The Bond Market

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- Introduction
- Bond Calculation
- Relative Value
- 4 Yield Curves
- Credit

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■ The bond market is the core of the capital markets



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- Government dominates the bond market due to high liquidity and low risk

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- Government dominates the bond market due to high liquidity and low risk
- Corporate bonds and LDC bonds offer higher return for a risk
- Recent developments suggest reduced government liquidity
- Quantitative easing

Bond price

The value of the bond is just the discounted value of the payments that will be made

$$P = \sum_{i=1}^{i=n} \frac{C_i}{(1+r)^i} + \frac{M}{(1+r)^n}$$

Where C is the coupon payment, r is the rate at which future payments are discounted (the redemption yield), M is the par value and n is the number of years to maturity.

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Relative Value

A strategy that will assess the relative value of two bonds

■ There is a standard relationship between yields

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Relative Value

A strategy that will assess the relative value of two bonds

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- Quantitative strategy (return to normal)

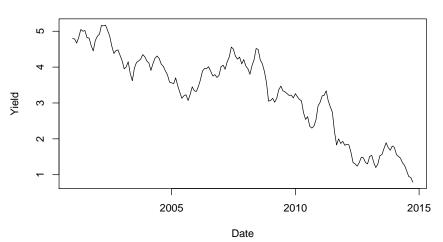
Relative Value

A strategy that will assess the relative value of two bonds

- There is a standard relationship between yields
- Quantitative strategy (return to normal)
- **Fundamental strategy** (new relationship)

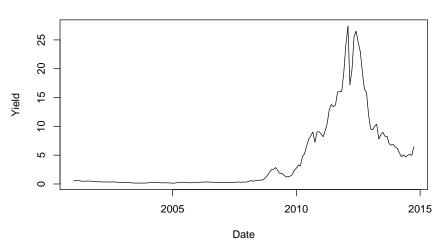
German yield

German 10-year



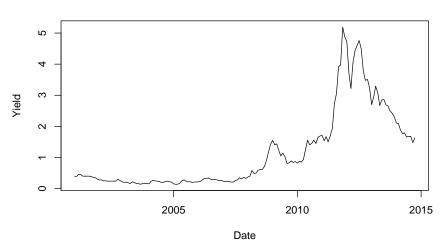
Greek Risk Premium

Greek Risk Premium



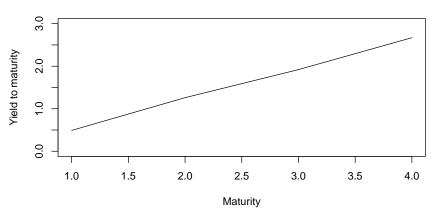
Italian Risk Premium

Italian Risk Premium



Yield Curve

UK yield curve



UK Yield curve

Yield Curve Theory

There are three main theories about the shape of the yield curve

■ Expectations theory

Yield Curve Theory

There are three main theories about the shape of the yield curve

- Expectations theory
- Preferred habit or segmented market theory

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Yield Curve Theory

There are three main theories about the shape of the yield curve

- Expectations theory
- Preferred habit or segmented market theory
- Liquidity premium theory

Expectations and Liquidity premium

Expectations theory

■ Return is
$$i^* = (1 + i_i)(1 + \hat{i}_2) - 1$$

if there is a *liquidity premium* $\theta_L = \rho(L)$

The liquidity premium is the balance between *interest* rate risk and reinvestment risk.

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Expectations and Liquidity premium

Expectations theory

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if there is a *liquidity premium* $\theta_L = p(L)$

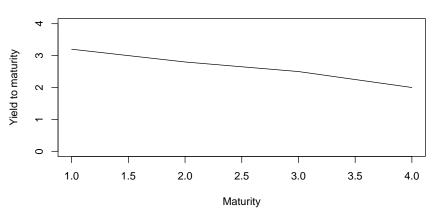
■ Return is $i^* = (1 + i_i)(1 + \hat{i}_2) + \theta_L - 1$

The liquidity premium is the balance between *interest* rate risk and reinvestment risk.

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Inverted Yield Curve

UK yield curve



Credit

■ The government curve provides the benchmark



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Credit

- The government curve provides the benchmark
- Lower quality credit requires a *risk premium* (denominated in bp)

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- The government curve provides the benchmark
- Lower quality credit requires a *risk premium* (denominated in bp)
- Global and idiosyncratic factors will affect the risk premium

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BBB credit spread

