Term Spread and Recessions

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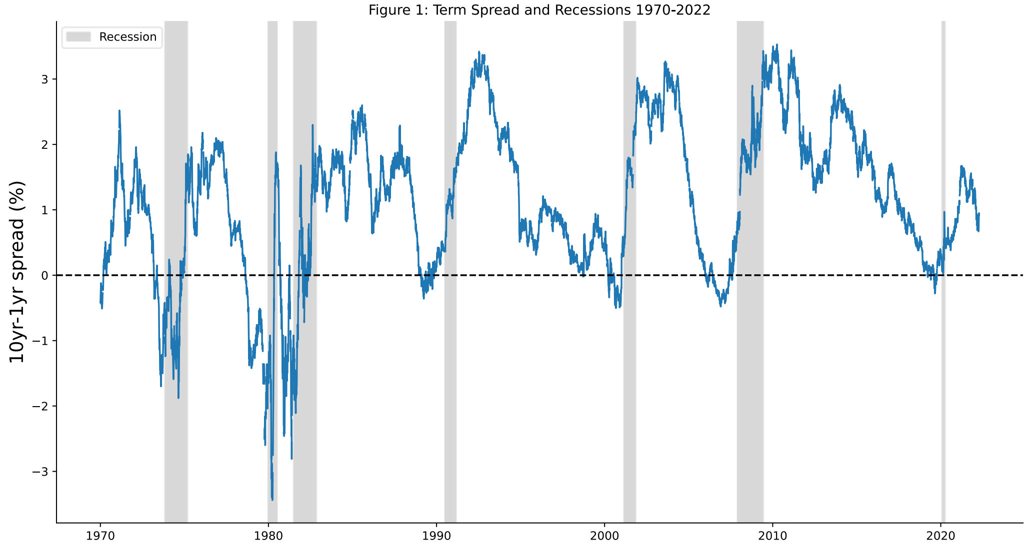
Executive Summary: A negative term spread of Treasuries, which leads to an inverted yield curve, is said to be a strong predictor of an upcoming recession. From the period 1970 to 2022, whenever the term spread of 1-year and 10-year Treasuries turn negative, a recession has followed. Therefore, we can conclude that the term spread is a good predictor of recessions. Over the last year, the term spread experienced volatility and ended the year higher than the beginning, which shows that investors are more optimistic about the economy.

Term spread and past recessions since 1970

Investor typically require a higher premium for Treasuries that mature longer, which translates to an upward sloping yield curve and a positive term spread as the yield on the 10-year Treasuries are greater than the yield on 1-year Treasuries. However, the yield curve has inverted several times in the past, making term spreads negative. When this happens, long-term interest rates drop below short-term rates as investors expect short-term rates to decline in the future, usually as a result of economic slowdown, or even a recession. In Figure 1, we plot the term spread by subtracting the yield on 1-year Treasuries from the yield on 10-year Treasuries in percentage from 1970 to 2022 and the recessions that have occurred during that period. The blue line shows the trend of the term spread and the horizontal dotted line marks the zero value of the spread, while the grey shaded area depicts the recessions that occurred.

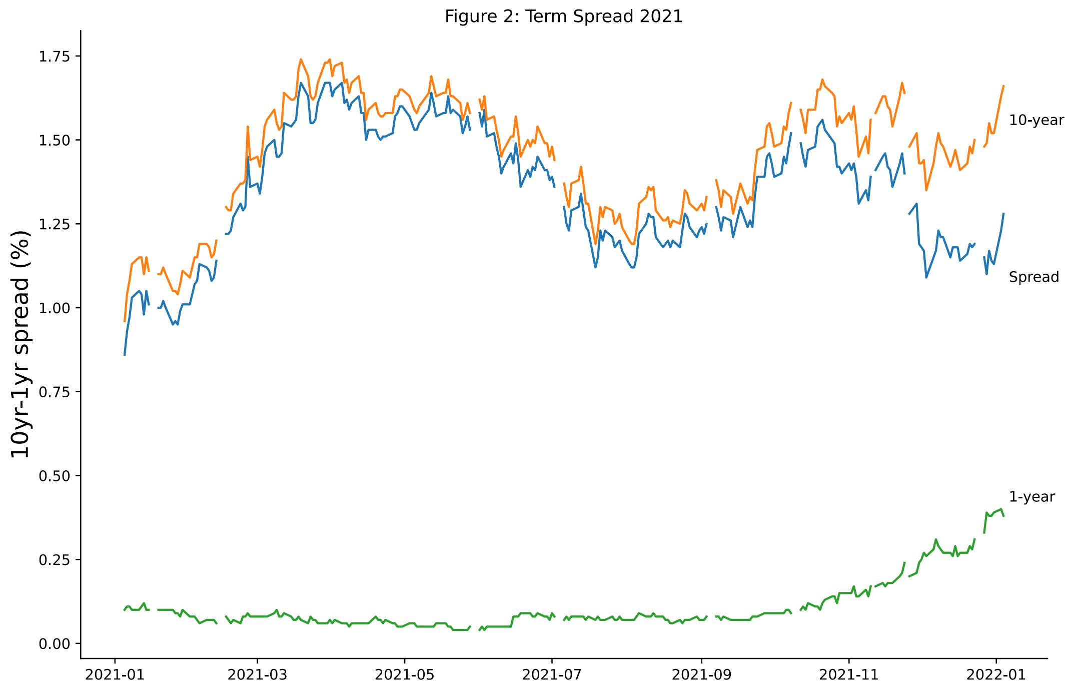
Figure 1: Term Spread and Recessions 1970-2022



As seen in Figure 1, if the term spread line falls below the zero line, the term spread becomes negative and results in an inverted yield curve. Out the 7 recessions that occurred in the period, each recession was preceded by a negative term spread, which shows that the negative term spread have correctly predicted a recession.

Drivers of the term spread over the last year

In Figure 2, we shorten the period to only the year 2021 and plot the 1-year and 10-year Treasury yields, in addition to the term spread between the two Treasuries. The green and orange line represents the yield on 1-year and 10-year Treasury respectively, while the blue line represents the term spread. Over the last year, the term spread rose during the beginning, followed by a drop in the third quarter before bouncing back up and dropping once more towards the end of the year. The term spread ended 2021 higher than the start of the year and the main driver of the volatility was the 10-year Treasury, while the 1-year remained relatively constant throughout the year and rising slightly at the end.



The volatility in the term spread is most likely due to the unpredictable condition of the pandemic. During 2021, various mutations of COVID-19 emerged and hopes for a full recovery were scarce. However, as the term spread ended the year higher than the start, it shows that investors are more optimistic of the economy.