# Zero Rate Curve

The term structure of zero rates is constructed from a set of market quotes of some liquid market instruments such as short term cash instruments, middle term futures or forward rate agreement (FRA), long term swaps and spreads.

The term structure of interest rates, also known as zero curve, is defined as the relationship between the zero-to-maturity on a zero coupon bond and the bond's maturity. Zero curves play an essential role in the valuation of all financial products.

Zero curves can be derived from government bonds or LIBOR/swap instruments. The LIBOR/swap term structure offers several advantages over government curves, and is a robust tool for pricing and hedging financial products. Correlations among governments and other fixed-income products have declined, making the swap term structure a more efficient hedging and pricing vehicle.

With the supply of government issues declining, LIBOR/swap markets are more liquid and efficient than government debt markets. LIBOR curves constructed from the most liquid interest rate instruments have become the standard funding curves in the market.

Prior to the 2007 financial crisis, financial institutions performed valuation and risk management of any interest rate derivative on a given currency using a single-curve approach. This approach consisted of building a unique curve and using it for both discounting and forecasting cashflows.

However, after the financial crisis, basis swap spreads were no longer negligible and the market was characterized by a sort of segmentation. Consequently, market practitioners started to use a new valuation approach referred to as multicurve approach, which is characterized by a unique discounting curve and multiple forecasting curves

The current methodology in capital markets for marking to market securities and derivatives is to estimate and discount future cash flows using rates derived from the appropriate term structure. The zero term structure is increasingly used as the foundation for deriving relative term structures and as a benchmark for pricing and hedging.

Reference:

https://finpricing.com/lib/EqRainbow.html