Yield Spread

ReWISE

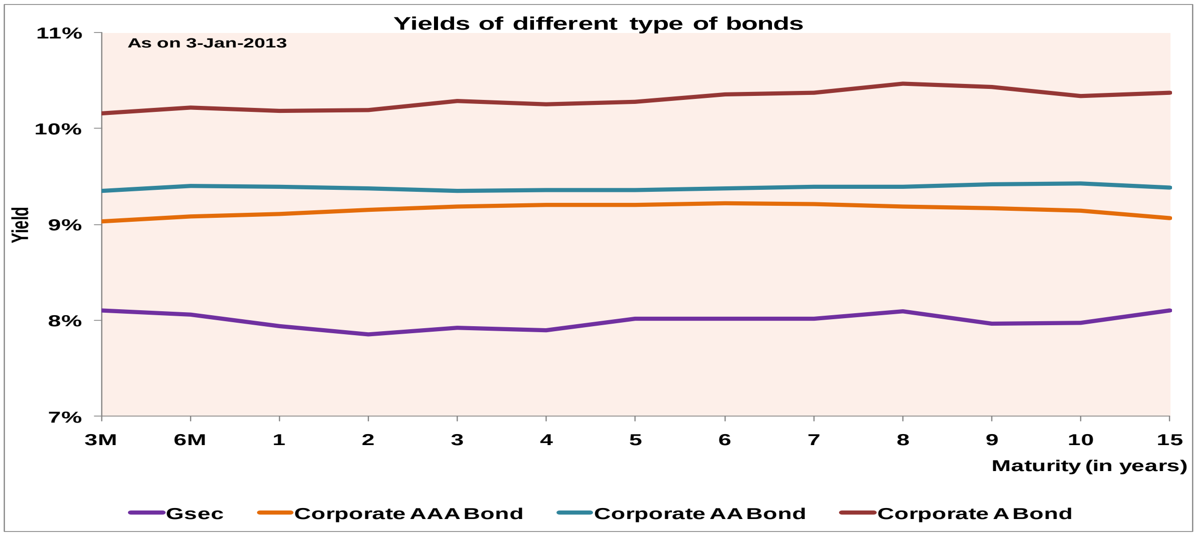
What is a yield spread?

- Yield spread is the difference in the yield between two bonds of the same maturity.
- Commonly, yield spread is the difference in the yield of any bond (PSU, corporate or banks) and Government bonds having the same maturity.
- Suppose AAA 10 year corporate bond yield is 8.6% and 10 year Gsec yield is 7.46% then, the yield spread is 114 bps (1.14%).
- Spread is generally expressed in basis point (bps) where 1 percent is equal to 100bps.
- Yield spread can also be the difference in the yield between different maturities of a same bond.
- For example, spread between 1 year Gsec bond having yield 7.40% and 10 year Gsec bond having yield 7.46% is 6 bps (0.06%).

Why there is a spread between bond yields?

- Government bonds are free from credit risk i.e. risk arising from the issuer of the bond to default in making the payment of the principal amount and interest.
- Government bonds being default free i.e. government won't default in making payment, Gsec yields are taken as a benchmark against which other bond yields are compared.
- This enables the investors to get an idea of the credit risk associated in investing in bonds other than government bonds.
- Investors to be compensated for investing in less safer bonds than the government bonds demand higher yield than Gsec resulting in the differences in the bond yields.
- Yield spread reflects the extra compensation investors receive for bearing credit risk.
- Higher the credit risk, higher is the yield spread as investors need to be paid in order to take the additional risk.
- Besides credit risk, investors can also face liquidity risk.
- Liquidity risk is when the bond cannot be traded easily in the market.
- Investors will therefore demand higher yield to compensate for the risk arising from illiquidity increasing its yield spread.

- Chart below shows yield of different types of bonds having different credit risk as on 3rd Jan 2013.



