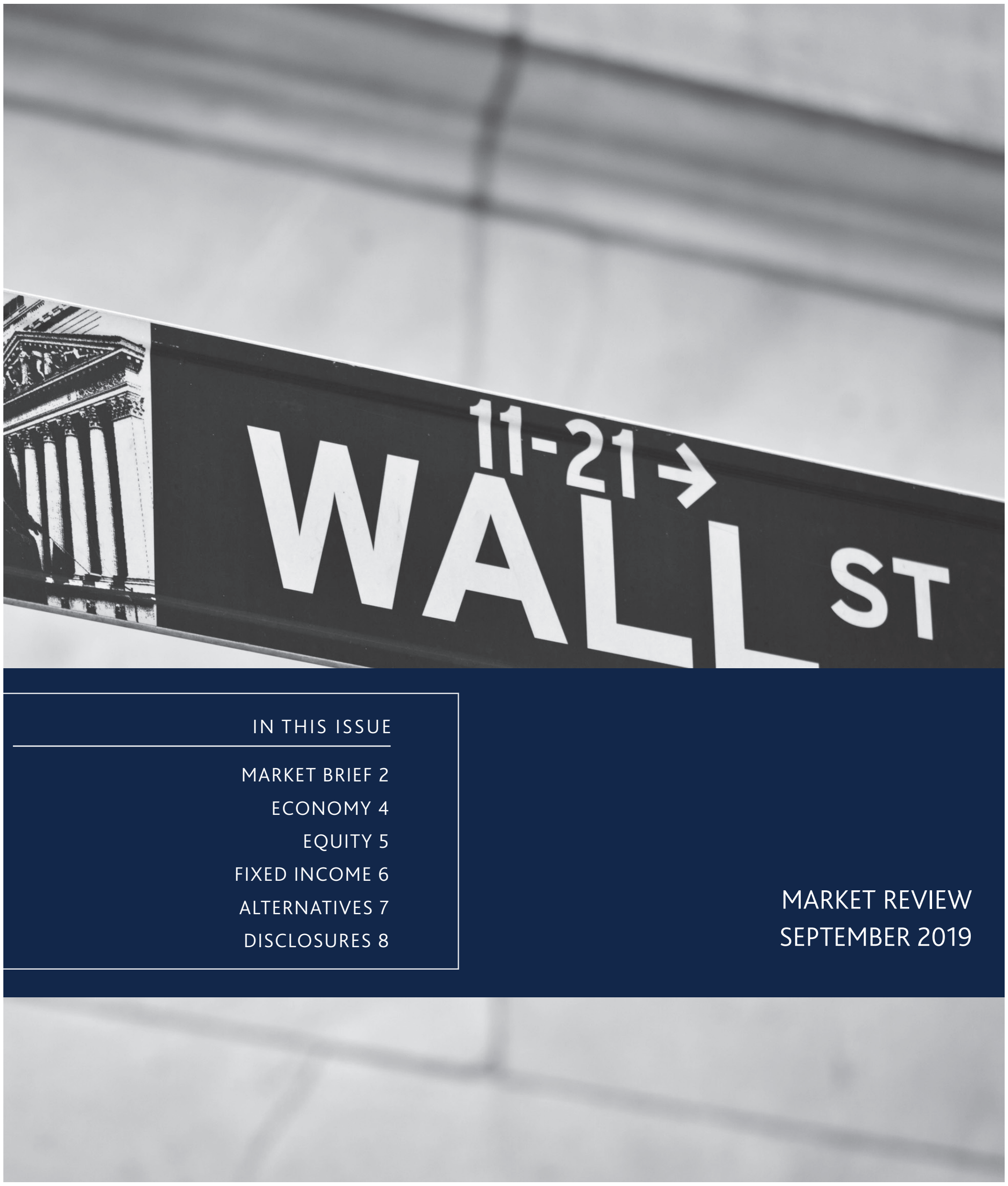


IN THIS ISSUE

MARKET REVIEW
SEPTEMBER 2019

TRUST COMPANY of NORTH CAROLINA

CAN THE YIELD CURVE INVERT WITHOUT A RECESSION?

