

Investment Considerations

**Optimising the efficiency of your
fixed interest investments**

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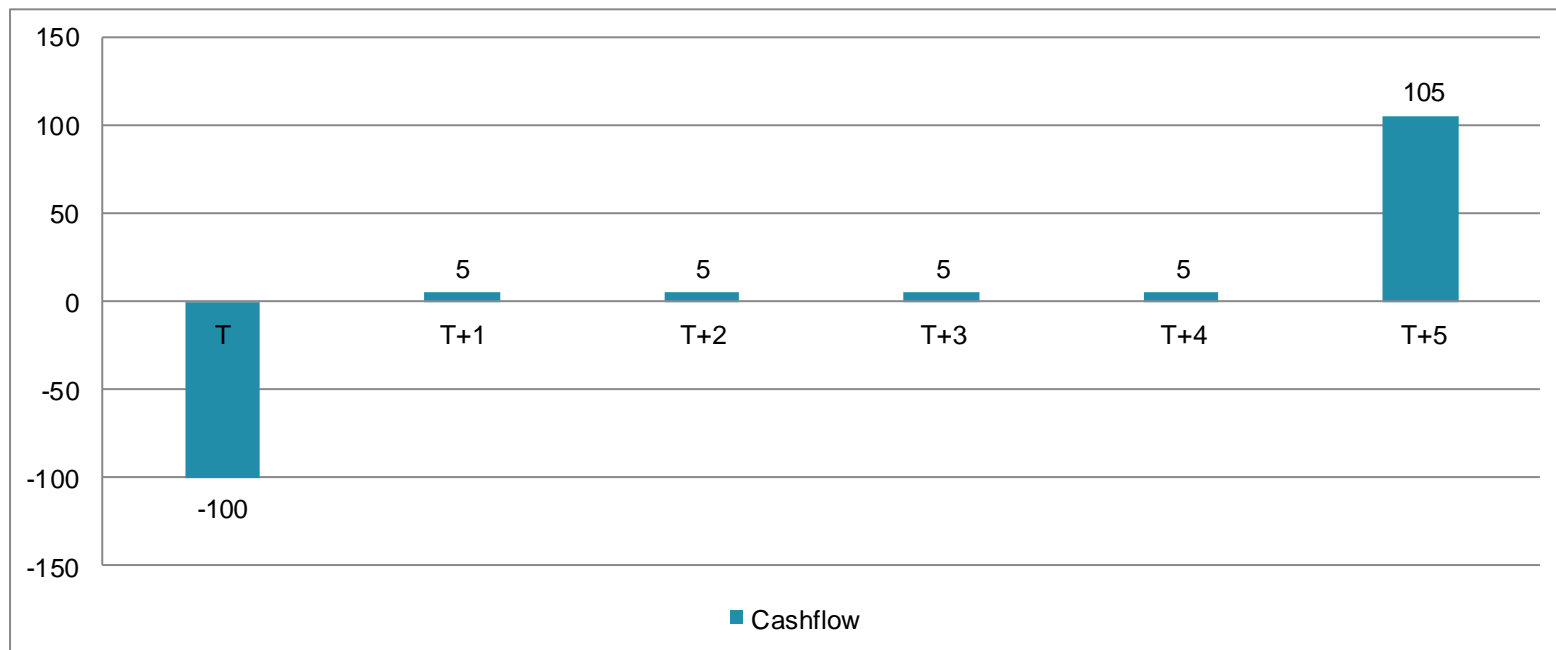
Contents

- Bonds – A recap
- Swaps – structure & pricing
- Traditional portfolio management
- An alternative approach



Fixed Income

The cashflow profile of a standard fixed income security:



Fixed Income

The yield curve (over time):

