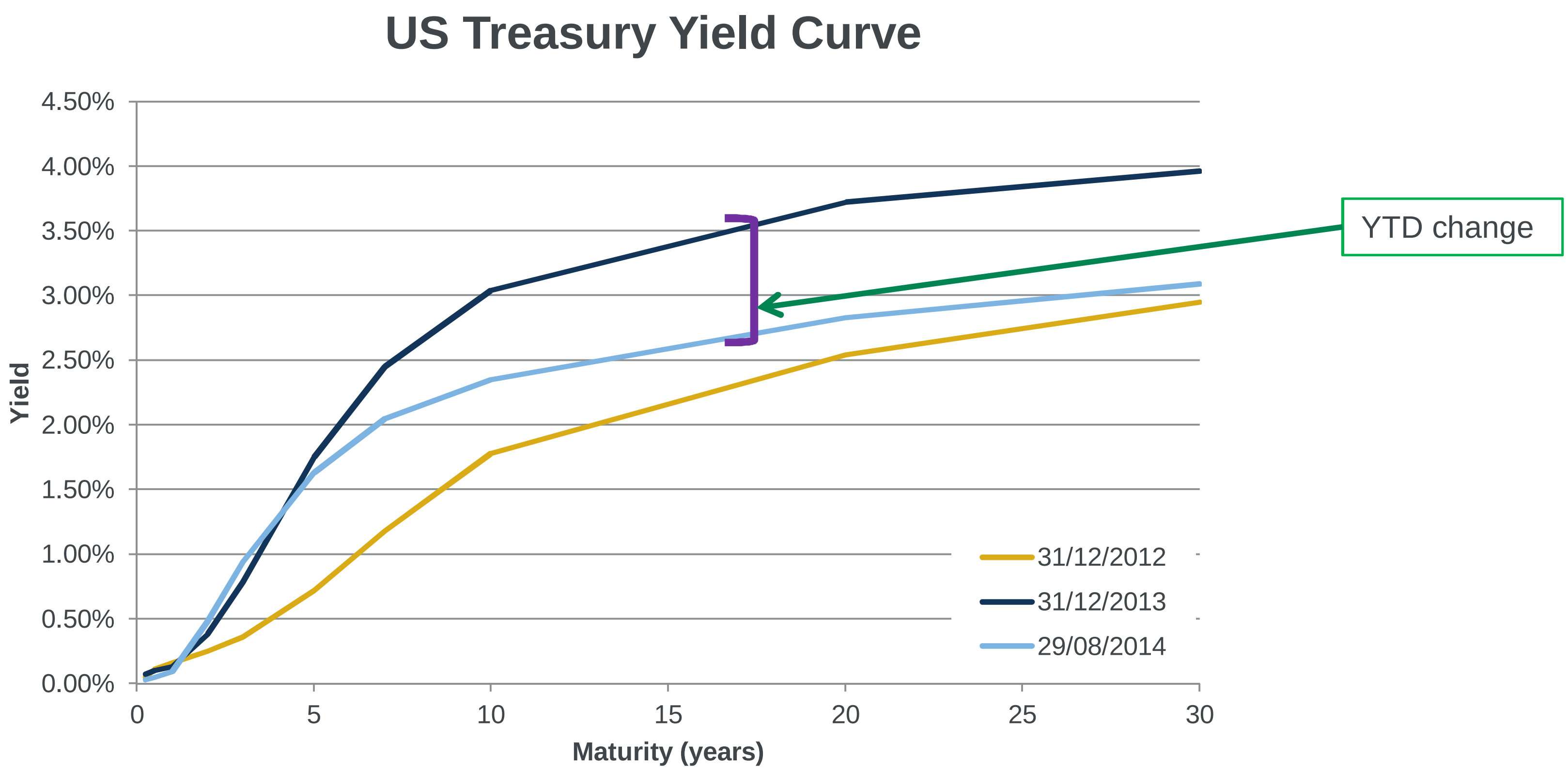
Market Update – Rates



Maturity (years)

Date	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
31/12/2012	0.05%	0.11%	0.16%	0.25%	0.36%	0.72%	1.18%	1.78%	2.54%	2.95%
31/12/2013	0.07%	0.10%	0.13%	0.38%	0.78%	1.75%	2.45%	3.04%	3.72%	3.96%
29/08/2014	0.03%	0.05%	0.09%	0.48%	0.94%	1.63%	2.05%	2.35%	2.83%	3.09%

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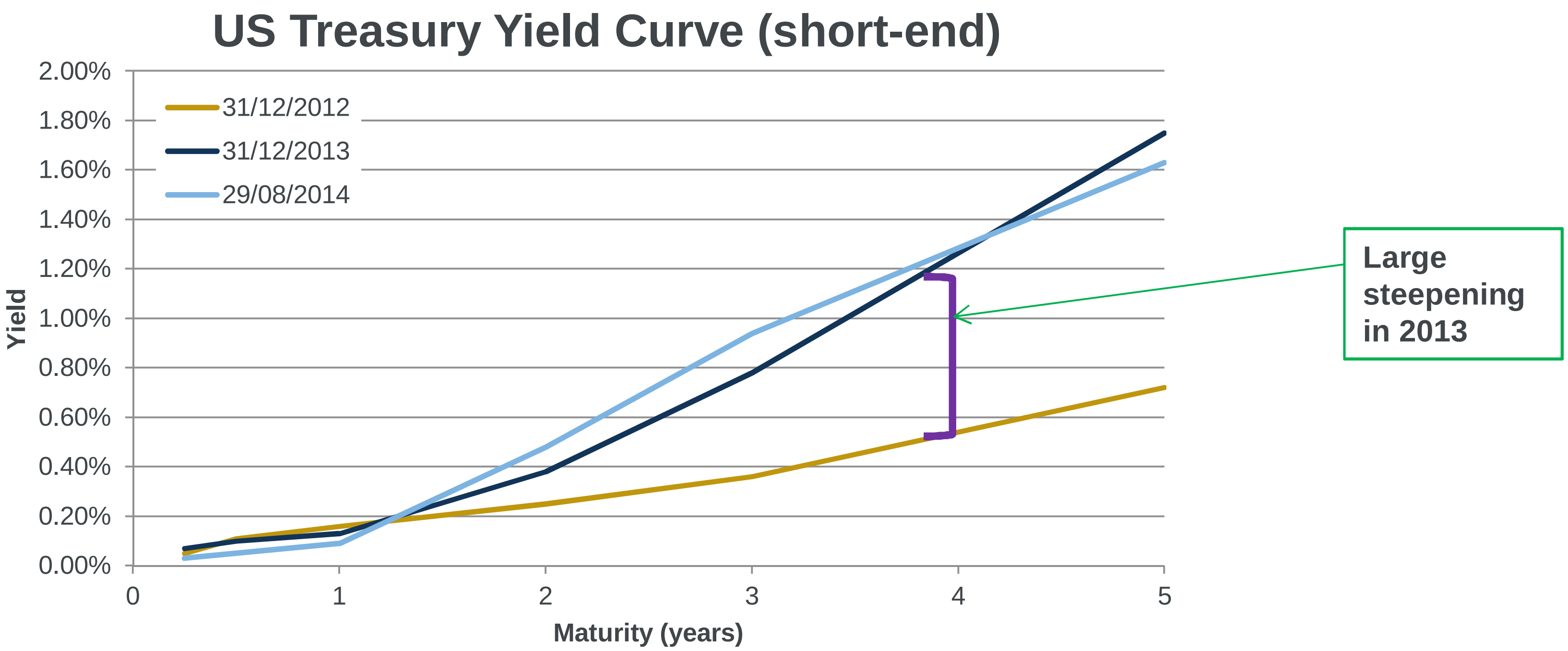
Source: US Department of the Treasury

Market Update – Rates



Maturity (years)

Date	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr
31/12/2012	0.05%	0.11%	0.16%	0.25%	0.36%	0.72%
31/12/2013	0.07%	0.10%	0.13%	0.38%	0.78%	1.75%
29/08/2014	0.03%	0.05%	0.09%	0.48%	0.94%	1.63%

