CIO | VIEW

U.S. Economic Outlook

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Marketing Material

HOW MUCH SHOULD YOU READ INTO THE RECENT INVERSION OF THE U.S. YIELD CURVE?

Christian Scherrmann
U.S. Economist

IN A NUTSHELL

_ While taking the signals from inverted yield curves seriously, we think that the reasons behind them are more multifaceted than commonly thought.
_ Lower inflation expectations and global central-bank easing could weigh on term premiums.
_ Political risks remain some of the main drivers of uncertainty.

Do interest-rate cuts by the U.S. Federal Reserve (Fed) cause recessions? If you consider yourself to be economically literate, you might smile at the very question. Yet such an interpretation has been one of many in financial markets recently, as investors grapple with the mysteries of the yield curve.

Most recently the catalyst seems to be trade – or more specifically, the recent escalation of the trade war between the United States and China. Shortly after the announcement of additional 10% tariffs on the remainder of imports from China, and the subsequent Chinese retaliation, the U.S.-Treasury yield curve, as measured by 2-year and 10-year U.S. Treasuries, inverted for the first time since 2007. Market commentators and participants were quick to note that such an inversion of the yield curve correctly "predicted" at least the last five recessions. Therefore many were equally quick to treat it as the ultimate recession signal. Are they right?

Well, to state the obvious, just because inversions of the U.S. yield curve have preceded some of the last recessions, it does not mean it "predicts," let alone causes such a downturn. And the timing is ambiguous at best. On average, around 20 months passed between a yield-curve signal and the start of a recession. But there is a lot more to the yield curve than casual observers realize, which is why we want to take a closer look in this economic outlook.

Mainstream interpretations of the inverted-yield-curve phenomena start with the basic idea that the yield curve can be decomposed into two components: investor expectations on future inflation and of real interest rates. More sophisticated models add in the compensation investors require for taking the uncertainty surrounding those expectations – the inflation risk premium and the real-rate premium; the sum of these is the term premium. Moreover, those components can be tested statistically for their significance in "predicting" recessions. One upshot of such exercises is that, as a recent paper by several Fed economists put it, that "monetary easing, either current or expected, is associated with an increase in the probability of a future recession."[1] Of course, correlation is not necessarily causation, historically the Fed has been a little late in reacting to a deteriorating economic situation.

Inflation expectations, and the corresponding risk premium, can reflect a long-term perspective and typically have greater influence on the longer end of the curve. Real-rate expectations tend to be more driven by market perception of the economy, and of central-bank behavior, and have a tendency to impact the shorter end of the curve.[2] Translated into the current environment, this implies that persistently low inflation made it more attractive to hold longer-dated bonds in general. This might have been amplified by the decline of market-based inflation expectations since the last recession.[3] Term premiums cannot be precisely measured, but several estimates have shown them to be negative since 2014.[4] Furthermore, some studies indicate that holding bonds nowadays corresponds more to hedge against deflation than to bet on inflation.[5] This implies, as long as the expectations prevail that inflation remains low (i.e. below the central bank's target) it is beneficial to hold nominal bonds. And whenever persistently low inflation expectations coincide with short rates increasing (e.g. Fed-hiking cycle), it seems like the perfect recipe for an accelerated-yield-curve flattening. The final piece to get the curve inverted in an environment when term premiums are compressed would be an event that imposes a major threat to the economy (e.g. investors search for short-term liquidity), or something that is judged as such.

Which brings us back to the trade-war escalation. Timing

[1] https://www.chicagofed.org/publications/chicago-fed-letter/2018/404
[2] Higher real rate premium and higher demand for shorter dated maturities.
[3] Since around the end of 2014, here e.g. https://fred.stlouisfed.org/series/T5YIFR
[4] https://www.newyorkfed.org/research/data_indicators/term_premia.html - decompositions of the term premium are rather rare and mostly not up to date.
[5] https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp2033.en.pdf

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wise, it appears to have been the final trigger to tip the curve negative. One anecdotal note is that the recently good news flows with respect to the trade war pushed the curve back into positive territory. "So what?" – You might ask. Well, for one thing, it suggests that bond markets appear not to be particularly sophisticated in thinking about trade tensions. As we recently argued, "trade wars do not usually, or even necessarily, cause recessions. They tend to damage how much existing plants and businesses are worth in the long term, not necessarily how much of the remaining capacity might remain idle for a few quarters. [DWS Quarterly CIO View: Macro – Rising risks as of 8/30/19]" They do, however, tend to increase inflation in the short-term and leave both parties to the trade war poorer in the long term than they otherwise would have been. None of which is necessarily good news for holders of nominal bonds.

