MUTUAL FUNDS WORKSHOP

A Guide to Municipal Bond Funds: Differences Behind the Similarities

By John Markese

Interest income that is sheltered from federal taxation and possibly state and local taxes as well, has always been the main attraction of municipal bond funds. And the higher your tax bracket, federal or state, the more fondly you think of muni funds.

While many individuals see vast differences among stocks, municipal bonds are often thought of as indistinguishable from each other. However, not only are municipal bonds far from alike, but so are municipal bond funds. A close look at just five or six characteristic points of a municipal bond fund illustrates the differences.

Table 1 lists the top five municipal bond funds by five-year annual total return in each of four categories of municipal bond funds:

- General, long-term;
- General, short-term;
- High-yield; and
- State-specific, with California and New York as examples.

While there seem to be countless ways to slice and dice municipal bonds into niche funds, these four categories cover most funds by dollars invested.

The first municipal bond fund category in Table 1 is general long-term, probably the most common type of municipal fund. General means the fund is not state-specific, and long-term, of course, refers to the weighted average maturity of the bonds held by the fund. These funds are ranked by annual total return over five years, limiting the listings to only bond funds that have been in operation over a few ups and downs in the bond markets. The total return includes both capital gains, which of course are federally taxable, and income, which is federally tax-exempt.

In the next column after the annual total return figures is yield. In the case of municipals, yield represents tax-exempt income to ending net asset value of the funds. Much, and perhaps all, of the income from funds in this category will be subject to state and local taxes. Also, some funds hold tax-exempt, private activity bonds called AMT bonds—alternative minimum tax bonds—because, although the income is exempt from regular federal taxes, the income is a tax preference for purposes of the alternative minimum tax.

Table 2 gives taxable equivalent yields for current federal marginal income tax brackets and the municipal bond yield range found in Table 1. These should be compared to comparable maturity and risk taxable yields available, particularly by investors in the lower tax brackets. State and local tax exemption would increase taxable yield equivalents even further. If, given your tax bracket and current interest rates, you can get higher yields from taxable securities, then municipal bonds do not make sense.

While a municipal bond investor's eye will likely first focus on return and yield, equal scrutiny should be given to risk. The components of bond risk are in some ways more complex than the risks of stock ownership. First, there is the risk all bonds have, price risk. As interest rates in the general market rise, bond prices fall, causing capital losses. Prices of longer maturity bonds react more to interest rate changes than do shorter maturity bonds. Bonds are also exposed to yield risk: as the general level of interest rates fall, bond prices do rise producing capital gains, but for new investors bond yields and the income produced by the bonds are lower.

When interest rates fall, bonds are also more likely to be called by the issuer. Capital gains may be limited or lost and investors are forced to substitute lower-yielding bonds for the bonds that are called. Municipal bond fund managers can reduce the risk of calls by seeking bonds with more call protection, but usually these carry somewhat lower yields.

For well-diversified municipal bond portfolios, the above risks are paramount, but default risk is always high on the list of investor concerns. Geographically diversified bond funds that invest in state and local issues spread over the country minimize default risk; conversely, funds that concentrate in the issues of only one state or municipalities within a state for

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exemption from the taxes of the state and localities have higher default risks.

Agencies such as Standard and Poor's and Moody's rate bonds on the risk that they will not pay either interest or principal on time. However, sudden trouble can hit a region even when the issues carry investment-grade ratings. Orange County is a recent, highly publicized, example. Highly rated, investment-grade bonds that are the general obligation of the issuing authority, called general obligation bonds, are the most secure. Revenue bonds, where interest and principal are paid from the revenue of a designated project, a toll bridge for example, are less secure and if these are low rated, the risks may be significant.

If broad geographic distribution and investment-grade bonds still are not enough to let you sleep comfortably, then there are municipal bond funds that are insured. Either the portfolio is insured, or the bonds are insured, but the net effect is reduction of default risk. What is insured is the timely payment of principal and interest, but insurance just pushes risk downstream to an insurance company. Nothing is perfectly riskless and there is a price—insured issues generally have lower yields.

Do you need an insured municipal bond fund? Probably not, if the fund invests in high-rated, geographically diversified municipal issues. If you are thinking of investing in a state-specific fund and you are uneasy, an insured fund will reduce your risk. Get an annual report from the fund and check the bond holdings for geography, ratings, obligation