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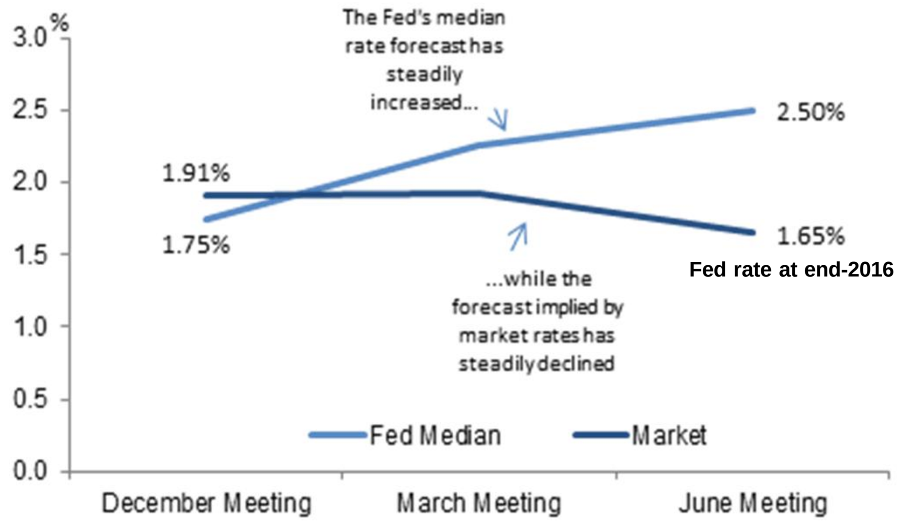
Source: US Department of the Treasury

US Interest Rate Views

Both Short-End and Long-End Appear Mispriced

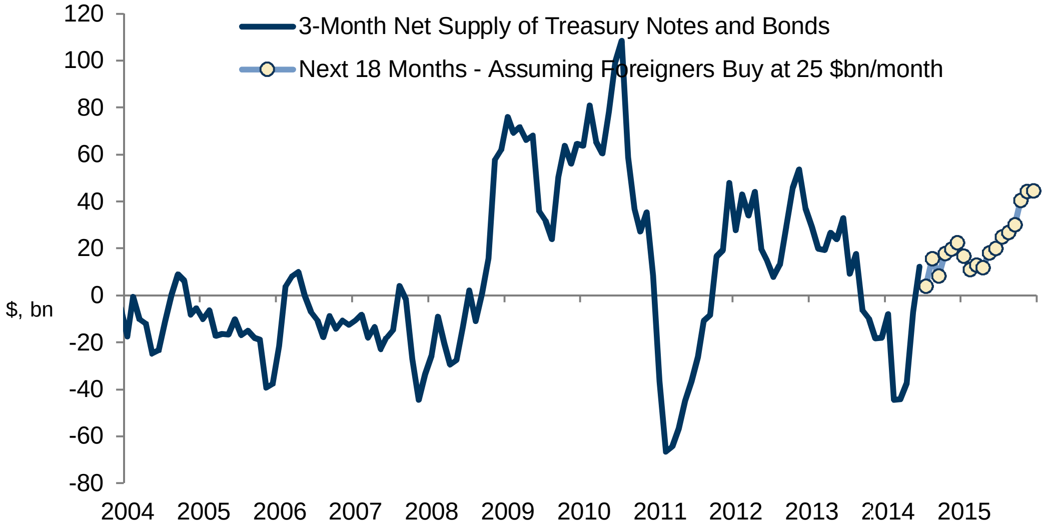
Market pricing more dovish than the Fed

Though the "dots" showing Fed policymakers' rate outlook have moved higher, broadly dovish comments by the Fed and other central banks in 1H prompted a rally in rates markets. However, minutes of the July FOMC meeting suggest some Fed officials see rate hikes sooner if data continue to improve.



Treasury demand likely to reduce

Purchases by China and Fed buying have put downward pressure on yields. This buying trend is potentially set to reverse into 2H 2014/1H 2015.



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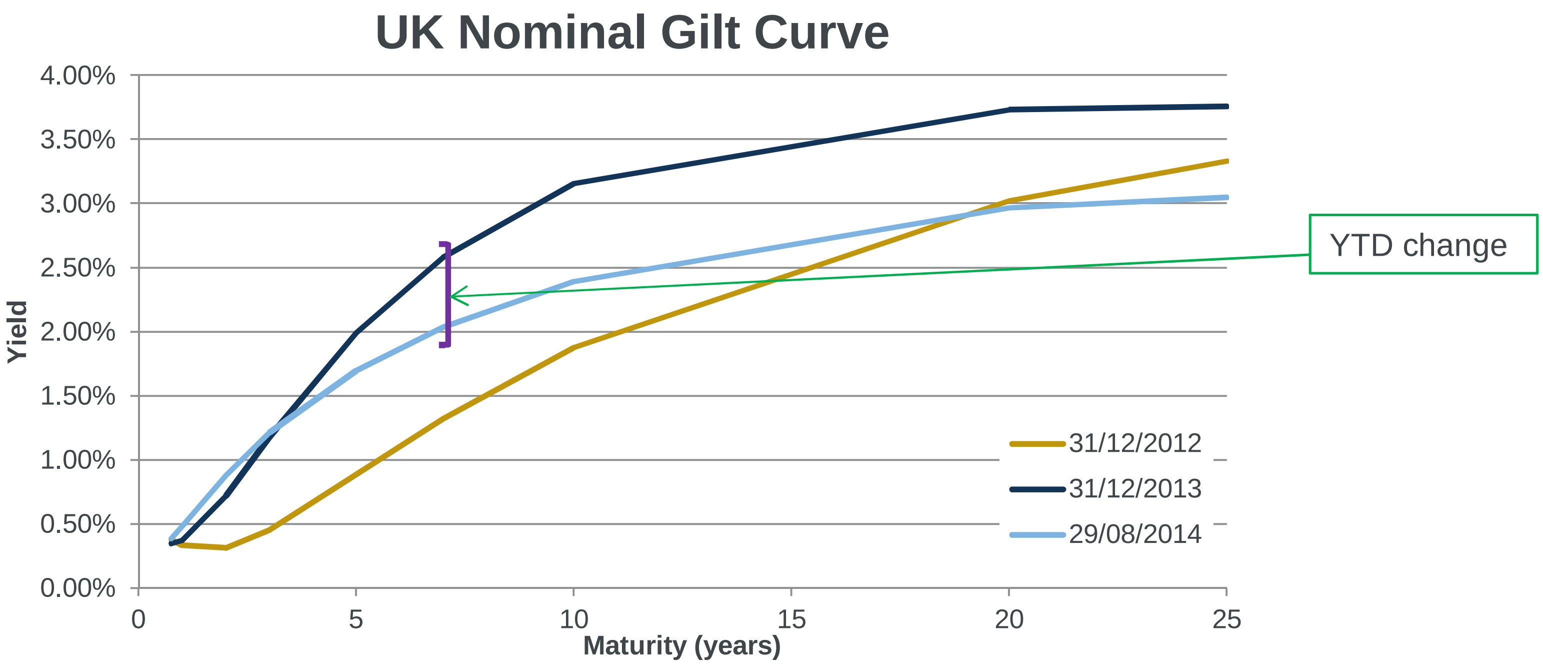

Maturity (years)

Date	9 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	25 Yr
31/12/2012	0.38%	0.33%	0.31%	0.45%	0.89%	1.32%	1.88%	3.02%	3.33%
31/12/2013	0.35%	0.37%	0.72%	1.18%	1.99%	2.58%	3.16%	3.73%	3.76%
29/08/2014	0.39%	0.48%	0.88%	1.21%	1.70%	2.04%	2.39%	2.97%	3.05%