All of this suggests that the markets are very nervous about a slowdown, even if they are not sure why that would happen. The reaction function seems different compared to the past. The phenomena of a very low term premium, most likely linked to lower inflation expectations, might seem to reduce the significance of an inverted yield curve. But is this the only reason? Recent discussions, like the one at the Federal-Open-Market-Committee (FOMC) meeting in August 2018, suggest that global-central-bank asset-purchase programs and the global demand for relatively safe assets could compress term premiums as well.[6] And it is interesting to observe that inflation expectations started to deteriorate around the time the Fed ended its asset-purchase program in late 2014. Our conclusion is, that global quantitative easing and low inflation expectations might have produced what we call a nervous yield curve. The current episode appears more sensitive to exogenous shocks than the one in the past. We take the signal seriously but do not overreact.

OVERVIEW: KEY ECONOMIC INDICATORS

	2018				2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
GDP (% qoq, annualized)	2.5	3.5	2.9	1.1	3.1	2.1	1.8	2.0	2.0	2.2
Core inflation (% yoy)*	1.9	1.9	1.9	1.9	1.5	1.6	1.7	1.9	1.9	1.9
Headline inflation (% yoy)*	2.1	2.4	2.0	1.8	1.4	1.4	1.4	1.6	1.7	1.8
Unemployment rate (%)	4.0	4.0	3.8	3.8	3.9	3.7	3.7	3.7	3.7	3.7
Fiscal balance (% of GDP)	-3.5	-3.6	-4.0	-4.1	-4.3	-4.4	-4.4	-4.5	-4.7	-4.6

* PCE Price Index

GLOSSARY

Central bank
A **central bank** manages a state's currency, money supply and interest rates.

Correlation
Correlation is a measure of how closely two variables move together over time.

Deflation
Deflation is a sustained decrease in the general price level of goods and services.

Federal Open Market Committee (FOMC)
The **Federal Open Market Committee (FOMC)** is the committee that oversees the open-market operations (purchases and sales of securities that are intended to steer interest rates and market liquidity) of the U.S. Federal Reserve.

Hedge
A **hedge** is an investment to reduce the risk of adverse price movements in an asset.

Inflation
Inflation is the rate at which the general level of prices for goods and services is rising and, subsequently, purchasing power is falling.

Nominal
In economics, a **nominal** value is not adjusted for inflation; a real value is.

Real interest rate
The **real interest rate** is the nominal interest rate adjusted for inflation as measured by the GDP deflator.

Recession
A **recession** is, technically, when an economy contracts for two successive quarters but is often used in a looser way to indicate declining output.

Risk premium
The **risk premium** is the expected return on an investment minus the return that would be earned on a risk-free investment.

Treasuries
Treasuries are fixed-interest U.S. government debt securities with different maturities: Treasury bills (1 year maximum), Treasury notes (2 to 10 years), Treasury bonds (20 to 30 years) and Treasury Inflation Protected Securities (TIPS) (5, 10 and 30 years).

U.S. Federal Reserve (Fed)
The **U.S. Federal Reserve**, often referred to as **"the Fed"**, is the central bank of the United States.

Yield curve
A **yield curve** shows the annualized yields of fixed-income securities across different contract periods as a curve. When it is inverted, bonds with longer maturities have lower yields than those with shorter maturities.

Yield-curve inversion
A **yield-curve inversion** is when the yields on bonds with shorter duration are higher than the yields on bonds that have a longer duration.

[6] https://www.federalreserve.gov/newsevents/pressreleases/monetary20180822a.htm

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