

February 21 2017

TAKING THE TEMPERATURE OF TIPS

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KEY TAKEAWAYS

High-quality TIPS have outperformed comparable U.S. Treasury bonds since the July 2016 lows in Treasury yields.

The high demand for bonds with inflation protection has led to higher prices; yet TIPS' breakeven rates are still below the CPI rate of 2.5%, a modestly favorable condition for TIPS.

Breakeven inflation rates still below Consumer Price Index (CPI) levels may present a modestly favorable situation for Treasury Inflation-Protected Securities (TIPS) relative to nominal Treasuries. As of January 31, 2017, U.S. inflation as measured by CPI was 2.5%, higher than the 2.02% 10-year breakeven inflation rate (implied by the differential between the yield on nominal Treasuries and TIPS, as of February 18, 2016). Better economic conditions in the U.S., the potential for fiscal stimulus, and stabilization in the oil and gas markets have increased the likelihood that inflation will continue to rise, fueling investor demand for inflation-protected assets. The increased demand for TIPS has led to price appreciation, making TIPS more expensive. However, with CPI at 2.5%, inflation may continue to climb, possibly making today's price level the new normal. The inflation outlook is uncertain, but for investors concerned about rising inflation, a well-diversified allocation to TIPS may help to minimize inflation risk, while improving the credit quality of bond holdings.

TIPS VS. NOMINAL TREASURIES

Before investing in TIPS, it is important for investors to compare the market's inflation expectation to their own inflation outlook in order to determine relative value. For example, the current 10-year TIPS yield is 0.43%, and the yield on a 10-year Treasury is 2.45%, making the current breakeven inflation expectation rate 2.02%. This is the inflation rate at which an investor would be indifferent to holding TIPS or conventional treasuries. If the investor thinks inflation will average above 2.02% per year for the 10-year period, then TIPS may be a better

TIPS

Treasury Inflation-Protected Securities (TIPS) are notes and bonds issued by the U.S. Treasury that have a fixed coupon and maturity. The principal (face value) is adjusted semiannually based on increases or decreases in inflation, as measured by CPI. Interest is calculated based on the new principal amount, therefore the total return to investors includes the stated yield plus the inflation adjustment.

investment. Conversely, if the average inflation rate is below this breakeven, then the nominal bond would be a better choice. The math behind breakeven analysis is somewhat straightforward. Simply take the U.S. Treasury nominal yield and subtract the TIPS real yield.

Keep in mind that in today's high-price environment, it is not uncommon to see negative yields on certain maturities of TIPS. This occurs when the yield on the U.S. Treasury bond is below the expected inflation rate. Investors should note that a negative yield does not necessarily mean they will receive a negative return, however. The negative yield on TIPS would be offset by the inflation adjustment to the principal value of the bond.

BREAKEVEN RELATIVE VALUE

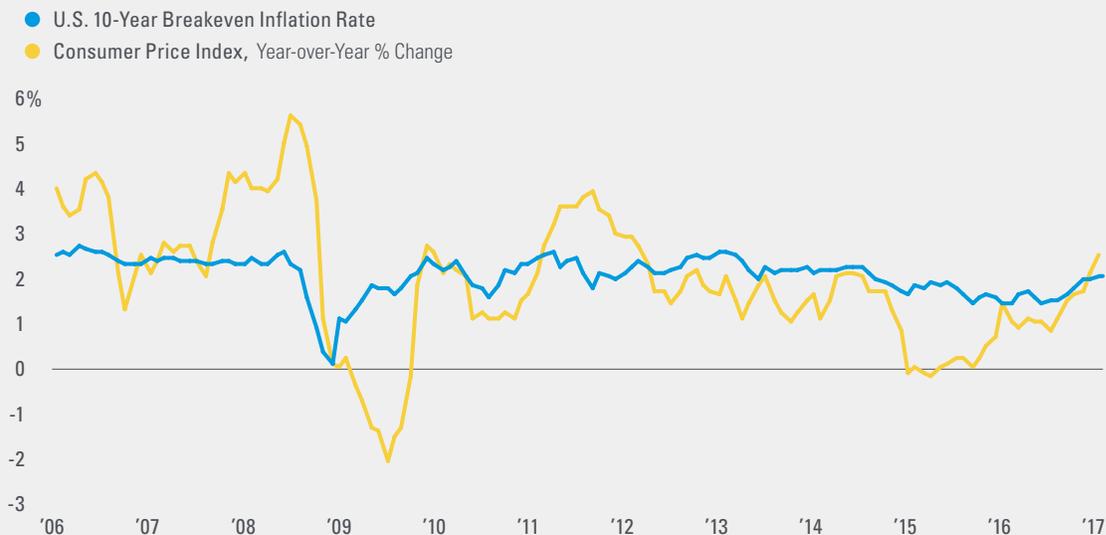
Deviations between CPI-derived inflation and breakeven inflation rates occur quite frequently [Figure 1]. Generally when the breakeven rate is

