Closed-end funds have a long and checkered history of using leverage. Its excessive use during the freewheeling 1920s led to the demise of many such funds on the heels of the 1929 crash. The large number of CEFs formed in the late 1920s to satisfy the speculative appetites of individuals typically had capital structures heavily laden with debt and preferred stock. In addition, investors bought CEFs on paper-thin margins. In an extreme case, a speculator might have bought a CEF on just 10% margin when the fund's common equity constituted a mere 10% of its assets. And, of course, the fund itself could invest on margin (see Sobel [1998]).

Leverage still is common among closed-end funds, although its use is far more prudent than in the late 1920s when regulation was virtually non-existent. This potentially beneficial form of financing is not as readily available to open-end funds.

About 40% of the approximately 500 closed-end funds are leveraged. Most are bond funds, and the greatest number of them are in the large municipal bond category. Leveraged bond funds can pump up yields when the yield curve is relatively flat and greater yields cannot be earned by lengthening maturities. Several leveraged bond funds went public in 1998, including the $1.6 billion Van Kampen American Capital Senior Income Trust. The second-largest closed-end IPO ever, this fund invests in senior collateralized bank loans to large corporate borrowers. To leverage its return, the fund can borrow up to a third of the value of its assets (see McGough [1998]).

Since 1996, a handful of prominent equity funds have turned to non-convertible preferred stock to increase capital, with the expectation of enhancing long-run performance and possibly narrowing discounts. The low level of interest rates has made leveraging attractive to managers. In addition, a 1989 tax ruling provided a unique tax break for CEF preferred
shareholders, as we'll explain.

Charles Royce pioneered the new era of equity fund preferred stock offerings with his August 1996, $60 million, 7.8% issue for Royce Value Trust. In June 1998, Spencer Davidson of General American Investors oversaw a $150 million, 7.2% preferred issue, the largest to date for a closed-end equity fund.1

This article compares non-convertible preferred stock with alternative means of raising capital. It analyzes leveraging and its potential dangers, shows how bond funds have leveraged successfully, and takes a close look at the recent use of equity funds' leverage.

ROUTES TO RAISING CAPITAL

Unlike their mutual fund relatives, closed-end funds do not have an ongoing cash inflow from new share issuances. A good manager, however, can have a need for additional assets when promising investments arise. It is desirable to have a source of fresh capital to commit to these new opportunities, because turning the portfolio over to raise cash may result in the realization of significant capital gains from the sale of highly appreciated securities. Closed-end funds can increase their assets through rights offerings, secondary stock offerings, or the issuance of preferred stock.

Rights Offerings

Management can raise money by issuing shareholders rights to buy new common shares at a predetermined subscription price. Rights offerings were very popular during the earlier part of the 1990s, but they have declined in usage since 1996, partly because they have come under attack by shareholders and the press. Critics argue that they often involve substantial discounts to encourage participation and, in some cases, investment bank fees, both of which dilute common shareholders. In addition, critics contend that the main purpose of rights offerings is to increase assets and management fees.

Closed-end managers who do well should be able to increase their asset base sensibly. Nevertheless, getting shareholders to pony up new money can be difficult in light of the financial circumstances of individual fund investors.

Secondary Stock Offerings

An additional public offering of shares is possible only when a fund trades at a premium. The Korea Fund, Germany Fund, and Japan OTC Equity Fund are among a handful of CEFs that have taken this route.

Because most funds trade at discounts most of the time, secondary offerings are very rare. Unlike a preferred offering, both rights and secondaries bring in new money without adding leverage.

Convertible Preferred Stock

A few funds have used convertible preferred stock to raise equity at a future time when the price of the common may have risen sufficiently to induce conversion. In theory, a convertible security is most appropriate for a more volatile fund such as a sector equity or country fund. Relatively stable domestic equity funds may not experience a sufficient price rise.

A convertible will leverage a capital structure until the issue is converted or called. Central Securities had a $9 million convertible preferred issue, which was called and redeemed in 1999.