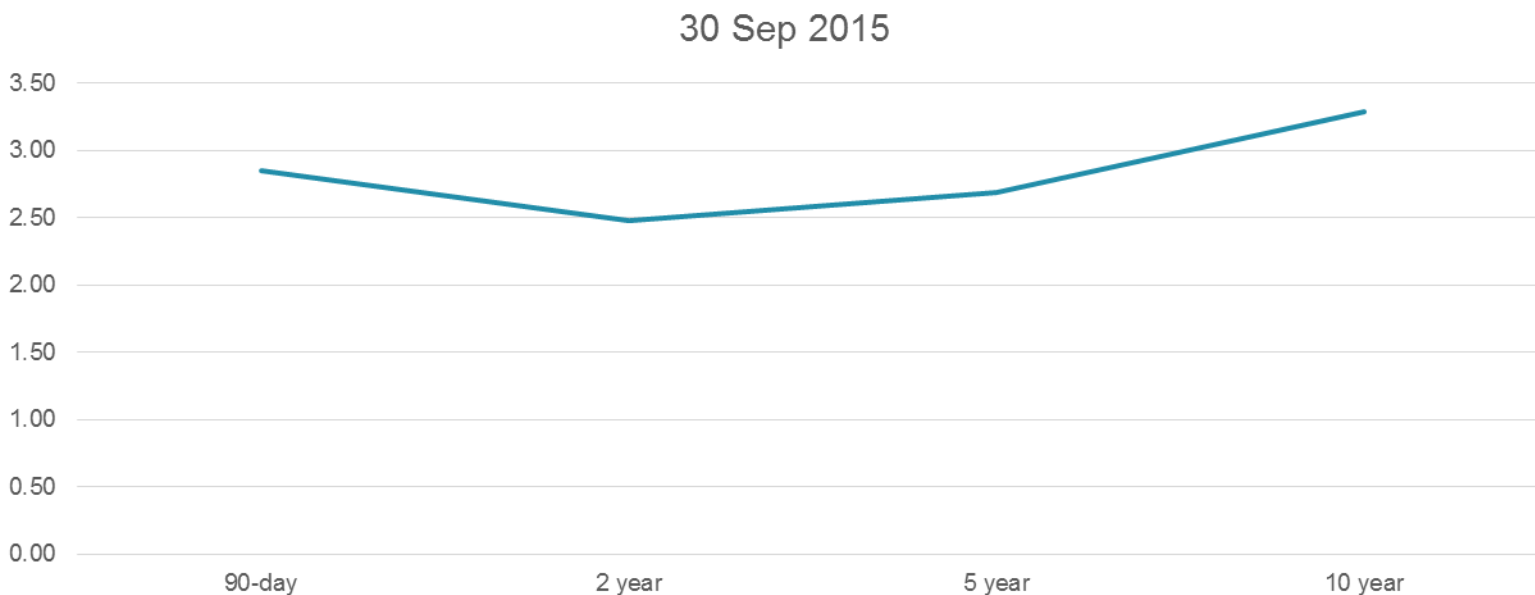
10 year NZ Government bond rate



Source: Reserve Bank of New Zealand, Reuters

Fixed Income

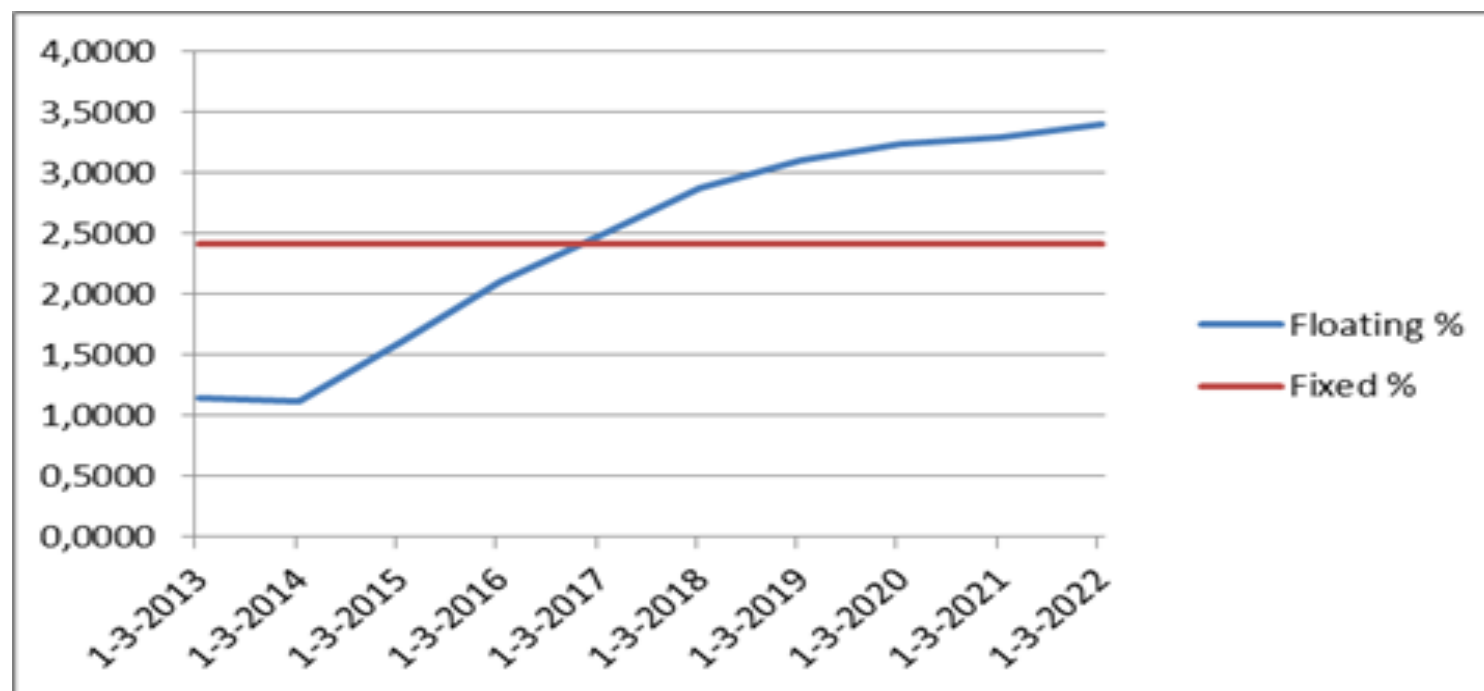
The yield curve (by duration):



