Asset Management – Inverted Yield Curve

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An inverted yield curve represents a situation in which long-term debt instruments have lower yields than short-term debt instruments of the same credit quality. It is typically shaped by the investors' preferences of liquidity and expectations of future interest rates. Because of higher risk and time to maturity, long-term bonds generally have higher yields than short-term bonds. As a result, an inverted yield curve proves to be a strong leading indicator of an impending recession.

Main Steps

We plot the cumulative total returns of the S&P 500 (in blue), along with periods of Yield Curve Inversion (in red) and periods of Recession (in grey). The long-term debt instrument is taken as the 10-year U.S. Treasury and the short-term debt instrument is taken as the 2-year U.S. Treasury. Recession is predicted from NBER based data. The returns are predicted on a logarithmic scale.

Data Sources

The data is sourced from the following using inbuilt Python libraries and APIs.

- S&P 500 Total Returns: [WRDS]
- Yield Curve Inversion: [FRED Economic Data]
- Recession Indicator: [FRED Economic Data]

Assumptions

We assume no trading costs when plotting the total cumulative returns of the S&P 500. We also choose to show only the first and last indicators of Yield Inversion periods in our plot as that is enough to provide a visual representation of the data.

Results

We see that the Yield Inversion indicators have proved to be a great leading indicator of impending recessions historically.