WHAT TO LOOK FOR IN A CLOSED-END MUNICIPAL BOND FUND

By Albert J. Fredman

As an exchange-traded vehicle, a closed-end fund's stock price can rise above or fall below its net asset value, depending upon supply and demand. While bond fund markdowns don't get as deep as those on equity funds, you can still find opportunities in buying what is temporarily out of favor.

Buying municipal bonds in the stock market may seem out of place, but many closed-end muni fund investors have been well rewarded by doing just that. Falling interest rates and unstable equity markets added to the appeal of these funds in 2001.

Net assets of the 233 closed-end municipal funds recently totaled $52 billion, according to Lipper. Of these, 99 funds were national or multistate portfolios (including 13 focusing on high-yield munis) and 134 were single-state.

Municipal securities provide income that normally is exempt from federal taxes. Buying municipals issued within your own state can provide a double tax-relief benefit.

December 1992 was the first year-end when municipal bond funds were the largest in both number of funds and category assets of the major closed-end fund groups. Muni bond funds still dominate the closed-end arena today, comprising 39% of the $134 billion in assets of all closed-end funds, according to Lipper. In fact, 2001 was a big year for new offerings (IPOs) of muni funds. Conversely, in the year 2000, no new muni closed-end funds came to market. Through November 30, 2001, 31 closed-end muni funds collectively raised $4.5 billion of assets. Blackrock introduced eight (raising $1.56 billion), Nuveen brought out 20 ($2.27 billion), and PIMCO offered three ($0.63 billion). In contrast, Merrill Lynch, another major closed-end muni provider, has actually been combining funds within its large muni-bond group to help increase their liquidity, reduce expenses, and boost visibility within the analyst community.

FLUCTUATING DISCOUNTS

As an exchange-traded vehicle, a closed-end fund's stock price can rise above or fall below its net asset value, depending upon supply and demand. Deepening discounts on closed-end funds are analogous to shareholder redemptions on their open-end counterparts. Conversely, narrowing discounts (or premiums) are equivalent to new shareholder money pouring into open-end funds.

Due to indiscriminate fear-driven selling, municipal fund discounts deepened significantly by the end of the first week of trading following the September 11 terrorist attacks. While bond fund markdowns don't get as deep as those on equity funds (and they often rise to premiums), you can still find opportunities in buying what is temporarily out of favor.

Figure 1 graphs year-end discounts/premiums for closed-end muni funds since 1990. Valuations have ranged from a 2.8% premium (1991) to a 10.9% discount (1995). Buying deeply discounted shares results in a higher yield than you could earn on an otherwise equivalent open-end fund. Suppose both a closed-end and an open-end muni fund have net asset values of $10 and distribute dividends of $0.50. Both yield 5% on net asset value. However, if the closed-end fund is purchased at a share price of $9 (10% below its net

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TABLE 1. MEDIAN TOTAL RETURNS OF CLOSED-END MUNICIPAL BOND FUNDS

Year	NAV Returns (%)	Market Price Returns (%)
2001*	6.13	10.39
2000	15.08	16.11
1999	–6.43	–18.22
1998	6.40	10.55
1997	10.30	16.20
1996	4.02	7.69
1995	22.77	23.34
1994	–9.80	–15.80
1993	15.90	12.54
1992	10.78	10.39
1991	13.13	15.77

**As of September 30, 2001*
Source: Lipper.

asset value), it offers a 5.56% yield. This yield can be enhanced even further through leverage, as I will explain. Finally, a potential stock-market gain results if that 10% discount narrows or disappears. Conversely, a deepening discount inflicts stock-market losses on owners.

For this reason, it is best to buy closed-end muni funds when their discounts are deep relative to their historical values.

When the discount narrows on a closed-end fund, its "market price return" will exceed its "net asset value return." The former measures the return shareholders would have received over a specific period. Net asset value returns are comparable to open-end fund returns, and indicate the kind of job the portfolio manager is doing in managing the portfolio.