Source: Reserve Bank of New Zealand, Reuters

Fixed Income

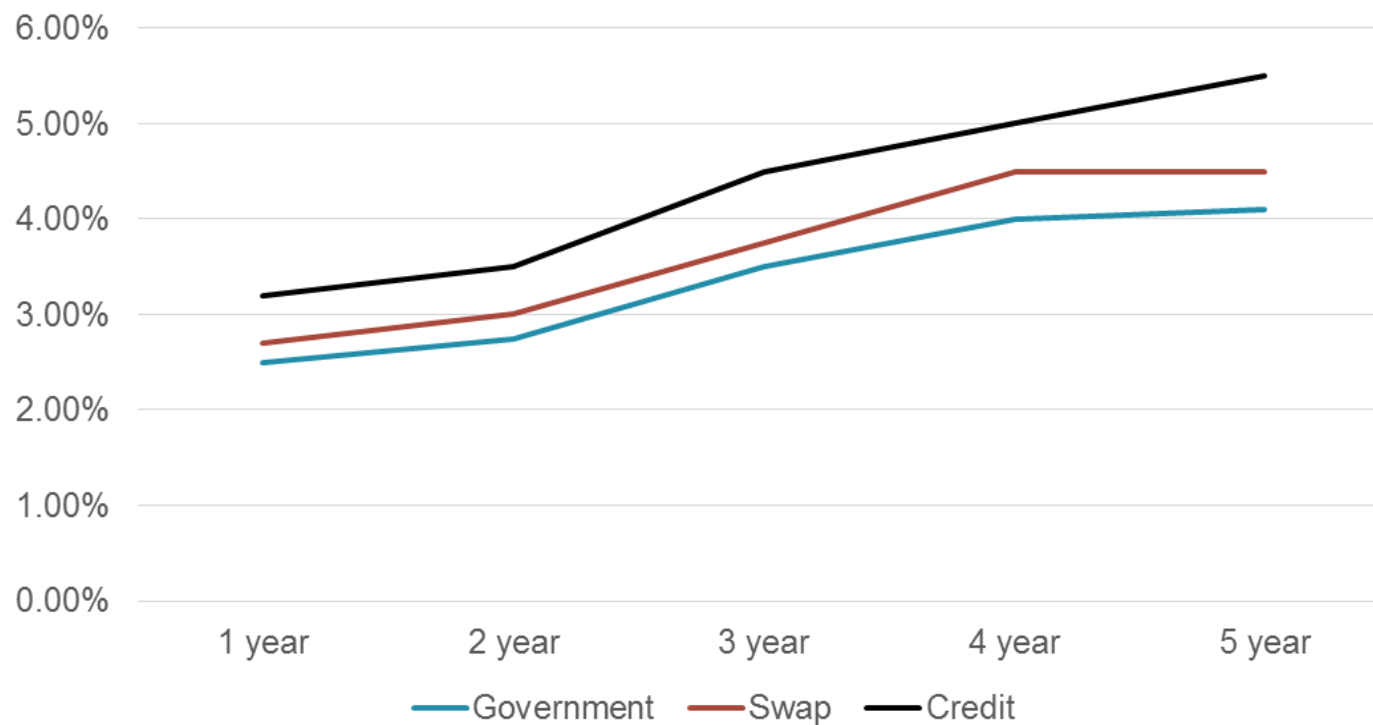
Determining the price/yield of a fixed interest swap:



