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Closed-End Funds

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Municipal Closed-end Funds & Interest Rate Risk

Wider Discounts after the Terrorist Attack Create Opportunities for Income Investors, but Longer-term Outlook Could Be Gloomy Assuming Long Rates Rise

We expected the prices of municipal closed-end funds to perform well and for the funds to be a safe haven when the market reopened after the terrorist attacks on September 11th. However, by the end of last week, municipal closed-end funds' discounts had widened significantly. We think closed-end fund investors have over-reacted (as they sometimes do), and we expect discounts among municipal closed-end funds to narrow over the next few days or weeks. In the longer term, however, we think the outlook for municipal closed-end funds could be gloomy if long interest rates rise. By way of background, this report also discusses the effects of short and long-term municipal rates on the net asset values, discounts and dividends of municipal closed-end funds in order to guide different types of investors as to how they should react in the current environment.

The Effect of Changes in Short Rates

Almost 90% of the 228 municipal closed-end funds leverage their assets. In other words, they raise additional assets by issuing very short-term (typically 7 or 28-day) preferred stock and invest those assets at higher, long-term rates. Consequently, short rates play an important role in the performance of leveraged municipal closed-end funds. Changes in municipal short rates impact their dividend in particular. Since most municipal fund managers generally follow a buy-and-hold strategy, the earnings of a municipal closed-end fund are mainly impacted by changes in municipal short rates. (In this report, we do not focus on call risk, which could also have an impact on a fund's earnings and consequently its dividend, and we will assume good call protection. Refer to our 9/17/01 report titled "Municipal Closed-end Funds: Avoid Near-term Call Risk".) If municipal short rates fall, as they have this year, the cost of leveraging declines, in turn increasing a municipal closed-end fund's net investment income or earnings. A rising earnings stream allows the fund to increase its dividend. Similarly, if municipal short rates rise, a fund's earnings, and consequently its dividend, will probably decline.

The Effect of Changes in Long Rates

While short rates mainly impact the *dividend* of leveraged municipal closed-end funds, any changes in municipal long rates affect their *net asset value* and *discount*. When municipal long rates fall, the prices of tax-free bonds, and consequently the net asset values of municipal closed-end funds, rise. Similarly, when long rates rise, net asset values of municipal closed-end funds fall. Leverage will magnify the impact of changes in long rates on the net asset value of a closed-end fund. (Refer to our 7/13/00 report titled "Leverage among Closed-end Funds" for a more detailed explanation of how leverage works.)

We believe changes in long rates also have an effect on the discount of a closed-end fund. As interest rates fall, investors start to search for attractive yields to satisfy their income requirements. Mainly due to their ability to leverage, their discounts and sometimes their lower expense and transaction costs, municipal closed-end funds typically offer higher yields than other comparable tax-free options such as individual municipal bonds, open-end funds or unit investment trusts. Thus, when interest rates are low, investors look to buy municipal closed-end funds to satisfy their income needs. This increased demand for closed-end funds causes their discounts to narrow. When interest rates rise, the opposite occurs and discounts widen. Thus, the price volatility of an income closed-end fund is typically greater than its net asset value volatility.

Table 1
Annual Total Returns
of Municipal Closed-end Funds

	Price	NAV
YTD*	13.5%	7.4%
2000	16.6%	15.6%
1999	-17.6%	-5.8%
1998	10.3%	6.5%
1997	16.6%	10.5%
1996	8.3%	4.5%
1995	23.4%	23.4%
1994	-15.4%	-9.5%
1993	12.0%	15.6%
1992	8.8%	10.3%
1991	15.6%	12.7%

** as of 9/7/01*

Performance of Municipal Closed-end Funds

Until the tragic terrorist attacks, municipal closed-end funds provided excellent returns for almost two years. As shown in Table 1, in 2000 the average price and net asset value total returns of all municipal closed-end funds were 16.6% and 15.6%, respectively. This year through the week before the terrorist attack, the price and net asset value total returns had been 13.5% and 7.4%, respectively. As long municipal interest rates declined since early 2000 as shown in Figure 1, the net asset values, and consequently the prices, of municipal funds rose.

