

September 5, 2018

KEY TAKEAWAYS

Since the Federal Reserve began its rate normalization process, U.S. Treasury Bill rates have matched the upward move in the Fed funds target rate. However, long-term rates have not risen near the same amount, leading many investors to question whether an inverted yield curve is on the horizon. While previous yield curves may have been followed by a recession, it is not clear that the event of inversion caused the recession.

Key Rates (%)

	Aug 31 2018	Jul 31 2018	Dec 31 2017
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Treasury Yields

2 Year	2.63	2.67	1.88
5 Year	2.74	2.85	2.21
10 Year	2.86	2.96	2.41
30 Year	3.02	3.08	2.74

Credit Yields

BBB Industrial 10 Year	4.26	4.34	3.61
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Muni Yields

AAA 10 Year	2.47	2.49	2.01
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Mortgage Backed Securities

30 Year FNMA Current Coupon	3.62	3.68	3.00
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AUGUST IN REVIEW

- The 10-year Treasury yield fell by 10 bps month over month to 2.86%
- Treasuries were the strongest performer on the month, up .76%
- High yield had a strong month and continued its strong year, up .74% on the month and up 2.00% on the year.

Does an Inverted Yield Curve Matter?

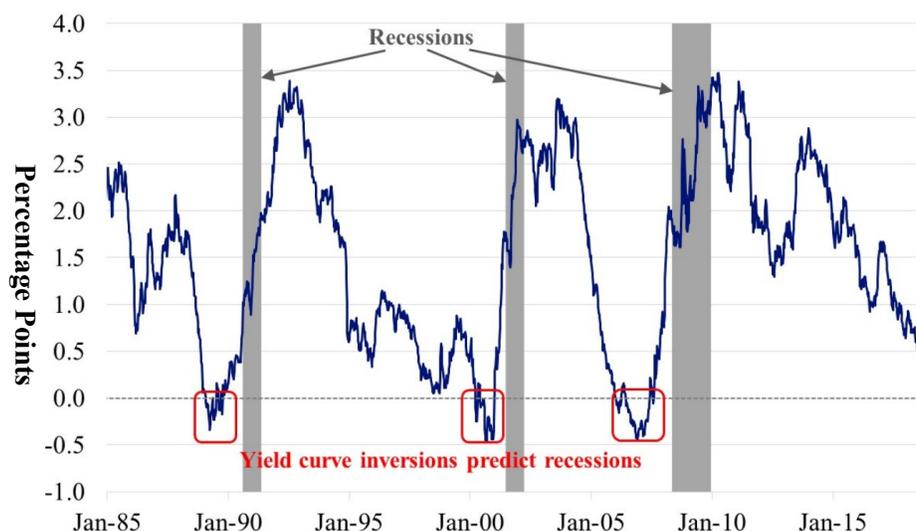
The bond market continued to flatten in August, as expectations of a September rate hike and building inflation data caused front-end yields to rise. Longer term bonds, however, seem to suggest a less than robust outlook for the economy in years ahead. The yield on the ten-year Treasury, for example, fell to 2.86%; a 10 basis point drop from July.

Falling long-term rates suggest the inflation numbers may be temporary and that future growth will be lower than implied by recent economic data. In the past, the Federal Reserve has continued to tighten in response to strong current conditions despite signs of economic plateauing. Tighter monetary policy acts as a brake on growth, causing longer-term rates to fall further. In rare cases, rate hikes have caused short-term rates to rise higher than long term, producing an “inverted” yield curve. This phenomenon has been associated with a pending recession, although the relationship does require some acceptance of interpretation.

The graph in **Exhibit 1**, from the St. Louis Fed, shows the yield differential between the 10-year U.S. Treasury and the 1-year U.S. Treasury going back to 1985. A recession has resulted every time the differential has gone below zero, with relatively wide variations in time between the inversion and the onset of the recession. In the cases shown, a sharp increase in Fed policy has preceded the inversion. The current Federal Reserve effort to normalize rates is creating concern that another inversion may be imminent.

Since the Fed began the rate normalization process, U.S. Treasury Bill rates have matched the move in the Fed funds target rate (**see Exhibit 2**). However, long-term rates have not risen by the same amount, sparking fear

EXHIBIT 1: Treasury Spread: 10-Year Yield Minus 1-Year Yield



Source: Federal Reserve Bank of St. Louis

of a pending inversion. Inversions by themselves do not guarantee recessions. The yield curve was often negative over short periods for much of the late 1990's, but failed to produce a recession. We also note that all of the inversions during this period ended before the economy showed signs of slowing.

