

## Preparing for rising interest rates: Bond Ladder vs. Bond Fund Ladder

The last few years have seen interest rates hold steady, or even drift lower at times, causing investors to be appropriately concerned about how their fixed income portfolios will be affected when rates eventually rise. The question is, how can investors protect themselves from price declines caused by those rising rates, while still earning as much income as possible while they wait?

### Laddered Strategy Pros and Cons

Many conservative investors have preferred to use a traditional bond ladder as a fixed income strategy. A laddered strategy is relatively simple to construct and manage. When a bond matures, another is selected that will match or extend the longest existing maturity in the ladder. This discipline is designed to take the emotion out of trying to time interest rate moves. With bonds maturing at least annually, the yearly reinvestment process should capture the long-term directional moves in rates. Finally, and perhaps most important to investors, is the peace of mind that comes from having a specific maturity date for each bond. Even if rates rise and the market value of the bonds declines, investors know that if they simply hold on until maturity, they will be fully repaid.

However, a bond ladder strategy also has its downsides. Unless the portfolio is significantly large, there may be a relative lack of diversification of individual credits. Even with a portfolio of 20 different bonds, each position would represent 5% of the total portfolio. Should a credit deteriorate and a sale at a discounted price becomes appropriate, it could have a meaningful negative impact on the total portfolio. This concentration risk encourages investors to invest in only the highest quality bonds, perhaps missing out on the additional yield that mid-tier credits may provide. Similarly, if money is needed unexpectedly before a bond matures, then a portion of the portfolio would need to be sold, subjecting the investor to prevailing market conditions. This liquidity risk may be compounded by the sale of an odd-lot security, which typically trades less efficiently. Finally, when interest rates rise

and the portfolio's value has declined, awaiting the maturity dates on the longer bonds in the ladder may seem like an eternity to an investor wanting to reinvest at higher yields.

### Bond Ladder vs. Fund Ladder

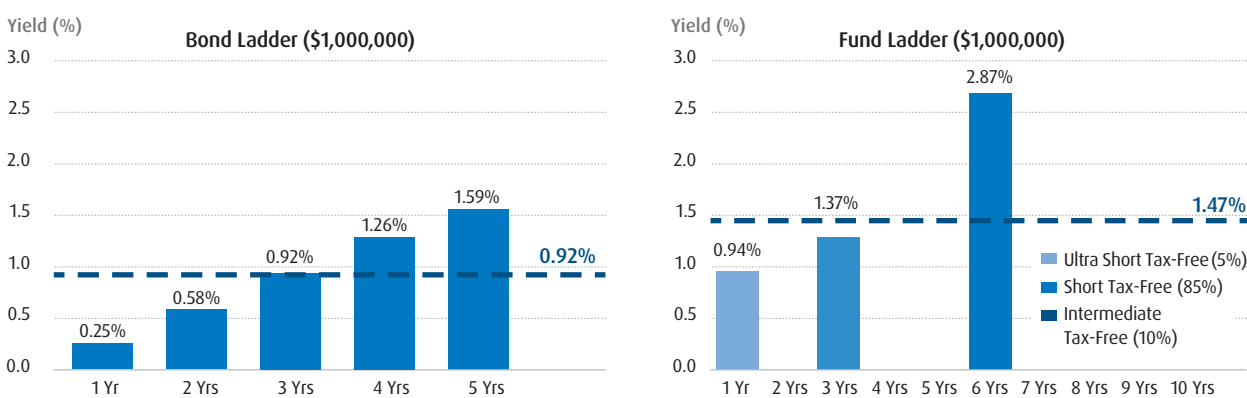
There may be a better way. Conservative investors who are seeking capital protection against rising rates, but who also want to enhance income while they wait, should consider a fund ladder, rather than a bond ladder. A fund ladder entails the strategic use of fixed income mutual funds, with staggered average maturities. Done properly, a fund ladder may offer a better risk/reward profile than does a laddered portfolio of individual bonds for all but the largest investors. A fund ladder can be structured with comparable levels of interest rate risk, offering the potential for more income and greater liquidity than a traditional bond ladder.

To help illustrate, we considered a hypothetical \$1 million fixed income portfolio using either a bond ladder or a mixture of tax-free funds. The fund selections were weighted to provide the same duration as each respective bond ladder and a similar average credit quality. The bond ladders selected for this purpose were a 1- to 5-year (**Figure 1 on page 2**) and a 1- to 10-year ladder (**Figure 2 on page 2**), but any maturity-range bond ladder could be used. The funds selected for this comparison were the BMO Ultra Short Tax-Free Fund, the BMO Short Tax-Free Fund and the BMO Intermediate Tax-Free Fund.