Source: Bank of England

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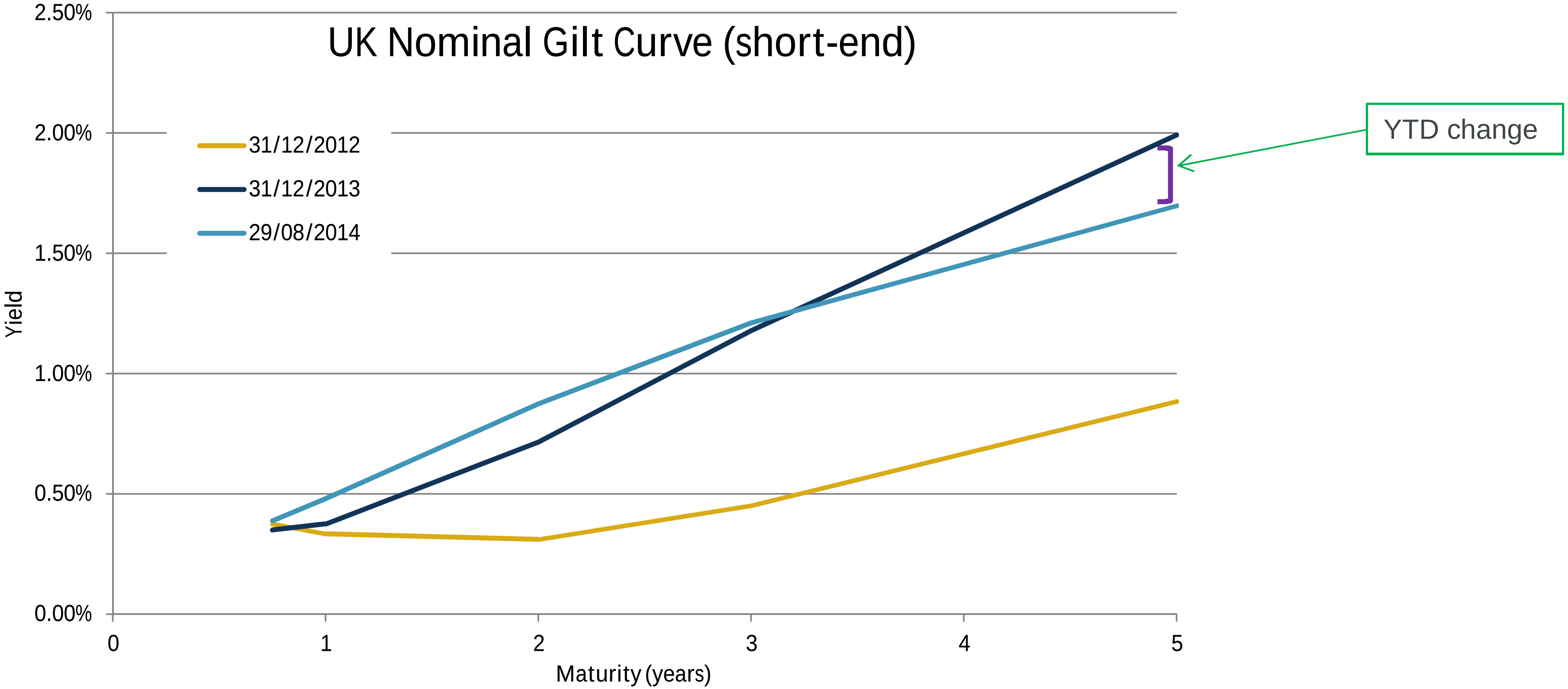
Market Update – Rates



Date	9 Mo	1 Yr	2 Yr	3 Yr	5 Yr
	Maturity (years)				
31/12/2012	0.38%	0.33%	0.31%	0.45%	0.89%
31/12/2013	0.35%	0.37%	0.72%	1.18%	1.99%
29/08/2014	0.39%	0.48%	0.88%	1.21%	1.70%

Source: Bank of England

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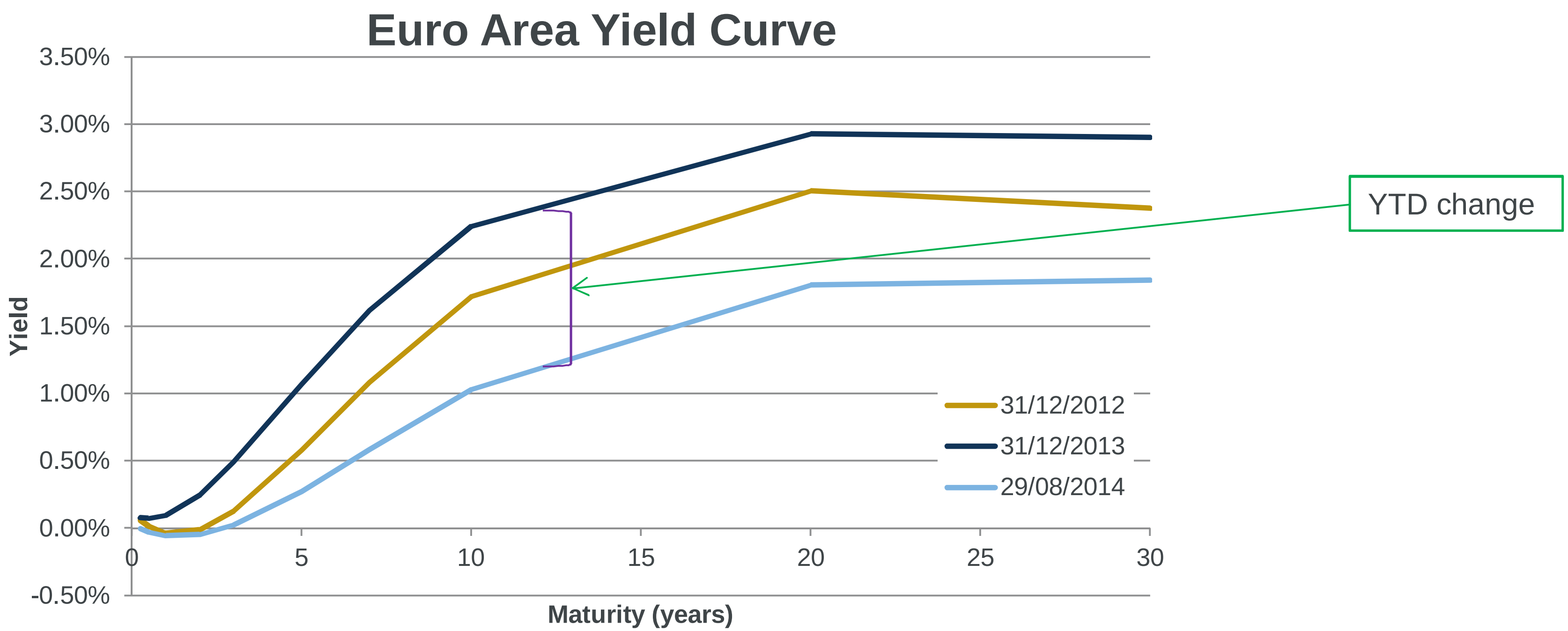

Maturity (years)

Date	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
31/12/2012	0.06%	0.01%	-0.04%	-0.01%	0.13%	0.58%	1.09%	1.72%	2.50%	2.38%
31/12/2013	0.08%	0.07%	0.09%	0.25%	0.49%	1.07%	1.62%	2.24%	2.93%	2.90%
29/08/2014	0.00%	-0.03%	-0.06%	-0.05%	0.02%	0.28%	0.59%	1.03%	1.81%	1.84%