Table 1.
Municipal Bond Fund Characteristics

	Annual Total Return (%) As of 6/30/96						
	One-Year	Three-Year	Five-Year	Yield (%)	Standard Deviation (%)	Weighted Average Maturity (Years)	Expense Ratio (%)
General, Long-Term							
Vanguard Long-Term Muni Bond	7.4	5.2	8.4	5.5	6.4	13.2	0.21
Benham Nat'l Tax-Free Long Term	6.2	4.2	7.9	5.3	6.1	18.0	0.66
T. Rowe Price Tax-Free Income	6.2	4.6	7.8	5.4	6.0	18.0	0.59
Scudder Managed Muni Bond	6.4	4.5	7.7	5.2	6.0	10.6	0.63
Safeco Municipal Bond	6.3	4.2	7.6	5.0	7.3	10.4	0.54
General, Short-Term							
Vanguard Limited-Term Muni Bond	4.0	4.0	5.5	4.5	1.8	3.3	0.21
Fidelity Spartan Short-Interm Muni Income	4.5	4.0	5.4	4.2	2.1	3.3	0.55
Dreyfus Short-Interm Municipal	4.3	3.6	5.2	4.4	1.4	2.2	0.70
USAA Tax Exempt Short-Term	5.1	4.2	5.1	4.7	1.6	2.7	0.42
T. Rowe Price Tax-Free Short-Interm	4.2	4.0	5.1	4.3	1.8	3.6	0.59
High-Yield							
Vanguard High-Yield Muni Bond	6.9	5.2	8.5	5.7	6.2	12.6	0.21
Scudder High Yield Tax-Free	5.6	4.2	7.9	5.7	6.4	12.2	0.80
T. Rowe Price Tax-Free High Yield	6.5	5.1	7.9	5.9	4.8	19.9	0.75
Fidelity Aggressive Municipal	5.2	4.1	7.3	6.1	5.5	17.3	0.64
Fidelity Municipal Income	7.1	4.1	6.7	5.2	6.1	13.4	0.57
State-Specific, California							
Vanguard CA Tax-Free Insured Long	7.5	5.0	8.0	5.4	6.7	13.2	0.21
Benham CA Tax-Free High-Yield	8.5	5.6	7.9	6.0	5.4	21.2	0.51
Scudder CA Tax Free	6.2	4.2	7.9	4.9	6.5	12.7	0.80
Safeco CA Tax-Free Income	8.0	5.0	7.9	5.1	8.3	11.5	0.68
Cal Tax-Free Income	6.5	4.4	7.8	4.9	7.1	16.5	0.62
State-Specific, New York							
Vanguard NY Insured Tax-Free	6.4	4.7	8.1	5.3	6.2	11.1	0.22
T. Rowe Price NY Tax-Free	6.6	4.5	8.0	5.3	5.7	18.5	0.65
Fidelity Spartan NY Muni Income	6.7	4.3	7.9	5.2	6.8	14.0	0.54
Scudder NY Tax Free	5.4	3.8	7.8	5.0	6.6	11.7	0.82
Fidelity NY Municipal Income	6.6	4.5	7.6	5.2	6.8	14.2	0.58

Source: AAII's Quarterly Low-Load Mutual Fund Update. Data as of June 30, 1996.

Table 2.
Taxable Equivalent Yield Table

Marginal Income Tax Bracket	If the tax-exempt yield is: 4%	5%	6%
	the taxable equivalent yield (%) is:		
15%	4.71	5.88	7.06
28%	5.56	6.94	8.33
31%	5.80	7.25	8.70
36%	6.25	7.81	9.38
39.6%	6.62	8.28	9.93

How it's calculated:

$$\frac{\text{Fund's Tax-Exempt Yield}}{100\% - \text{Federal Tax Bracket}} = \text{Taxable Equivalent Yield}$$

For example, assuming a 39.6% bracket and 6% tax-exempt yield:

$$\frac{6.0\%}{100\% - 39.6\%} = \frac{6.0\%}{1.00 - 0.396} = \frac{6.0\%}{0.604} = 9.93\%$$

type (general or revenue) and whether the issues are insured, and then make an informed judgment.

Standard deviation captures variation in return no matter what the source and is considered a historical record of total risk; the higher the standard deviation, measured over the last three years, the greater the risk experienced. If the fund has not changed and the next three years is expected to be much like the last, standard deviation, may be useful as a measure of total risk. Looking down the standard deviation column, it is clear that the only significant differences are between long-term funds and short-term funds, the latter being substantially less volatile. The high-yield category, on average the highest default risk group, has a shade less risk because higher income dampens total return variation. The lesson: Most risk is in the form of interest rate risk; as market interest rates change, the total return of a fund gyrates and the longer maturities gyrate the most. But there are risks that standard deviation just can't capture, such as the risk that tax rates are reduced and municipal bonds tank in response.

The weighted average maturity (in years) for these funds averages near three years for the top short-term funds and averages closer to 14 years for the rest of the categories, with Benham California Tax-Free High-Yield at the top with 21.2 years. The high yield of the Benham fund offsets some of the interest rate risk of the very long maturity average, producing a standard deviation closer to the high-yield non-state-specific average. Some funds will also report an effective weighted average maturity, which adjusts for the likelihood of a bond being called—more likely when interest rates are low than when they are high. The greater the difference between average maturity and effective maturity (always less), the greater the exposure of the fund to call risk.

The trade-off, of course, is higher return volatility for longer maturities in exchange for both higher yields and higher total returns on average. What is surprising is that, other than the short-term category, the five-year annual returns for the other categories may be only a half a percentage difference between the top and bottom.

Finally, the mundane and often overlooked expense ratio has great meaning when the differences in bond fund performances are close. The expense ratio is the fund's operating expenses and 12b-1 charge (a load charge against asset values annually), if any, divided by average net asset value per share. It is no accident that a Vanguard fund is in first place in each category, since Vanguard has by far the lowest expense ratios. A 0.5% difference in expenses translates to a 0.5% higher return, a significant advantage among municipal bond funds with total returns averaging near 8% for the last five years.

When choosing a municipal bond fund, here are some points to remember:

- Calculate your taxable equivalent yield for your tax bracket and compare to taxable yields to see if municipal bonds make sense for you.
- If you are in a high-tax state, consider a state-specific municipal bond fund, but be aware of potentially greater risks.
- Get annual reports and prospectuses of the funds you are interested in and check on bond ratings, bond types (general obligation, revenue, alternative minimum tax), and maturity range.
- If you want to reduce risk further, look for an insured fund to rest easier, although a well-diversified (by issuer and by geography) fund is probably all you need.
- Remember, longer maturity generally spells more volatility.
- Don't forget to look at the expense ratio of the fund; cheap adds value.