



INVESTING

MUNICIPAL BOND INVESTMENT OPTIONS

Passive Bond Ladders, Active Mutual Funds or Separately Managed Bond Portfolios

Actively managed muni bond mutual funds can add diversification and value to investors' portfolios.

Investors who want to participate in the municipal bond market have a variety of options available to them. Prominent among these choices are passive bond ladders, actively managed mutual funds and separately managed bond portfolios.

This paper will briefly define these three options with a specific focus on the attributes of bond ladders and actively managed mutual funds. As with any financial decision, investors should gain a clear understanding of the attributes and trade-offs associated with the various muni bond investment options in order to make sure the approach selected is appropriate for their individual circumstances and objectives.

INVESTMENT OPTIONS

Bond “ladders” consist of a number of individual, staggered-maturity bonds that investors typically hold to maturity. Bond ladders are passive investments that provide predictable income and, other than replacing maturing bonds or extending the ladder’s time horizon, require minimal management after initial purchase.

In contrast, actively managed muni bond mutual funds pool investment capital from many different investors. These mutual funds are professionally managed by experienced investment professionals who seek to maximize the funds’ total returns within pre-determined risk guidelines. Muni fund managers consider and constantly monitor interest rates, credit quality and the shape and slope of the yield curve, and

often buy and sell bonds in response to changes in any one or more of these and other variables.

Separately managed bond portfolios (“separately managed bond accounts”) combine the advantages of both actively managed mutual funds and individual bond holdings. Separately managed accounts feature active portfolio management with performance objectives benchmarked to either specific bond market indices or, for larger accounts, highly customized targets. However, and unlike bond ladders and mutual funds, separately managed bond accounts generally require a \$2 million minimum allocation.

HOW BOND LADDERS WORK

Bond ladders are often used within a defined investment objective in order to make principal available for future, date-specific expenditures or liabilities (e.g., college funding or a second home purchase). In these cases, laddered bond portfolios are constructed so that principal maturities match anticipated cash needs or liabilities. Bonds in a laddered structure can also be purchased to mature at regular intervals, providing an investor with reliable income and predictable principal payments.

Investors can continually extend a bond ladder’s horizon by purchasing new, long-dated bonds whenever a short-dated bond matures. Certain circumstances, however, such as an unexpected need for cash, may arise requiring the sale of one or more of the ladder’s bonds prior to

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their stated maturity – an event that can trigger significant transaction costs and/or result in principal losses. Other investment risks associated with laddered bond structures include insufficient diversification and lack of flexibility in adjusting to interest rate and yield curve changes.

ACTIVE BOND FUNDS' APPEAL

For allocations less than \$2 million and with no specific timing needs, actively managed muni bond mutual funds offer a compelling approach for attractive, risk-adjusted investment results. Similar to equity mutual funds, muni bond mutual funds combine the intrinsic benefits of diversification with professional, active management. The specific limitations of muni bond funds are similar to those associated with any commingled investment.

ACTIVELY MANAGED MUNI BOND FUNDS COMPARED TO PASSIVE MUNI BOND LADDERS

ADVANTAGES	LIMITATIONS
<ul style="list-style-type: none"> ■ Better diversification and significantly greater liquidity 	<ul style="list-style-type: none"> ■ Can generate taxable, capital gains distributions
<ul style="list-style-type: none"> ■ Active management focuses on total return opportunities 	<ul style="list-style-type: none"> ■ Commingled structure precludes customization opportunities for individual investors
<ul style="list-style-type: none"> ■ Dynamic interest-rate and reinvestment risk management 	<ul style="list-style-type: none"> ■ No fixed maturity date or contractual principal repayment obligation
<ul style="list-style-type: none"> ■ Small initial and on-going investment requirements 	<ul style="list-style-type: none"> ■ Income fluctuations possible
<ul style="list-style-type: none"> ■ More frequent income distributions 	<ul style="list-style-type: none"> ■ Expense ratios and possible sales charges may elevate overall cost
<ul style="list-style-type: none"> ■ Potentially lower transaction costs/fees per bond 	

ASPECTS TO COMPARE

Muni bond investing can be complex, and investors should pay particular attention to the following investment attributes: 1) income yield versus total return; 2) diversification and principal preservation; 3) opportunity costs; 4) trading and tax efficiencies; and 5) transaction costs and management fees.