Discussion among investors and market commentators about the risk of a recession has intensified in recent months due to a warning sign from an inversion of the U.S. Treasury yield curve - one of the market's most reliable recession indicators. A yield curve inversion is defined by a long-term yield moving below a shorter term yield. This runs counter to basic financial theory, as a lender will typically require a higher return, or yield, on a long-term loan than a short-term loan given the former's inherently higher risk of default. One of the most widely watched parts of the yield curve, the spread between the 2-year and 10-year yields, inverted this summer for the first time since 2007. Yield curve inversion is a closely watched recession indicator because of its strong track record of preceding economic downturns. Each of the last seven recessions since 1970 was preceded by an inversion. Historically, recessions follow inversions by between one to two years, on average.

Yet, investors should be careful in assuming that this yield curve inversion will be followed by a recession in the near term given signs that this inversion was facilitated by nontraditional factors which may have compromised its recession signaling ability. In addition, there have been some false positives throughout history when yield curve inversions have not been followed by recessions.

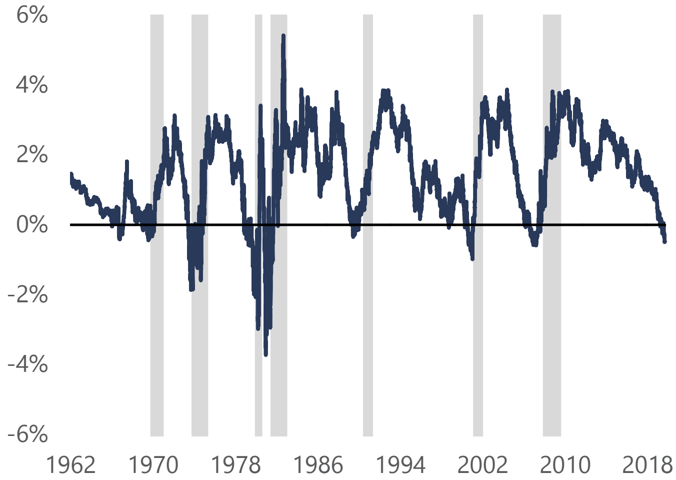
IS THIS INVERSION DIFFERENT?

In all historical inversion occurrences since 1966, with the exception of 1998, short-term yields moved above longer term yields as the U.S. Federal Reserve raised interest rates to prevent the economy from overheating. Some notable economists, including former Fed Chair Janet Yellen, have observed that the current yield curve inversion may be different because exogenous factors have influenced the shape of the curve. As a result, the curve may be distorted and its recession signaling power may be diminished.

In a normal environment the long end of the curve is primarily controlled by the market expectations for economic growth and inflation, while the short end is primarily controlled by the Fed's rate policy. This economic cycle has been an atypical environment for bond markets due to nontraditional central bank actions. The unprecedented stimulus programs of central banks in response to the 2008 financial crisis created higher-than-normal demand for long-term Treasuries. In the U.S., the Federal Reserve purchased massive amounts of Treasuries and Agency mortgage bonds, driving its balance sheet north of $4 trillion. Central bank policies in foreign countries such as Europe and Japan created negative interest rates, which have led foreign investors to purchase U.S. Treasuries in search of better yields and low risk. Negative yielding global bonds hit a record $17 trillion in August, accounting for over 25% of all global bonds. This trend is especially applicable among foreign institutional investors such as pension funds that need higher returns to meet their liabilities. The artificially higher demand for long-term Treasuries created by central banks most likely made an inversion easier because it applied downward pressure on yields and reduced the spread between long-term and short-term bonds.

U.S. TREASURY YIELD CURVE INVERSIONS

10 YEAR TREASURY YIELD MINUS 3 MONTH TREASURY YIELD



Shaded bars indicate recessions. Source: Bloomberg
Past performance does not guarantee future results.

GLOBAL NEGATIVE YIELDING DEBT

VALUE OF GLOBAL NEGATIVE YIELD DEBT ($ TRILLIONS)

Source: Bloomberg
Past performance does not guarantee future results.