Furthermore, as municipal short rates, and consequently the cost of leverage, declined since mid-May of last year, leveraged municipal closed-end funds increased their dividends — in some cases, several times. Figure 2 shows the cost of leverage of municipal closed-end funds; the 7-day AAA municipal preferred is currently yielding just over 2%. Finally, the prices of municipal closed-end funds rose faster than their net asset values narrowing discounts.

On the other hand, some municipal closed-end fund investors probably have a hard time forgetting the 1994 and 1999 years. In 1994, the price and net asset value total returns for municipal funds averaged -15.4% and -9.5%, respectively. In 1999, those figures were -17.6% and -5.8%, respectively. During those years, interest rates rose significantly, dragging down net asset values of municipal funds, especially those of leveraged funds. Funds' prices fell even faster, widening discounts or turning premiums into discounts. In addition, as short rates rose, lifting the cost of leverage, dividend cuts became commonplace among leveraged municipal funds. To top it off, by the end of each of those two years investors took advantage of these funds' price declines and almost indiscriminately sold (i.e. dumped) municipal closed-end funds at the end of those years for tax purposes, widening their discounts to record levels.

What Happened Last Week?

We can only speculate on the reasons why the prices of municipal closed-end funds fell so dramatically last week. The average price return for all municipal closed-end funds was -4.9% in the past week but the net asset value return was only -1.6%. In other words, prices fell on average over three times as much as the net asset values. In one week, the average discount of all municipal closed-end funds almost doubled when it widened from a 3.8% discount before the terrorist attacks to a current 7.1% discount as shown in Figure 1.

We heard from a few sources that investors may have sold municipal closed-end funds to cover margin calls as the stock market experienced its worst performance for the last 68 years. Although difficult to measure or verify, this phenomenon would certainly explain the drastic widening of discounts among closed-end funds in general in such a short period of time. Municipal closed-end funds were probably among the first securities that investors would have sold to raise cash. After all, while prices of municipal closed-end funds declined drastically last week, they were still substantially higher over previous months.

We also think that investors may have started to become nervous about higher long rates over the next year. We believe that an economic recovery by the end of next year could potentially fuel long rates. Ten and 30-year treasury rates rose last week, and municipal long rates tend to move in tandem. If long municipal rates rise, the value of long bonds — and consequently the net asset value of municipal closed-end funds — would decline. Finally, the discounts of income closed-end funds would likely widen. And this is exactly what municipal closed-end funds experienced last week.

Our Outlook

We think investors oversold municipal closed-end funds last week, and we expect the prices of municipal closed-end funds to recover over the next few days or weeks. In fact, the prices of **the Nuveen Premium Income Municipal Fund** (NPI-NYSE $13.80, C/M) and the **Nuveen Insured Municipal Opportunity Fund** (NIO-NYSE $14.05, C), the two largest and most liquid leveraged municipal closed-end funds, fell throughout the week, but closed higher on Friday compared to the previous day. The funds are currently yielding 6.1% and 6.3%, respectively, which equates to 10.2% and 10.4% tax-equivalent yields for individuals in the highest tax bracket (39.6%).

In the longer term, however, our outlook for municipal closed-end funds is substantially dimmer. Long rates have already reached historically very low levels (as shown in Figure 1), and we feel that the probability that they eventually will rise is higher than the probability that they will fall even further. If that is the case, different types of investors should follow different strategies, as discussed below.

If long municipal rates were to rise sharply before year-end, causing net asset values to drop and discounts to widen, creating a negative price return for the year, then we think investors may take advantage of this situation to sell shares by year-end for tax purposes. In that case, we would see a repeat of what happened towards the end of 1994 and 1999: discounts widening to historically record levels.

