Term Structure of Interest Rates & Growth

4th January 2024

The level of the yield curve measures the general level of interest rates in the economy and is greatly influenced by the policy rate. Slope of the yield curve is considered to be a leading indicator of future economic growth and inflation. An upward sloping yield curve indicates economic optimism and therefore, higher interest rates.

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Types of Yield Curves

The slope of the yield curve reflects the difference between yields on short-term bonds and long-term bonds.

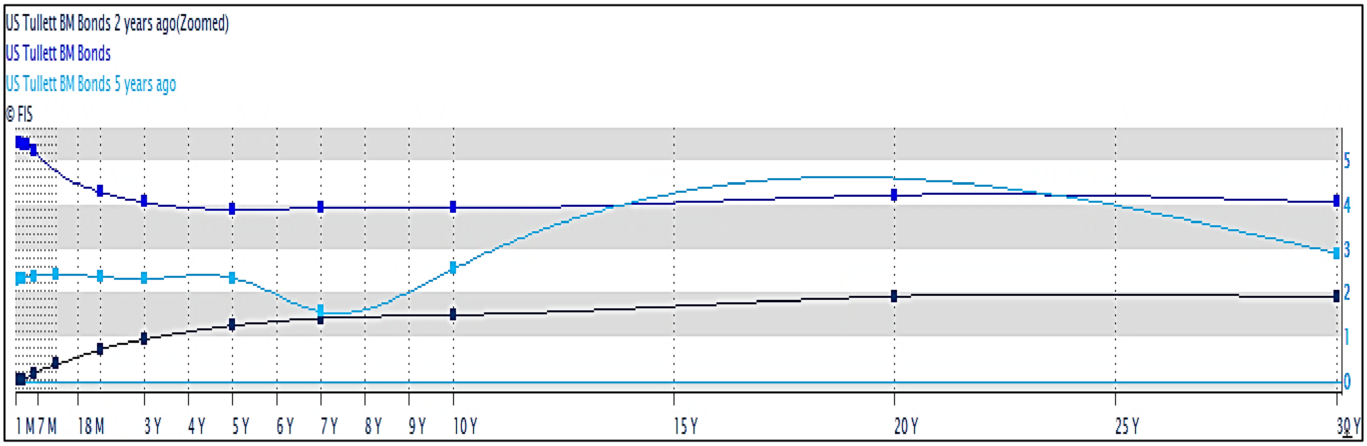
Normal Yield Curve: A normal shape for the yield curve is where short-term yields are lower than long-term yields, so the yield curve is convex upwards. A normal yield curve is often observed in times of economic expansion, when economic growth and inflation are increasing. In an expansion there is a greater likelihood that future interest rates will be higher than current interest rates, because investors will expect the central bank to raise its policy interest rate in response to higher inflation.

Inverted Yield Curve: An inverted yield curve is where short-term yields are higher than long-term yields, so the yield curve is concave downwards. An inverted yield curve has historically been associated with preceding an economic contraction as central banks reduce policy rates in response to lower economic growth and inflation, which investors may anticipate will happen.

Flat Yield Curve: A flat yield curve occurs when short-term yields are similar to long-term yields. A flat yield curve is typically an indication that investors and traders are uncertain about the macroeconomic outlook. Yield curve flattening is often observed during transitions between normal and inverted curves.