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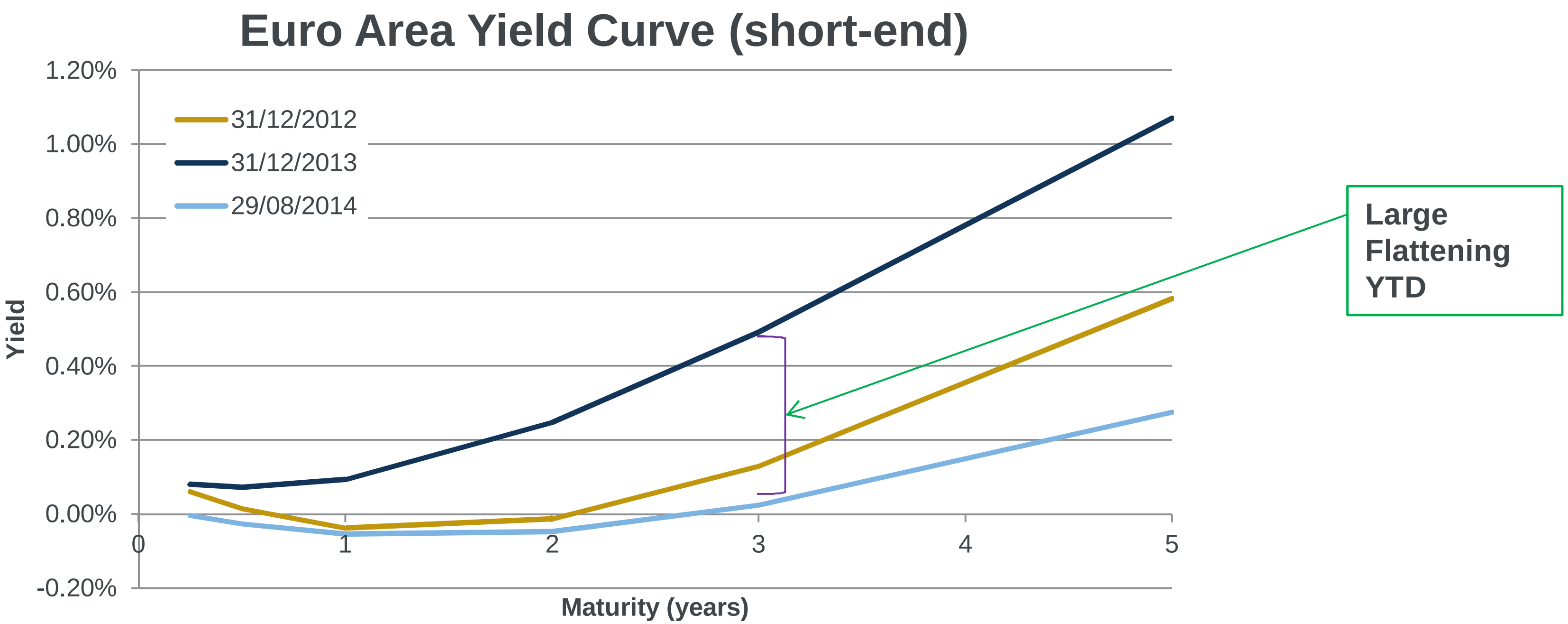
Source: European Central Bank

Market Update – Rates



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29/08/2014	0.00%	-0.03%	-0.06%	-0.05%	0.02%	0.28%

Source: European Central Bank

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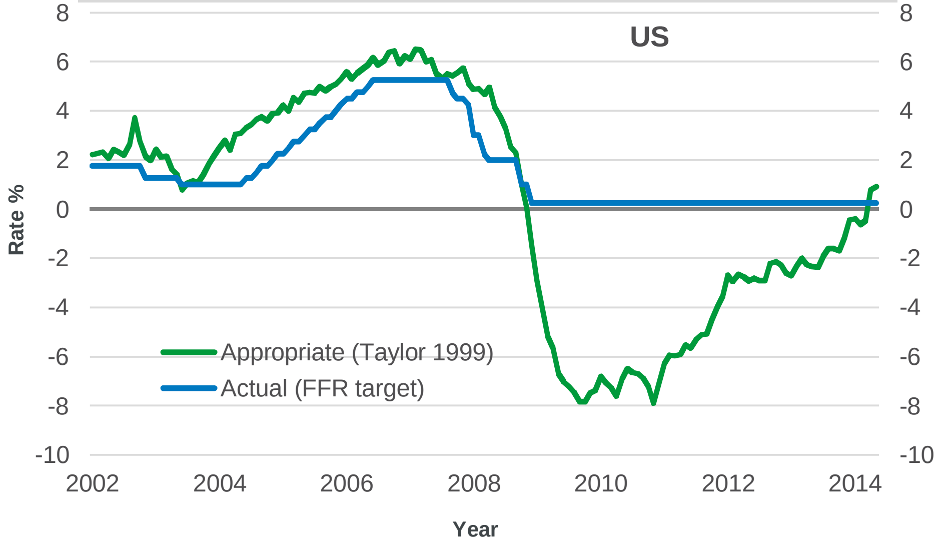
What's driving Central Banks?

Taylor 1999 Rule ("Taylor's Rule"):

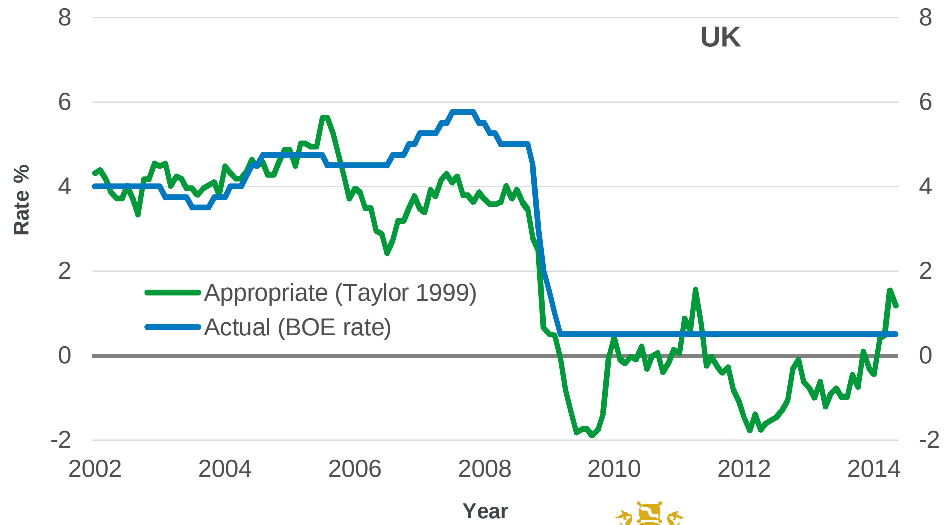
Appropriate policy rate = neutral real policy rate + inflation + 0.5 * inflation gap + 2.3 * unemployment rate gap

Assumptions	US	UK	EU	JP
Neutral nominal policy rate	3.8%	5.0%	3.0%	0.5%
Neutral real policy rate	1.8%	3.0%	1.0%	-1.5%
Inflation target	2.0%	2.0%	2.0%	2.0%
NAIRU	5.4%	5.1%	8.6%	3.5%

