FINANCIAL PERSPECTIVE

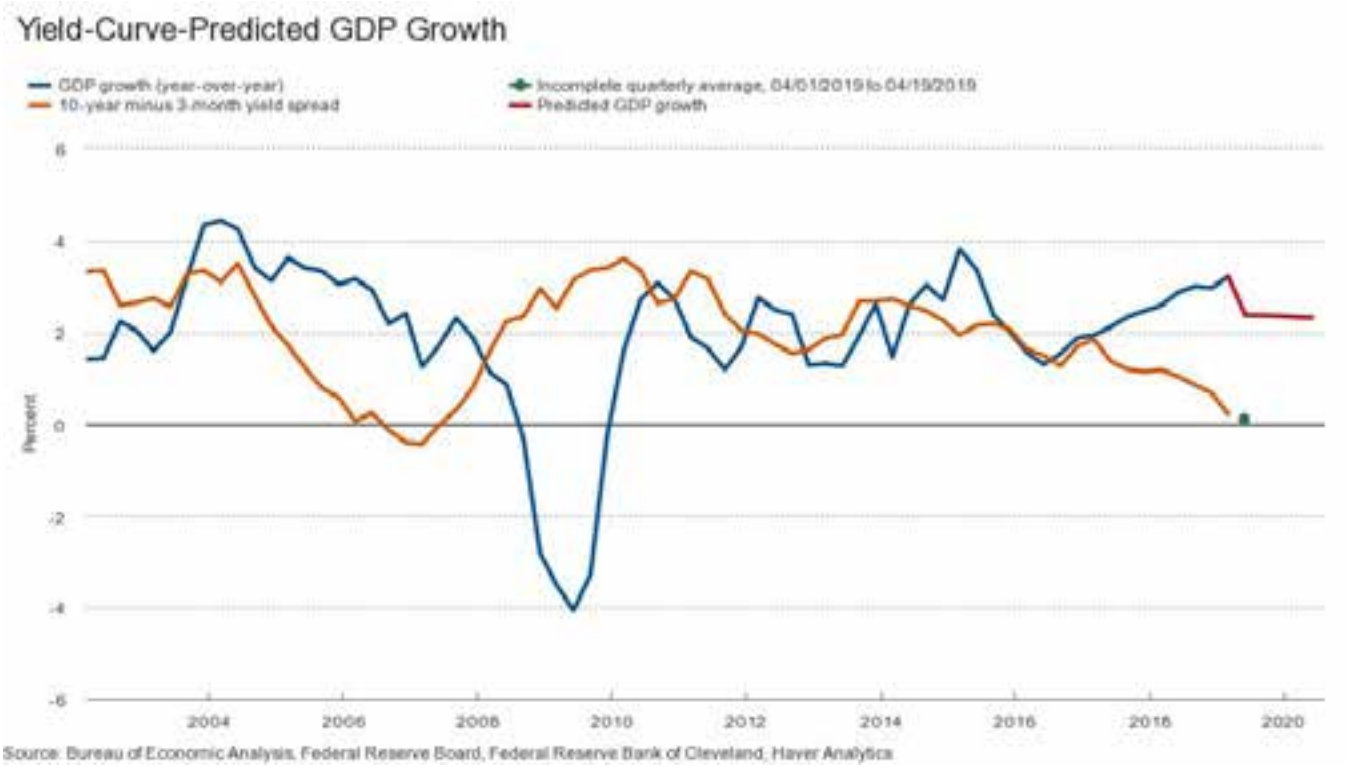
THE INVERTED YIELD CURVE EXPLAINED (AND WHAT IT MEANS FOR 2020)

Stu Hoffman, senior vice president and senior economic advisor for The PNC Financial Services Group, famously joked about the yield curve as an economic predictor by noting that an inverted yield curve had predicted ten of the last four recessions. With the yield curve inverting for five days in late March (and again in May and June), talk of the yield curve has returned to the front pages of economic journals. But does an inverted yield curve foreshadow recession or merely indicate conditions that often occur ahead of a downturn?

