

YIELD CURVE ANALYSIS

- Our model identifies cheap and rich off-the-run treasury coupon bearing securities and strips.
- The model computes a theoretical value for each security each day. Then, for each security, the model computes a yield spread (in basis points) between the market valuation of the security and the model valuation of the security.
- For any particular bond, the model spread generally has some "normal" or average level. However, the spread will vary over time within some range, tending higher and then lower than the normal level. Unless something substantial happens to change the supply on demand for the bond, the further the spread moves away from the normal level, the more likely it is to revert to the normal level. Therefore, buying a bond when the spread is at a relative high for the bond and selling the bond when the spread is at a relative low is the desired strategy.
- Our model calculates the theoretical values each day as follows. First, the model estimates an off-the-run Treasury spot curve. Each security is then valued against this off-the-run curve by discounting each cash flow at the spot rate for the maturity of the cash flow. We estimate off-the-run spot rates by finding the set of zero-coupon prices that best explain the market prices of off-the-run Treasury securities.
- To follow a bond's spread to the model curve day by day, we use percentiles. We provide percentile ranking among the bond's spreads over the last 1-month, 3-month and 6-months. When today's spread is high relative to past spreads, the security is cheap and the percentile is near 100; when it is low relative to past spreads the security is rich and the percentile is near zero.
- The securities that are identified as "cheap" and then structured in a portfolio in such a way as to result in a favorable risk/reward trade-off relative to a set of TSY bonds that are included in a benchmark index.