Different Investors, Different Strategies

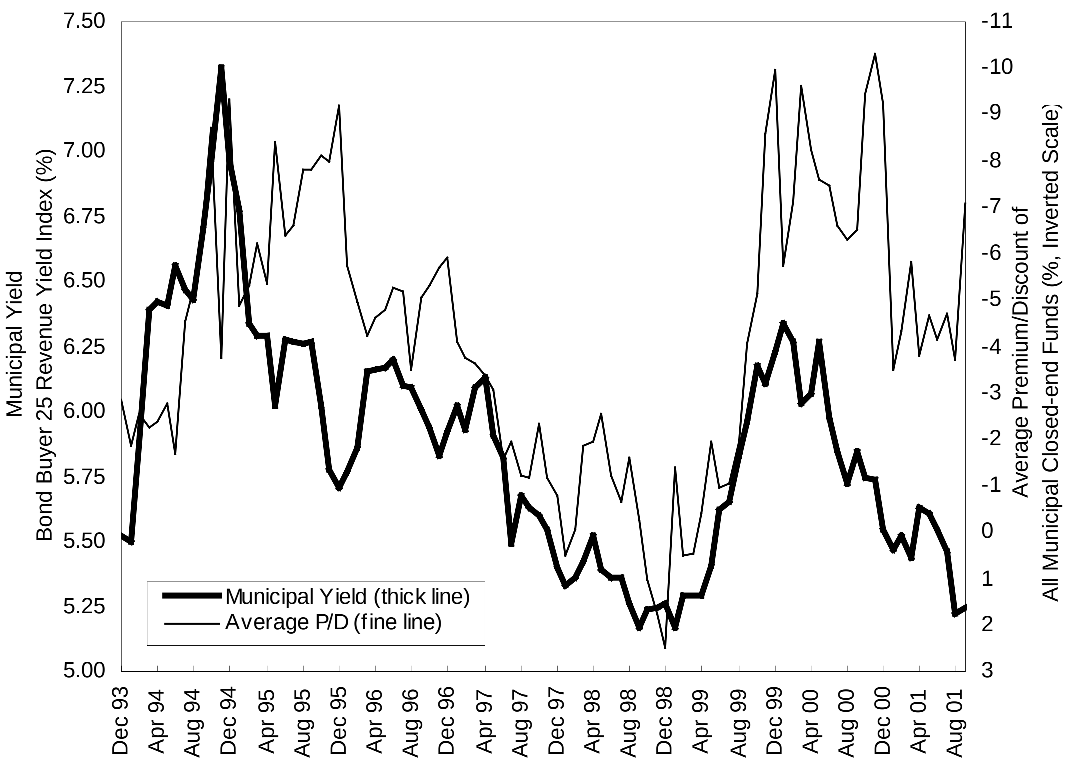
We believe there are two general types of investors who purchase municipal closed-end funds. First, there are the income investors — investors looking for tax-free income. They buy municipal closed-end funds as higher-yielding and more liquid alternatives to individual municipal bonds, and the funds' monthly distribution is often a welcome and attractive feature. Then, there are the market timers — investors who use municipal closed-end funds as if they were stocks to play the interest rate cycle. These investors tend to be successful with their strategy of buying municipal closed-end funds when they are at deep discounts and sell them when they are trading at narrower discounts or premiums. What they are *really* doing is buying municipal closed-end funds when interest rates are high — municipal closed-end funds typically trade at wide discounts during this period — and selling when interest rates are low — funds usually trade at narrower discounts or premiums during this time.

In the case of a rising long rate environment, we believe the income investors should "grin and bear it." In other words, this type of investor should be willing to accept the market fluctuations. Otherwise, if income investors swap into a less interest rate-sensitive option, such as an individual short-term municipal bond, they probably will be forced to accept a lower yield. We think the **Nuveen Performance Plus Municipal Fund** (NPP-NYSE $13.55, C/M), the **Nuveen Municipal Advantage Fund** (NMA-NYSE $13.82, C/M) and the **Nuveen Select Quality Municipal Fund** (NQS-NYSE $13.36, C/M) are attractive leveraged municipal closed-end funds with solid fundamentals and attractive valuations for the income investor. These funds are currently yielding 6.3%, 6.4% and 6.7%, respectively, and are trading at 11.8%, 10.7% and 12.6% discounts, respectively. These funds have only a sprinkling of calls over the next few years, enough to make their net asset values somewhat less interest-rate sensitive (a welcome feature in a rising interest rate environment), but not so much as to jeopardize severely their earnings and therefore their dividends.