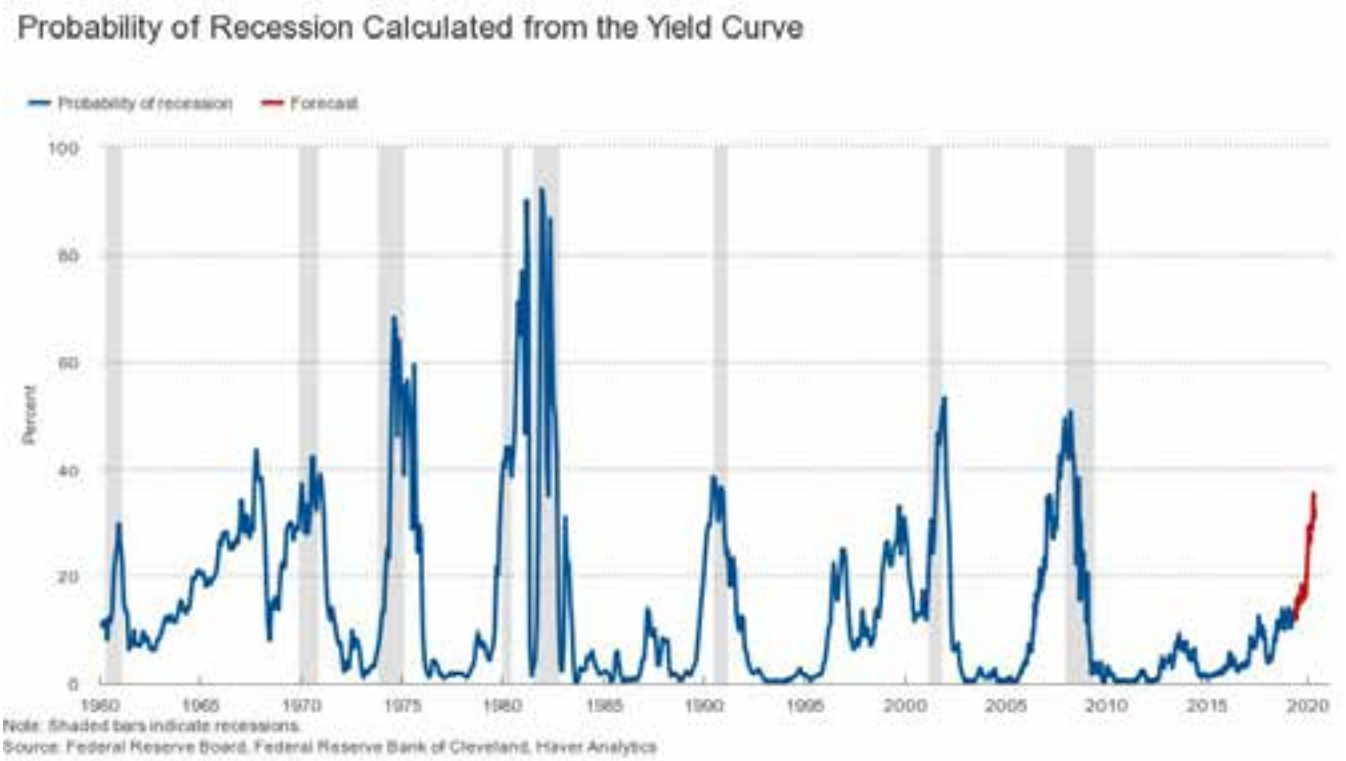
For those seeking affirmation of their 2020 recession forecast, the inverted yield curve is final vindication. Hoffman's joking aside, the last seven recessions were preceded by an inverted yield curve roughly a year before the start of the downturn. It's a development worth watching.