Non-convertible Preferred Stock

Non-convertible preferred stock is the most common means of leveraging a closed-end fund. There are major differences
between the preferred issues of bond and stock funds, as we’ll see. But the principles of leveraging are similar for both categories. Well-managed domestic stock, bond, and balanced funds can use leverage far more safely than their highly volatile country fund cousins.

**THE CONCEPT OF LEVERAGING**

In general, leverage involves borrowing funds and investing the proceeds with the expectation of producing a return that exceeds the cost of borrowing. Preferred dividends must be paid before the common can receive any distribution. Suppose a CEF has $500 million of assets and wants to add $100 million of leverage with a 7.5% cumulative preferred issue. Following the offering, the fund’s capital structure would consist of $600 million of total assets, $100 million for preferred shares, and $500 million for common shares. This results in a 600% asset coverage ratio ($600 million of total assets divided by the $100 million preferred issue).  

As the proceeds from the $100 million preferred offering are invested in equities, the invested assets applicable to the common shares will rise above 100%. This adds a dimension of risk that the manager must consider, as invested assets can rise to as much as 120% in this example.

The Investment Company Act of 1940 requires that a fund's asset coverage be at least 200% to provide adequate protection for the senior securities. Higher coverage provides for a greater margin of safety in the event of a bear market. A more highly leveraged fund with a 400% asset coverage, that is, could experience a 50% asset shrinkage before its ratio would fall to the 200% minimum.

Exhibit 1 graphs several cases of leveraging in favorable markets with 400% and 600% coverage ratios. The leveraged returns are contrasted with the returns on an otherwise equivalent unleveraged portfolio. The illustrations assume a 7.5% preferred dividend rate and ignore operating expenses. In addition, the example ignores discount/premium fluctuations by assuming the fund always trades at net asset value. Fluctuating discounts and premiums introduce an added dimension of risk and return.

The excess invested assets enhance common shareholder earnings to the extent they return more than 7.5%. The higher the return, the greater the benefit of leveraging. In addition, the more extensive the use of leverage, the more significant its impact will be on returns.

For example, if an unleveraged fund generates a 50% return during a year, the common shareholders would earn 58.5% if the portfolio were leveraged with a 600% asset coverage. The earnings rise to 64.2% with a more aggressive 400% coverage.

**THE RISKS OF LEVERAGING**

Leveraging is not for everyone. This becomes particularly evident when markets turn turbulent as they did in the summer of 1998, and fear replaces greed as the dominant emotion. Because leverage is a double-edged sword, losses are more painful in bear markets. Simply put, a leveraged fund experiences greater price volatility than an unleveraged fund, which equates to a higher level of risk. In addition, returns are adversely impacted in weak or flat markets. In fact, gains and losses are not symmetric with leverage because the cost of the preferred exerts a drag on performance.

Exhibit 2 extends the illustration in Exhibit 1 to unfavorable markets. If an unleveraged fund loses 40% on its investments, common shareholders would
lose 49.5% on the same portfolio leveraged with a 600% coverage. The loss grows to 55.8% with a more aggressive 400% coverage.

The results in Exhibit 2 may actually understate the risk of leverage to common shareholders. This is because discounts may deepen in bear markets as fearful investors rush to cash out, causing share prices to tumble farther than NAVs. CEF investors face more risk than open-end investors do anyway, because they can’t redeem their shares at NAV. A CEF’s share price fluctuates with changes in supply and demand. Leverage amplifies the adverse impact on investor returns of any widening of the discount.

If a fund manager is concerned about the outlook for equities, a portion of the portfolio could be shifted into bonds and cash to neutralize the impact of leverage.

Some leveraged funds may normally choose to hold more of their assets in fixed-income securities, particularly if there is a managed-distribution plan (discussed later).

In addition, investors in leveraged CEFs face a risk in flat or sideways markets, due to ongoing financing charges. This can be like water torture during an extended period of low, single digit, equity returns. If the securities held by a CEF with a 7.5% preferred issue return 0% during a year, shareholders would lose 1.5% and 2.5% with 600% and 400% asset coverage. The return on an unleveraged fund would equal the return on a leveraged fund when the portfolio just earns the preferred’s 7.5% cost. Below this break-even point, the unleveraged fund has the advantage.

