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TIPS FOR STAGFLATION?

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KFY TAKFAWAYS

Rising inflation expectations coupled with slow economic growth (stagflation) may potentially benefit TIPS.

TIPS and Treasuries may help protect in periods of volatility, though low yields relative to other parts of the bond market may hurt longer-term performance.

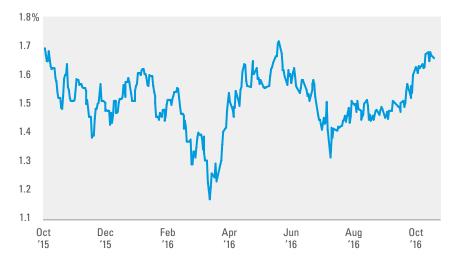
Stagflation, an environment of slow economic growth coupled with rising inflation, is widely seen as potentially beneficial for TIPS. Slow economic growth can lead investors toward "safe haven" investments such as Treasuries and Treasury Inflation-Protected Securities (TIPS), and TIPS may also benefit from rising inflation as adjustments to principal lead to increasing interest payments.* Inflation expectations, as measured by the difference between Treasury yields and TIPS yields (known as breakeven inflation) have been rising over the past month [Figure 1]. This, coupled with the continued slow and steady growth during the current recovery, has led some to question whether now is a good time to own TIPS.

HISTORY OF STAGFLATION

Inflation results from too many dollars chasing too few goods. Therefore, we would expect that inflation would not be a concern during periods of relatively

1 IMPLIED 10-YEAR BREAKEVEN INFLATION HAS BEEN INCREASING OVER THE PAST MONTH

10-Year Breakeven Inflation Rate



Source: LPL Research, FactSet 10/24/16

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

Performance is historical and no guarantee of future results.



^{*}U.S. Treasuries and TIPS may be considered "safe haven" investments but do carry some degree of risk including interest rate, credit and market risk.

slow economic growth. However, this isn't always the case. If asked for an example of a stagflationary environment, most would point to the mid-1970s in the U.S. By late 1973 growth had started slowing and unemployment was rising. Though inflation would not usually be a concern in this type of environment, a price hike and series of production cuts from the Organization of the Petroleum Exporting Countries (OPEC) in 1973 (commonly known as the Oil Embargo, or 1973 Oil Crisis), led to an oil shortage and increasing energy costs; which drove overall inflation higher, and also led to an equity bear market during 1974. Additionally, economic growth in the early-1970s ran hotter than it has in recent years, with real gross domestic product (GDP) exceeding potential GDP (putting upward pressure on inflation), while it trails significantly in today's environment [Figure 2].

TIPS

Treasury Inflation-Protected Securities (TIPS) are notes and bonds issued by the U.S.

Treasury that have a fixed coupon and maturity.

Principal (face value) is adjusted semiannually based on increases or decreases in inflation as measured by a two-month lag of the Consumer Price Index (CPI). Interest is calculated based on the adjusted principal amount, and therefore also adjusts to the rate of inflation, so the total return to investors includes the stated yield plus the inflation adjustment.

THE ECONOMY WAS RUNNING ABOVE CAPACITY IN THE EARLY-1970S



Source: LPL Research, Bloomberg 10/24/16

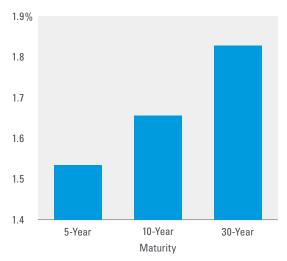
Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period, though GDP is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments, and exports less imports that occur within a defined territory.

Potential GDP is a measure of the maximum level of national production possible over the long term. This is a conceptual amount, however, as actual GDP may be lower or higher then the national potential.

Although oil stands out as a major driver of inflation in both the 1970s and today, differences exist between the two environments. Oil prices increased due to a supply shortage in the 1970's, and with all the power in OPEC's hands at the time, there was no opposing force to prevent prices from moving higher still. Today's increase is more about the price of oil stabilizing following its collapse in 2014 and 2015, but substantial supply remains on the sidelines that could come online if prices move materially higher. For this reason, even if rising oil prices push up inflation, there is little chance of inflation returning to the levels seen in the 1970's, and expectations remain stable over the long term. A guick look at implied breakeven inflation across a range of TIPS maturities shows that markets still expect an environment of benign inflation, with even 30-year TIPS breakeven inflation remaining below the Federal Reserve's (Fed) 2% target [Figure 3].

MARKET EXPECTATIONS FOR INFLATION REMAIN LOW, EVEN OVER THE LONG TERM

Implied Inflation Expectation



Source: LPL Research, FactSet 10/24/16 Implied inflation is calculated by subtracting the yield on a conventional Treasury from a comparable TIPS.

IS NOW THE TIME FOR TIPS?

The performance of TIPS can be broken down into two parts, the performance of Treasuries and the inflation adjustment. TIPS, like regular Treasuries, historically see strength in times of economic turmoil. During economic growth scares, recessions, or other periods of volatility, many investors flock to safe-haven investments, which leads to rising bond prices and lower yields. Treasuries and TIPS have also benefitted from international demand this year, as low yields overseas have led non-U.S. investors toward the relatively higher yields of Treasuries.

If oil prices stabilize and remain near current levels through the first quarter of 2017, the year-over-year increase in average gasoline prices may lead headline CPI above the Fed's 2% target and above currently implied breakeven rates of inflation. This increase could potentially benefit TIPS owners, but if headline inflation isn't able to continue to exceed implied breakevens, the benefit could be transitory.

The return of Treasuries can be just as important, or even more so, than inflation for the overall return of TIPS. Our base case remains that Treasury yields stay in their current range through year-end 2016, with a slow move to the upside over the longer term as slow and steady economic growth continues. Yields could take another turn lower (which would benefit both 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 for TIPS) become a bigger driver of total returns for bonds, making TIPS and Treasuries less attractive than other areas of the bond market.

CONCLUSION

We believe the market may be underestimating the impact of stable gasoline prices on headline inflation in the near future, which would benefit TIPS in the short term. In the longer term, our belief that the United States may continue to experience slow and steady growth may be a headwind to higher inflation. However, the Fed's recent comments that it may allow the economy to run hot in order to generate more inflation, along with the potential for

a tightening labor market to lead to higher wages, could be factors that put upward pressure on longer-term inflation rates. Safe-haven buying will likely have a positive impact on Treasury and TIPS prices if economic growth evaporates or volatility picks up and investors become more risk averse. But outside of these scenarios, the low yields offered by these securities relative to other high-quality bond options (even when factoring in the inflation adjustment) may mean relatively muted long-term returns, making us neutral on TIPS overall.

IMPORTANT DISCLOSURES

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.

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) help eliminate inflation risk to your portfolio, as the principal is adjusted semiannually for inflation based on the Consumer Price Index (CPI), while providing a real rate of return guaranteed by the U.S. government. However, a few things you need to be aware of are that the CPI might not accurately match the general inflation rate; therefore, the principal balance on TIPS may not keep pace with the actual rate of inflation. The real interest yields on TIPS may rise, especially if there is a sharp spike in interest rates. If so, the rate of return on TIPS could lag behind other types of inflation-protected securities, like floating rate notes and T-bills. TIPS do not pay the inflation-adjusted balance until maturity, and the accrued principal on TIPS could decline, if there is deflation.

INDEX DESCRIPTIONS

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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