IMPLICATIONS OF AN INVERTED YIELD CURVE

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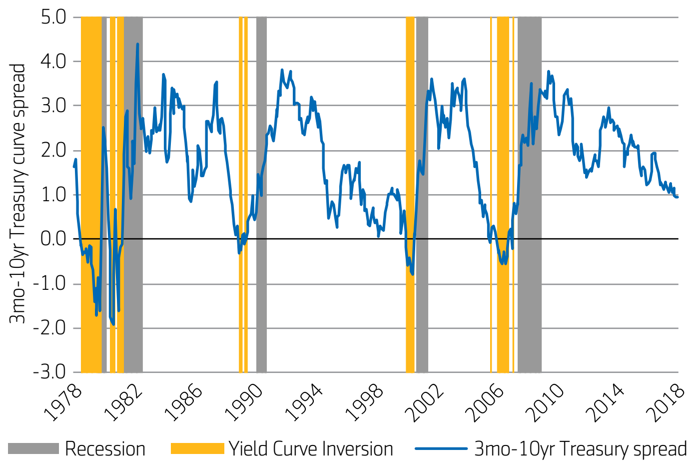
With the Fed continuing to hike interest rates, the probability of an inverted yield curve is on the rise. Historically, an inverted yield curve, a common phenomenon late in an expansionary cycle, has been one of the many indicators of a looming recession. An inverted curve can have negative implications for the economy, specifically lending conditions; however, it's not always clear what the implications are for risk assets. While our rates outlook for 2018 and 2019 does not imply a negative term spread, a potentially aggressive pace of hikes and market dynamics may still lead to a curve inversion. We believe investors should consider the potential implications of an inverted yield curve. In this piece we will look at the economic rationale behind an inverted yield curve and what it historically has meant for the macro environment and certain asset classes.

Economic consequences of an inverted curve

An inverted yield curve, specifically when the spread between the three-month and 10-year US Treasury yields turns negative, has occurred several times in the last few decades. As outlined in Exhibit 1, the last five recessions since the late 1970s were preceded by an inverted curve. With the spread between the three-month and 10-year US Treasury rates narrowing recently, many are keeping a close eye on the increased potential for an inverted curve.

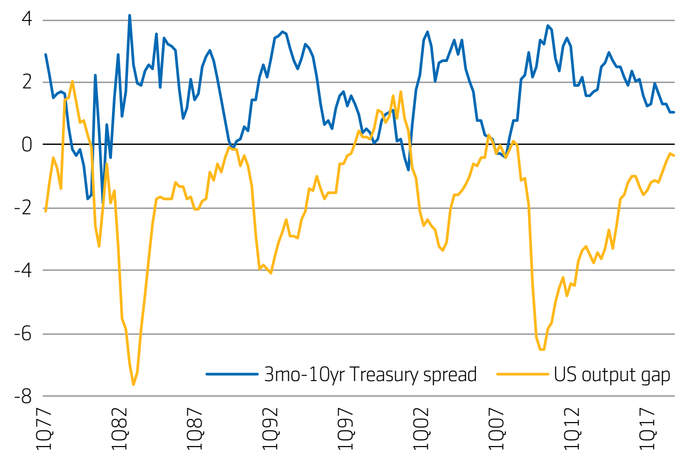
Exhibit 1: Inverted yield curves tend to foreshadow recessions
June 1978 to July 2018



Source: Bloomberg and Haver Analytics.

Inverted yield curves typically occur at the end of an expansionary cycle as monetary authorities try to keep an economy from overheating. Exhibit 2 uses output gaps to illustrate this balancing act between monetary policy and economic growth. Output gaps measure the difference between actual and potential GDP and show how efficiently an economy is utilizing its resources. When large negative output gaps exist, there is slack that can be absorbed before overheating occurs. Naturally, a maturing cycle causes slack to diminish and monetary authorities typically act to remove policy accommodations to keep inflation in check – exactly where we are today.

Exhibit 2: As the output gap closes, the yield curve tends to flatten or invert
Q1 1977 – Q1 2018



Source: Haver Analytics.