Income Yield vs. Total Return

Active fund managers focus on the total return from muni bond investments – the coupon or stated rate of interest income and changes in principal value. In other words, an investor's results are based on both the receipt of a tax-free income stream as well as potential capital gains or losses in principal value.

In contrast, the return from a laddered bond strategy is comprised solely of the laddered bonds' coupon income (assuming all the laddered bonds are held to maturity and are redeemed at 100% of original par value). The laddered bond portfolio is built with the expectation that the investor will hold all bonds to maturity. Accordingly, periodic (unrealized) gains and losses in the bonds' underlying principal value are usually ignored even though capitalizing on such value fluctuations could help maximize returns.

Diversification and Principal Preservation

Implicit in a bond ladder is the assumption that its high-quality bonds carry little default risk. In most cases, this assumption is valid, since the default rate for investment-grade muni bonds has historically been less than 1% of annual outstanding principal value, according to Moody's Investors Services, Inc.¹

But if a bond's credit rating deteriorates or its issuer defaults, the investor using a laddered bond strategy may be forced to sell the impaired bond at an inopportune time, significantly reducing, in most cases, its marketability and current value.

The large number of individual bonds in an actively managed bond fund greatly reduces the impact of an adverse credit event. Moreover, fund managers' diligent and on-going monitoring efforts minimize these event risks since fund managers typically can sell vulnerable bonds at the first sign of trouble.

Opportunity Costs

Investors using a laddered bond strategy may incur the cost of opportunities lost due to the ladder's static structure. Like mutual funds and separately managed bond accounts, laddered bond strategies are exposed to value fluctuations as a result of changes in credit ratings, interest rates and the shape and slope of the yield curve. But unlike these other, more dynamic approaches, laddered bond strategies often forfeit the opportunity to capitalize on these fluctuations due to the laddered bond strategies' static structure.

¹ Data obtained from Mapping of Moody's U.S. Municipal Bond Rating Scale to Moody's Corporate Rating Scale and Assignment of Corporate Equivalent Ratings to Municipal Obligations, June 2006.

Alternatively, these same bond market changes provide active fund managers better principal-protecting or return-enhancing opportunities.

AREAS OF FOCUS

There are four primary areas of bond investing that active fund managers focus on to either increase their fund's total return or reduce its risk:

Duration management

For bond investors, duration is a statistic that measures a bond's price sensitivity to changes in interest rates, making it a fundamental dimension of risk management. Generally, the longer a bond's duration (measured in years), the greater its expected price volatility. Conversely, a shorter duration will result in smaller price fluctuations. In other words, long-duration bonds exhibit more price volatility than short-duration bonds.

Duration is a particularly important attribute when comparing investment strategies, including active bond funds versus ladders. Simply put, active fund managers can adjust their fund's duration faster and more precisely than investors using a laddered bond approach.

If interest rates are forecast to rise and threaten bonds' current principal values, active managers can shorten their fund's duration (and therefore lower their fund's interest rate risk) by selling long-maturity bonds in exchange for high-coupon or short-maturity bonds. When interest rates are expected to fall, active managers can quickly extend their fund's duration by buying long-maturity or zero-coupon bonds in anticipation of rising bond prices.

Yield curve positioning

The yield curve represents interest rates across a range of investment horizons or maturities plotted at given points in time. Active fund managers sometimes boost returns by targeting specific maturities to take advantage of expected shifts in the shape or slope of the yield curve.

Normally, long term rates exceed short term rates. The extent of that difference is referred to as the "steepness" of the yield curve. When market participants expect the yield curve to flatten or invert (i.e., when short-term interest rates match or exceed long-term interest rates), active fund managers might increase exposure to longer-maturity bonds. Conversely, active managers would likely move their funds' investments into shorter-maturity bonds when a steeper yield curve is forecast.

Sector allocation

Historical yield spread differences and state-, sector- or issuer-specific supply/demand imbalances present additional opportunities for active fund managers.