Table 1 indicates that the net asset value returns of all closed-end muni funds were 6.13% for the first nine months of 2001. However, the market price returns were a far greater 10.39% because median discounts narrowed from 10.1% (December 31, 2000) to 5% (September 30, 2001). However, closed-end fund investors may incur greater losses in bear market years, as evident by the sizable differences between market price and net asset value returns in years like 1994 and 1999. Rising interest rates in both years caused substantial declines in longer-term bond prices. Fearful investors who do not fully understand what they own often panic and indiscriminately sell. Many locked in tax losses, further deepening discounts toward year-ends 1994 and 1999. In hindsight, excellent values existed at these lows.

Closed-end funds offer a trading edge because share prices often fluctuate far more intraday than net asset values. Using limit orders, you can attempt to nail down more favorable prices by buying on temporary weakness and by selling on strength. Most closed-end funds normally update their discounts and premiums daily. Keep abreast of daily changes if you're thinking of buying or selling shares, since inefficient pricing can arise.

A closed-end fund has certain structural advantages over otherwise equivalent open-end funds. Because shares cannot normally be redeemed by the fund at net asset value, management is not forced to sell securities to meet redemptions during bear markets. A portfolio can be more fully invested because a cash buffer for redemptions is unnecessary. In addition, a manager can be longer-term oriented and purchase less liquid securities. A fund's stable pool of capital also allows managers to leverage up their dividend yields, as I will explain next.

HOW LEVERAGE WORKS

Almost 90% of closed-end muni funds leverage their portfolios with auction-rate preferred stock (or "ARP"). The vast majority of managers introduce leverage 30 to 60 days after a fund's IPO. About $25 billion of ARPs have been issued by these funds. Thus, as a byproduct of leveraging, muni fund managers are creating an additional short-term

FIGURE 1. MEDIAN DISCOUNTS/PREMIUMS OF CLOSED-END MUNI FUNDS

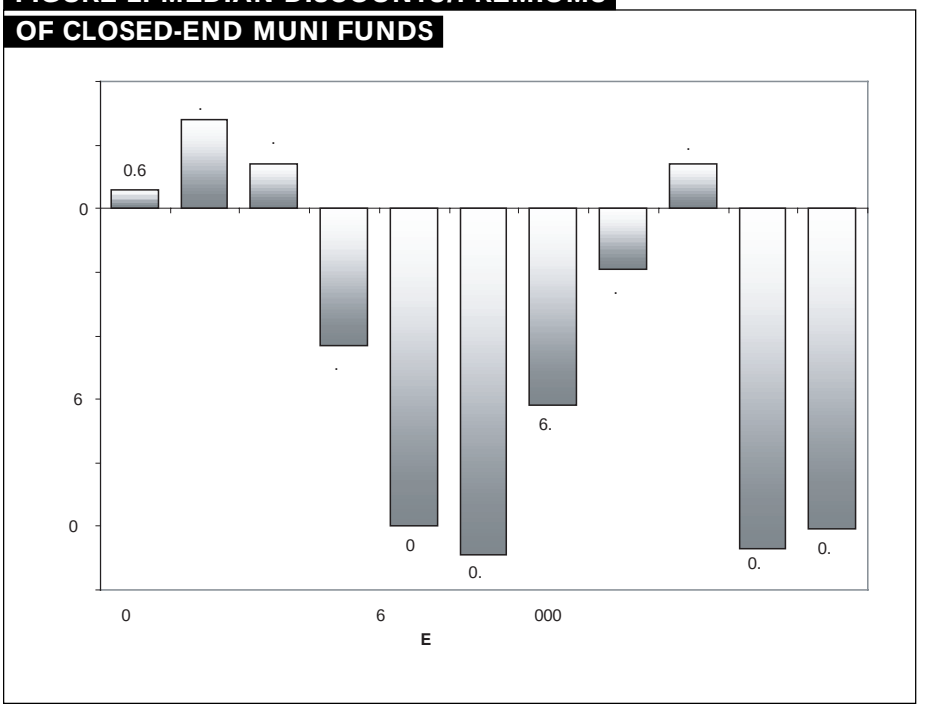

TABLE 2. HOW LEVERAGE ENHANCES YIELD

Assumptions:

- $200 million common equity plus $100 million preferred issue provides $300 million for investment in long-term munis
- 33% leverage ratio [$100 million preferred/$300 million total assets]
- 2% current cost of $100 million preferred issue
- 5% yield on $300 million long-term municipal portfolio
- Fund expenses are ignored for simplicity
- The fund trades at net asset value