The US will likely start taking its foot off the gas …



The UK will likely start applying the brakes the fastest …



Source: Bloomberg and BlackRock at 24 July 2014

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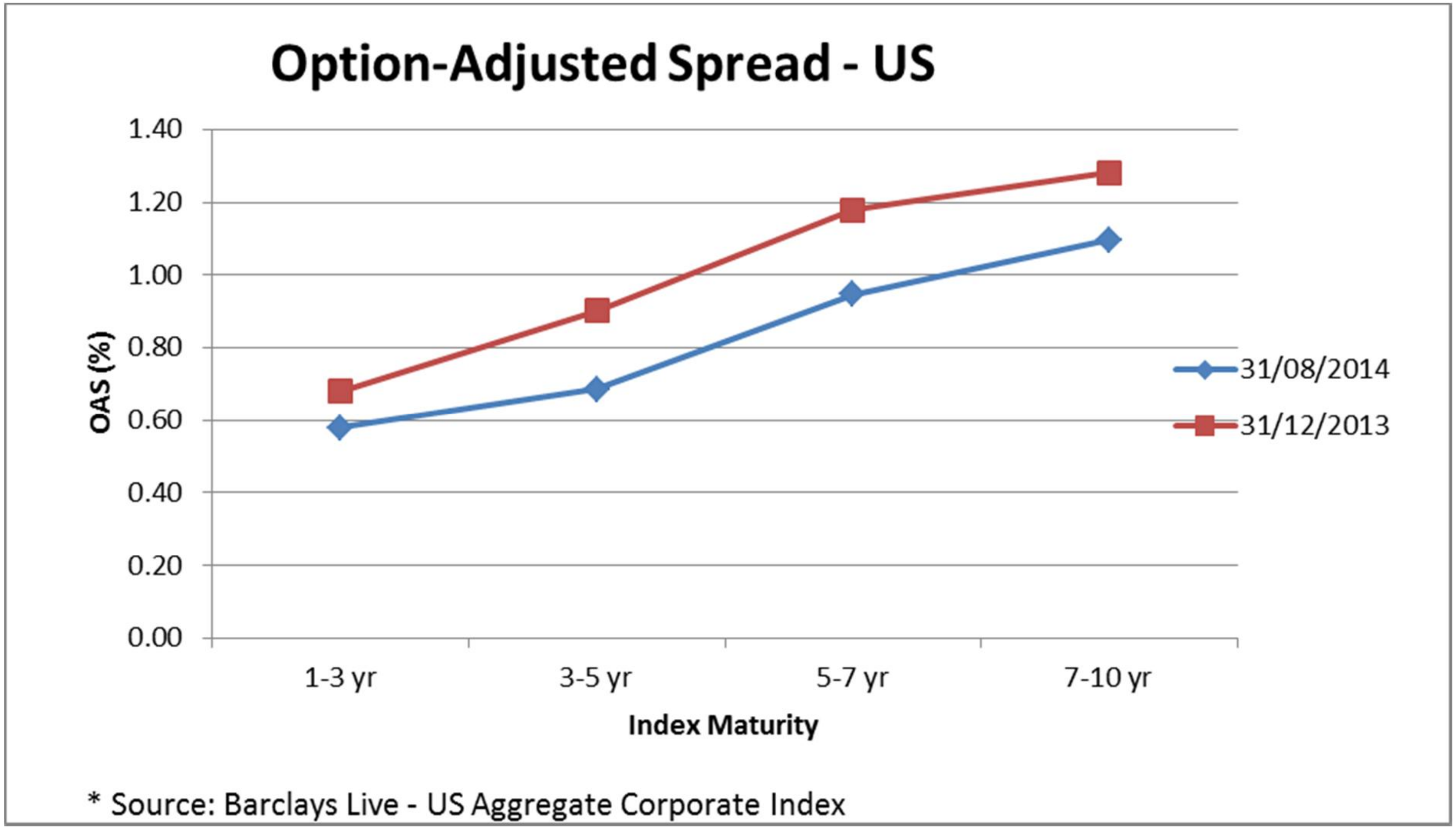
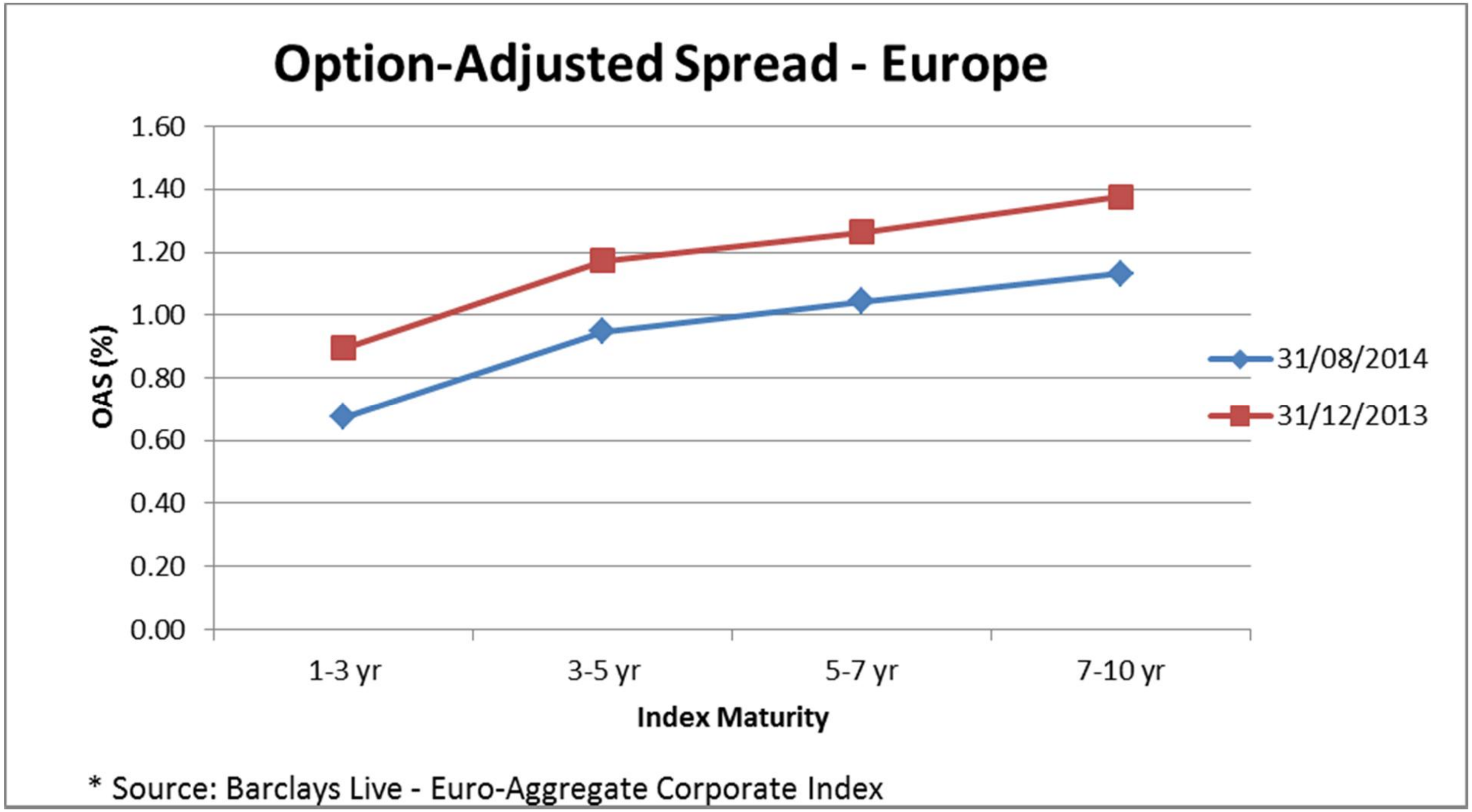
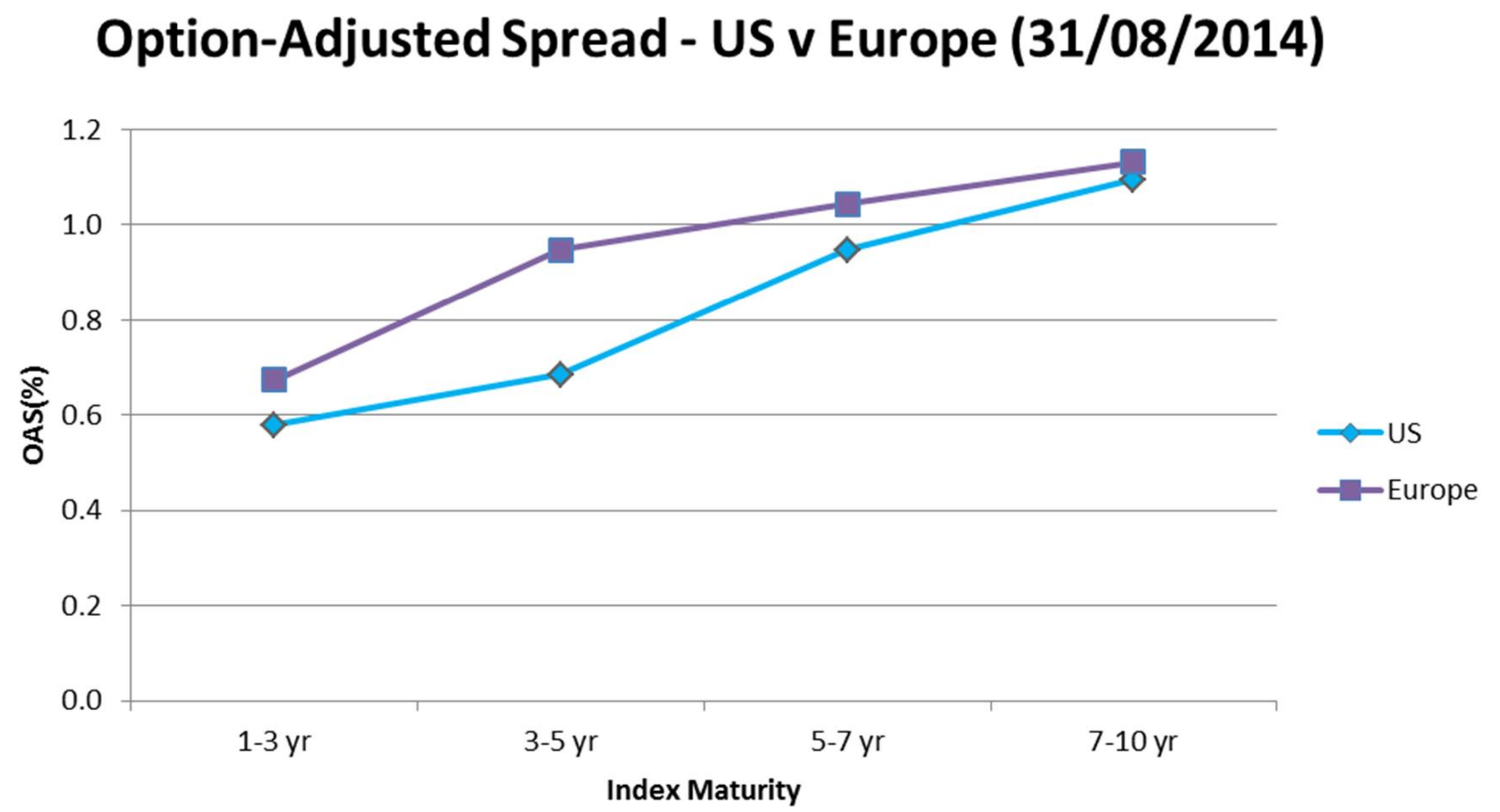
Market Update – Credit