Perhaps the best place to start an examination of the yield curve is by defining it. The yield curve is the spread, or difference, between the yields of short-term and long-term bonds, typically the 3-month Treasury bill and the 10-year Treasury bond. Studying these yields offers an indication of how buyers of debt are feeling about the short-term (3-month) compared to the long-term (10-year) future. An inverted yield curve occurs when the yield on the 10-year bond falls below that of the 3-month bill.

Yields are the interest a borrower – in this case the U.S. government – pays to creditors, who buy the bonds for income. Creditors should logically be rewarded with higher yields for the higher risk of lending money over a longer period of time. There is the expectation that inflation will make things more expensive in the future and, therefore, yields should have consideration for that time value. As economic conditions erode, borrowers must offer higher rates of interest to attract creditors, or buyers. The lack of demand also depresses the prices of the bonds, meaning that bond prices and yields move in opposite directions. The law of supply and demand pays attention to the economy. How all of this relates to the yield curve is that when investors fear the short term outlook, they flock to buy government-backed bonds that mature further down the line. For this reason, the 10-year Treasury has become something of a bellwether for the economy. And it's why



Federal Reserve Bank of Cleveland concludes that the flat or inverted yield curve in spring 2019 suggests that GDP growth will fall to slightly above two percent.



Federal Reserve Bank of Cleveland used the yield curve to predict a 31 percent chance of negative GDP in 2020.

economists are wary about what the yield curve is telling them now.

As this magazine goes to press, the U.S. economy is marking ten full years since the start of the recovery in the second quarter of 2009, making this business cycle the longest in U.S. history. That longevity is also a cautionary signal, as most observers presume that the longer an expansion goes on, the closer it gets to recession. Seeing an inverted yield curve for a week in March, and then 32 more days in May and June, seems to confirm the suspicions of those looking for the "sell by" date for this economic cycle. But there are reasons to look at the yield curve of 2019 differently.

First among those reasons is the fact that the yield curve is not predictive of recessions in and of itself. A variety of factors can influence Treasury yields that are not connected to the underlying behavior that causes decline. Certainly, the extended period of suppressed interest rates is a variable that wasn't present during past business cycles, nor was the Federal Reserve Bank's enormous residential mortgage-backed securities buying that boosted its balance sheet to $4.4 trillion. That program artificially boosted demand for long-term debt, ensuring lower rates than the market might have asked. Even as the Fed allows maturing bonds to reduce the assets it holds, the total still exceeded $3.8 trillion as of mid-May.

Inflows and outflows of international capital can also change yields significantly, as can the changing expectations of inflation. With foreign capital favoring U.S. Treasury securities over other options, yields for all maturity dates remain lower. Likewise, after a decade of sub-two percent inflation, most economists have given up looking for higher inflation in the future, meaning that those investing ten years out don't have much of a case for demanding higher yields as a hedge against future inflation. Buyers of long-term bonds are not looking for a premium to offset long-term inflation risk.

Mekael Teshome, vice president and senior regional officer of the Pittsburgh branch of the Federal Reserve Bank of Cleveland, also points out that the inverted yield curves that presaged past recessions weren't so fleeting, generally lasting a number of weeks or months.

"In general, an inverted yield curve is a fairly reliable indicator worth watching; however, in the current environment I think the conditions that make it reliable aren't present," says Teshome. "For one, it's not been inverted for a sustained period of time. We're seeing intraday inversions or day-to-day but not for an extended period. Also, the reason why the yield curve inverts matters. There is no expectation of inflation, so long-term rates are staying low. Short term rates are going up because of strong growth. Rates aren't being driven by investor fears about the economy."

Teshome's assessment is shared by other observers of the economy.

"There was a [recent] report from Wells Fargo that suggested that, for various reasons, it may not be as significant an indicator as it once was. Everything else they look at is still positive. I'm inclined to go with that more

"There seems to be downward pressure on long-term rates because the U.S. is a safe haven for nervous investors who favor Treasuries. I guess I'd have to say on balance, though, there have been a lot of reasons in the past why people have said the situation was unique that time and the yield curve proved not to be wrong. I guess I'd put a lot of weight on it as an indicator."

expert opinion," says Kenneth Simonson, chief economist "It has to be a longer and stronger inversion before it becomes significant. Right now it could be a fluke, like an extreme weather event, where prices spike because of an outage and then are right back to where they started six weeks later. To continue the analogy, for the moment it looks like weather. It may turn out to be a long-term climate event."