Investment results:

Earnings on portfolio	$15,000,000	(5% of $300 million)
Less preferred dividend	(2,000,000)	(2% of $100 million)
Equals net earnings	$13,000,000	
Total return on common equity (net earnings/common equity) = 6.5%		($13 million/$200 million)

municipal security for affluent individuals and institutions seeking tax-exempt income. For a $25,000 minimum investment, seven-day muni paper yields 25 to 30 basis points more than the average tax-free money fund, since fund expenses are not netted out of your return. Muni preferred is available through major brokerages at no commission, because the fund will pay the broker. For further information on muni preferreds, go to Nuveen's Web site (www.nuveen.com), click on "Exchange-Traded Funds Home," and then select "Preferreds."

Leverage magnifies your return when a portfolio's earnings exceed the financing cost. The typical leveraged muni fund borrows 50 cents for each dollar of investor capital. Some borrow more. The proceeds of a preferred issue are invested in additional long-term munis, the objective being to enhance yield by borrowing at relatively low short-term rates and investing at higher long-term rates. The municipal yield curve generally slopes steeply upward so the strategy normally makes higher dividends possible.

The Role of Short Rates

Municipal fund managers often follow a buy-and-hold strategy, so changes in short rates exert a dominant impact on leveraged muni-fund earnings. The dividend rate on the preferred is pegged to short rates. Issuers reset their rates in periodic Dutch auctions (the reset period is typically seven days). When an issue of preferred matures, a new one immediately replaces it at the current interest rate. If municipal short-term rates fall (as they did last year), the cost of leverage declines, increasing net investment income, which in turn allows a fund to increase its dividends (as they did last year). Similarly, income drops and dividend cuts can occur if short-term rates trend up as in 1994 and 1999.

Table 2 illustrates the impact of favorable leverage on the dividend yield of a hypothetical $300 million national muni portfolio with a $100 million preferred issue, which has the typical 33% leverage ratio. The common shareholders earn 6.5% before expenses, even though the underlying long-term muni portfolio yields only 5%. That's because the 5% yield is 300 basis points above the 2% preferred cost. These rates were representative of the municipal bond yield curve at the time of this writing (November 2001).

Keep in mind that rising short-term rates will eat into a leveraged portfolio's income. The profit from the leverage is erased if the 2% preferred yield should rise to the 5%

Sources of Information on Closed-End Muni Funds

Complete Listings

- The Wall Street Journal (on Mondays) in the closed-end fund tables
- Barron's in the closed-end fund tables

Muni Fund Analysis and Information

- The Closed-End Fund Association's Web site (www.cefa.com)
- Morningstar.com (www.morningstar.com)

Tracking Discounts

- The Closed-End Fund Association's Web site (www.cefa.com)
- Morningstar.com (www.morningstar.com)

Funds with Above-Average Call Risk

- The Closed-End Fund Association's Web site (www.cefa.com) has a list of closed-end muni funds with above average call risk—click on "Research Articles" and select the First Union Securities report (09-19-01).

Fund Company Web Site Addresses

- ETFConnect (www.etfconnect.com): Go to "Industry Links" and click on "Sponsors."

TABLE 3. HOW LEVERAGE AMPLIFIES VOLATILITY

Assumptions:

- Total assets: $300 million
- Preferred stock issue: $100 million
- Common equity: $200 million ($300 million total assets less $100 million preferred)
- NAV: $10 per share (based on 20 million common shares)

Panel A: Rates fall, causing total assets to rise 10%, and NAV to rise 15%

Total assets after increase:	$330,000,000	(10% above original $300 million)
Less preferred stock:	(100,000,000)	
Equals new common equity:	$230,000,000	(15% above original $200 million)

New NAV: $230 million ÷ 20 million = $11.50 (15% above original $10)

Panel B: Rates rise, causing total assets to fall 10%, and NAV to fall 15%

Total assets after decline:	$270,000,000	(10% below original $300 million)
Less preferred stock:	(100,000,000)	
Equals new common equity:	$170,000,000	(15% below original $200 million)

New NAV: $170 million ÷ 20 million = $8.50 (15% below original $10)

long-term yield. However, managers who anticipate rising rates can extend the maturity of their preferred, locking in current rates for longer. If short rates were to climb above the long-term yield, leverage reduces the net income. But unlike in the U.S. Treasury market, where short-term rates occasionally top long-term rates, an inverted yield curve hasn't been witnessed in the tax-exempt market due to a persistent structural scarcity of short-term borrowing.