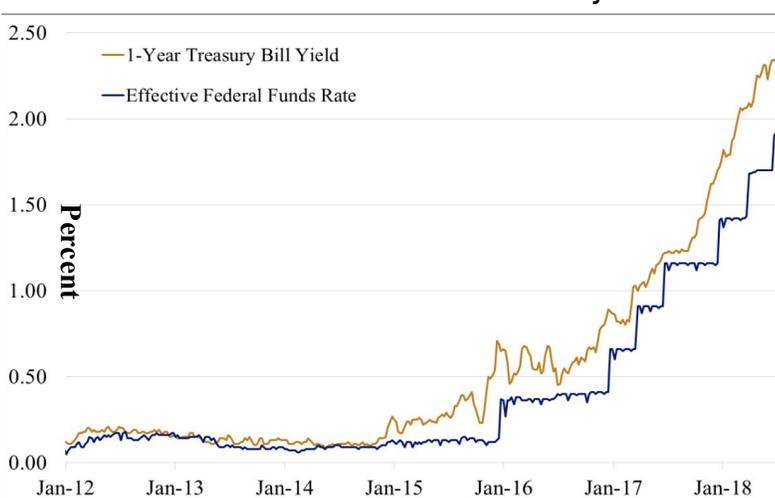
The efficacy of the pattern as an economic predictor may be coincidental. The early 1990's recession was probably due more to the commercial real estate/savings and loan crisis and the Gulf War than to rising short-term rates. The early 2000's recession coincided with events such as the bursting of the dot-com bubble and the 9/11 terror attack. The Great

Recession of 2008-09 was triggered by the collapse of the U.S. housing market and the resulting bankruptcy of several brokerage firms; events spawned more by reckless behavior than rising rates.

Even if inversion is an effective warning sign for investors, we do not believe an inversion is likely in the near term. We think the Fed has been aggressive in its rate hike outlook and that the pace will slow. We also see pressures building on the long end of the curve; namely, a ballooning Federal budget deficit and the continued "roll off" of the Fed's balance sheet. We expect one more rate

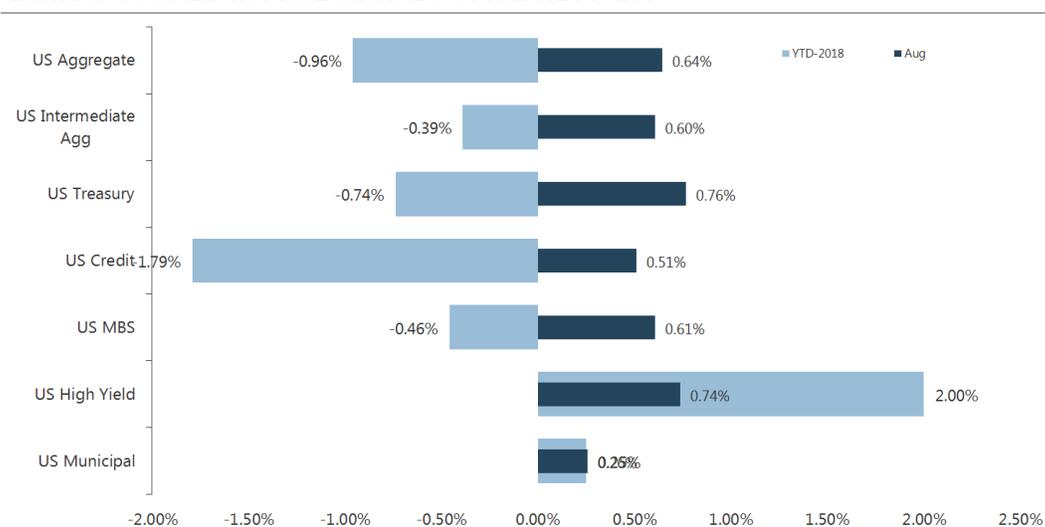
hike this year (consensus and the Fed say we will have two) and only two or three next year. In the meantime, the economy is growing at a steady pace and we see little chance for a credit crisis in the short run.

EXHIBIT 2: 1-Year T-Bill Yield and the Fed's Policy rate



Source: Federal Reserve Bank of St. Louis

EXHIBIT 3: FIXED INCOME MARKET TOTAL RETURNS



Source: Bloomberg Financial L.P. and Barclays Securities

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535 Stone Cutters Way, Montpelier, VT 05602 •
 Tel: 802.229.2838 • Toll Free: 800.255.9946 Fax: 802.229.2837
 533-D Johnson Ferry Rd • Suite 350 • Marietta, GA 30068 •
 Tel: 770.693.7690 • Fax: 770.512.5176