There are real economic consequences of an inverted curve– it removes a key incentive for lending to longer term projects that are likely to boost growth prospects. Unless an investor needs duration, why would someone take long-term risk when they can get the same or higher yield, and more importantly better risk-adjusted returns, in cash and cash-like assets? It is important to note that a yield curve inversion does not typically lead to a recession overnight. Once a curve inverts, there is usually a lag before a recession occurs given how many economic actors are involved, but a recession has historically occurred within approximately 24 months.

Asset Management

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Potential implications for risk assets

So if, or when, the yield curve inverts, what could the implications be for risk assets?

To assess performance following yield curve inversions, we compiled return and risk data for US Treasuries, US investment grade corporates, US high yield corporates, and US equities, leading up to and following the preceding three yield curve inversions, which eventually led to the last three recessions in 1991, 2001 and 2007. The limited sample size, to account for the Fed as a factor, isn't conducive to substantive conclusions. Nonetheless, the exercise does produce interesting results that may point to what may transpire if an inversion occurs with continued Fed rate normalization.

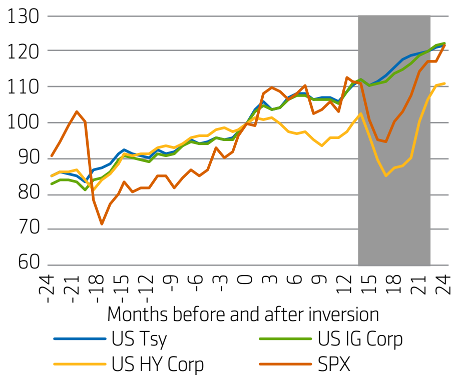
The preceding Exhibit 2 (curve vs. output gap) shows that late-cycle yield curve flattening tends to coincide with periods of good economic growth. These periods tend to be broadly positive for asset classes across the risk spectrum, using respective indices as proxies (Exhibit 3). Indices are rebased to the month prior to the yield curve inversion in an effort to capture pre- and post-inversion performance in periods leading up to recessions.

As observed in Exhibit 3, duration assets, such as US Treasuries and investment grade corporates, have historically rallied post-inversion. However, for assets on the lower end of the risk spectrum, like high yield corporates and equities, post-inversion performance has been mixed.

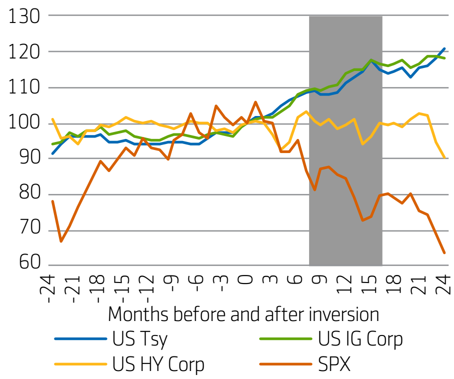
Exhibit 3: Historical performance of various asset classes during recent yield curve inversions

Monthly returns of US Treasury, US investment grade and high yield corporate as well as US equity indices rebased to zero as of the month prior to the yield curve inversion

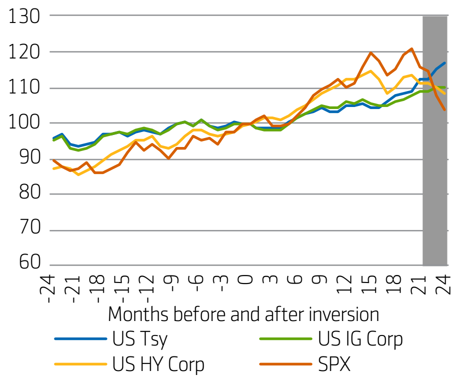
Cycle ending 1991



Cycle ending 2001



Cycle ending 2007



Source: Bloomberg. US Tsy represents the (Bloomberg Barclays US Treasury TR index). US IG Corp reflects the (Bloomberg Barclays US Corporate TR index). US HY Corp is the (Bloomberg Barclays US Corporate High Yield TR index). SPX is the S&P 500 equity index. The gray bars indicate a recession.

Two observations seem particularly relevant to current market trepidation over a potentially negative term spread.

