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Closed-End Bond Funds Versus Individual Bonds: A Case Study

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Article Highlights

- Measurements of yield may not be directly comparable between a bond fund and individual bonds. This would particularly be the case if a fund's distributions include a return of capital.
- A municipal bond fund's objective may give its manager leeway to hold bonds with less-favorable tax status, including those subject to the alternative minimum tax (AMT).
- Rising interest rates adversely affect all bonds. Bond funds that use leverage face increased downside risk from rising rates.

We have had a number of inquiries regarding whether an individual investor would do better by buying a closed-end municipal bond fund, particularly one with a defined maturity date, rather than buying individual municipal bonds.

After all, the stated return on such funds appears to be higher. What's not to like? You can find out in the unfavorable fine print.

This article is a case study of a defined-maturity closed-end fund, which will be referred to simply as "the Fund." It is a large closed-end muni bond fund set to terminate on a specified date. Our analysis is not intended to criticize any specific fund, but rather to demonstrate where risks and pitfalls may lie with a closed-end bond fund (particularly a defined-maturity one) and how to go about identifying them. The sources of information used are primarily the Fund's factsheet and prospectus. Both reports are available for all funds (closed-end, mutual and exchange-traded) from the sponsoring fund company. Since some investors may weigh the choice between owning a bond fund and directly buying and holding individual bonds to maturity, we also provide contrasts of the two to help highlight the differences.

Can Investors Realize an Above-Market Return?

For our case study, fans of the Fund state that it has the following advantages:

- An above-market return,
- A lot of diversity,
- Reasonable management fees,
- Little downside risk, and
- A return of all principal at a stated date in the future.

We bring bad tidings: There is still no free lunch in the world of investing. If you are told you are getting an above-market return, how do you evaluate this?

The initial problem with the Fund is that it is not actually comparable to an investment in individual tax-free bonds. Rather, the Fund is a complex investment vehicle. Funds (closed-end, mutual and exchange-traded) are generally compared to one another using the following:

- 30-day SEC rule [yield calculation standard] to compare one fund to another, which is the only way recognized by the Securities and Exchange Commission of comparing one fund to another.
- 'Distribution yield,' which indicates the distribution of cash to shareholders. This is not directly comparable from one fund to another or to individual bonds due to the lack of information of what is included in each distribution. For example, what percentage of the yield is the return of capital and what percentage is actual earnings?
- Yield-to-maturity, which is defined differently from the calculation used to describe individual bonds; thus the two are not directly comparable. For example, the Fund's definition includes accrued interest, which is the

interest paid by the buyer of the bonds to the seller. Furthermore, the assumed maturity of a bond fund is an aggregate of a changing portfolio. (The turnover rate, which measures how much of the portfolio was changed or "turned over" in the past year, can be found in the prospectus. The turnover rate for the Fund is in excess of 40%. This implies that the equivalent of nearly half of the Fund's holdings were replaced in the last calendar year.) In contrast, a bond's yield-to-maturity is a projection of future cash flows to be paid to the bondholder. How to evaluate these differences is difficult to determine, even without the thornier issue of accounting for a fund's fees.

Knowing that there are differences in terminology make the outcome for funds and individual bonds not directly comparable.

The Fund had a distribution yield in excess of 4.0% at the time of this writing. Though it sounds great, this distribution rate is not guaranteed like a bond coupon. Rather, it is the cash that the Fund is currently paying out to shareholders. It assumes that the most recent distribution will stay the same going forward, even if total distributions have changed during each of the past several calendar years. In contrast, the payments from a traditional bond do not change as long as the bond is held to maturity.

The Fund's yield-to-maturity is stated to be 6.3%, but this is before the expense ratio in excess of 1.0% and other trading costs. (The yield-to-maturity and expense ratio can be found in the factsheet.) The yield-to-maturity of an individual bond is net of fees and trading costs.

In addition, some of the Fund's current distribution may be taxed as capital gains, alternative minimum tax (AMT) income and ordinary income. (This fact is stated in the fine print located on the factsheet.) The fund's objective clearly states that only 80% of the portfolio must be invested in tax-free bonds. The portfolio reaches for yield not only by having a significant amount of bonds that are lower rated, but also by having more than 16% of bonds in AMT bonds (information provided on the factsheet and in the prospectus, as well as on various third-party websites). Interest from AMT bonds will be taxed to you as ordinary income if you are subject to the alternative minimum tax. There may be other taxable income if there are significant amounts of derivatives in the portfolio. As you know, the key to evaluating any investment is the return after all taxes are paid.

Since the Fund's objective calls for investing "at least 80%" of assets in municipal bonds, the manager has the leeway to invest in non-tax-exempt bonds. The use of derivatives is also allowed (another reason to read the fine print on the factsheet as well as on the prospectus). These factors can boost distributions, while also having potential tax consequences for shareholders.