In contrast, we think market timers should move into less interest-rate sensitive instruments such as short-term individual municipal bonds, municipal open-end funds or unit investment trusts, if interest rates rise. There are very few nonleveraged or short-duration municipal closed-end funds, which are less interest-rate sensitive than the more typical municipal closed-end fund, which is leveraged and perpetual. The **Nuveen Municipal Value Fund** (NUV-NYSE $8.90, C) and **MSDW Insured Municipal Securities** (IMS-NYSE $14.46, C) are nonleveraged funds yielding 5.7% and 5.4% and trading at 12.0% and 8.1% discounts. MSDW Insured Municipal Securities has above-average call risk starting in 2003, and we expect its dividend to remain stable until then. The **American Municipal Term Trust III** (CXT-NYSE $10.88, C) will terminate in mid-April 2003 and is one of the few short-duration municipal closed-end funds that has good call protection. We believe it will likely return more than its $10 target at termination since its net asset value is already at $11.21. Investors who try to time the interest rate cycle switch into a less interest rate-sensitive alternative, will most likely need to accept a lower yield.

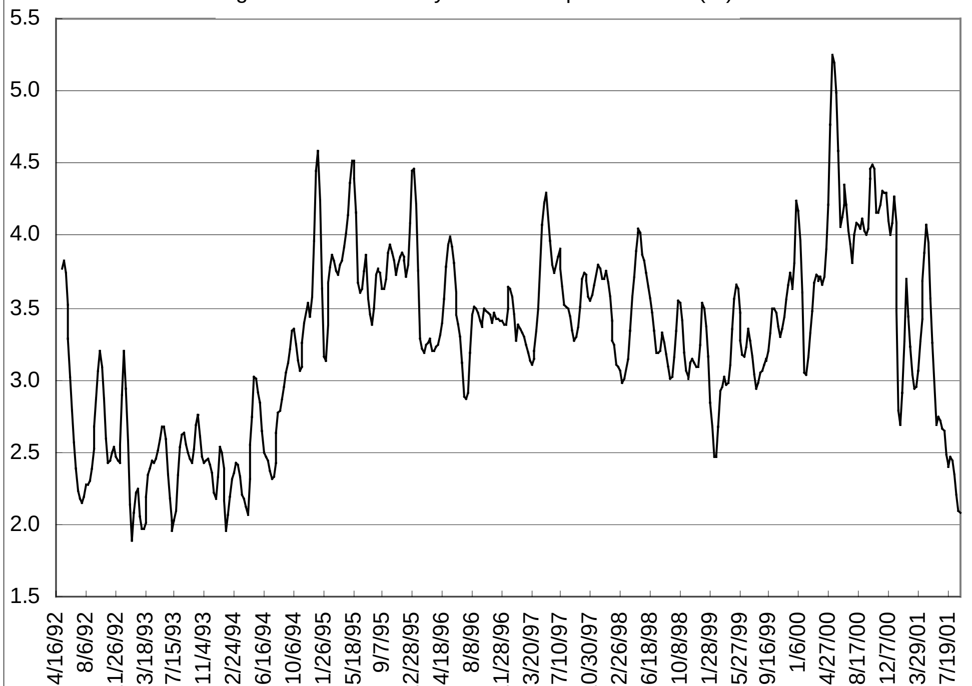
Of course, the foregoing recommendations are based on our interest rate assumptions — i.e., that long rates will rise by the end of 2002. If long rates instead were to continue to decline, then the newest funds would produce superior returns. Funds offered since 1999 have strong call protection and therefore more interest rate-sensitive net asset values.

Figure 1: Municipal Yields vs Average Premium/Discount



Source: Bloomberg, CDA (Avg. P/D as of 9/21/01, Bond Buyer data as of 9/6/01)

Figure 2: Yield of 7-day AAA Municipal Preferred (%)



Source: Bloomberg, 4-week moving average, data as of 9/6/01

Additional information is available upon request.

Definition of Risk Ratings

Two main factors contribute to a fund's risk rating: (1) the number of risks affecting a fund (credit quality, leverage, currency exposure, sovereign risk, market capitalization, security or industry concentration, etc.), and (2) a fund's expected net asset value volatility, which is measured by the 5-year annualized standard deviation of net asset value. A fund's historical volatility will be an indicator of its future volatility, but we will adjust it for any investment strategy changes.

A fund rated conservative (C) will typically have exposure to only one risk and its expected volatility will be below 8%. A fund rated moderate (M) will typically have at least two risks and its expected volatility will be between 9% and 16%. A fund rated aggressive (A) will be exposed to at least three risks and its volatility will be above 17%. A combined risk rating (C/M or M/A) means that each of the two risk factors (number of risks and expected volatility) reflects a different risk category.