Treasury Inflation-Protected Securities (TIPS)

By James Chen
Reviewed By Gordon Scott
Updated Sep 22, 2020

What Are Treasury Inflation-Protected Securities (TIPS)?

Treasury inflation-protected securities (TIPS) are a type of Treasury security issued by the U.S. government. TIPS are indexed to inflation in order to protect investors from a decline in the purchasing power of their money. As inflation rises, TIPS adjust in price to maintain its real value.1

Key Takeaways

- Treasury Inflation-Protected Security (TIPS) is a Treasury bond that is indexed to an inflationary gauge to protect investors from the decline in the purchasing power of their money.
- The principal value of TIPS rises as inflation rises while the interest payment varies with the adjusted principal value of the bond.
- The principal amount is protected since investors will never receive less than the originally invested principal.

Understanding Treasury Inflation-Protected Securities (TIPS)

The principal value of TIPS rises as inflation rises. Inflation is the pace at which prices increase throughout the U.S. economy, as measured by the Consumer Price Index (CPI). Inflation becomes an issue when there isn't a commensurate rise in real wage growth to offset the negative effects of rising prices.1

TIPS are a popular asset for both protecting portfolios from inflation as well as profiting from it because they pay interest every six months based on a fixed rate determined at the bond's auction. However, the interest payment amounts can vary since the rate is applied to the adjusted principal or value of the bond. If the principal amount is adjusted higher over time due to rising prices, the interest rate will be multiplied by the increased principal amount. As a result, investors receive higher interest or coupon payments as inflation rises. Conversely, investors will receive lower interest payments if deflation occurs.1

TIPS are issued with maturities of five, 10, and 30 years and are considered a low-risk investment because the U.S. government backs them. At maturity, TIPs return the adjusted principal or the original principal, whichever is greater.1

TIPS can be purchased directly from the government through the Treasury-direct system, in $100 increments with a minimum investment of $100, and are available with 5-, 10-, and 30-year maturities.1

Some investors prefer to get TIPS through a TIPS mutual fund or exchange-traded fund (ETF). Purchasing TIPS directly, however, allows investors to avoid the management fees associated with mutual funds.

Special Considerations

TIPS Relationship to Inflation and Deflation

TIPS are important since they help combat inflation risk that erodes the yield on fixed-rate bonds. Inflation risk is an issue because the interest rate paid on most bonds is fixed for the life of the bond. As a result, the bond's interest payments might not keep up with inflation. For example, if prices rise by 3% and an investor's bond pays 2%, the investor has a net loss in real terms.

TIPS are designed to protect investors from the adverse effects of rising prices over the life of the bond. The par value—principal—increases with inflation and decreases with deflation, as measured by the CPI. When TIPS mature, bondholders are paid the inflation-adjusted principal or original principal, whichever is greater.1

Suppose an investor owns $1,000 in TIPS at the end of the year, with a coupon rate of 1%. If there is no inflation as measured by the CPI, the investor will receive $10 in coupon payments for that year. If inflation rises by 2%, however, the $1,000 principal will be adjusted upward by 2% to $1,020. The coupon rate will remain the same at 1%, but it will be multiplied by the adjusted principal amount of $1,020 to arrive at an interest payment of $10.20 for the year.

Conversely, if inflation were negative, known as deflation, with prices falling 5%, the principal would be adjusted downward to $950. The resulting interest payment would be $9.50 over the year. However, at maturity, the investor would receive no less than the principal amount invested of $1,000 or an adjusted higher principal, if applicable.1

The interest payments during the life of the bond are subject to being calculated based on a lower principal amount in the event of deflation, but the investor is never at risk of losing the original principal if held to maturity. If investors sell TIPS before maturity in the secondary market, they might receive less than the initial principal.1

Advantages and Disadvantages of TIPS

Due to the ability to increase the principal along with inflation, the interest rate returned to investors is lower than would be available for other fixed-income securities. The interest paid increases with any adjustments to the principle. These investments are nearly risk-free as the U.S. government backs the debt, and the investor will receive the full price invested returned when the TIP matures.1

The semiannual inflation adjustments of a TIPS bond are considered taxable income by the IRS even though investors won't see that money until they sell the bond or it reaches maturity.2 Some investors hold TIPS in tax-deferred retirement accounts to avoid tax complications. However, it's important that investors contact a tax professional to discuss any potential tax ramifications of investing in TIPS.

TIPS usually pay lower interest rates than other government or corporate securities, so they are not necessarily optimal for income investors. Their advantage is mainly inflation protection, but if inflation is minimal or nonexistent, their utility decreases. Another risk associated with TIPS is the previously mentioned potential for a higher tax bill.

Pros

- The principal increases with inflation meaning that at maturity, bondholders are paid the inflation-adjusted principal
- Investors will never be paid less than their original principal when TIPS mature
- Interest payments increase as inflation increases since the rate is calculated based on the adjusted principal balance

Cons

- Interest rate offered is usually lower than most fixed-income bonds that do not have an inflation adjustment
- Investors might be subject to higher taxes on increased coupon payments
- If inflation does not materialize while TIPS are held, the utility of holding TIPS decreases

Example of TIPS

Below is a comparison of the 10-year TIPS as compared to the 10-year Treasury note, both issued and auctioned by the U.S. Treasury Department. Treasury notes (T-Notes) are intermediate-term bonds maturing in two, three, five, seven, or 10 years. They provide semiannual interest payments at fixed coupon rates.3

On March 29, 2019, the 10-year TIPS was auctioned with an interest rate of 0.875%.4 On the other hand, the 10-year Treasury note was auctioned March 15, 2019, with an interest rate of 2.625% per year.5 We can see that the 10-year note pays more interest (meaning that investors will receive higher coupon payments from the 10-year note as compared to the TIPS investment). However, if inflation rises, the principal on the TIPS will increase, allowing for the coupon payments to rise while the 10-year note is fixed for the life of the bond. Although TIPS protect against inflation, the offset is typically a lower yield than bonds with similar maturities.