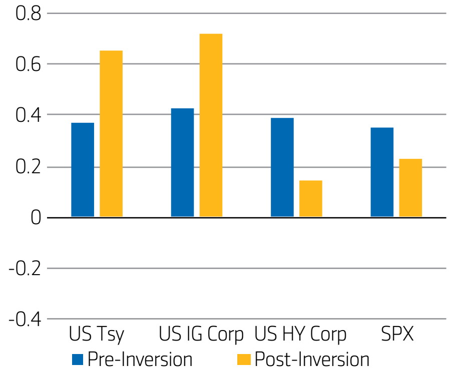
First, inversions need not mean a bloodbath for riskier assets such as high yield and equities. High yield corporate bonds, for instance, have not suffered catastrophic losses post-inversion and before recessions. Additionally, high yield bonds performed relatively well after the last inversion, while equities continued to advance for at least 12 months in two of our three observations before ultimately succumbing to a recession, suggesting additional factors beyond a mere inversion do impact risk assets. For instance, led by the tech sector, price-to-earnings multiples were materially higher as the curve inverted in 2000, the only such instance that was followed by an equity bear market. It is difficult to draw meaningful inference from a limited sample size, but valuations heading into an inversion could be an important factor in determining subsequent asset class performance.

Second, higher-quality assets such as US Treasuries and US investment grade corporate bonds tend to have better risk-adjusted returns post inversion than they do pre-inversion. Exhibit 4 depicts the average 2-year returns pre- and post-inversion divided by standard deviation of returns, or volatility, over the respective time frame. The charts demonstrate that higher-quality assets outperformed riskier assets in risk-adjusted terms including the cycle ending 2007, for which the two-year window notably excludes the bulk of the recession and the meltdown in high yield and equities. This is to be expected given the increased volatility profile of riskier assets late in the cycle, a topic we've explored earlier this year in the risk-adjusted equity valuations and the macro environment paper.

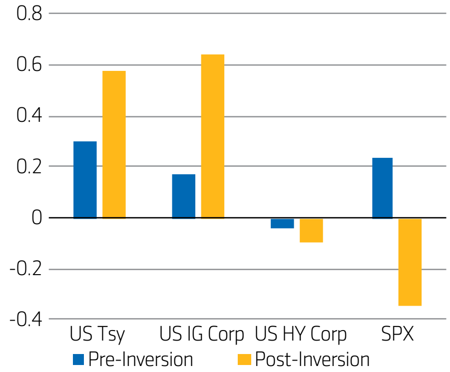
Exhibit 4: Historical return-to-risk ratio of various asset classes during recent yield curve inversions

Return-to-risk ratio of US Treasury, US investment grade and high yield corporate as well as US equity indices for the two years leading up to and two years after an inversion

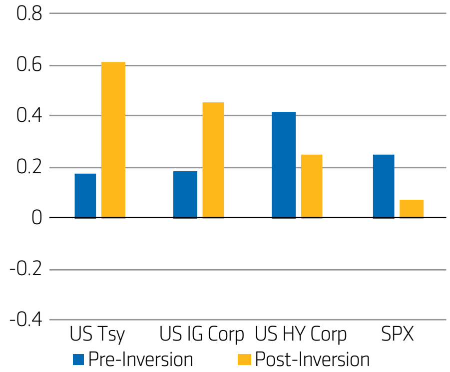
T-2years and T+2years, 1991 cycle



T-2years and T+2years, 2001 cycle



T-2years and T+2years, 2007 cycle



Source: Bloomberg. US Tsy represents the (Bloomberg Barclays US Treasury TR index). US IG Corp reflects the (Bloomberg Barclays US Corporate TR index). US HY Corp is the (Bloomberg Barclays US Corporate High Yield TR index). SPX is the S&P 500 equity index. SPX return-to-risk excludes the October 1987 outlier.

Summary

In summary, while an inverted yield curve typically signals the later stages of an economic cycle and is not ideal for the productive flow of investment capital and continued above-trend growth, it does not necessarily imply serious trouble for financial markets, at least within the context of continued economic growth. However, it is important to note that riskier assets, such as high yield bonds and equities, tend to generate lower risk-adjusted returns than investment grade credit or government bonds following a curve inversion. Using a disciplined investment process emphasizing fundamentals, valuation, sentiment and technicals, we aim to navigate various yield curve environments and strike a balance between de-risking and generating competitive risk-adjusted returns over the long-term.

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