Finally, leverage amplifies management risk. Losses are exacerbated to the extent that the manager bets on
companies or sectors that turn sour. While a manager with deft hands is always desirable, this is crucial with a leveraged fund.

**LEVERAGED MUNICIPAL BOND FUNDS**

Closed-end municipal bond funds made a big splash in June 1987 with the $1.48 billion IPO of Nuveen Municipal Value Fund. At the time, it was the largest offering in the history of the New York Stock Exchange. Nuveen Premium Income Fund, the first leveraged muni bond fund, went public in July 1988 and leveraged in October of that year. Many closed-end muni offerings followed in the late 1980s and the early 1990s.

Today, more than 75% of the 200 closed-end municipal bond funds are leveraged with Dutch auction preferred stock. The muni yield curve has virtually always sloped upward, so the funds can borrow at relatively low short-term rates and invest the proceeds at higher long-term rates.

For example, if the "embedded" yield on the fund's investments is 6%, there are $2 of common assets for every $1 of preferred assets and the preferred costs 3.5%; then common shareholders will earn 7.25%. The asset coverage typically amounts to about 300%, as in this example, but lower coverage is not uncommon. The preferred stock rate usually is reset every seven or twenty-eight days by Dutch auction. ³

When an issue matures, a new one replaces it at the current interest rate. So, if short-term rates trend up, the preferred would be rolled over at successively higher rates, which can pose problems. Conversely, common shareholders benefit when short-term rates drop.

Because of their sizable tax-free yields, leveraged muni funds proved exceedingly popular as rates trended

---

**EXHIBIT 2**

Leveraging in Unfavorable Markets

Assumes a 7.5% cost of leverage; ignores fund operating expenses.
downward from the late 1980s through 1993. Some funds distributed extra dividends resulting from the favorable leverage. Premiums were widespread. When rates spiked upward in late 1993 and in 1994, however, the funds' NAVs were adversely impacted and their shares slumped to double-digit discounts. Exhibit 3 indicates that sizable NAV declines were common among leveraged portfolios in 1994.

Thus, if interest rates rise sharply, leveraged muni investors face a triple whammy -- reduced dividends, falling NAVs, and deepening discounts. Conversely, in the bull market years of 1993, 1995, and 1997, the leveraged funds handily outpaced their unleveraged counterparts.

LEVERAGED EQUITY FUNDS

Seven of the fifty-six closed-end domestic equity funds tracked by Lipper have leveraged with preferred stock since 1996. The recent renaissance of equity fund leverage is due to two factors:

- **An extended period of low inflation and low long-term interest rates.** Issuing fixed-rate-preferred shares is an attractive way to raise capital in a relatively low interest rate environment. In fact, the thirty-year Treasury bond saw its yield dip below 5% on September 30, 1998, an historic low for this bellwether instrument, which was first issued on a regular basis in 1977.

- **A tax break for preferred shareholders.** Revenue Ruling 89-81 issued in 1989 provides for equal tax treatment of common and preferred dividends of regulated investment companies (RICs), making the preferred particularly appealing for certain individual investors. Because of their unique tax advantage, preferred shares can possibly be issued at a lower coupon rate than would otherwise be the case.

Exhibit 4 provides information on nine non-convertible preferred issues of eight closed-end equity funds. Tri-Continental, which has leveraged since its 1929 inception, is not included since its $37.6 million preferred issue is fairly insignificant, amounting to only about 1% of its assets. Our analysis focuses on funds with significant leverage.

The typical preferred stock underwriting spread is 315 basis points, which, together with other offering expenses, reduces the issue's proceeds and dilutes the NAV of the common. The investment advisor normally earns a management fee on the preferred capital, but it has developed that some advisors will waive fees on the incremental incremental assets if the fund's NAV total return does not exceed the preferred's stated dividend rate.

When a fund has a new issue of preferred in a pricey market to lock in funds also tend to leverage less of their assets than bond funds, which is logical because common stocks are more volatile investments. Most equity fund preferred issues pay quarterly dividends, are cumulative, become callable five years after issuance, and have a $25 per share liquidation preference.

