

Tips on TIPS

No matter what you may think about prospects for inflation, it's time to consider Treasury inflation-protected securities for your clients. By Allan S. Roth

WHEN IT COMES TO EARNING INTEREST, irrationality is king: Investors seem to prefer earning 10% after taxes when inflation is 12%, to earning 2% when inflation is zero. Obviously, the second option provides more spending power—but investors resist the small number nevertheless.

In that light, let's take a look at Treasury Inflation-Protected Securities (TIPS), a type of Treasury bond that offers protection against inflation by earning a fixed amount plus inflation, as measured by the Urban Consumer Price Index (CPI-U). A traditional Treasury pays a fixed nominal rate, irrespective of inflation. Both types of bonds are backed by the U.S. Treasury Department and have virtually no default risk. They also happen to have virtually the same duration. Since it's the real return that matters, intermediate-term TIPS should have lower risk than the equivalent traditional Treasury bond. So it stands to reason that the price of TIPS should be more stable.

Yet, according to Morningstar data, just the opposite is true. The price variation of intermediate-term TIPS is greater than that of equivalent traditional Treasuries. In comparing the Vanguard Intermediate-term Treasury Bond Fund (VFICX) with the Inflation Protected Securities Bond Fund (VIPSX), for example, the latter is about 48% more volatile: VFICX has a three-year average annual standard deviation of 5.97%, while VIPSX is at 8.82%. And though these are mutual funds



rather than TIPS themselves, they reflect the volatility of the underlying Treasury bonds.

What may be going on is a little inflation phobia that started in the summer of 2008. You remember, the price of gasoline was hovering around four bucks a gallon, and experts were dangling predictions of an increase to as high as \$10 a gallon over our heads like the Sword of you-know-who. After the plunge, investors realized the near-term nominal payment from TIPS was likely to be smaller, with little or no inflation. Was that really rational?

WHY TIPS ARE SO VOLATILE

It's possible that other forces are at play here. I spoke to several bond experts about this.

Longtime TIPS proponent Zvi Bodie, a professor of management at Boston University and author, most recently, of *Worry-Free Investing*, thinks that another, more rational force is in fact driving TIPS' volatility. He notes that traditional Treasuries are more liquid than TIPS are, meaning the total costs to trade them are lower. While the bid-ask spreads are narrower for traditional Treasuries than they are for TIPS,

both are nevertheless among the two most liquid of any bond securities on the market.

Kenneth Volpert, Vanguard principal in charge of bonds, noted that the comparison of durations between the two securities is imperfect. Durations can be precisely calculated for traditional Treasuries, since the interest payments are defined in nominal terms. For TIPS, however, the actual nominal interest credit is unknown since CPI has yet to be determined.

Each of the above points may be part of the explanation for the higher volatility of TIPS. However, I think it is likely that this is yet another example of investor irrationality. We tend to think in nominal terms, even though we know that the real, inflation-adjusted returns are what truly matter in the end. That's why we long for those days in 1980 when we could earn 13% on CDs, even though after taxes and inflation, our real return was about a negative 5%.

THE CASE FOR TIPS

There has perhaps never been a time in U.S. history when long-term forecasts of inflation have been so uncertain. Some experts are predicting rapid deflation stemming from a looming great depression, while others are predicting hyperinflation because of our huge deficits. Only time will tell which prediction is right—if either—but the best way to hedge against this uncertainty is through owning TIPS. I'm not one who believes we should put everything in this security (or any other for that matter), but TIPS should be considered for part of your clients' portfolios.

The return on TIPS is based on the CPI-U, as mentioned at the beginning of this article. But the CPI-U may not be the best measure of your clients' experience of inflation. For older

TIPS VS. INFLATION

It's pretty obvious how TIPS provide some insurance against inflation. What's not so obvious, however, is the fact that we are actually better off if inflation doesn't materialize. That's because we are taxed in nominal dollars and more inflation leads to greater nominal earnings, which causes more taxes. Let's take a look.

Say your client buys TIPS with a real yield of 2.0% and is in the 30% tax bracket. Let's compare two scenarios with very different inflation rates:

	No inflation	10% Annual inflation
Nominal earnings	2.0%	12.0%
Taxes	-0.6%	-3.6%
After-tax nominal return	1.4%	8.4%
Less inflation	0%	-10.0%
Real return	1.4%	-1.6%

Under the no-inflation scenario, the TIPS investor gets a positive real return. With 10% inflation, the investor loses in real terms. There is a three percentage-point annual difference in these two scenarios.

The implications of this difference over time are enormous. While TIPS provide some insurance against inflation, investors don't have to pay for that insurance. Typically, we pay for insurance and only collect when we have an adverse event. For TIPS, however, we insure against the adverse event (inflation), but collect more if it doesn't happen.

Source: Author research

BONDS VS. BOND FUND

Say I buy a bond today for \$1,000 that promises to pay me back \$1,050 in one year. The interest rate is 5% ($(\$1,050 - \$1,000) / \$1,000$). The value of the bond today is \$1,000, calculated as follows: $1,050 / 1.05 = \$1,000$.

Now, let's say I hit a bad-luck streak and, immediately after I buy this bond, the Federal Reserve Bank issues an inflation warning and interest rates shoot up. Five seconds after my purchase, the same bond is now yielding 6%. A new bond would now be paying \$1,060 in a year.

The bond I bought, however, is going to give me back only \$1,050, so now the value of my bond is calculated as follows: $1,050 / 1.06 = \$990.57$. My bond is now worth \$9.43 less than the \$1,000 I paid. Because interest rates went up by 1%, the value of my bond dropped by \$9.43 or 0.94 percent.

Of course, I don't have to sell the bond. If I keep it for the entire year, I'll get my \$1,050 back and don't have to count the loss, right?

Well, not so fast. Remember that the new bond is paying 6%, so I missed out on buying the \$1,000 bond that would have paid me \$1,060, or an additional \$10.00. So, holding on to the bond has an opportunity cost of: $10 / 1.06 = \$9.43$.

It's no accident that the decline in value is exactly equal to my opportunity cost of holding it to maturity. Bond markets are extremely efficient. Holding a bond to maturity provides no protection from interest rate risk.

Americans, inflation is likely higher. The Fed has an experimental inflation measure for the elderly called the CPI-E. For the years between 1982

and 2007, the CPI-U rose by an average of 3.1% annually, while the CPI-E rose by 3.3% annually. This may not sound like much of a difference