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Inflation protection in a rising rate environment

UBS ETF Market Matters

- Inflation-linked securities explicitly compensate their holders for realized inflation, making them attractive during times of higher than expected inflation.

- In addition to realized inflation, inflation-linked bonds pay real yield. Hence they are subject to real interest rate risk, just like other bonds. Rising real interest rates will generally affect longer-dated securities to a greater extent, making their valuations more volatile.

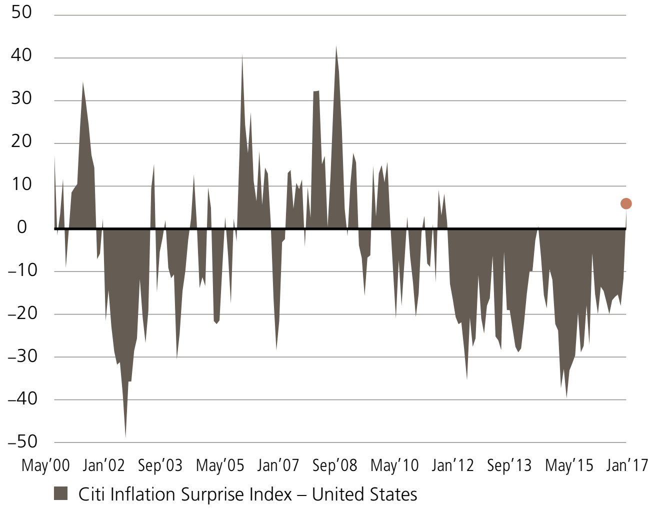
- Investors holding a view that future inflation will be higher than currently expected should favor Treasury inflation-protected securities (TIPS) over nominal Treasuries, and vice versa. The choice between shorter-term maturity (1-10 year) vs longer-term (10+ year) is driven by expectations regarding development of real interest rates. Should real interest rates rise, shorter-term bonds might be preferable.

Treasury inflation-protected securities (TIPS) are treasury bonds that have their notional value adjusted in line with realized inflation. They are therefore a convenient solution for investors seeking to preserve real purchasing power. Currently, 10-year TIPS are priced such that they will outperform nominal Treasuries if the realized inflation over the next 10 years exceeds on average 2.0% per annum. This 10-year breakeven inflation implied by TIPS is actually the same as the Federal Reserve's inflation target. In other words, the market currently expects that the Fed will be able to keep inflation around its target over the next decade. However, the most recent January CPI reading for inflation is a bit higher at 2.5%.

When do TIPS pay off?

TIPS outperform nominal bonds when realized inflation exceeds expectations. The Citi Inflation Surprise Index for the United States, which measures inflation surprises relative to market surveys, is at its highest in more than five years, and the reading only turned positive in February. This means that the US inflation data came in higher than expected after a five-year period of persistent undershooting (Figure 1). Investors who believe that positive inflation surprises (i.e. higher than expected) will be more frequent for months to come should prefer TIPS over nominal bonds. How likely is that to happen? On the one hand, political developments in the US with the potential for fiscal stimulus (along with near full employment) are likely to be supportive of price growth. On the other hand, the potential Fed interest rate hikes will have a muting effect on inflation. The interplay between these two factors is likely to be key determinants of future inflation.

Figure 1: Citi Inflation Surprise Index
(monthly data from May '00 to Feb '17)



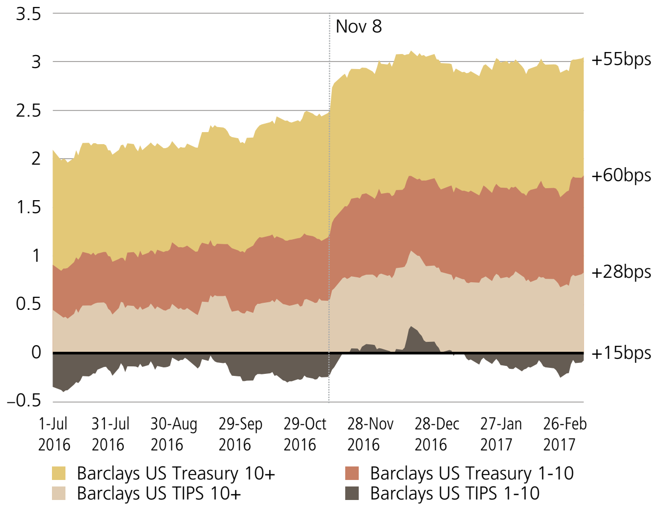
Source: Bloomberg, UBS AM. Data as of 28 February 2017.