Commencing on a preferred's callable date, management may redeem the issue in whole or in part at the liquidation preference price. Otherwise, the security is perpetual. Presumably, management would call the issue if interest rates have fallen sufficiently, but retain it if rates have risen or remained relatively stable.

Because the preferred shares are listed on an exchange, investors are free to trade them. Price and volume data are listed
EXHIBIT 3
Effect of Leverage on Investment Grade Municipal Fund Returns During Various Market Environments*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bullish</td>
<td>Bearish</td>
<td>Bullish</td>
<td>Mildly Bullish</td>
<td>Bullish</td>
<td>Mildly Bullish</td>
</tr>
<tr>
<td>Leveraged Muni Funds</td>
<td>16.1</td>
<td>-10.2</td>
<td>23.5</td>
<td>4.7</td>
<td>11.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Non-Leveraged Muni Funds</td>
<td>11.9</td>
<td>-3.7</td>
<td>16.8</td>
<td>4.5</td>
<td>9.2</td>
<td>5.8</td>
</tr>
</tbody>
</table>

*Forty-seven leveraged funds and sixteen non-leveraged funds
Source: First Union Securities; Wiesenberger, a Thomson Financial Company

Together with the fund's common in the stock tables of *The Wall Street Journal*, *Barron's*, and other newspapers. Royce Focus Trust and Royce Micro-Cap Trust, which both trade on Nasdaq, list their preferreds on the American Stock Exchange. A preferred security is basically like a bond that is bought and held, so its trading volume is low. The price fluctuates with changes in interest rates and perceived changes in an issuer's creditworthiness. Thus, investors face interest rate risk and credit risk. In addition, prices tend to rise during a quarter as the dividend accrues and drop on the ex-dividend date.

Potential Tax Benefits

In 1989, Revenue Ruling 89-81 for RICs established equivalent tax treatment for dividends paid to common and preferred shareholders. Thus, CEFs are required to allocate income taxed as long-term capital gains, as well as other types of income, proportionately among common and preferred shareholders. Dividends paid on the preferred may include long-term capital gains (taxed at a minimum 20% on securities held for more than twelve months), ordinary income (including short-term capital gains), and, in unusual circumstances, return of capital.

General American Investors has determined that about 90% of its common stock distributions over the past twenty years have consisted of net long-term capital gains. Certain investors may receive a tax benefit from the long-term capital gains. Conversely, individual investors holding preferred shares of corporations that are not RICs receive dividends of only ordinary income.4

A possible tax advantage also exists for common shareholders, because they avoid paying taxes on the portion of the taxable earnings allocated to the preferred in the form of dividends in any given year. And, if the leverage improves the stock's performance, the common could benefit to a greater extent from the preferential long-term capital gains rate.
EXHIBIT 4
Non-Convertible Preferred Stock Issues of Equity Funds

<table>
<thead>
<tr>
<th>Fund</th>
<th>Issue Date</th>
<th>Callable Date</th>
<th>Preferred Rating</th>
<th>Dividend Rate (%)</th>
<th>Face Value of Issue ($Mil)**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabelli Convertible Securities</td>
<td>May 97</td>
<td>May 02</td>
<td>AAA</td>
<td>8.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Gabelli Equity Trust</td>
<td>June 98</td>
<td>June 03</td>
<td>aaa</td>
<td>7.25</td>
<td>31.25</td>
</tr>
<tr>
<td>Gabelli Global Multimedia Trust</td>
<td>June 97</td>
<td>June 02</td>
<td>aaa</td>
<td>7.92</td>
<td>135.00</td>
</tr>
<tr>
<td>General American Investors</td>
<td>June 98</td>
<td>June 03</td>
<td>aaa</td>
<td>7.20</td>
<td>150.00</td>
</tr>
<tr>
<td>Royce Focus Trust</td>
<td>Nov. 97</td>
<td>Dec. 02</td>
<td>aaa</td>
<td>7.45</td>
<td>20.00</td>
</tr>
<tr>
<td>Royce Micro-Cap Trust</td>
<td>July 97</td>
<td>July 02</td>
<td>aaa</td>
<td>7.75</td>
<td>40.00</td>
</tr>
<tr>
<td>Royce Value Trust</td>
<td>Aug. 96</td>
<td>Aug.01</td>
<td>aaa</td>
<td>7.80</td>
<td>60.00</td>
</tr>
<tr>
<td>Royce Value Trust</td>
<td>May 98</td>
<td>June 03</td>
<td>aaa</td>
<td>7.30</td>
<td>100.00</td>
</tr>
<tr>
<td>Source Capital</td>
<td>June 72</td>
<td>Any time</td>
<td>NR</td>
<td>8.73*</td>
<td>54.15</td>
</tr>
</tbody>
</table>