**Some of the advantages that the fund ladders provide are:**

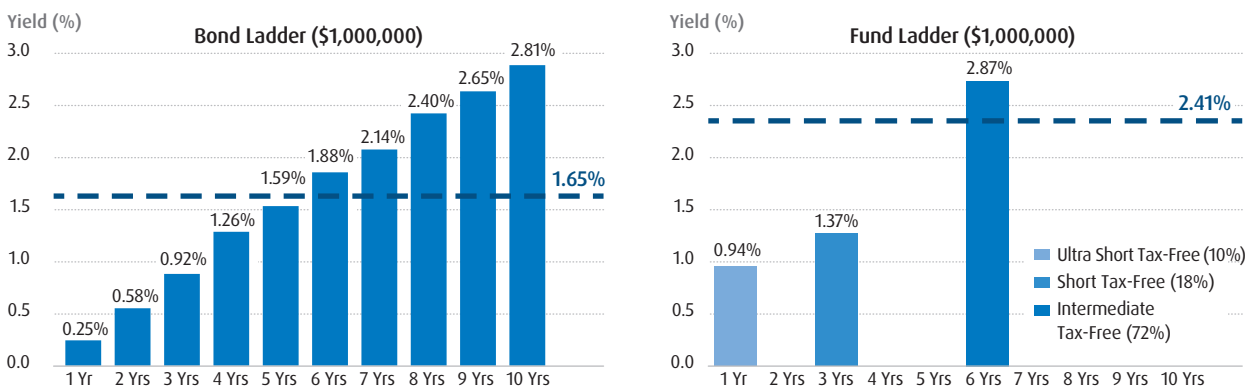
- **Greater diversification**—This mixture of three funds contains more than 1,000 individual issues vs. 20 individual holdings in each bond ladder. The exposure to any single credit in the funds is less than 1%,

**Figure 1 | Bond Ladder vs. Fund Ladder (1- to 5- Year)**  
Ultra Short Tax-Free (5%) / Short Tax-Free (85%) / Intermediate Tax-Free (10%)



	# of Bonds	Average Pos Size	Quality	Average Maturity	Average Duration	Yield	Floating (%)	Liquidity	Annual Income Difference
Bond Ladder	20	5%	AA	2.8	2.4	0.92%	0%	Odd-Lot-Risk	\$5,785
Fund Ladder	>1,000	<1%	AA-	3.2	2.4	1.50%	25%	Daily @ NAV	

**Figure 2 | Bond Ladder vs. Fund Ladder (1- to 10- Year)**  
Ultra Short Tax-Free (10%) / Short Tax-Free (18%) / Intermediate Tax-Free (72%)



	# of Bonds	Average Pos Size	Quality	Average Maturity	Average Duration	Yield	Floating (%)	Liquidity	Annual Income Difference
Bond Ladder	20	5%	AA	5.1	3.7	1.65%	0%	Odd-Lot-Risk	\$7,590
Fund Ladder	>1,000	<1%	AA-	5.0	3.7	2.41%	17%	Daily @ NAV	

compared to 5% single-credit exposure in a typical bond ladder.

- **Yield advantage**—The average yield advantage using the funds relative to the 1- to 5-year bond ladder and the 1- to 10-year bond ladder is 58 basis points (bps) (\$5,785 in annual income) and 76 bps (\$7,590 in annual income), respectively.

- **Floating rate exposure**—While there is no floating rate exposure in the bond ladder, the fund ladder examples have a 25% (1- to 5-year) and 17% (1- to 10-year) floating rate allocation. Although the funds cannot offer the same final maturity certainty that a bond ladder can, the floating rate exposure offers a similar percentage of the portfolio that will reset

at prevailing rates each year. In a rising interest rate environment, the floating rate exposure will allow the portfolio to react more quickly to the higher rates than would a typical bond ladder, as the yields on the floating rate securities in the funds typically reset on a daily or weekly basis.

- **Liquidity**—Should investors in a bond ladder need to access a portion of their funds prior to a maturity date, they would be subject to prevailing market rates and the inefficient bidding on odd-lot securities (\$50,000 par). In contrast, each of the funds could be sold on any business day at the closing net asset value (NAV).

#### Assumptions

All yields are assumed as of 6/30/13.

The individual bonds yields assume an AA bond in each respective maturity and are provided by Municipal Market Data Corp via InvestorTools Perform. The BMO fund yields are the 30-day SEC yields for the I-share class and are net of fund expenses.

The floating rate weighting in the example assumes the allocation in each fund as of April 30, 2013. The specific fund floating rate allocations were 50%, 25%, and 10% for the BMO Ultra Short Tax-Free Fund, the BMO Short Tax-Free Fund and the BMO Intermediate Tax-Free Fund, respectively.

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Keep in mind that as interest rates rise, bond prices fall. This may have an adverse effect on the Fund's portfolio.

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#### Summary

No one knows when interest rates will rise or the magnitude of the increase when it does occur. It is appropriate, however, for investors to consider the impact on their fixed income portfolios in a rising rate scenario. Investors are wise to think differently about their fixed income allocation going forward than they have in the past. Traditional fixed income strategies may no longer be the best approach in a stable-to-rising rate environment. A fund ladder may provide greater diversification and liquidity than a traditional bond ladder, while offering the potential for additional income. We encourage investors to think differently as they prepare their fixed income portfolio for the future.