Market Update – Credit



Market Update – Credit



* Source: Barclays Live - Euro-Aggregate Corporate Index and US Aggregate Corporate Index

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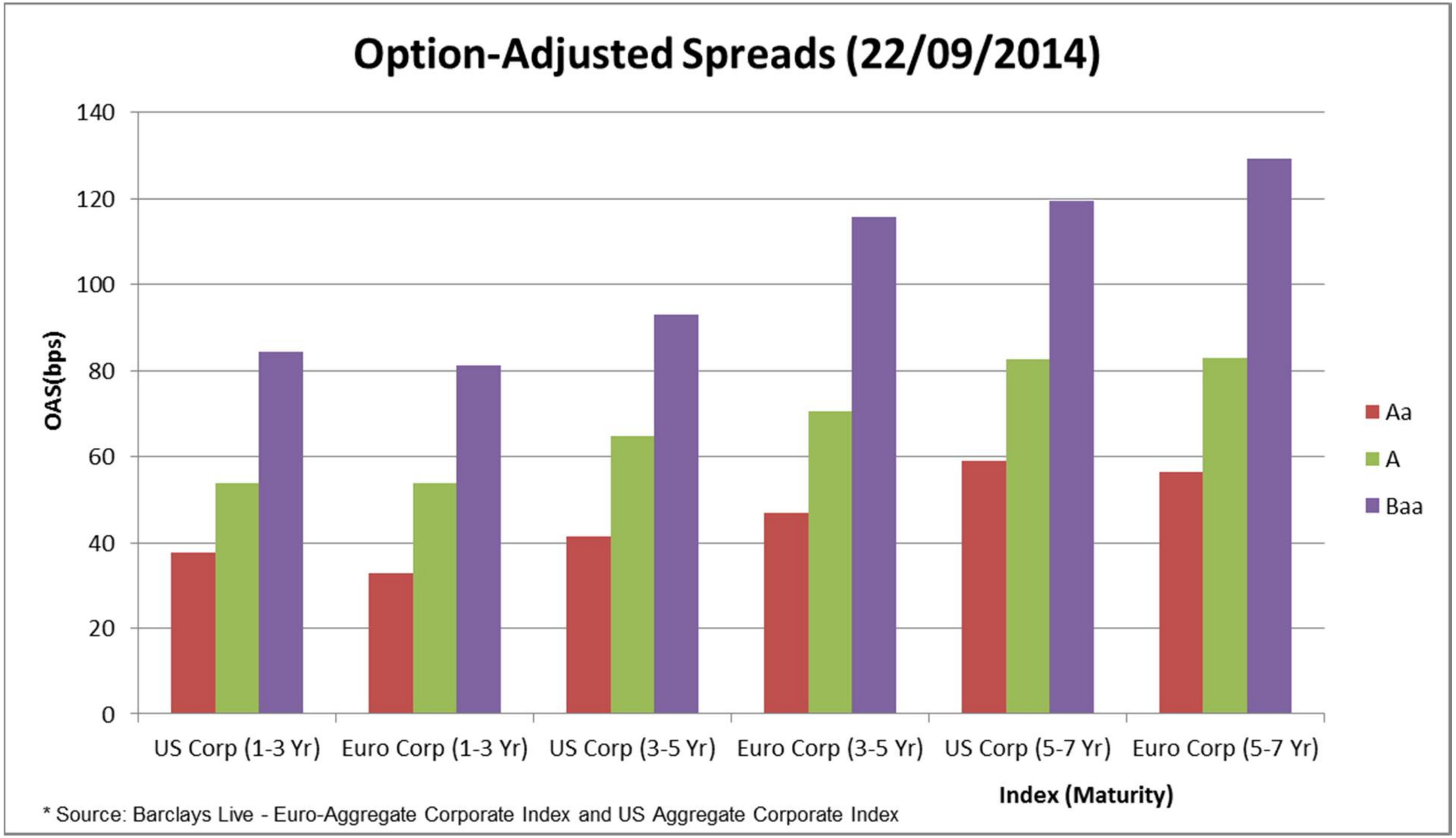
Option-Adjusted Spreads – as at 22/09/2014



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Relative value opportunities

- Given the low-rate environment, insurers are searching for enhanced yield
- Every little helps

Potential asset classes offering value	Features
AAA-rated CMBS	Still pricing wide of BBB-rated US corporate bonds
AAA-CLOs	Offering great value on an economic basis. Pity about Solvency II treatment.
Emerging Market BBB-rated corporate debt	Currently yielding c.120bps higher than Developed Market BBB-rated corporate bonds

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What can insurers do to mitigate interest risk?

Sample Options	Features
Absolute return bond strategies	Delegate the investment decisions to an external manager (interest rate, credit spread, currency and opportunity set)
Option-based strategies	Little upside from interest rates falling from current levels! So sell this to fund downside protection
Curve Roll-down	Don’t just roll with the index
Increase the carry in the portfolio	Avail of the illiquidity premium available in specific asset classes
Increase the investible universe - Credit - Alternatives	• Geographic diversification • Add alternative sources of alpha to the portfolio and enhance the diversification across risk drivers
Barbell	e.g. long credit and short overall duration
Tail risk overlay	Employ a specialist manager using market signals to dictate when to hedge

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Risk budget

- **FIRST** - How much risk can you afford?
  - Let's not be fooled by past averages
    - A 1% rise from current levels is **not** a 1-in-200 year event
- **Do you care about the rating agencies?**
  - S&P assume a 1.5 year mismatch as a minimum
  - Don't give much benefit to diversification
  - Have some odd treatments of physicals vs. derivatives
- **Do you care about the Capital treatment?**
  - Under Solvency II, diversification wins – for 3-year liabilities, it doesn't matter whether you are hedged or not from a 1-year capital perspective