*Based on a $2.40 annual dividend and a $27.50 liquidation preference value.
**All issues have a $25 per share liquidation preference except Source Capital, which has a $27.50 per share liquidation preference.

Required Asset Coverage

Exhibit 5 shows asset coverage ratios for eight leveraged funds. The ratio of each fund is well above the minimum 200% asset coverage. Coverage calculations must be reported according to set quarterly valuation dates, but the ratios are recalculated weekly by the funds (as required by rating agencies such as Moody's) so any undesirable trends can be spotted. The preferred is subject to mandatory redemption—in whole or in part—if the quarterly coverage falls short of the minimum and is not remedied within sixty days.

The coverage ratio needed to get a triple-A rating by Moody's and/or S&P involves a very complex formula. Simply put, a prescribed haircut is applied to each asset class. For example, common stocks are reduced to one-third of their market value. The total value of all haircut assets must exceed the value of the preferred stock plus liabilities. If a fund cuts it too close, it could lose its triple-A rating.

Sizing Up Historic Returns

During the seventy-three years ended December 1998, the S&P 500 returned 11.2% yearly, according to Ibbotson Associates. During the sixteen years ended December 1998, the S&P 500 returned 18.2% yearly, in sharp contrast to the 7.0% over the fifteen years ended December 1982. The obvious inference is that preferred leverage would have been far more profitable for stock funds during the former period than in the latter. While this generally is true, it is necessary to compare stock returns with the cost of a fund's preferred issue when evaluating how leverage would fare in any given period.5

S&P 500 rolling five-year total returns are analyzed over the 1945-1998 period to determine what the impact of preferred leverage would have been during periods with the best and worst results. The cost of a preferred issue is approximated as 125% of the long-term government bond rate at the beginning of each rolling five-year period.5
EXHIBIT 5

Preferred Stock Asset Coverage Ratios*

<table>
<thead>
<tr>
<th>Fund</th>
<th>Total Assets of CEF ($ Mil.)</th>
<th>Asset Coverage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabelli Convertible Securities</td>
<td>121</td>
<td>402</td>
</tr>
<tr>
<td>Gabelli Equity Trust</td>
<td>1,341</td>
<td>994</td>
</tr>
<tr>
<td>Gabelli Global Multimedia Trust</td>
<td>164</td>
<td>524</td>
</tr>
<tr>
<td>General American Investors</td>
<td>1,019</td>
<td>679</td>
</tr>
<tr>
<td>Royce Focus Trust</td>
<td>67</td>
<td>337</td>
</tr>
<tr>
<td>Royce Micro-Cap Trust</td>
<td>175</td>
<td>431</td>
</tr>
<tr>
<td>Royce Value Trust</td>
<td>677</td>
<td>423</td>
</tr>
<tr>
<td>Source Capital</td>
<td>418</td>
<td>771</td>
</tr>
</tbody>
</table>

*Total assets and coverage as of 12/31/98.

Exhibit 6 compares the five best and five worst of the fifty S&P 500 rolling returns. As in Exhibits 1 and 2, we assume 600% and 400% coverage ratios to derive the total returns on common. The preferred could have had a very favorable impact on performance of the common during the five best periods. The leverage is less beneficial in the five years ended December 1989, because our assumed 14.2% borrowing cost is extremely high.

