

# US Inflation-Linked Bonds Deserve Attention (\*)

## Bond Yield: Nominal vs. Real

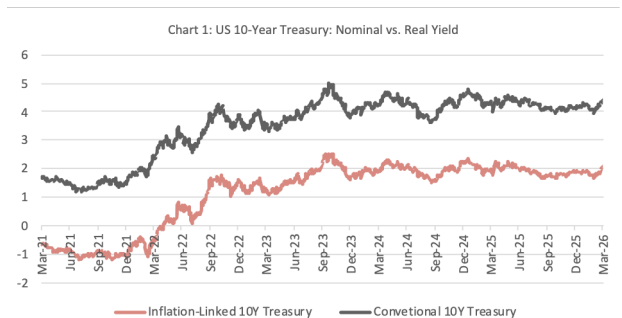
The yield of a standard (plain-vanilla) bond, also called the nominal yield, can be broken down into a real yield and an additional inflation compensation. More precisely, the (nominal) yield comprises:

- The real yield plus
- A premium for expected inflation, plus
- An extra small premium for the *uncertainty* around future expected inflation (or inflation risk premium)

Unlike inflation-linked bonds, the real yield in a conventional bond can not be directly observed and must be inferred. The drivers behind the real yield are:

- Supply of credit (savings) vs. demand for credit
- Economic growth
- Fiscal policy
- Monetary policy
- Global demand for safe assets

Chart 1 below displays both real and nominal US Treasury 10-Year bond yields over the past 15 years.

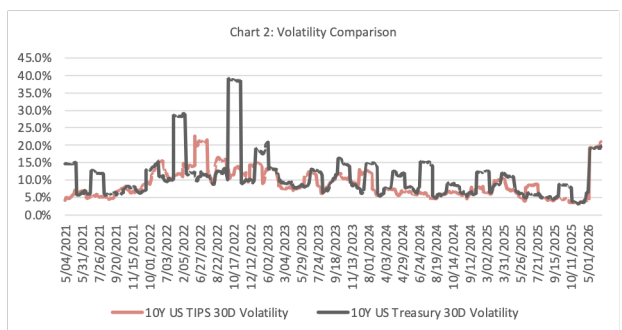


You will notice that the nominal yield is higher than the real yield by 2.0 – 2.5%. You may also notice that in 2021 real yields were actually negative. But, generally, real yields positive.

## Inflation-Linked Bonds

Inflation-linked (IL) bonds are bonds that pay a real yield plus *actual* inflation over the life of the bond. A change in inflation expectations has virtually no impact on the price of an IL bond but significantly influence on the price of regular (nominal) bonds.

As a result, the volatility of an IL bond is lower. Chart 3 compares the volatility of a standard US 10-year Treasury bond with that of an equivalent inflation-protected bond.



(\*) There are practically no corporate inflation-linked bonds, so focus is limited to inflation-linked (or inflation-protected) US Treasuries.

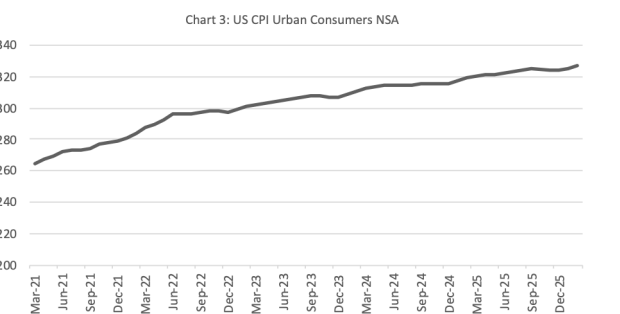
(\*\*) The *reference* level of the inflation index is typically subject to a three-month lag.

The standard bond is on average 25% more volatility and on occasion multiple times more volatile.

## Mechanics

How are the principal and coupons of an IL bond adjusted to compensate for inflation?

The price one pays for an IL bond consists of the trading price of the bond (the real component) multiplied by an adjustment factor (the inflation component). The adjustment factor is calculated as the current *reference (\*\*)* level of the inflation index (for example, “US CPI Urban Consumers NSA”, displayed in Chart 3 below) divided by the reference value of the inflation index at the time of issuance of the IL bond.



For example, if the current reference value is 326 and reference value at bond issuance was, say, 300, the adjustment factor would be 1.09. An investor looking to buy USD 100,000 notional of a bond trading at, say, 99% would pay USD 100,000 x 99% x 1.09 = USD 107,910 (excluding accrued interest).

Coupon payments are adjusted according to the same principle. While the coupon percentage rate remains unchanged, the principal to which it is multiplied is adjusted by the inflation factor, calculated at each coupon-payment date.

## Assessment

Currently, US sovereign 5-year and 10-year IL Bonds (or Treasury Inflation-Protections Securities, TIPS) provide real yields of c.1.4% and c.2%. These are near the highs of the past 15 years and significantly above their European counterparts.

Nominal Treasury bonds yield c.2.6% and c.2.3% more than TIPS (the inflation break-even rates), respectively, in-line with historical levels.

## Opinion

While real yields may rise further and the inflation break-even rates may overstate future actual inflation, US IL bonds offer attractive and pre-determined real yields relative to history and remove the uncertainty over future purchasing power of one’s investment. Furthermore, IL bonds require little to no management or monitoring within a portfolio.

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