

Hedging Bond Risk with Inverse ETFs

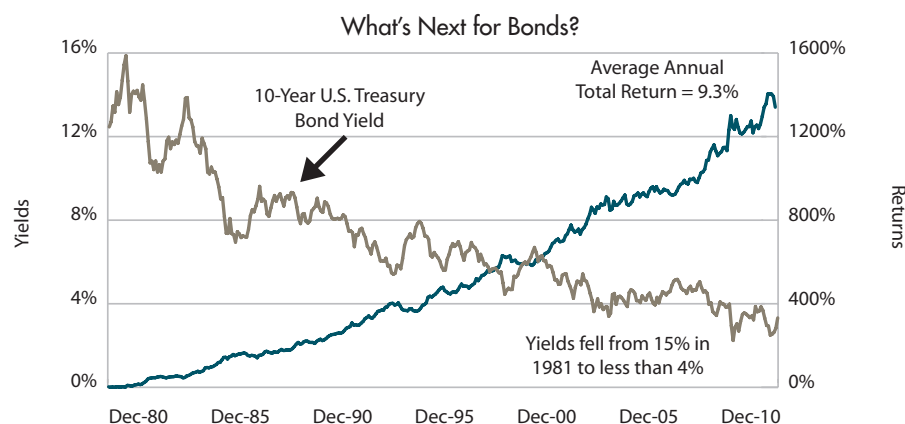
STRATEGY INSIGHTS



Your Bond Portfolio May Be At Risk

Over the last decade, investors increasingly have been drawn to bonds. Bonds are often viewed as a critical component of a diversified asset allocation strategy, potentially providing a steady income stream and stability to a portfolio.

Bonds have performed well over the past 30 years. The 10-year U.S. Treasury Bond returned approximately 9.3% annually from 1981 to 2010—comparable to stocks. But bond prices don't always go up.



Source: Bloomberg. Bond returns calculated using monthly Federal Reserve Board data from 12/1/80 to 9/1/84 and Merrill Lynch 7-10 Year U.S. Treasury Index from 10/31/84 to 12/31/10. For illustrative purposes only. Past performance does not guarantee future results.

Rates Up, Bonds Down

Bond prices and yields generally move opposite each other. As shown above, bond yields fell to historically low levels as bond prices climbed. Recently, experts have been raising concerns about the sustainability of low interest rates. If rates increase, bond yields are likely to rise, triggering potentially significant losses in bond portfolios.

Bond investors may be exposed to more risk than they realize. They may not know what to do about it.

Here we discuss a strategy to help cushion a bond portfolio if rising rates drive down bond prices.

Measuring the Impact

An increase in interest rates will generally drive down the price of a bond. To quantify the potential impact of rising rates on your portfolio, it is helpful to look at duration.

Duration reveals the sensitivity of the value of a bond (or bond portfolio) to a change in interest rates and the yields of securities with similar characteristics. Higher duration means greater sensitivity. For example, the 30-year U.S. Treasury Bond with a duration of 17 will be twice as sensitive to a change in yield as the 10-year U.S. Treasury Bond, which has a duration of 8.5. So, a 1% rise in the yield of the 30-year U.S. Treasury Bond could cause its value to decline by approximately 17%, whereas a similar increase in the yield of the 10-year U.S. Treasury Bond would cause a decline of about 8.5% in its value.

How sensitive might your portfolio be to changes in yields? The table below shows what could happen

to the value of bond portfolios of varied durations given a range of changes in yields, all other things being equal.

Even a small shift in yields could trigger a substantial change in the value of your bond portfolio.

Consider a \$100,000 bond portfolio with a duration of 6.0. Just a 1% rise in the yield could cause the value of the portfolio to decline by 6% to \$94,000—possibly offsetting two years' worth of interest income. A 2% increase in yield could drive the value down to \$88,000. Of course, bonds and bond portfolios can be negatively or positively influenced by other factors as well.¹

\$100,000 Bond Portfolio with a Duration of ...

Change in Yield	4.0	5.0	6.0	7.0	8.0	9.0	10.0
+2%	-\$8,000	-\$10,000	-\$12,000	-\$14,000	-\$16,000	-\$18,000	-\$20,000
+1%	-\$4,000	-\$5,000	-\$6,000	-\$7,000	-\$8,000	-\$9,000	-\$10,000
-1%	\$4,000	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
-2%	\$8,000	\$10,000	\$12,000	\$14,000	\$16,000	\$18,000	\$20,000

Source: McGraw-Hill Financial Communications. Values are approximate; there is no guarantee the actual changes in portfolio values would equal amounts shown here. In addition, larger rate increases will likely result in smaller changes in value than indicated by duration, as duration is accurate only for small changes in yields.

How to Prepare

Duration and interest rate direction may not be a significant concern if you hold individual bonds and plan to keep them until maturity. However, if you invest in bond mutual funds or there's a chance you might need to liquidate your bond holdings prior to maturity, you may want to manage interest rate risk. Generally, there are two approaches to consider in preparing for a rising-rate environment.

- **Restructuring your portfolio.** Commonly used strategies include: reallocating fixed-income holdings to other asset classes; investing in fixed-income vehicles with shorter maturities; and shifting to less rate-sensitive bonds.

This approach may mitigate the risk of interest rate movements but will require some fundamental changes to your portfolio's core strategy. Selling bonds also could trigger tax consequences and affect the income stream from your investments.

- **Hedging your bond portfolio.** Many investors choose to implement a hedge—a more tactical approach to managing interest rate risk—instead of or in addition to restructuring.