Source: TreasuryServices, Belgium

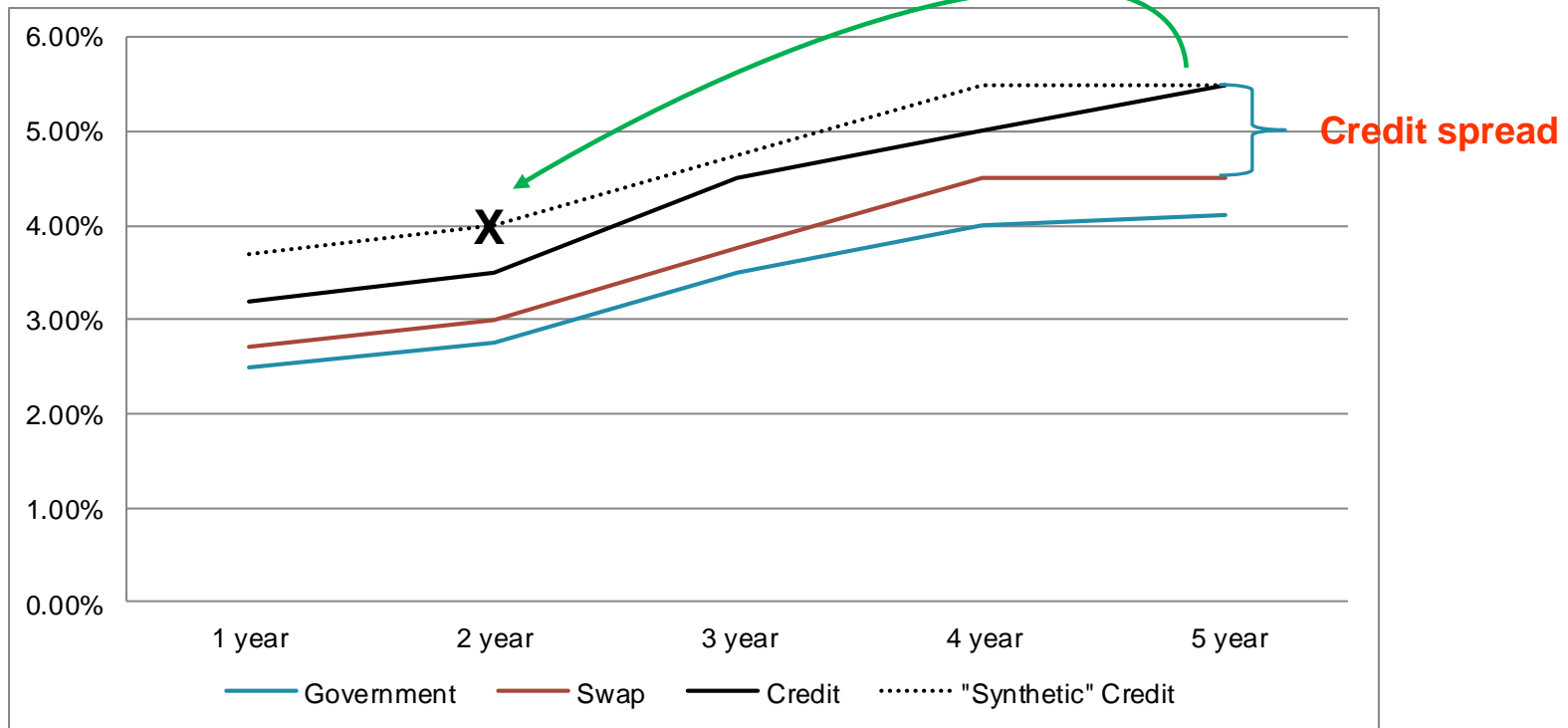
Fixed Income

The yield curve (by duration & credit - stylised):



Fixed Income

The yield curve (by duration & credit - stylised):



Managing a bond portfolio



Guidelines

- Duration parameters (absolute or relative)
- Sovereign exposure (minimum/maximums)
- Credit exposure
 - By \$ amount
 - By duration exposure
 - By quality (e.g. AAA, AA, A etc.)
- Counterparty/Issuer limits
- Derivative exposure limits
- Security types (CDO, CLO, CDS...)
- Other (e.g. liquidity, collateral exchange, currency etc.)

Managing a bond portfolio



An alternative approach:

Optimising investment portfolios for capital efficiency

- Asset Risk (Risk weighted exposures, derivatives & asset concentration)
- Foreign Currency
- Interest Rate

Exposure Class	Capital Factor
Cash & Sovereign Debt	0.5%
AA rated (<1 year)	1%
AA rated (>1 year)	2%
A rated	4%
BBB rated	6%
Unrated Local Authority	8%
Other fixed interest	15%
<i>Listed Equity & Property trusts</i>	25%

Source: RBNZ Solvency Standard for Non-life Insurance Business 2014 (summary extract)

Managing a bond portfolio



Fixed Income

The 3 year yield curve (allowing for 'credit risk'):



Source: AMP Capital

BofA Merrill Lynch US Corporate BBB Option-Adjusted Spread©

2015-10-08: **2.34** Percent (+ see more)

Daily, Close, Not Seasonally Adjusted, BAMLC0A4CBBB, Updated: 2015-10-09 9:17 AM CDT

1yr | 5yr | 10yr | Max

2005-10-08 to 2015-10-08



Source: Federal Reserve Economic Data