Past inversions were corroborated by deterioration in economic data such as the Leading Economic Indicator (LEI) index year-over-year growth turning negative. Yet, many U.S. economic data points are not aligned with the current inversion's negative outlook. For example, as of the end of August, the LEI index year-over-year growth is still positive, unemployment claims are not rising, consumer confidence and spending remain stable while corporate profits are still growing. Manufacturing activity appears to be the only economic data in the U.S. potentially signaling a recession. As such, the overall health of economic data appears to support the view that the current yield curve inversion may be less effective at signaling when the next recession will occur.

FALSE SIGNALS

Yield curve inversions are not a perfect recession warning sign because not every inversion has been followed by a recession. Parts of the yield curve inverted without a subsequent near-term recession in 1966, 1995 and 1998. One explanation as to why recessions did not follow these inversions is that the economy received support through the Fed reducing interest rates after seemingly raising rates too much. The situation in 1998 was unique given the Fed cut interest rates to contain the fallout from the Russian debt default and failure of the highly exposed hedge fund Long Term Capital Management. The Fed's interest rate increases in 1965-1966 and other monetary policies contributed to the credit crunch in 1966. The Fed subsequently responded by cutting rates in an attempt to increase bank lending. Following the rate cuts, economic growth rebounded and the expansion continued until the 1970 recession.

Fed policy in 1994-1995 probably provides a better comparison to today. The Fed raised interest rates throughout 1994 and early 1995 to try to create a "soft landing" whereby the economic expansion continued and inflation was contained. Alan Blinder, the Fed Vice Chairman in the mid 1990s, said the Fed raised rates too far and officials were concerned the economy was slowing too much. In the Fed's July 1995 meeting Blinder said, "We ought to be taking out some insurance against recession," according to the transcript. The Fed subsequently cut rates in July and December 1995 and January 1996. Following these rate cuts, economic growth accelerated and the expansion continued until the 2001 recession. If the Fed provides additional interest rate cuts this year, as the market expects, we may see another example of an inversion not followed by a recession.

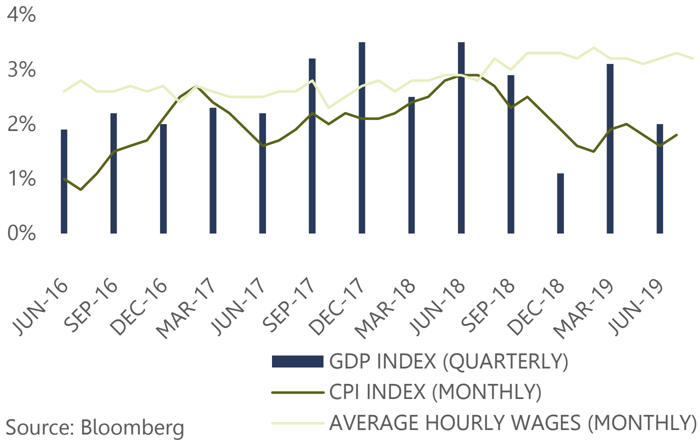
CONCLUSION AND INVESTMENT IMPLICATIONS

While the historical significance of yield curve inversions make it an important recession indicator worthy of investors' attention, the current inversion may be less effective for predicting the next recession. Actions by central banks have influenced yields and made an inversion easier, while most economic data does not appear to indicate a recession is imminent. Lastly, the inversions in 1966 and 1995 provide evidence that the Fed can prolong economic expansion by reducing rates.