The Trade-Offs of Closed-End Funds' Diversification

Closed-end funds provide a lot of diversity by holding many positions and, in many cases, using leverage to purchase additional bonds beyond what a non-leveraged portfolio of similar size would allow for. Diversification can lower risk if done properly but is not always advantageous by itself. For example, diversifying into bonds with poor credit ratings increases risk, especially if a period of economic distress were to occur.

The Fund used for this case study owns many bonds, but not all of its bonds are of the highest credit quality. The Fund's factsheet shows 9.1% of the portfolio as being allocated to bonds rated BB or lower, which are below-investment-grade rating (aka "junk"). The two largest sectors are transportation and health, two areas we generally avoid. Bonds from issuers in the following weak states are also included: Illinois (9.1%), New Jersey (9.1%) and Louisiana (2.0%).

Details on a fund's holdings can be found in the prospectus. Keep in mind that without researching the underlying bonds themselves, it may be difficult to fully analyze the portfolio. This isn't necessarily a negative if the fund manager has a good track record, but it does mean that not all of the risks and pitfalls will be fully understood. An example would be the inclusion of AMT bonds in a municipal bond fund. Such bonds may have a private business that is benefiting from the issuance of them. For example, Dallas airport bonds held by the Fund were issued on behalf of Continental Airlines. The primary security comes not from Dallas Fort Worth International Airport, but the airline itself—a fact not apparent without researching the actual bond.

Downside Risks

Leverage

If interest rates rise, the prices of individual bonds will decline. Leverage adds to the volatility. Lower-rated bonds are more subject to downside risk because their issuers are more susceptible to financial problems in a struggling economy. When leverage and lower-rated bonds are combined, downside risk is increased in exchange for the hope of greater upside.

The use of leverage may increase distributions, but leverage also will increase the vulnerability of the Fund to losses in the face of rising interest rates. Furthermore, as interest rates rise, the Fund must pay more to maintain the same level of leverage (approximately 37%, as of this writing). Leverage magnifies the gains and losses provided by the portfolio and can also place downward pressure on the Fund's share price in a rising interest rate market. We would not recommend that an investor use margin to leverage their bond portfolio and then trade the bonds to seek higher investment returns, particularly in a fast-moving market. If an investor decides to sell shares in a defined-maturity closed-end fund before its termination date, the leverage may exacerbate realized losses.

Leverage adds significant risk to the portfolio and is very common in many, but not all, closed-end funds.

This is quite different from buying a municipal bond with a knowable return and principal to be returned at a stated due date or call date using only cash to pay for the purchase.

It's worth noting that the Fund's factsheet plainly states that the manager "actively manages the maturity of its bonds to seek to have a dollar-weighted average effective maturity approximately equal to the Trust's maturity date." This is different from holding individual bonds with specific maturity dates.

The Inclusion of Zero-Coupon Bonds

The coupon determines the amount of interest income paid to the owner currently on an individual bond. A large percentage of the bonds listed in the Fund's prospectus are either zero-coupon bonds, which defer interest payments until the bonds come due, or 5% coupon bonds that pay out more than the current rate of interest. This barbell structure is found in many closed-end bond funds.

A probable outcome of this structure is that the zero-coupon bonds remain outstanding, while many of the high-coupon bonds are called prior to their maturity dates. If interest rates are rising, the zero-coupon bonds will be a drag on performance because they are more negatively affected by rising interest rates than traditional non-coupon bonds of similar maturity. Zero-coupon bonds, otherwise known as deferred-payment bonds, have a current return of zero.

While many of the 5% coupon bonds may be called prior to the Fund's maturity date in 2030, it may be quite expensive to replace them. Initially, the bonds may have had a 15-year time frame. With the lapse of time, shorter-term bonds coming due in 2030 may only have a time frame of five to seven years. If the replacement bonds mature after 2030, they would have to be sold at an unknown price when the Fund terminates. This fact affects how much cash will actually be available to shareholders at the fund's termination.

Closed-End Fund Characteristics to Pay Attention To

While not a comprehensive list, the following characteristics can help you assess how risky or attractive a closed-end fund may be. Much of the below list can be applied to the analysis of mutual funds and exchange-traded funds (ETFs) as well. Both a fund's factsheet and its prospectus can be obtained from the fund family issuing the fund.