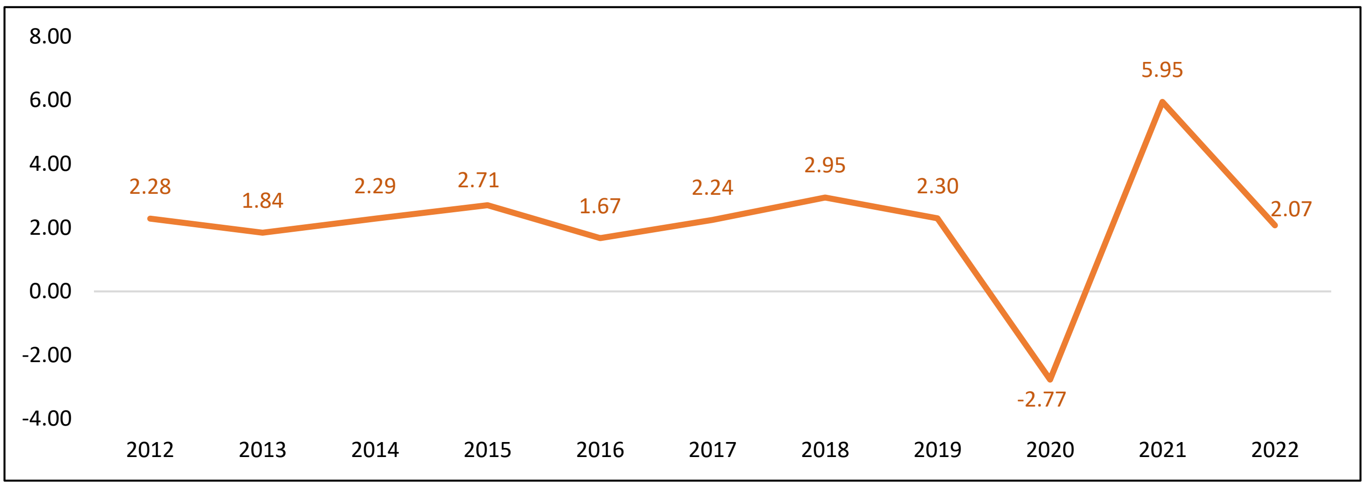
Analysis of Yield Curve & Growth Relationship

Chart 1: Yield Curve of the United States (Present, 2 years ago & 5 years ago)



Source: Cogencis

Chart 2: United States Annual GDP Growth (%)

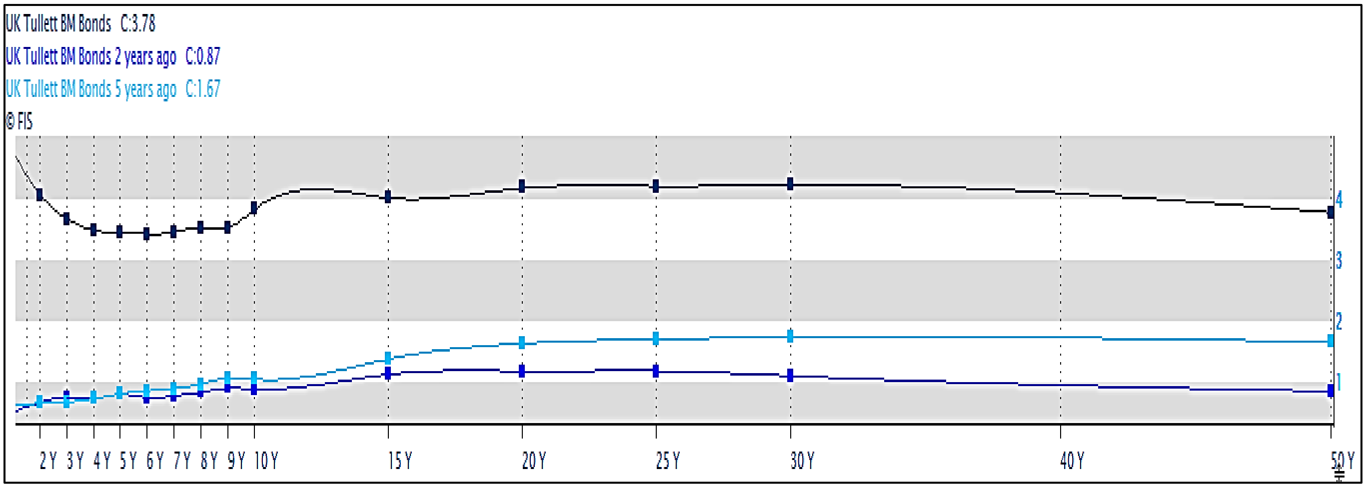


Note: Year Indicates calendar year *Source: Cogencis*

- The yield curve for the US economy presently (deep blue curve in chart 1) has the highest yield at the lowest maturity which gradually falls as maturity increases. This is apparent as the Federal Reserve had been increasing the policy rate up till July 2023.
- At longer maturities the curve gradually flattens out- reflecting uncertainty on the part of market participants as the Fed has indicated a neutral stance going ahead in its recent monetary policy announcement, although the probability of a policy rate cut remains high. This is also evident in the GDP growth rate of the US economy which is observed to be returning to its long-term trajectory after the post-pandemic jump.
- The present yield curve is also mirroring the 2 years ago yield curve (black curve in Chart 1) when the Fed was cutting rates in response to the COVID-19 pandemic. The 2 years ago curve displays expectations of an immediate recession with a prolonged recovery (the curve gradually flattens out at higher maturities). The present curve has also shifted upwards in comparison to the 2 years ago curve in response to Fed's rate hikes.