ECONOMY

GDP, CONSUMER PRICES AND WAGE INFLATION

JUNE 2016 THROUGH AUGUST 2019

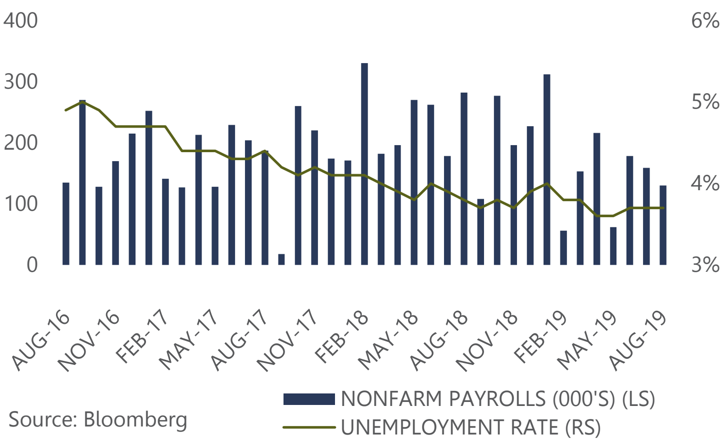


Source: Bloomberg

- Economic growth in the second quarter was revised lower to a 2.0% annualized rate, down from the initial 2.1% reading. The downward revision was driven by lower exports, residential investment and local government spending.
- The Core Personal Consumption Expenditure (PCE) price index, the Fed's preferred inflation measure, rose 1.6% on a year-over-year basis in July. The index rose 0.2% over the prior month.
- The Core Consumer Price Index (CPI), which excludes volatile food and energy costs, rose 0.3% in July. The year-over-year reading for Core CPI increased to 2.2%.

LABOR MARKET

AUGUST 2016 THROUGH AUGUST 2019

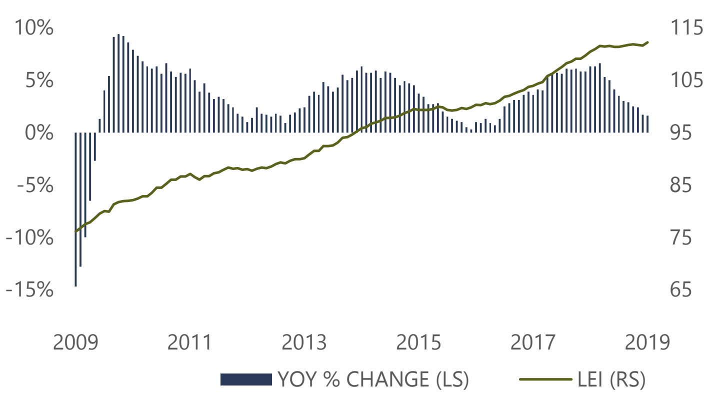


Source: Bloomberg

- The U.S. economy's addition of 130,000 nonfarm jobs missed consensus expectations of 150,000 despite a 25,000 boost from temporary government jobs related to the 2020 Census count. The weakness came from job losses in retail, trade, transportation, utilities and mining.
- The unemployment rate remained unchanged at 3.7% for a third consecutive month. The labor force participation rate increased for the third straight month to 63.2%.
- Wage growth remained near the strongest level in a decade as average hourly earnings increased 3.2% from a year earlier. The mixed August employment report complicates the Fed's discussion of whether to adjust interest rates at the mid-September meeting.

LEADING ECONOMIC INDICATORS

JULY 2009 THROUGH JULY 2019



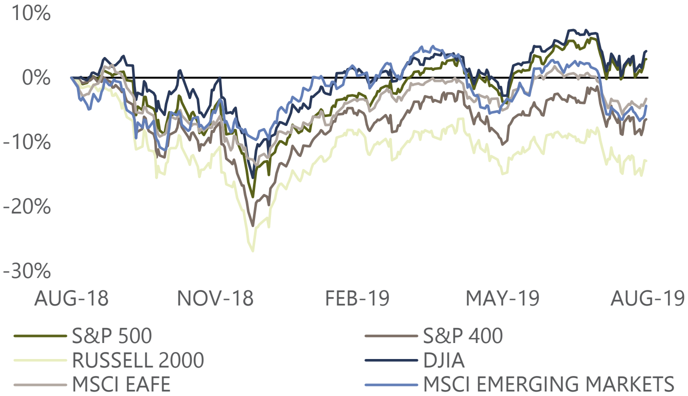
Source: Bloomberg

- The Conference Board Leading Economic Index (LEI) rebounded 0.5% month over month in July following two consecutive months of modest declines. May and June were each revised to -0.1% from no change and -0.3%, respectively.
- The LEI index's year-over-year growth decelerated for an eleventh consecutive month to 1.6%. Weakness in the manufacturing sector and a second consecutive month of negative yield spread between short-term and long-term bonds continued to weigh on the index.
- A relatively strong labor market, easing bank lending standards and U.S. equity markets slightly off their all-time highs will likely allow for modest expansion through the remainder of 2019.