Characteristic	Where to Find It
Objective: The investment strategy the fund manager(s) is to follow.	The prospectus will have the most detailed version.
Expense Ratio: Indicates the percentage of your investment in your fund that will be paid to the fund's manager.	The factsheet, the prospectus or third-party websites.
Premium or Discount: Reveals whether the share price is trading above or below the underlying value of the assets (net asset value, or NAV); pay attention to the longer-term average if provided since some funds may often trade at discounts (or premiums).	The fund family's website; various third-party websites (some ETFs may also trade at a premium or a discount).
Portfolio Holdings: What the fund is actually invested in.	The factsheet will provide an overview; the prospectus should list the details. Pay attention to the tax treatment of the bonds (e.g., AMT bonds in a muni bond fund) as well as the credit quality of the holdings.
Leverage: Is the manager allowed to use leverage?	The factsheet and the prospectus will state whether or not leverage is used, as will some third-party websites.
Volume: What is the dollar volume of the shares traded; ensure there is enough trading activity to make it easy to buy and sell shares.	Third-party websites.
Returns and Distributions: How do they compare with competitors? Unusually high distributions may be a sign that capital—and not just interest income—is being returned to shareholders.	The factsheet, third-party websites, AAII's mutual fund and ETF guides (www.aaii.com/guides).
The Fine Print: Read the disclaimers to ensure there are no surprises.	Look at both the factsheet and the prospectus.

Return of an Investor's Capital

Here is the rub: The future return is clearly not guaranteed. There is confusion between the stated investment objectives of the Fund and the actual outcome that will occur in the future. Yes, the initial current distribution may be higher. However, the current payout will change in the future (better or worse) and there is real uncertainty as to the final return on investment. In addition, when the Fund liquidates at a stated date in the future, there is no guarantee that you will actually get your entire principal back. Defined-maturity funds, regardless if they are closed-end, mutual or exchange-traded, do not guarantee that a set amount of principal will be returned at their liquidation. A bond held to maturity will pay bondholders its principal back.

An investor purchasing a closed-end fund as a new issue may pay a premium. However, like closed-end funds in general, the price may begin to decline four to six months after all the shares are sold; thereafter, the fund's price may trade at a discount to its net asset value (NAV). Even an investor buying the Fund on the open market at a discount cannot fully count on receiving $25 per share back at the liquidation date of 2030. This reality is listed on the factsheet. No defined-maturity fund can guarantee an exact amount of what will be returned to shareholders at termination; the use of leverage makes it even harder to precisely match the targeted amount.

If the reason you are interested in a bond fund is because of the cash flow, then you may decide to sell if you see the cash flow decline. Since there may be less demand for a closed-end bond fund with a lower cash flow, there is the risk of the fund's price declining.

Active Management Means Additional Costs

Closed-end funds tend to be actively managed. Though active management seeks to realize higher returns and/or greater income, it often comes with additional trading costs and taxes to the shareholders if bonds are sold at a gain. (See the aforementioned discussion about turnover.)

The Fund's gross expense ratio is in excess of 1.0%; this is high for a bond fund. [Editor's note: The average expense ratios for the muni national categories in our 2017 mutual fund guide (February 2017 *AAII Journal*) range between 0.45% and 0.67%.] This annual fee is in addition to any trading costs and tax expenses incurred.

Conclusion

An investment in a closed-end fund is not comparable to an investment in individual muni bonds, including those held in a laddered portfolio, for the reasons stated. In our view, there are many risks, uncertainties, potential adverse tax consequences and high fees that detract from what may be perceived as a closed-end fund's stated advantages, as this case study shows.

Both a closed-end fund's shareholders and individual bond owners can calculate a current return. If you were to buy a 5% coupon individual bond at the start of 2017 at a premium, you would get more than a 4% current return. The current return is the coupon divided by the price. For example, the math for a 5% coupon bond trading with a price of 110 is: 5 ÷ 110 = 4.5% current return.

In the investment strategy that we follow for all of our clients in the creation of custom bond ladders, we generally will not buy an individual bond that has a rating (by Moody's and/or S&P) of less than AA. We also buy few to no bonds from troubled states because of their poor credit situation. The reason for this is that when investors invest in individual bonds, they view them as the safest part of their investment portfolio. They do not wish to speculate with their safest investments, which is obviously sensible.

The due date of individual bonds is a guarantee of repayment unless there is a default, which is quite rare on high-quality tax-exempt bonds. The coupon and cash flow from individual bonds will not change either.

One key aspect of individual bonds is that they are self-liquidating, meaning they come due and you don't have to find anyone to buy them. They will liquidate at face value at the earlier of either their due date or, if called, their call date.

Still, there remains an active market for closed-end bond funds. So why do people buy them?

- Shares sell at a relatively low dollar amount, making them easily accessible to a wide variety of investors and easy to accumulate, particularly in smaller dollar amounts.
- Share prices frequently rise following their initial listing, giving a false sense of security since they trade like stocks.
- Shares frequently sell at a discount to face value after the initial public offering. This creates the illusion of being able to realize a gain by just holding the fund to maturity. Depending on the discount and what happens once the fund is liquidated, these expectations may or may not be met. ▲

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