In the five worst periods, leverage could have sharply reduced returns and posed problems for funds that couldn't meet their asset coverage minimums. In the 1973-1974 bear market, the S&P 500 index lost nearly half of its value over a gut-wrenching twenty-one months. It's easy to see why the five years ended December 1974 have the worst return over the entire period.

The data in Exhibit 6 are not intended to be representative of how any given fund would have fared during these diverse periods. In the first place, it is well documented that most stock funds underperform the S&P 500 and other domestic equity benchmarks. Management fees, administrative costs, transaction costs, and cash holdings are among the factors contributing to underperformance. Yet a distinct minority of managers with "hot hands" will outperform their benchmarks. In addition, it is assumed that the preferred stock is issued at the beginning of each of the five-year spans. This also is unrealistic. For example, a fund could have a low-cost preferred issue that has been outstanding for many years.

Preferred leverage would have provided extraordinarily good results during much of the bull market of the 1980s and 1990s, when average annual returns on the S&P 500 exceeded 18%. But the high interest rates prevailing during most of the 1980s were a major deterrent for managers who may have considered issuing preferred at that time. Double-digit long-term government bond rates prevailed during the first half of the decade, and a significant decline was not evident until 1987.
EXHIBIT 6

Leveraging During Five Best and Five Worst Periods
Rolling 5-Year Total Returns on S&P 500 (1945-1998)

<table>
<thead>
<tr>
<th>5-Year Period Ending</th>
<th>S&amp;P 500 Annualized Return (%)</th>
<th>Approximate Preferred Cost (%)*</th>
<th>Total Return on Common (%)**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>600% Asset Coverage</td>
</tr>
<tr>
<td>5 Best Periods:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 1998</td>
<td>24.1</td>
<td>7.9</td>
<td>27.3</td>
</tr>
<tr>
<td>Dec 1954</td>
<td>23.9</td>
<td>2.7</td>
<td>28.2</td>
</tr>
<tr>
<td>Dec 1955</td>
<td>23.9</td>
<td>3.0</td>
<td>28.0</td>
</tr>
<tr>
<td>Dec 1958</td>
<td>22.3</td>
<td>3.3</td>
<td>26.1</td>
</tr>
<tr>
<td>Dec 1989</td>
<td>20.4</td>
<td>14.2</td>
<td>21.6</td>
</tr>
<tr>
<td>5 Worst Periods:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec 1974</td>
<td>-2.4</td>
<td>8.6</td>
<td>-4.6</td>
</tr>
<tr>
<td>Dec 1977</td>
<td>-0.2</td>
<td>7.4</td>
<td>-1.7</td>
</tr>
<tr>
<td>Dec 1973</td>
<td>2.0</td>
<td>7.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Dec 1975</td>
<td>3.2</td>
<td>7.6</td>
<td>2.3</td>
</tr>
<tr>
<td>Dec 1970</td>
<td>3.3</td>
<td>5.6</td>
<td>2.9</td>
</tr>
</tbody>
</table>

*The preferred cost at the beginning of each five-year period is assumed to be 125% of the long-term government bond rate.

**Ignores fund operating expenses and assumes the fund trades at NAV.

On balance, a long-term perspective is essential when investing in a leveraged fund. While no one can consistently time the market’s peaks and valleys, we expect the long-run trend in stock prices will be up. Using history as a guide, in fifty-three of the past seventy-three years the S&P 500 annual total returns were positive, according to Ibbotson Associates. Thus, the use of leverage should result in some improvement in a well-managed equity fund’s total return over a lengthy period.

Managed Distribution Policies
Several of the leveraged funds have so-called managed distribution policies. A growing number of CEFs have such a policy; they promise to distribute to common shareholders a fixed minimum each year, such as 10% of NAV, either monthly or quarterly. George Michaelis first instituted the policy in 1976 at Source Capital (see Fredman and Scott [1991, p. 52]). Michaelis felt that Source was capable of generating a total return in excess of 10% per year. Thus, he could pay out 10% of NAV yearly, and that payout could be sustained.