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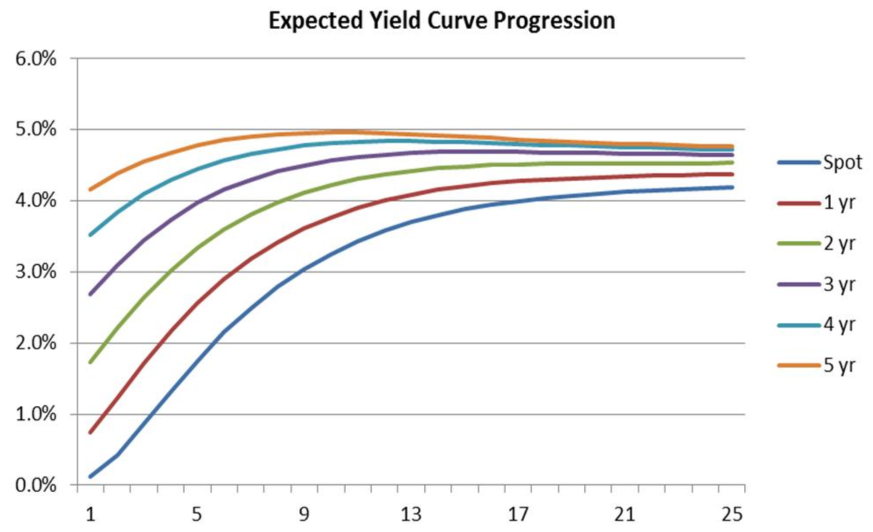
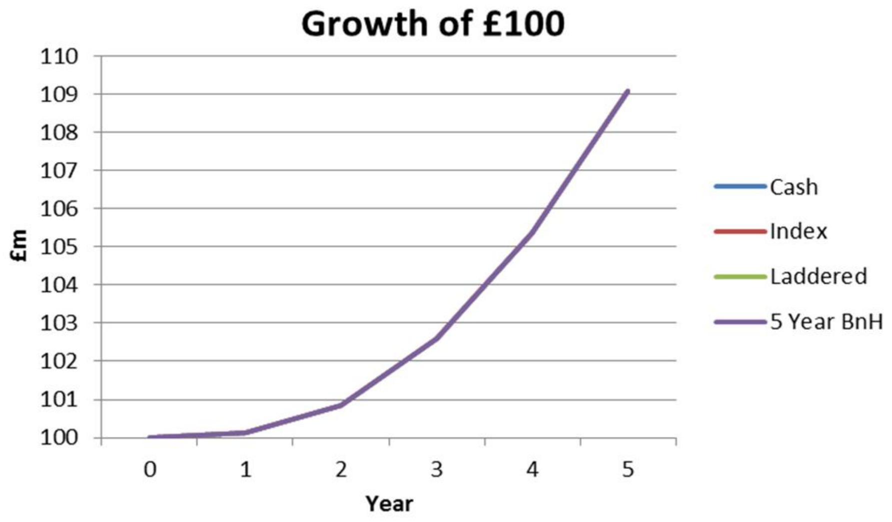
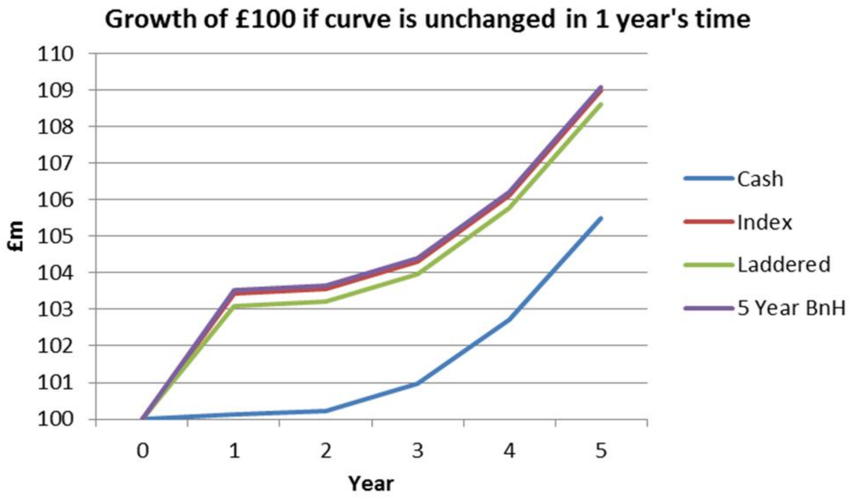
In which scenarios do you win and in which do you lose?

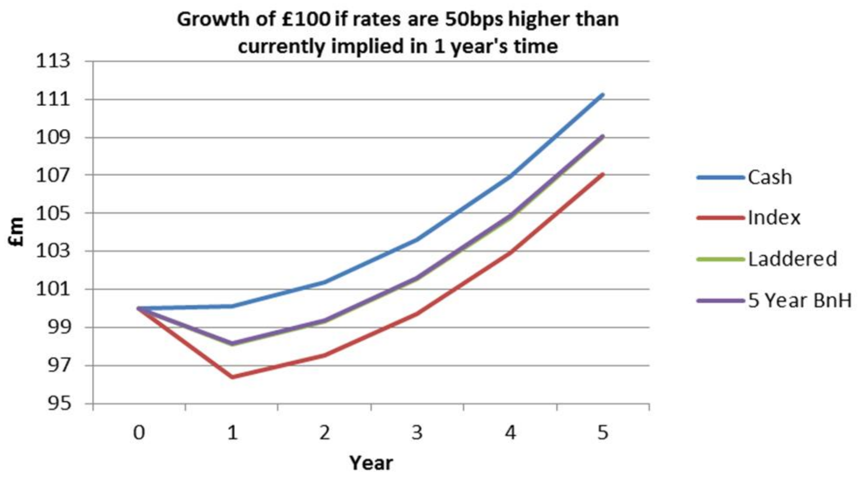


Source: US Department of the Treasury as at 31/12/2013

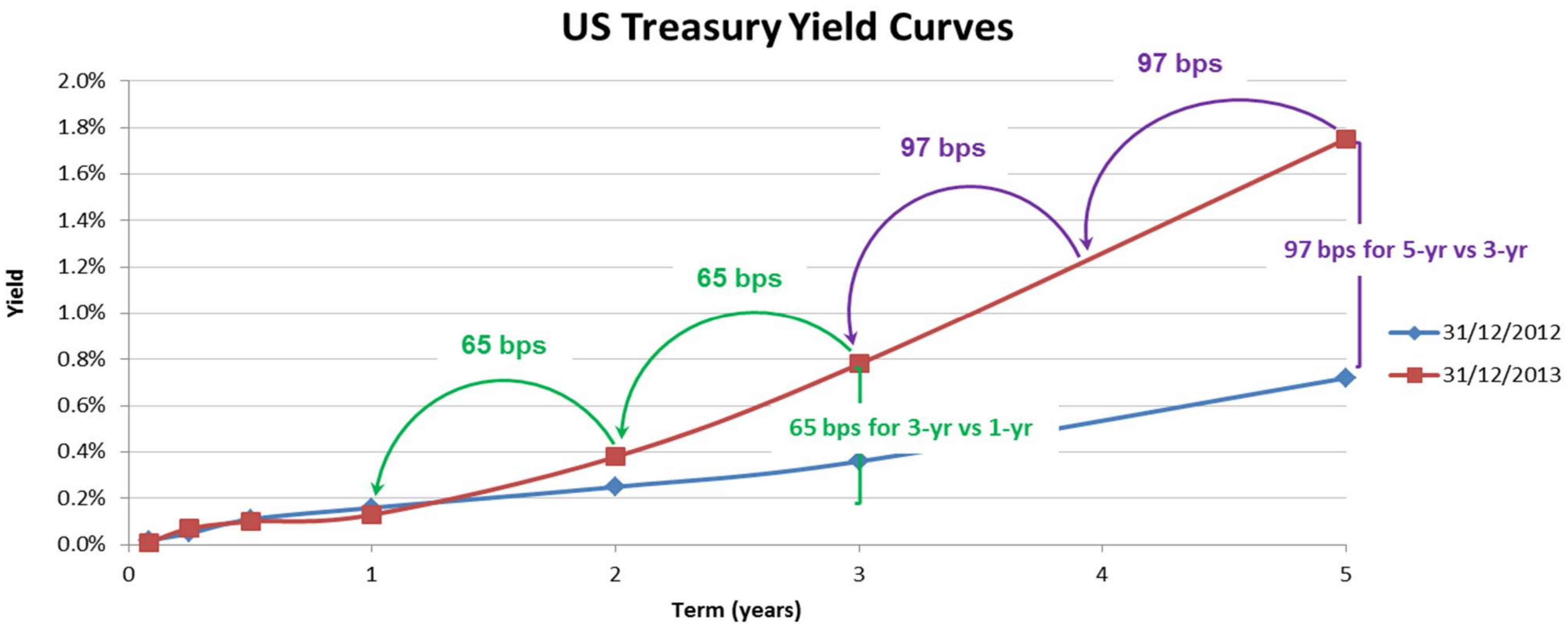


Note: All strategies yield the same market-implied return





Interest rates – Curve Roll-down



- **The smarter "lower-for longer" bet**
- Take advantage of steep yield curves, but allow your risk to run-off
- Better than just being lazy-long the index?