The Role of Long Rates

Table 3 illustrates that changes in long-term rates amplify changes in a fund's common equity and net asset value. As seen in Panel A, a favorable leveraged effect occurs if long-term rates fall, causing the portfolio value to rise 10% and the net asset value to climb 15%. This would also be expected to result in rising dividends and narrowing discounts (or expanding premiums), due to increased investor demand. Finally, the fund's leverage ratio falls from the original 33% to 30% as total assets rise because the preferred value is fixed.

As seen in Panel B, if a rise in long-term rates causes the total portfolio to fall 10%, the fund's common equity and net asset value both drop by 15%. The leverage ratio increases from the original 33% to 37%. Thus, an increase in long-term rates leads to a leveraged decline in net asset value. This decline is particularly pronounced with long-duration portfolios, which face greater interest rate risk. If interest rates rise sharply, leveraged muni investors face a triple whammy: reduced dividends, falling net asset values, and deepening discounts. Discounts widen because sellers tend to outnumber buyers as they see interest rates rising and portfolio values falling. Given the fact that interest rates were at extreme lows as of this writing (November 2001), the longer-term share price outlook for leveraged muni funds could be unfavorable if interest rates rise.

COMPARING PERFORMANCE

Table 4 compares net asset value and market price returns of both leveraged and unleveraged closed-end muni funds in bear and bull market years. As evident, larger net asset value and market price declines occurred in the leveraged portfolios in 1994 and 1999. Share price losses were greater than net asset value declines for both leveraged and unleveraged funds in those two years, due to deepening discounts on both groups of funds.

Conversely, in 1993, 1995, 1997, and 2000, the leveraged funds outperformed their unleveraged counterparts on a net asset value basis. However, the degree of outperformance varied and was relatively small in 2000. The leveraged portfolios also generally outperformed their unleveraged counterparts on a share price basis in the bull years—but in 1993 this was not true.

A careful comparison of the returns in Table 4 indicates that the differences between net asset value returns for the two groups may be more extreme than the correspond-

TABLE 4. LEVERAGED VS. UNLEVERAGED RETURNS

	NAV Returns		Market Price Returns	
	Unleveraged (%)	Leveraged (%)	Unleveraged (%)	Leveraged (%)
Bear Markets				
1994	–3.2	–10.3	–9.1	–16.4
1999	–2.6	–6.4	–15.9	–17.8
Bull Markets				
1993	11.3	16.4	12.1	12.0
1995	17.0	24.3	18.2	24.3
1997	9.4	10.6	14.5	16.9
2000	16.1	16.6	9.8	16.4

Source: First Union Securities

ing differences in market price returns. In 1999, for instance, one would not expect to see such a large negative market price return for the unleveraged funds. "Guilt by association" explains this phenomenon. Although investors in general are becoming better informed, many still do not understand the subtle differences between leveraged and unleveraged funds. Thus, when interest rates spike upward, people tend to flee both groups of funds, driving share prices down. The distinction between the two categories becomes blurred in the minds of many investors.

Over many years, a leveraged muni fund's returns should average slightly higher than those of an otherwise equivalent unleveraged fund. Two older Nuveen funds illustrate this. The unleveraged $2 billion Nuveen Municipal Value (NUV) went public in June 1987. The $1.5 billion Nuveen Premium Income (NPI) was introduced in July 1988, becoming the first leveraged closed-end muni fund. The annualized net asset value returns of NUV and NPI from inception to October 31, 2001, were 7.72% and 7.98%. Both are national funds and have comparable portfolios.

INTEREST RATE RISK

A fundamental "seesaw relationship" exists between interest rates and bond prices: rising rates lead to falling bond prices and vice versa. Falling rates have boosted bond prices recently. On November 6, 2001, the Federal Reserve had cut interest rates for the tenth time last year. That happened a few days after the Treasury Department announced that it would no longer borrow by issuing 30-year bonds. The latter resulted in a decline in long-bond yields, due to increased demand for these securities. At some point in 2002 or 2003, rates may rebound.