A fund’s desire to differentiate itself from competitors and to attempt to narrow its discount are two primary reasons for the increasing popularity of these proactive plans, particularly those with 10% annual
targets. Shareholder response has been favorable, as evidenced by the contraction in discounts that typically occurs. Gabelli Equity Trust and Source Capital each have a 10% yearly payout objective, while Royce Value Trust and Gabelli Convertible Securities have 9% and 8% payouts.

While these policies can lead to narrower discounts, a fixed payout puts additional pressure on a fund to meet payments, especially when it is leveraged. This poses obvious problems during severe market downturns. If the fund doesn't have sufficient income and realized gains, it would be forced to pay some or all of the distribution from capital, eroding its assets. Funds with managed distribution policies may tend to hold more cash and bonds than those that do not have the policy, other things being equal.

**Voting Issues**

The cumulative preferred shareholders have the right to elect two of the fund's directors. Each preferred share is entitled to one vote, and all preferred shareholders vote together with the common shares as a single class. If dividends on the preferred stock have not been paid for a period of two years, the preferred stockholders have the right to elect a majority of the directors.

Critics feel that management often has an ulterior motive when it issues preferred (see Schultz [1998]). The argument is that the security is a novel type of takeover defense because it creates a new shareholder class with the right to veto any move by the common shareholders to make the fund open-ended. If the common shareholders and the board of directors approve an open-ending, however, the preferred is subject to mandatory redemption.

Management typically opposes open-ending because it often leads to substantial asset outflows, which can hurt performance if good stocks must be dumped to meet shareholder redemption orders. And, with a smaller asset base, the expense ratio rises even though aggregate management fees decline. Open-ending activity has become more common recently because of growing shareholder discontent with funds languishing at deep discounts.

**CONCLUSIONS**

The ability to leverage with preferred stock is one of the advantages closed-end funds have over open-end funds. Leveraging provides the opportunity for a fund manager to enhance common shareholder value, but it also increases risk and the likelihood of price volatility. It is essential for a prospective investor considering a leveraged fund to take a long-term perspective.

Most of the equity funds have leveraged since 1996, so time is needed to see how they will perform relative to their non-leveraged peers. Nevertheless, some generalizations can be made. Preferred leverage enhances the long-run returns of equity funds when earnings on the fund's investments exceed the preferred's cost. Thus, a primary factor influencing the success of a preferred issue is the level of interest rates when the security is underwritten.

A manager's ability to deliver exceptional performance certainly is another key factor. Leverage amplifies whatever money is made or lost during a manager's brilliant and embarrassing periods. And good management will become even more crucial going forward, because the extraordinarily high returns earned by common stocks since 1982 will likely regress to the long-run mean.
ENDNOTES

1 As an historical footnote, General American Investors was very highly leveraged at the time it was formed in January 1927. In fact, the common equity represented less than 5% of the fund's total assets. This led to substantial losses in the early 1930s, but the precipitous market decline also provided management with the opportunity to repurchase some of its senior securities at prices below their par value. The last vestiges of the early leverage at General American disappeared in 1981 when a 4.5% preferred issue was called and redeemed.

2 This example somewhat simplifies the calculation of a fund's asset coverage ratio because the actual coverage ratio nets out liabilities not constituting senior securities from the assets used in the numerator.

3 Even though the Dutch auction preferred market for closed-end muni bond funds amounts to about $16 billion, this investment is not well known. Muni preferred dividends are tax-exempt at the federal level, and also may be state tax-exempt for investors holding the paper of funds focusing on their state. Individuals can buy muni preferred shares through brokerages in increments as low as $25,000. Because the preferred is of very high quality, it can be an attractive alternative to parking cash in a tax-free money market fund. Muni preferreds typically yield 25 to 30 basis points more than the average tax-free money fund because fund expenses are not netted out of an investor's return.

4 Because Source Capital's preferred stock was issued in 1972, its preferred dividends are taxable solely as ordinary income.

5 This relationship is based on discussions with investment banks and the level of preferred stock rates relative to interest rates prevailing in 1998.

REFERENCES