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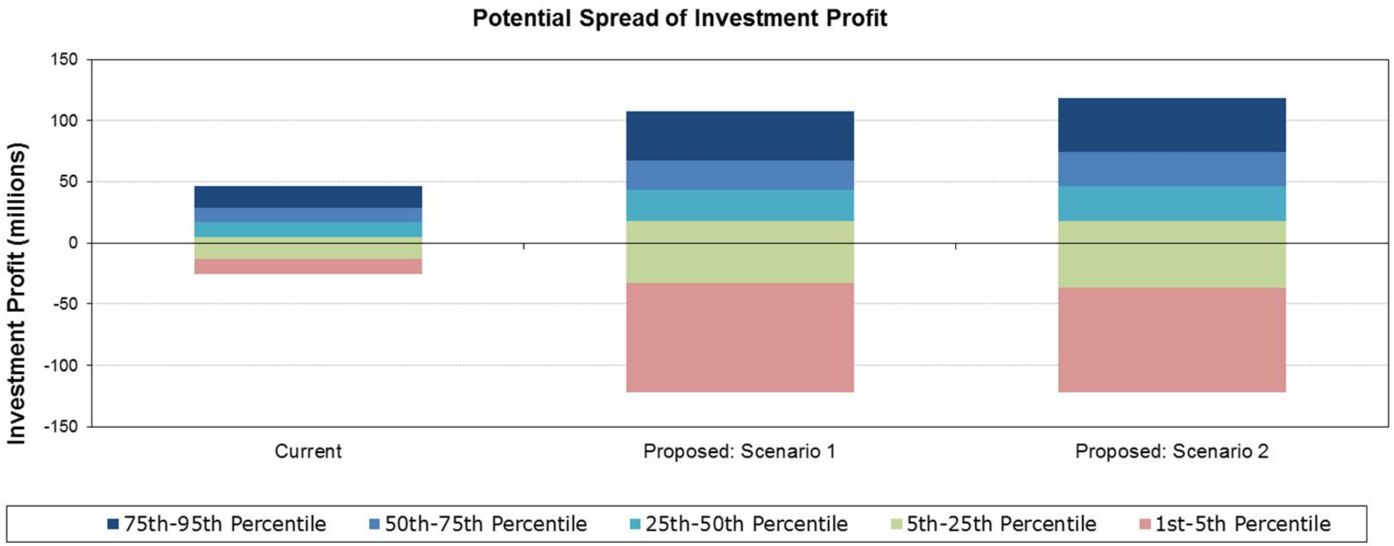
Boost your Carry - Case Study 1

	Expected Profit	Prob. Of Loss
Investment Profit with Current Portfolio	£17m	15%
Investment Profit with Current Portfolio (and increased carry)	£30m	10%

- Increased carry in portfolio provides a cushion against rates volatility

This chart shows the full quartile outcomes from the current and proposed portfolios



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Bar-belling – Case Study 2

- Split matching portfolio into 2 conceptual segments
  - Say 1-3 year and 3-7 year
  - Look at balances and blends between cash / corporate bonds / government bonds for these segments separately
  - Be long credit risk in US$ where spread curve is steep
  - Be shorter credit risk in EUR
  - Use swaps / futures / FX to tailor currency and rates exposures
  - Balance long credit with short duration?

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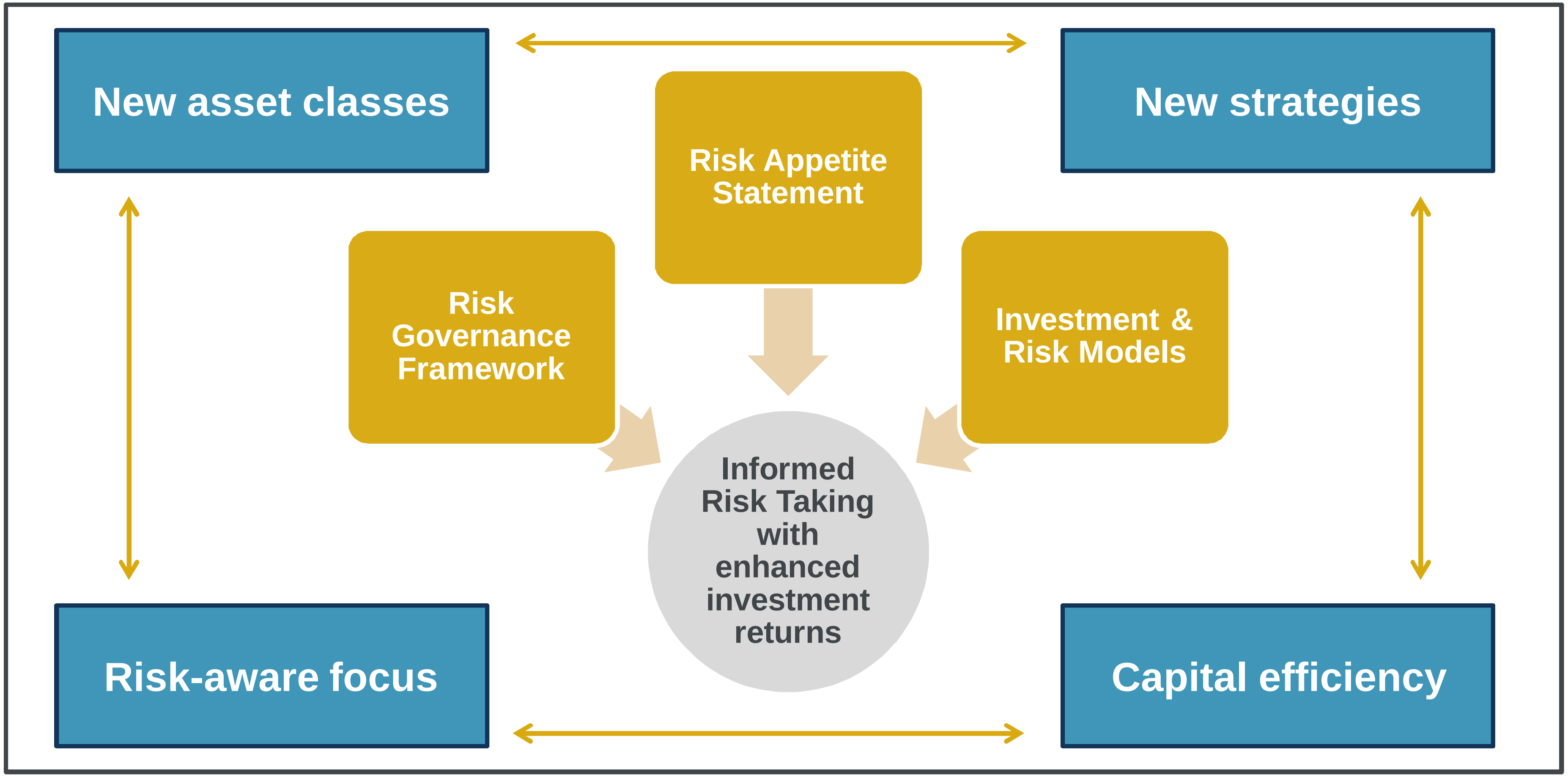
Enabled Risk Taking



Tools and levers are available to insurers but in this current market environment, a well-defined Risk Appetite Statement is required to enable insurers to enhance investment returns

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Questions

Comments

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 presenters.

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