What are the risks?

Inflation linkers are subject to interest rate risk, like other bonds. However, this risk is mitigated as inflation-linkers are only responsive to changes in real interest rates, while conventional bonds are also sensitive to changes in inflation expectations (and inflation insurance premium). Rising interest rates generally have a larger impact on longer-dated securities, making their valuations more volatile. Figure 2 shows the recent moves on real (TIPS) and nominal bond yields, at shorter-term (1-10 year) and longer-term (10+ year) maturities.

Following Trump's election on November 8th, the moves in nominal yields have been substantial, and more so on the shorter end of the curve (+60 bps for the 1-10 year vs +55bps for the 10+ year, from November 8th to February 28th). In comparison, over the same period, the move on shorter-term (1-10 year) and longer-term (10+ year) TIPS were significantly lower (+28bps and +16bps respectively). This demonstrates the effectiveness of TIPS in absorbing changes in inflation expectations. Interestingly, at the time of writing, the shorter-term 2Y breakeven (i.e. the difference between nominal and real yield) equals 212 bps, which is higher than the longer-term 10Y breakeven of 201bps. This inversion in the breakeven curve implies that investors are pricing in relatively higher inflationary pressure in the near future.

Figure 2: Yields on selected Treasury bond indices
(daily data from Jul '16 to Feb '17)

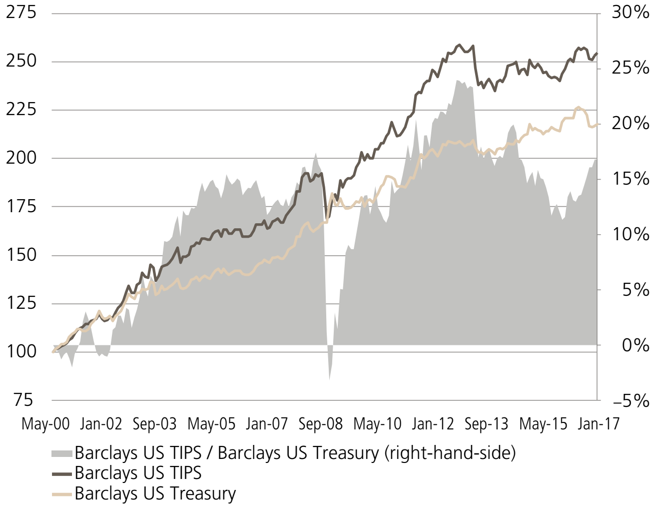


Source: Barclays Live, UBS AM. Data as of 28 February 2017.

What does it all mean for performance?

TIPS have outperformed nominal Treasuries by a cumulative 15% since 2000 (Figure 3), on the all-maturity benchmark. The only period of significant underperformance of TIPS was amidst the flight-to-liquidity at the peak of the financial crisis in 2008, which shifted the breakeven below zero, followed by sharp recovery. Looking at the performance over the last year, we clearly see two phases (Figure 4). The first half of 2016 was beneficial to long-term securities (both TIPS and nominal ones), in line with the "lower for longer" scenario. Later in 2016 (and mostly following the election of Trump), a considerable adjustment in inflation expectations took place, which led TIPS to outperform nominal treasuries rather significantly, particularly on the longer-end. Over the last year, shorter 1-10 year maturity TIPS and longer-term 10+ year TIPS delivered returns of 2.5% and 3.9% respectively. Nominal treasuries returned -0.5% and -5.3% respectively, for the same maturity buckets over that period. In other words, the recent adjustment on inflation expectations benefited TIPS vis-à-vis nominal Treasuries.