EQUITY

TRAILING 12-MONTH EQUITY RETURNS

PRICE APPRECIATION, AUGUST 2018 THROUGH AUGUST 2019

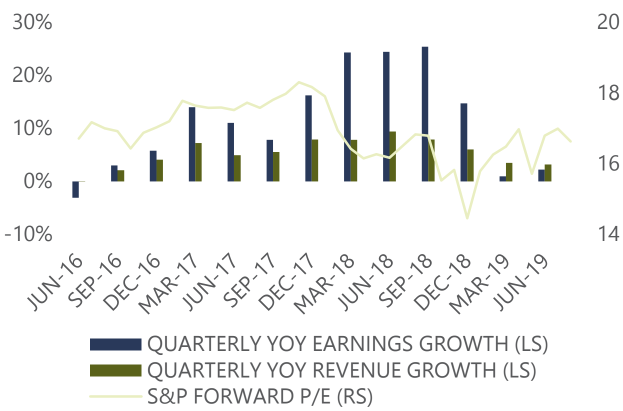


Source: Bloomberg

- In August, global equities suffered a monthly loss for the second time this year. Reescalation in the U.S.-China trade war and recession concerns fueled by the U.S. yield curve inversion led to a risk-off sentiment with heightened demand for safer assets such as government bonds and gold.
- The S&P 500 index declined 1.6% while the S&P 400 and Russell 2000 indexes performed even worse, down 4.2% and 4.9%, respectively.
- Foreign markets also stumbled with MSCI EAFE and MSCI EM falling 2.6% and 4.9%, respectively. In addition to the U.S.-China trade war, foreign markets were pressured by uncertainty over the U.K.'s October 31 Brexit deadline, weak European economic data and large protests in Hong Kong.

S&P 500 YOY EARNINGS & REVENUE GROWTH

BY QUARTER, JUNE 2016 THROUGH AUGUST 2019

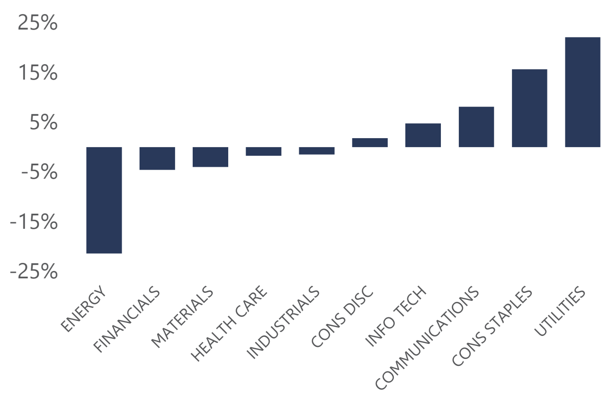


Source: Bloomberg

- For a second consecutive quarter, S&P 500 earnings growth was positive while the analysts' consensus estimate originally projected negative growth. Earnings growth was 2.2% compared to the original analysts' consensus estimate for a 2.2% decline. Revenue growth of 3.2% was a little better than analysts' estimates for 2.9% growth.
- The communications and health care sectors recorded the highest earnings growth while energy, materials and technology had negative growth. Energy was the only sector with earnings growth worse than analysts' projections.
- Analysts are forecasting an improvement in earnings growth starting in the fourth quarter and continuing into 2020. Expectations are for low single-digit earnings growth in 2019 and 10% growth in 2020.