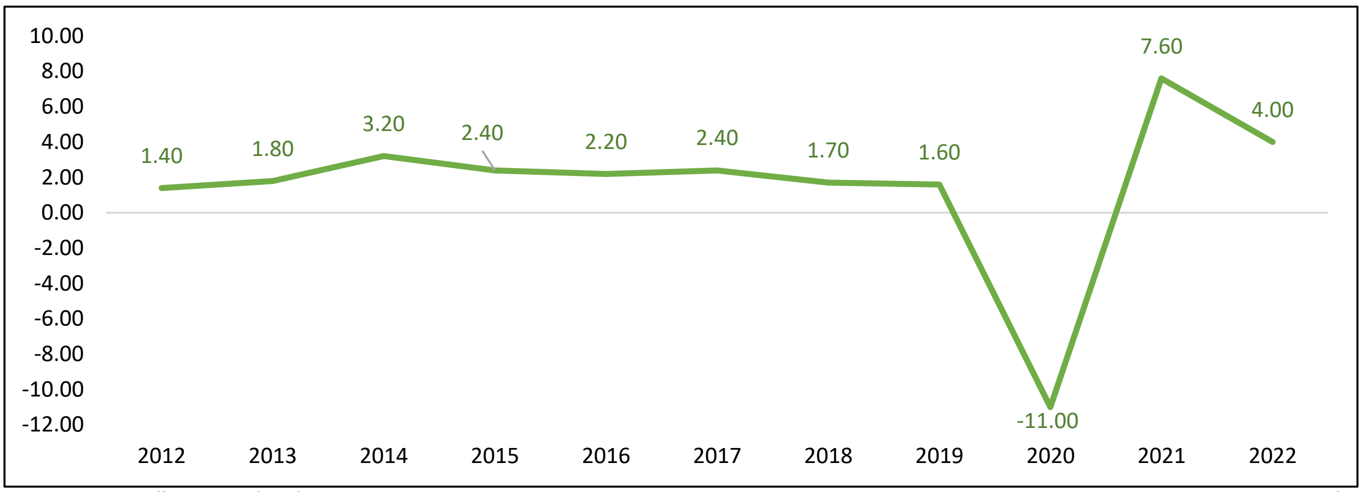
- Similar pattern can be observed in the UK economy as well.

Chart 3: Yield Curve of the United Kingdom (Present, 2 years ago & 5 years ago)



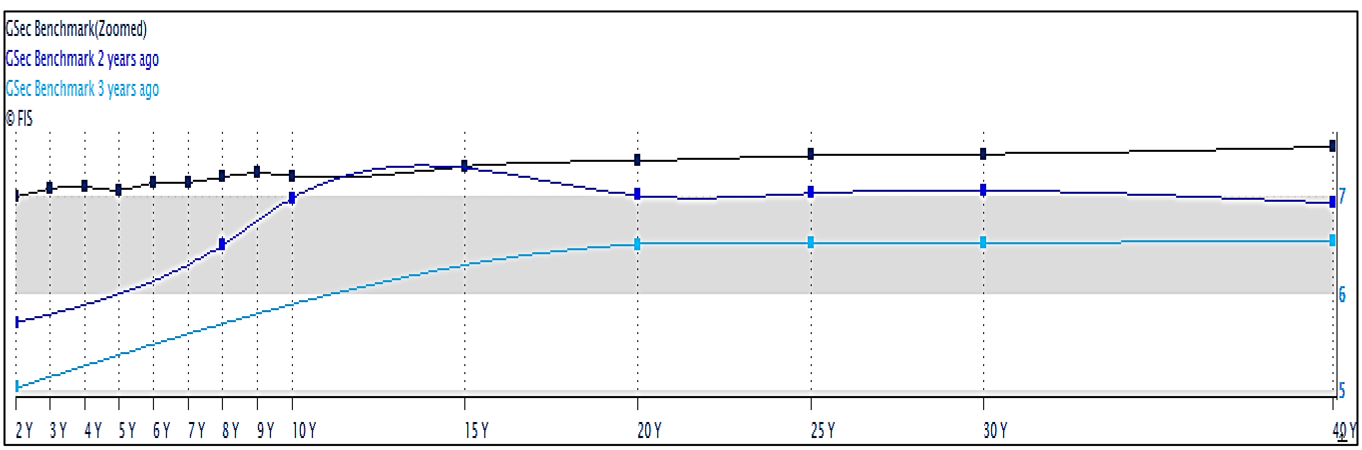
Source: Cogencis

Chart 4: United Kingdom Annual GDP Growth (%)



