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Treasury Inflation-Protected Securities – How Dry Is Your Powder?

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TIPS for the long term

Held to maturity, TIPS are a pretty unexciting asset class. The default risk is de minimis – even though the new administration has demonstrated a somewhat cavalier attitude to the traditional way of doing things, there is no reason to expect that they will do away with the approach of servicing debt obligations as they fall due. There is no inflation risk – the interest rate is determined on issue, and then the semi-annual coupon payments increase in line with inflation (or decrease with deflation). On maturity, the capital investment, either adjusted for inflation or the original amount if that is greater, is returned. So, quite simply, if you buy TIPS and hold them until maturity you know what your real (in excess of inflation) return will be with some level of certainty.

As of February 28, 2017, the expected return for holding 10-year TIPS to maturity was 0.34% per annum real. Although it is pretty hard to get enthusiastic about that level of return in any absolute sense, it is perhaps more interesting when considered relative to cash or nominal bonds.

At the end of February 2017, the investment yield on 4-week Treasury bills was 0.4% per annum, leading to a sizeable expected negative real return for cash (to put this meager yield in context, inflation in the US was 2.1% for 2016 as measured by the Consumer Price index). Although it is often assumed that cash will provide reasonable inflation protection as rates are expected to rise as inflation rises, it should be noted that any such relationship is loose, lagged, and completely dependent on the underlying motivation of policy makers.

As of February 28, 2017, the yield on a 10-year nominal US Treasury bond was 2.36% per annum. It is a simple, though slightly oversimplified, calculation to determine that the "breakeven inflation rate" is 2.02% (the 2.36% nominal yield on 10-year US Treasuries minus the 0.34% real yield on 10-year TIPS). Broadly speaking, if inflation averages more than this level over the next 10 years, then TIPS will be a better investment than the nominal bond. Over the last 10 years, inflation has averaged just 1.8% per annum. However, that is extremely low in a historical context, with an average over the last 30 years of some 2.6% per annum. Given the possibility of Trump-driven reflation and absent the last decade's backdrop of falling commodity prices, some might judge the inflation protection embedded in TIPS to be a relatively good value insurance policy.

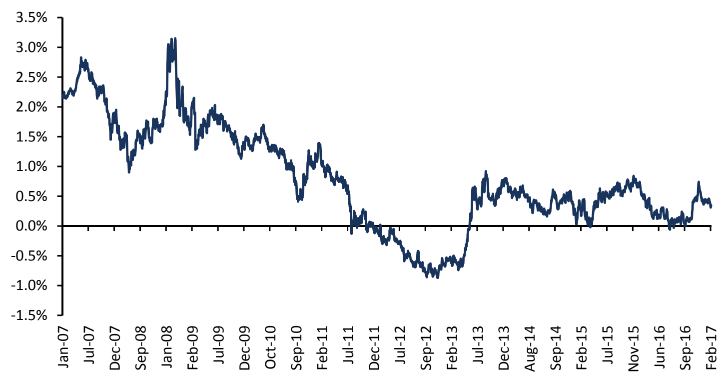
TIPS as dry powder

In a world where the majority of asset classes look expensive and cash rates are paltry, many investors are grappling with the question of where to keep their dry powder. On the surface, TIPS are a fairly good candidate in this regard – they might be assumed to provide good liquidity with reasonably stable valuations, coupled with a higher return expectation than cash and built-in inflation protection. However the assumptions regarding stability of valuation and good liquidity bear closer inspection.

(In)Stability of valuation

Although the risk-free (or thereabouts) nature of real returns does not provide much in the way of drama if you plan on holding TIPS to maturity, the magnitude of the roller coaster that is mark to market volatility has been, conversely, quite astounding. Over the last decade the real yield on 10-year TIPS has varied between a high of 3.15% and a low of -0.87% (see Exhibit 1), and this has led to some fairly extreme performance. (As with nominal bonds, the market value increases as yields fall and vice versa, and it should be noted that the duration of TIPS is typically greater than nominal bonds of the same term because of the increase in later payments due to inflation.)

Exhibit 1: Real Yield on 10-Year TIPS



As of 2/28/17
Source: https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=realyieldAll

As an example, the Barclays Capital US TIPS index was down 10.5% in the five-month period from April 5, 2013, to September 5, 2013 (including a staggering 6.5% loss in one month from May 24). More recently, the index had lost more than 4.5% from July 6, 2016, before recovering some 2.0% in the last two weeks of the year. Of course, this kind of volatility provides periods of very strong performance as well – prior to the volte-face at the start of July, the Barclays Capital US TIPS index was up a gratifying 7.5% for the first half of 2016.

Liquidity… what liquidity?

In the normal course of events, TIPS are only modestly less liquid than nominal treasuries. However, it is uncertain whether this liquidity can be relied upon in extremes. Returning to the breakeven inflation rate calculation, it could be modified to:

nominal yield – real yield = breakeven inflation rate - ***liquidity premium + inflation risk premium***

The liquidity premium is necessary to compensate TIPS holders because of the reduced liquidity compared to nominal treasuries. On the other hand, holders of nominal treasuries should receive an inflation risk premium because they bear the risk of inflation running higher than expected. These two items are typically ignored in the simplified calculation as they are both assumed to be small and, further, act in opposite directions to cancel each other out.

Following the Lehman bankruptcy in 2008, the 10-year breakeven inflation rate (as measured by the simple nominal yield minus real yield calculation) plummeted to a low of 0.04% as shown in Exhibit 2. However, this was not because the long-term view of inflation had markedly changed but rather because, as the market fled to the quality of nominal treasuries, the difference in liquidity (and hence the required liquidity premium) became extremely meaningful.

The 20% drawdown in MSCI ACWI in October 2008 might have been a prompt to investors to consider allocating some of their dry powder back into equities. Unfortunately, if it had been stored in the Barclays Capital US TIPS index it would have suffered a loss of 9% for the same period (nominal treasuries were broadly flat) – not how you want dry power to behave!

Exhibit 2: Breakeven Inflation Rate

As of 2/28/17
Source: https://www.treasury.gov/resource-center/data-chart-center/interest-rates/Pages/TextView.aspx?data=realyieldAll

Conclusion

If you buy TIPS and hold them to maturity, you will get a return in excess of inflation equal to the real yield at time of purchase. Although this return of 0.34% per annum at the end of February 2017 may be far from spectacular, it is perhaps still worth considering against the alternatives of cash and nominal bonds.

Further, given their surprising volatility, TIPS are particularly well placed for implementing a dynamic asset allocation battle plan using the real yield as a trigger point for buying and selling. Buying TIPS at a real yield that you would be content to hold until maturity removes any concerns about potential drawdowns but, if yields do fall, there can be significant scope to crystallize short-term gains.

However, if you plan on using TIPS as a store of dry powder, it is worth bearing in mind that (the normally pretty good) liquidity might desert you just when you want it most – TIPS should definitely not be your first, or only, source of dry powder.

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