S&P 500 SECTORS 12-MONTH PRICE RETURNS

AUGUST 2018 THROUGH AUGUST 2019



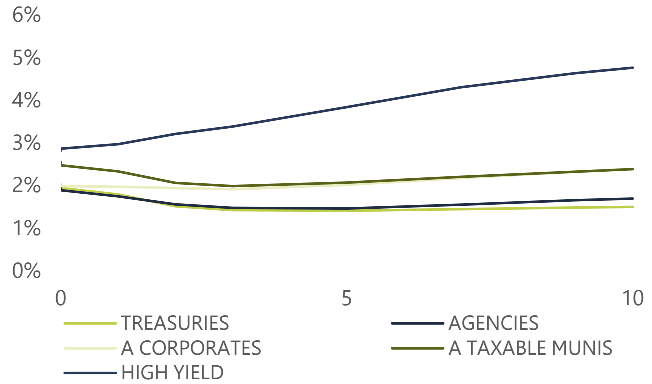
Source: Bloomberg

- Defensive positioning within equities resulted in utilities and consumer staples rising 5.2% and 1.8% in August, respectively.
- The descent in interest rates to multi-year lows drove real estate's 4.9% monthly gain. Lower rates had the opposite effect on the financials sector which fell 4.9%. Within financials, bank stocks lost 7.4% as the yield curve inversion spurred concerns about their profits.
- Energy dragged on the S&P 500 with a monthly loss of 8.1%. Oil prices declined 6.3% in August amid concerns the U.S.-China trade war could weaken oil demand. Disappointing second quarter earnings led analysts to cut the sector's 2019 earnings growth forecast to -20.2% from -10.4% at the start of the reporting season.

FIXED INCOME

CURRENT YIELD CURVES

YIELD CURVES AS OF AUGUST 2019

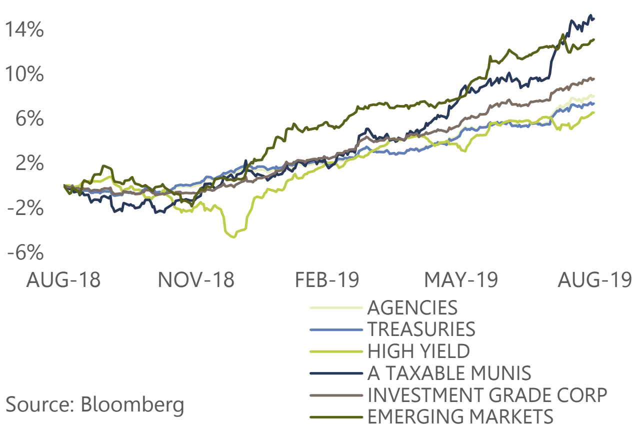


Source: Bloomberg

- August marked the fourth consecutive month of yield curve inversion between the U.S. 10-year Treasury yield and U.S. 3-month Treasury yield. The curve inversion worsened in August as the 3-month yield finished August 48 basis points higher than the 10-year Treasury yield.
- Another part of the yield curve inverted on August 14 when the 10-year Treasury yield fell below the 2-year Treasury yield intraday for the first time since 2007. On August 26 the yield spread closed the day in negative territory and remained negative through the end of the month.
- The U.S. 30-year Treasury yield moved sharply lower in August and reached a record low of 1.95%.

12-MONTH RETURNS, TAXABLE BOND SEGMENTS

AUGUST 2018 THROUGH AUGUST 2019

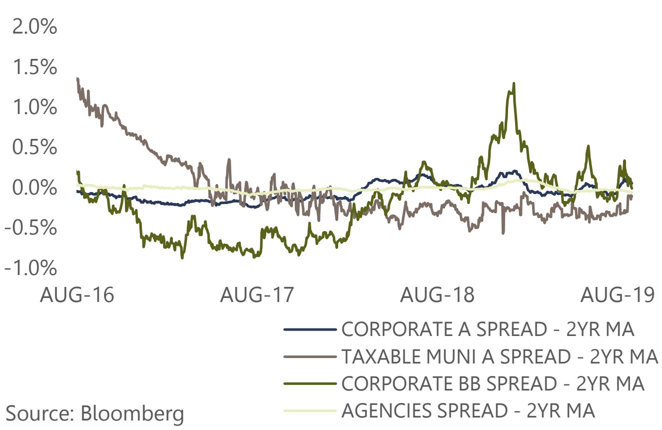


Source: Bloomberg

- Each of the fixed income sectors shown in the accompanying chart generated a healthy price return over 6.5% in the past twelve months as yields have continued to decline over the period.
- Single A-rated taxable municipals posted the best twelve-month return of 15.0% while high yield recorded the weakest performance, up 6.6%.
- The two fixed income sectors with the highest credit quality, Treasuries and agencies, have experienced a positive monthly price return for each of the past nine months.