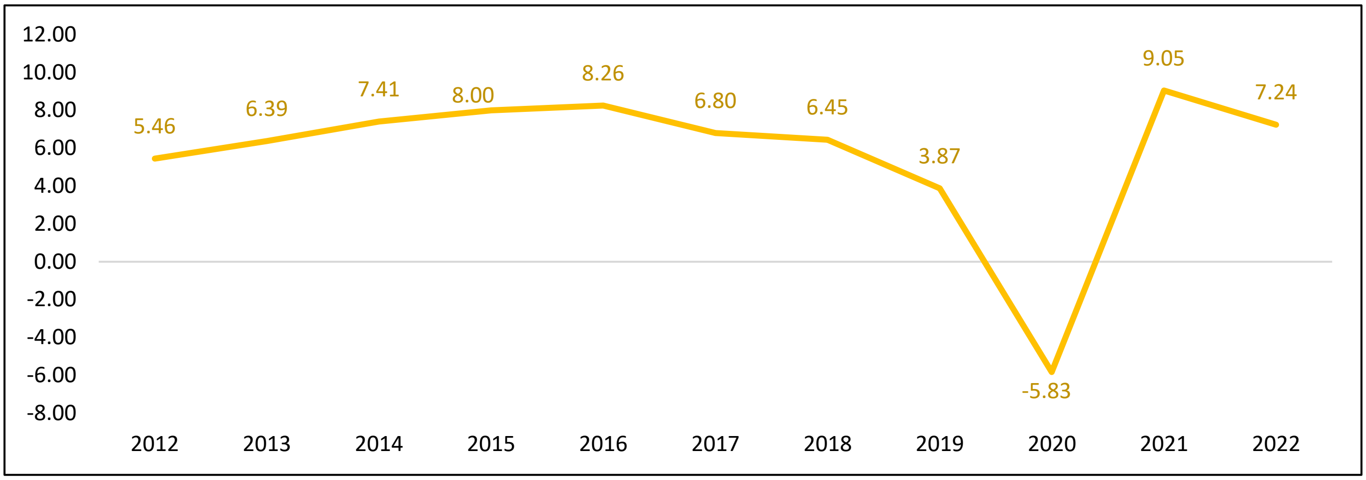
Note: Year Indicates calendar year *Source: Cogencis*

Chart 5: Yield Curve of India (Present, 2 years ago & 3 years ago)



Source: Cogencis

Chart 6: India Annual GDP Growth (%)



Note: Year Indicates fiscal year. E.g. 2022 stands for FY2022-23 *Source: Cogencis*

- In case of India as well, a similar trend is observed. Present yield curve (black curve in chart 5) shifts up from the 2 year ago curve (deep blue curve in chart 5) indicating an upward shift in interest rate expectations in response to monetary tightening by the RBI post the pandemic.
- The present yield curve gradually flattens out although it appears to be upward sloping- reflecting uncertainty as the RBI has resolved to maintain status quo on interest rates. Although, with a change in the Fed's stance, the RBI may follow suit.
- The 2 year ago curve is normal at shorter maturities indicating a recovery from the COVID-19 pandemic, while it inverts at longer maturities and later flattens out- indicating expectations of rate cut in the long term as growth gradually tapers.
- The 2 year ago curve is also above the 3 year ago curve (light blue curve in chart 5) as growth in the Indian economy had started faltering even before the COVID-19 pandemic (see chart 6).

Conclusion

- Growth rates as well as interest rates in the Indian economy are presently on an uptrend (and significantly higher) compared to those in advanced economies.
- The economy's near to medium term outlook is therefore favourable for foreign fund inflows (FDI/ FII), currency stability and forex reserve position.
- Adverse movements in the USD/INR exchange rate are likely to be arrested as a result.
- GDP growth numbers are expected to be on the upside going forward.

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