One good measure of interest rate risk is the concept of duration, a sophisticated measure of a bond's "average" life, taking into consideration its time to maturity, the stream of interest payments, and current price. The longer a bond or bond fund's duration, the greater its interest rate risk.

Average portfolio durations of closed-end muni funds range from less than three years to more than 12.

The duration of an individual bond fund is a function of the interest rate environment when the fund came to market and where it now is in its call cycle. The leverage-adjusted duration on a muni fund can be found by dividing the reported portfolio duration by an amount equal to one minus the leverage percentage. A fund's leverage-adjusted duration is typically 50% greater than its regular portfolio duration.

ANALYZING THE DIVIDEND

The worst nightmare facing a fixed-income closed-end fund manager is being forced to cut the dividend. This can result in a swift

More on Duration

What It Is

Duration is a measure of the weighted average life of a bond or bond fund, taking into consideration all cash flows including the interest payments and return of principal at maturity.

What the Number Means

The longer the duration, the greater the interest rate risk. A duration of 12 years means the bond or bond fund would decline by 12% with each one percentage point rise in interest rates, and rise by 12% with each one percentage point fall in interest rates. A duration of three years would mean a 3% decline in value for each one percentage point rate rise, and a 3% rise in value for each one percentage point rate drop.

Adjusting for Leverage:

Leverage-adjusted duration = portfolio duration ÷ (1 – leverage percentage)

Example:

Fund duration = 8

Portfolio leverage = 33%

Leverage-adjusted duration = 8 ÷ (1.00 – 0.33) = 11.94

For more on duration, including fund leverage-adjusted durations, see fund family Web sites, in particular, the Nuveen Web site at www.nuveen.com.

drop in the share price and a flood of phone calls from unhappy investors.

Several factors determine the sustainability of the dividend. Call risk is the danger of having older, higher-coupon bonds called in for early redemption by their issuers during a period of low interest rates. Issuers want to replace such bonds with new, lower coupon issues. If interest rates were to remain stable over the next 12 months or so, funds with above-average call risk would need to reinvest the proceeds from called issues at lower current rates. This would reduce earnings and lead to dividend reductions, declining stock prices and deepening discounts. The further the decline in interest rates, the greater the call risk and the lower the yields on reinvested money.

A key component in assessing the attractiveness of a muni fund, call exposure, is becoming more available for all funds. A detailed analysis of call risk will require annual data going forward for five years that displays the percentage of total assets subject to calls or maturing in each year. In my opinion, above-average call risk exists when more than 17% of a portfolio's assets are subject to calls in a given year. The more years that a municipal bond fund has high call exposure, the greater the risk.

A fund's undistributed net investment income is a telling number. This figure represents the life-to-date balance of a fund's net investment income, less distributions of net investment income (or dividends). Undistributed net investment income appears as a line item on a fund's statement of changes in net assets. Typically, closed-end funds will use undistributed net investment income to help stabilize dividends on a month-to-month basis. Closed-end muni funds are required to distribute at least 90% of their net investment income annually. That means that up to 10% of earnings can be held back. Careful investors look for an earnings-to-dividend ratio above 1.0 (earnings per share/dividends per share) and a positive undistributed net investment income balance. Although higher undistributed net investment income numbers are normally better, holding back excessive amounts of income may not be in shareholders' best interest because it reduces their monthly earnings.

FOCUS ON INCOME

While closed-end muni funds have performed very well for the past two years, it's important to recognize that significant increases in short- and long-term rates can lead to shareholder disappointment, as I have explained. The disappointment would be particularly painful for those individuals who may be looking to these funds for stock-market-like gains. However, most fixed-income investors are buying for income generation and stability of income, not capital appreciation. It is very important that investors maintain that perspective when they turn to closed-end muni funds. Such funds are managed for income, not appreciation on the equity side.

The best strategy may be to gradually build your closed-end muni fund holdings through regular investments over the years, trying to invest more in well-managed funds when discounts are deep. Leverage can work for long-term investors because short-term muni rates on average are 200 to 300 basis points lower than long-term muni rates. ❖