**Yield Curve Analysis**

Why does the yield curve take the shape it does and why does the shape change from time to time?

Can we predict its shape in the future?

There are three different different factors that are primarily considered to influence the shape of the Yield Curve

**Factor #1** – Pure Expectations (AKA Unbiased Expectations)

Implied forward rates are viewed here as unbiased predictors of the expected future spot rate and represent the market consensus.

Assumes that investors do not have a preference for long/short-term lending or borrowing

 Upward sloping curve: short-term rates are expected to rise

 Flat curve: short-term rates are expected to stay level

 Downward sloping curve: short-term rates are expected to decrease

**Factor #2** - Term PremiumTheory (AKA Biased Expectations)

Since longer maturity (duration) bonds have higher interest rate risk, there must be a risk premium for holding them.

Long-term rates contain **both** an expectation of future short-term rates **and** a risk premium.

(1+z2)2 = (1+z1) (1+1f2) + term premium

This means there are two forces at work shaping the yield curve: expectations of future short-term rates (as in the Pure Expectations Theory) and the term premium.

The term premium always pushes the long end of the yield curve up. Future expectations of short-term rates can push it either up or down. The yield cuve we observe will be a net result of these two forces acting on it.

**Factor #3** - Market Segmentation (similar to the Preferred Habitat)

This is a supply and demand model.

Lenders and borrowers have preferred investment horizons and prefer to match maturities with investment horizon.

With this model, the yield curve is the combination of several supply and demand equilibriums.

Supply and demand within a maturity range reflects supply of money and demand for money. Thus upward slope means there is a greater supply of short-term money and a greater demand for long-term money and downward slope means a greater demand for short-term money and a greater supply of long-term money.

Each of these three factors has an impact on the yield curve, but to different degrees at different times. It is not possible to know with certainty which factors are having the biggest influence at any one particular time.