below CPI, the TIPS investor benefits because the bond's par value rises with inflation as it adjusts to the higher CPI level. When the bond matures, the investor is paid the adjusted principal or original par value, whichever is greater. As seen in the diagram, the periods of 2006, 2008, and 2010, when inflation expectations were quite low, were good times to buy TIPS. In each of the subsequent years (2007, 2009, and 2011), the Barclays TIPS Index outperformed the Barclays Treasury Index, which shows that buying when breakevens are below inflation has been historically beneficial for investors.

TIPS PERFORMANCE

The performance of TIPS is highly correlated with the movements in the Treasury bond market; however, TIPS have outperformed Treasuries every month since July 2016, when Treasury yields hit their all-time lows. The rise in nominal yields from the lows was largely due to rising

1 TIPS TEND TO OUTPERFORM WHEN THE BREAKEVEN RATE IS LOWER THAN INFLATION



Source: LPL Research, Bloomberg 02/17/17

Breakeven inflation is a measured of the difference between Treasury yields and TIPS yields.

Performance is historical and no guarantee of future results.

inflation expectations, leading to greater demand for inflation-protected bonds. TIPS have also benefitted from international demand, as low yields overseas have led foreign investors toward the higher relative yields of U.S. bonds.

With January 2017 headline CPI coming in at 2.50% (non-seasonally adjusted), up from 2.07% in the previous month and above the Federal Reserve's (Fed) 2% target, TIPS are potentially situated to perform well. Oil and gas prices (key components of CPI) have stabilized and could lead to even higher headline CPI readings over the balance of the year. This should benefit TIPS owners, but if headline inflation isn't able to continue exceeding implied breakevens, the benefit will be muted.

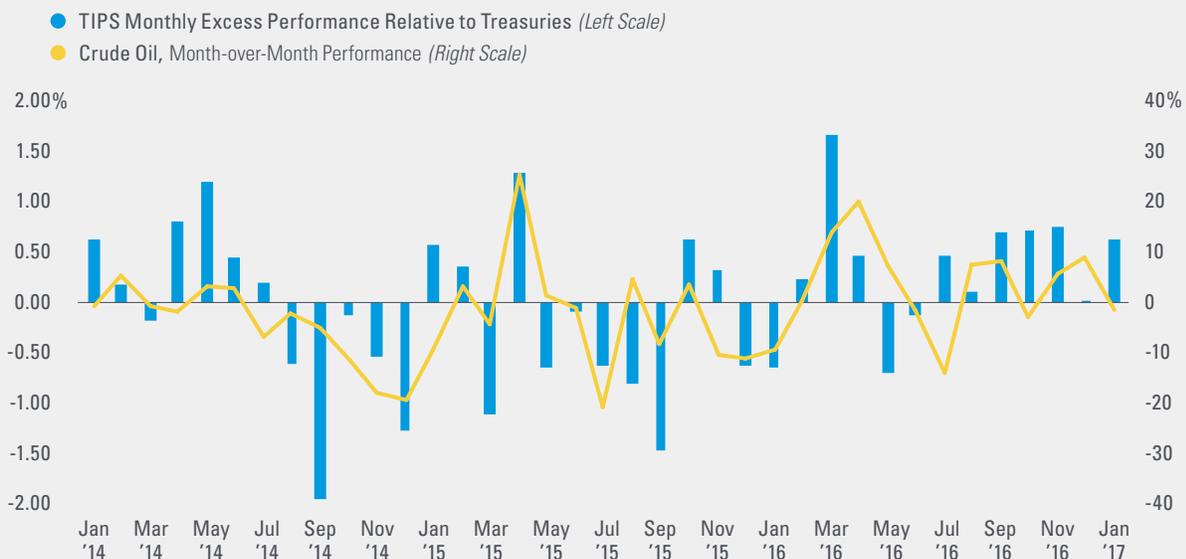
Our base case remains that Treasuries are likely to stay in their current 2.25–2.75% range through year-end 2017, with a gradual move to higher yields over the longer term. Interest rates could take another turn lower (which would benefit Treasuries