SPREAD VS. TREASURY LESS 2-YR MOVING AVG

AUGUST 2016 THROUGH AUGUST 2019

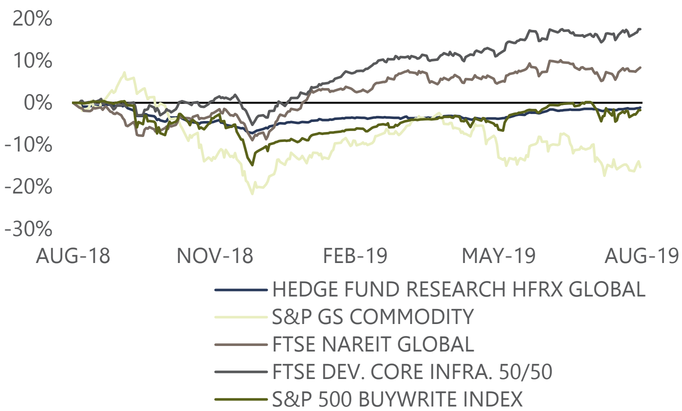


Source: Bloomberg

- The overall spread environment improved in August as agencies were the only fixed income sector that saw spreads tighten during the month.
- The only two fixed income sectors shown in the accompanying chart with corporate credit exposure, Corporate A and Corporate BB, are in a positive spread environment signaling that investors view corporate credit as riskier than what it has been over the past two years.
- Since the beginning of 2018, the single A-rated taxable municipals spread has been expensive relative to its two-year moving average, but saw a significant price decrease in August.

ALTERNATIVES

ALTERNATIVES, 12-MONTH RETURNS
AUGUST 2018 THROUGH AUGUST 2019

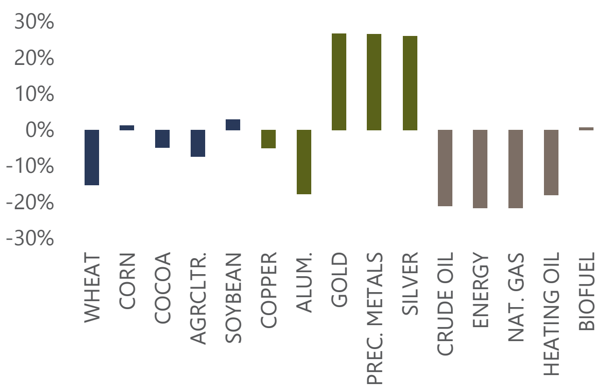


Source: Bloomberg

- Another sharp decline in U.S. government bond yields during August supported returns in the interest rate-sensitive global infrastructure and global real estate asset classes. This trend has been in place for the majority of the past twelve months, as yields on the 10-year U.S. Treasury bond have plunged from 3.14% a year ago to 1.50% on August 30.

- With the exception of gold, silver and resurgent corn prices, commodities have been weighed down in recent months by oil price weakness amid escalating global growth concerns beginning in late 2018.

COMMODITIES, 12-MONTH SPOT RETURNS
AUGUST 2018 THROUGH AUGUST 2019



Source: Bloomberg

- Propelled by building fears of a global growth slowdown, gold prices broke through the $1,500/oz. level in mid-August and posted a 16.5% gain from May 31 through August 30. Any signs of a pick up in inflation and/or additional Federal Reserve rate cuts could throw cold water on further price gains for the precious metal in the final months of 2019.

- As more government bonds around the world price at negative yields, some market commentators have pointed to gold's zero yield as increasingly compelling.

- The broad commodity market will likely be pressured until the U.S. dollar reverses its long-term upward trend. According to Bloomberg, the trade-weighted dollar has appreciated 24% since September 2007.