Figure 3: Performance of TIPS and nominal Treasuries (monthly total return data from May '00 to Feb '17)



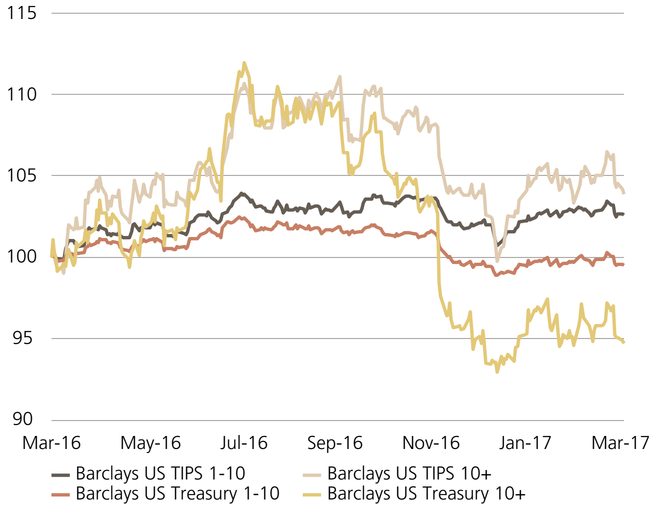
Source: Barclays Live, UBS AM. Data as of 28 February 2017.

How to make a choice?

Investors buying US Treasuries have to choose between nominal Treasuries and TIPS as well as on portfolio duration, i.e. short-term vs. long-term. The optimal choice rests on their views and preferences. An investor who anticipates inflation to be higher than expected should favor TIPS over nominal Treasuries. However, there are some caveats in these considerations. Most investors care about real consumption and are risk averse with respect to inflation. The resulting breakeven inflation embedded in TIPS might therefore be pushed above expected inflation due to this premium for inflation insurance. But it is worth noting that TIPS are less liquid than conventional Treasuries and thus command a relative illiquidity premium although that is less relevant for long term investors.

As for the duration, an investor expecting that real interest rates will rise might favor short-term securities although at the expense of lower yields at the beginning. If real rates rise, then an investor could subsequently buy into the longer-term securities. Moreover, shorter-term TIPS have historically tracked realized inflation more closely than longer-term TIPS as the latter are subject to more real interest rate risks. In other words, shorter-term TIPS are more suitable for investors aiming to track realized inflation closer and more concerned about the level of real rates, whilst longer-term TIPS are more suitable for investors wishing to preserve real purchasing power in longer-term and are less concerned about the level of real rates.

Figure 4: Performance of TIPS and nominal Treasuries (total return daily data from Feb '16 to Feb '17)



Source: Barclays Live, UBS AM. Data as of 28 February 2017.

Past performance is not indicative of possible future returns.

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Fund Name	Fee	AuM (mEUR)	NAV ccy	Replication	Distri-bution	ISIN	Bloomberg
Government Bonds USA							
UBS ETF (LU) Barclays US Treasury 1-3 UCITS ETF	0.20%	63	USD	Physical	Yes	LU0721552544	UEFF GY
UBS ETF (LU) Barclays US Treasury 1-3 hedged EUR UCITS ETF	0.25%		EUR	Physical	Yes	LU1324510525	UST1F SW
UBS ETF (LU) Barclays US Treasury 7-10 UCITS ETF	0.20%	10	USD	Physical	Yes	LU0721552973	UEFI GY
UBS ETF (LU) Barclays US Treasury 10+ hedged EUR UCITS ETF	0.25%	18	EUR	Physical	Yes	LU1459800113	UST10F SW
Inflation-Linked							
UBS ETF (LU) Barclays TIPS 1-10 UCITS ETF	0.20%	491	USD	Physical	Yes	LU1459801434	TIP1D SW
UBS ETF (LU) Barclays TIPS 1-10 UCITS ETF	0.20%		USD	Physical	No	LU1459801517	TIP1A SW
UBS ETF (LU) Barclays TIPS 1-10 hedged CHF UCITS ETF	0.25%		CHF	Physical	No	LU1459802168	TIP1S SW
UBS ETF (LU) Barclays TIPS 1-10 hedged EUR UCITS ETF	0.25%		EUR	Physical	No	LU1459801780	TIP1E SW
UBS ETF (LU) Barclays TIPS 1-10 hedged GBP UCITS ETF	0.25%		GBP	Physical	No	LU1459801947	TIP1G SW
UBS ETF (LU) Barclays TIPS 10+ UCITS ETF	0.20%	13	USD	Physical	Yes	LU1459802754	UIMB GY

Source: UBS Asset Management as of 28 February 2017

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› **UBS ETF Product Overview**

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