Security selection

Active managers can enhance returns by identifying individual bonds that are mispriced relative to the bond's intrinsic value. An active fund manager may sell a bond in anticipation of a downgrade in its credit rating. Alternatively, an active fund manager might take advantage of a callable bond's premium yield after research suggests the bond is unlikely to be called.

Because of their static structure, bond ladders can seldom be adjusted with sufficient speed or precision in a rapidly changing interest rate environment. This same static structure makes value-enhancing responses to yield curve changes, sector spreads or individual bond mispricings equally difficult. Consequently, bond ladders will usually exhibit higher price volatility than mutual funds or separately managed bond accounts.

TRADING AND MARKET EFFICIENCY

Muni bonds are traded in decentralized, "over-the-counter" markets. Accordingly, bond prices are not centrally set and disseminated, but instead are determined by the competitive convergence of a "bid" to buy and an offer (the "ask") to sell. Supply and demand forces are reflected in the bid/ask "spread," and although a bond's price is set when a trade is made, there is no guarantee a particular transaction price will coincide with the narrowest possible spread. Active managers, who typically trade in large volume, often realize better prices (i.e., narrower spreads) because they can access multiple bond trading desks, not just the inventory or underwriting supply of a single firm.

The muni bond market is huge, comprised of more than 1.1 million separate, investable issues, thousands of which are small and illiquid. Occasional mispricings and related inefficiencies are inevitable, and performance-enhancing opportunities are available to active managers who can quickly identify and capitalize on such inefficiencies.

In bond portfolios valued at less than \$500,000, where individual bonds are often held in par amounts of \$25,000 and \$50,000 to ensure proper diversification, bid/ask spreads for individual bonds can be exceedingly wide due to the lack of liquidity for such small trade amounts.

TAX EFFICIENCY

Static positioning and transaction costs limit the amount and frequency of tax-loss harvesting in laddered bond portfolios. In fact, for most laddered strategies, tax-loss harvesting that generates losses to offset gains is a year-end-only exercise. But with so many other bonds for sale at the same time, spreads must widen to absorb the surge in supply, putting further downside pressure on end-of-year selling prices.

Active fund managers, however, can generate tax losses any time a suitable opportunity arises. In fact, active managers often take advantage of others' tax-loss harvesting activities, buying bonds in November and December when prices decline due to tax-related selling. However, and unlike laddered bonds and separately managed bond accounts, muni bond mutual funds are required to distribute annually all net capital gains.

UNDERSTANDING FEES

Fees are among the most misunderstood and contentious aspect of the bond ladder versus bond fund debate. Investors in no-load bond funds pay, on average, between 0.60% and 0.80% in annual operating expenses and management fees. These fees are clearly disclosed in the fund's prospectus.

In contrast, the true costs of a laddered bond portfolio are usually embedded in wide (i.e., costly) bid/ask trading spreads. In fact, according to a July 2004 Securities and Exchange Commission report on muni bond trading costs, bid/ask spreads widened dramatically as transaction size decreased. For bond trades of \$25,000 or less, the average bid/ask spread was 223 basis points (2.23%). But for bond trades of \$1 million or more, the corresponding bid/ask spread plummeted to a mere 10 basis points (0.10%).

Accordingly, investors using a laddered bond strategy comprised of smaller individual holding sizes (e.g., less than \$100,000) may incur significantly higher transaction costs relative to bond fund investors. And while investors using a laddered bond strategy may intend to hold the laddered bonds to maturity, circumstances often arise which require some prior-to-maturity bond sales. Wide bid/ask spreads associated with these bond sales may significantly increase the ladder's costs if some or all of its holdings are liquidated prematurely.

MUNIS ADD DIVERSIFICATION

Muni bonds can help investors seeking tax-free income create a well-diversified, multi-asset class portfolio. Determining the most appropriate muni bond strategy – active or passive – is a critical decision that should consider many aspects of an investor's financial situation and investment objectives. For many investors, active bond management can add significant value, and the most efficient access to active muni management may be a well-diversified mutual bond fund.

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