and TIPS) due to either market volatility or surprise central bank moves (foreign or domestic). However, a range-bound interest rate environment would mean yields (plus the inflation adjustment to principal for TIPS) will become a bigger driver of total returns for bonds, making TIPS and Treasuries less attractive than other areas of the bond market, such as investment-grade corporates, mortgage-backed securities (MBS), or lower-quality fixed income options.

RISKS

Despite their advantage as an inflation hedge and a diversifier, TIPS are not risk-free. The CPI index used to calculate the principal adjustment is non-seasonally adjusted, which can be volatile on a monthly basis. Additionally, oil is an important component of CPI, both explicitly and in its impact on other prices like food, so the inflation adjustment will largely track movements in this

2 OIL IS A STRONG DRIVER OF TIPS PERFORMANCE



Source: LPL Research, Bloomberg 02/17/17

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market relative to other inputs, which are usually more stable [Figure 2]. Strong performance for oil, either positive or negative, could have a large impact on TIPS returns.

Investors in TIPS are also subject to ordinary income tax based on yearly income, even though the investor won't receive the additional principal until the bond matures. This impacts direct buyers of individual TIPS bonds but can be avoided with a mutual fund, as principal adjustments are usually distributed monthly by the fund.

CONCLUSION

For investors concerned about inflation, TIPS offer protection if inflation should rise, and include a guarantee that the par value is protected,

backed by the U.S. government. With the Fed on schedule to raise rates two to three times in 2017, and recent consumer price data coming in higher than expected, an allocation to TIPS may provide clients with more diversified fixed income exposure and help reduce portfolio volatility. Investors need to understand that TIPS are not perfectly correlated to changes in inflation and are particularly susceptible to underperformance in volatile markets. Also, TIPS are currently low yielding (priced high), but breakevens below CPI have historically signaled value relative to nominal Treasuries. We continue to remain neutral on TIPS due to the higher prices acting as a potential headwind on returns, but we are constructive on the high-quality nature of the asset class as the economic cycle continues to age. ■

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The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. To determine which investment(s) may be appropriate for you, consult your financial advisor prior to investing. All performance reference is historical and is no guarantee of future results. All indexes are unmanaged and cannot be invested into directly.

The economic forecasts set forth in the presentation may not develop as predicted and there can be no guarantee that strategies promoted will be successful.

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond values and yields will decline as interest rates rise, and bonds are subject to availability and change in price.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. However, the value of fund shares is not guaranteed and will fluctuate.

Treasury Inflation-Protected Securities (TIPS) are subject to interest rate risk and opportunity risk. If interest rates rise, the value of your bond on the secondary market will likely fall. In periods of no or low inflation, other investments, including other Treasury bonds, may perform better.

INDEX DEFINITIONS

The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.

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