Source: Bloomberg

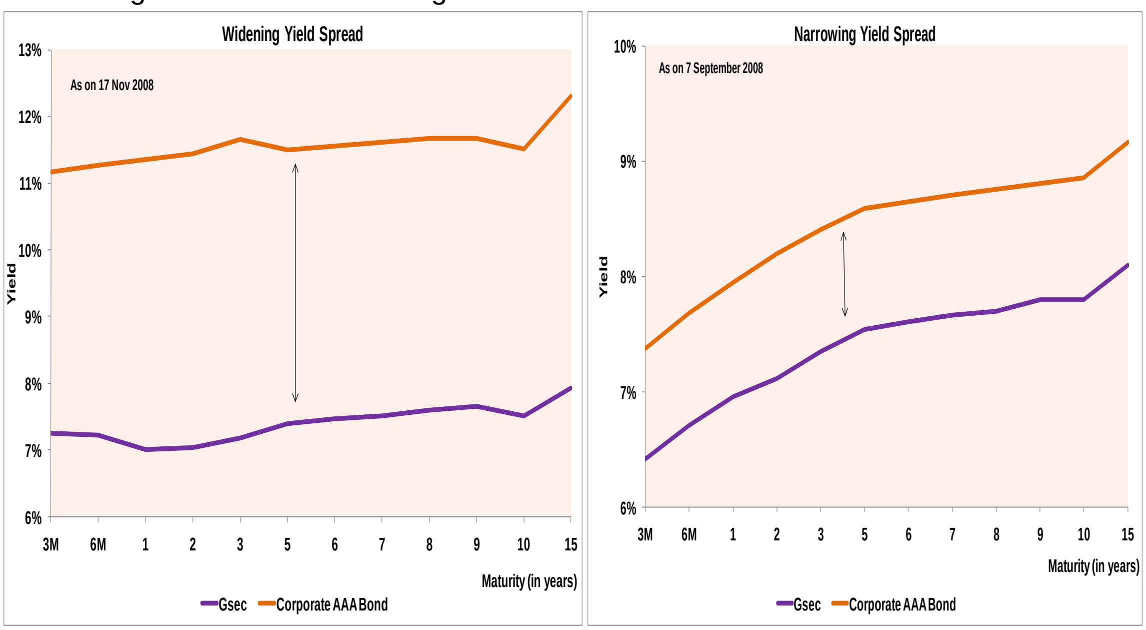
- From the above chart, we can observe higher the credit risk higher is the bond yield.
- Gsec yield being benchmark, all other bonds are benchmarked against Gsec yield. However their yields vary as per their credit risk.
- Corporate AAA bond having highest credit rating has lowest spread. As on above mentioned date, spread between 10 year AAA corporate bond and 10 year government bond was 120bps.
- Corporate AA bond having lower credit rating which means higher credit risk has higher spread of 150bps for the 10 year maturity.
- Corporate A bond has the lowest rating and highest risk among the three bonds and has highest spread of 240bps for the 10 year maturity.

What causes changes in yield spread?

- Yield spread can increase i.e. widen or decrease i.e. narrows.
- Widening yield spread means yield difference between other type of bonds and government bonds is increasing.
- Narrowing yield spread means yield difference between other type of bonds and government bonds is decreasing.
- Changes in the yield spread is due to changes in the interest rates, supply and demand of bonds, risk associated with the bond and economic conditions.
- Any change in interest rates[1] causes yield on government bonds to change. Since other types of bonds are benchmarked against Gsec yield, any change in Gsec yield will cause other bond yields to change.
- When there is economic slowdown, company performances are impacted which increase their credit risk. This causes yields on corporate bonds (or PSU, bank bonds) to increase to compensate investors for the additional risk involved, thereby widening yield spread.

[1] Refer to ReWISE on Yield Curve

- Also during deteriorating economic environment with credit risk of companies increasing, investors chooses to invest in safer bonds i.e. government bonds rather than riskier corporate bonds. This leads to fall in Gsec yields as demand increases causing bond price to rise and yields to fall.
- As yields on corporate bonds are rising and Gsec yields are falling, resulting yield spread to widen.
- Conversely, when economy is booming, company profitability increases improving their performance lowering their credit risk. This causes investors to view investments in corporate bonds favorable causing yields to fall, thereby narrowing yield spread.
- Also during booming economy with lower credit risk, investors invest in corporate bonds rather than government bonds. Since demand for government bond falls, causing their yields to rise.
- As yields on corporate bonds are falling and Gsec yields are rising, yield spread narrows.
- Charts below shows widening and narrowing of yield spread between corporate AAA bond and government bond during different economic conditions[2].



Source: Bloomberg

- From above both charts, it's clearly seen when there has been economic slowdown, yield spreads have widened depicting increase in corporate AAA bond yield to compensate for additional risk it carries.
- Spread for 10 year corporate AAA bond and 10 year government bond was 400bps.
- Similarly, when economy was booming the spread narrowed and was 110bps for 10 year maturity.

[2] For Widening yield spread data as on 17 Nov 2008 and for Narrowing yield spread data as on 7 Sep 2006