"We agree that the yield curve is a reliable economic indicator. Looking back at the most recent three recessions, the yield curve did invert six months to eighteen months prior to the official onset of the recession," says John Augustine, chief investment officer for Huntington Bank. "That takes us back to 1990; however, this time there is a bit of a twist."

Augustine notes that there are conflicting signals coming from two different yield curves, one of which is all but demanding that short-term rates be cut. Such a move in short-term rates would return the positive spread in yields.

"What economists watch is the difference between the Fed Funds rate and the 10-year Treasury bond. That, for them, defines the yield curve for economic purposes. That relationship is currently inverted," says Augustine. "What bond markets watch is two years and out. The Fed controls interest rates inside of two years, generally speaking. The bond market controls rates from two years to 30. What those market participants watch is the difference between the 2-year and 10-year Treasury bonds. That yield curve is currently not inverted. Prior to the last three recessions, both of those indicators were inverted. There's a disagreement between economists and the bond market. What the bond market is telling us right now is that the Federal Reserve should do one or two rate cuts this year."

Several members of the Federal Reserve Bank and its Open Markets Committee (FOMC) have indicated publicly in recent weeks that they are cognizant of the bond market's signals. The yield on the two-year bond has been around 1.85 percent, indicating that buyers of those bonds expect the Fed Funds rate will be at or below that rate when the bond matures in two years. That's a counter indicator that the yield curve will revert to positive. The Fed has also signaled that it is aware of the stresses of tariffs, trade disagreements and unsettled overseas markets. Something like lower job growth in June and July could be enough to persuade the FOMC to roll back the December 2018 rate hike. That hike, which triggered a 16 percent drop in the Dow Jones Industrial Average by Christmas Eve, was viewed by many as one cut too far.

Even if the Fed keeps its powder dry, and the yield curve(s) stay inverted long enough to indicate a coming downturn, it's an indicator, not a switch. Changes in monetary policy or inflation – let alone individual business decisions – can be made to deal with the economic conditions. And there are upsides to the current upside-down long-term rate environment.

"The other thing to keep in mind is to look at the long end at these incredibly low bond rates, which I never thought we'd see again," notes Simonson. "These are benefitting municipal bond issuers, like school districts, and developers to the extent that is extending to the riskier corporate type of financing."

"If the yield curve does invert for an extended period, there is a long lead time between that signal and when the recession occurs," counsels Teshome. "Historically, the lead time has been anywhere from six months to two years."

The benefits of the current yield environment come with the risk that the flat spread between long-term and short-term rates will suppress credit. Lenders have been responsive to the uptick in demand of late, but the tight spread means banks are making less money. As they have been pushed to increase interest paid to depositors, banks are earning less interest on the capital deployed in loans. Should lenders decide that extending higher volumes of lower-earning loans is an imprudent policy, credit will become tighter. That could make development more difficult.

Dr. Kermit Baker is project director for Remodeling Futures Program at the Joint Center for Housing Studies at Harvard University and the chief economist for the American Institute of Architects. He is cautious about looking for reasons why this inverted yield curve situation may be different.

"Its track record has been quite impeccable, predicting something like seven of the last eight recessions," says Baker. "There seems to be downward pressure on long-term rates because the U.S. is a safe haven for nervous investors who favor Treasuries. I guess I'd have to say on balance, though, there have been a lot of reasons in the past why people have said the situation was unique that time and the yield curve proved not to be wrong. I guess I'd put a lot of weight on it as an indicator."

The words of the Federal Reserve Bank's own analysis of the yield curve spread may sum it up best: "The bottom line is that yield curves contain important information for business cycle analysis, but, like other indicators, should be interpreted with caution." BG