¹Bonds and bond portfolios can also be influenced by credit risk, reinvestment risk, inflation risk, prepayment risk and liquidity risk.

Hedging Your Bond Portfolio

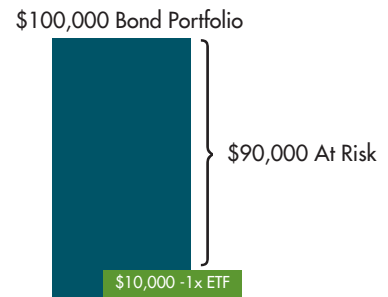
A hedge is an investment that aims to move in the opposite direction to the asset considered at risk. A bond hedge can decrease your exposure to interest rate changes by moving counter to bond prices. When bond prices decline, the value of your hedge should increase, partially offsetting the loss in your portfolio. Of course, if bond prices rise, employing a hedge would entail sacrificing some return. Hedges also have risks and are not suitable for all investors. Ways you can hedge your bond portfolio include:

- **Short-selling.** Short-selling an investment that has interest rate exposure, like a bond ETF, provides a hedge against rising rates. But short-selling may involve opening a margin, options or futures account and maintaining a certain level of assets in the account. In addition, there is a risk you could lose more than you invested.
- **Buying an inverse bond ETF.** Inverse bond ETFs are designed to move opposite fixed-income benchmarks, such as a Treasury bond index. They typically seek returns that are the inverse (e.g., -1x or -2x) of the one-day return of the benchmark. ETFs are easily accessible—they trade like stocks on major exchanges—and you can't lose more money than you invest. It's important to note that inverse bond ETFs require careful monitoring and may need frequent rebalancing. This entails certain costs and may have tax consequences and result in lower performance.

Hedging with an Inverse Bond ETF

On the right is a simple illustration of the effect of a hedge on a portfolio. It shows a \$100,000 bond portfolio that is hedged with a \$10,000 investment in an inverse bond ETF. The hedge offsets certain risks in 10% of the portfolio, while 90% remains fully at risk.

To quantify the impact of this hedge, let's go back to the concept of duration. Below we show what happens to the portfolio, which has a duration of 6.0, when the hedge is added. The addition of the inverse bond ETF, which acts as if it has a duration of -7.6 (the underlying index has a duration of 7.6), would make the combined portfolio act as if it had a lower, less rate-sensitive duration of 4.8.



This example is hypothetical and there can be no guarantee an actual investment product or strategy will perform as shown.

What does this do to performance? As illustrated in the table on page 2, a 1% rise in yield could cause a \$100,000 bond portfolio with a duration of 6.0 to incur losses of \$6,000. If the hedge shown in the example above were added to the portfolio, however, losses could be reduced to \$4,800.

About ProShares

ProShares is the world's largest provider of geared (leveraged and inverse) ETFs.² With ProShares ETFs, investors can gain exposure to U.S. and foreign equities, fixed-income, commodities, currency and volatility benchmarks.

Investing involves risk, including the possible loss of principal. ProShares are non-diversified and entail certain risks, including risk associated with the use of derivatives (swap agreements, futures contracts and similar instruments), imperfect benchmark correlation, leverage and market price variance, all of which can increase volatility and decrease performance. Bonds will decrease in value as interest rates rise.

Benefits and Risks of Inverse Bond ETFs

Using inverse bond ETFs to hedge interest rate risk is an approach that can complement and enhance longer-term strategic moves. This approach:

- Helps keep your asset allocation in line with your long-term investment goals
- Helps preserve your portfolio's income stream, and
- May not trigger a taxable event from selling appreciated bonds, as long as you have cash on hand to purchase the ETF and rebalance when necessary
- Offers flexibility—ETFs can be applied and removed as needed without disturbing your core strategy
- Unlike short-selling, does not require opening a margin, options or futures account and maintaining a certain level of assets in the account, and
- Limits any potential losses to the amount invested

Inverse ETFs have one-day return objectives. Therefore, careful monitoring is essential. Rebalancing may be necessary for periods longer than one day because the effects of compounding can cause the return of an inverse ETF to be greater than or less than the index return times the fund multiple. Sometimes the difference can be significant. Note that a rebalancing strategy may result in transaction costs and tax consequences.

Investing in inverse ETFs is not for everyone. You should work with your financial professional to learn more about the risks and benefits of inverse ETFs, and to determine the appropriateness of this strategy for your investment objectives. For more information, please visit proshares.com and look for the educational guide *Geared Investing*.

ProShares offers a variety of inverse bond ETFs that can be valuable tools to help investors hedge against possible declines in the bond market.

To learn more, consult your financial professional, visit proshares.com or call ProShares at 866.776.5125.

²Source: Lipper, based on a worldwide analysis of all of the known providers of funds in these categories. The analysis covered ETFs, ETNs and mutual funds by the number of funds and assets as of 6/30/10.

ProShares ETFs seek returns that are 3x, 2x, -1x, -2x and -3x the return of an index or other benchmark (target) *for a single day*, as measured from one NAV calculation to the next, before fees and expenses. Due to the compounding of daily returns, ProShares' returns over periods other than one day will likely differ in amount and possibly direction from the target return for the same period. Investors should monitor their holdings consistent with their strategies, as frequently as daily. For more on correlation, leverage and other risks, please read the prospectus.

Carefully consider the investment objectives, risks, charges and expenses of ProShares before investing. This and other information can be found in their summary and full prospectuses. Read them carefully before investing. Obtain them from your financial adviser or broker/dealer representative or visit proshares.com. There is no guarantee any ProShares ETF will achieve its investment objective.

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