I. A Definition of a Closed-End Fund

A closed-end fund (CEF) is a publicly traded investment company registered under the SEC Investment Company Act of 1940. Capital is mainly raised through an initial public offering (IPO), as for any public company; the proceeds are invested in securities as determined by the investment objectives set by the particular fund’s charter. The shares of a CEF trade on an exchange, for instance, the New York Stock Exchange (NYSE).

A closed-end fund is not an open-end mutual fund that is closed to new investors. A CEF differs from an open-end fund in that an open-end mutual fund’s shares can be issued and redeemed at net asset value, while a closed-end fund is a fixed pool of assets with a fixed number of outstanding shares. The value of the shares of a CEF is determined purely by market demand.

II. The Organization

A closed-end fund has a board of directors elected by the shareholders. The board appoints an investment advisor and a portfolio manager. The investment advisor employs a portfolio manager who is often assisted by a team of analysts who make investment decisions in accordance with the objectives of the fund. Administrative duties such as mailing shareholder reports or addressing shareholder concerns may be performed by the investment advisor or by a separate administrator.

III. The Types of Closed-End Funds

There are approximately 530 closed-end funds invested in a variety of sectors; the total market capitalization of all closed-end funds was approximately $107 billion as of February 25, 2000.
Equity Funds

**Domestic equity funds**—Broadly diversified among U.S. equities, these funds may emphasize a theme reflecting the portfolio manager’s investment philosophy. There are value, growth, small-cap, blue-chip and venture-capital-type funds, to name a few.

**Sector funds**—Sector funds are limited by their charters to investing in a particular sector or group, such as banking and financial, utilities, precious metals and health care.

**Single-country/regional funds**—These funds invest in the securities of a single country, a specific region, a particular emerging market, etc.

Fixed-Income Funds

These include national municipal, single-state municipal, government, global income, emerging markets debt, mortgage-backed securities, loan participation, high-yield and multi-sector funds.

IV. Terms with Which to Be Familiar

**Net Asset Value (NAV)**

The net asset value, or NAV, is the current value of a share based on the underlying assets in the portfolio.

\[
\text{NAV} = \frac{\text{total assets} - \text{total liabilities}}{\text{shares outstanding}}
\]

The NAV of a CEF fluctuates as the value of the assets within the portfolio changes.
Market Price

CEFs are publicly traded securities; shares of the CEF trade on an exchange such as the New York Stock Exchange. The market price of a CEF fluctuates depending on the supply and demand in the market.

Discount/Premium

When demand exceeds supply, the market price at which the shares of a CEF trade may be at a premium to the NAV. When supply exceeds demand, the shares of the CEF may trade at a discount to its NAV; that is, the share price will be less than the fund’s NAV.

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<th>Example</th>
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<tr>
<td>Market Price:</td>
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<td>NAV:</td>
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<td>Discount:</td>
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<td>Premium/discount = (market price/NAV) - 1</td>
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V. Discounts

The Age-Old Question: Why Do Closed-End Funds Trade at Discounts?

Approximately 89% of all closed-end funds trade at a discount. The age-old question is, “Why does a fund trade at a premium or a discount to its NAV?” There is no simple answer to this question; we could write endless reports on why, but the clearest explanation may be that the perceived value of a fund’s shares is greater or less than the reported value of the fund’s underlying net assets.

Equity funds—A fund may trade at a discount due to poor performance (although excellent performers can also trade at discounts), a large amount of illiquid securities within the portfolio, a less-than-favorable view of the underlying assets, or possibly a portfolio that has a large amount of unrealized gains.

Income funds—The valuation of income funds is affected by the income generated by the fund from its underlying assets. The higher the embedded yield or yield based on a fund’s NAV, the higher the fund’s valuation. Market forces will determine the premium/discount of a fund based on a fund’s yield in comparison with other funds. Additionally, there are other factors that influence the market value of income funds, such as the liquidity of the investments, the valuation methods, or a less-than-favorable view of the underlying assets.

Efforts to Reduce Discounts

Now that we have an idea of why closed-end funds trade at discounts, what methods are available to actually reduce discounts? There has been increasing pressure put on the boards of directors of closed-end funds (most notably by large institutional shareholders) to address the issue of persistent discounts.
Closed-End Funds  March 24, 2000

Share repurchase—When the discount is fairly significant, shares repurchased can increase the fund's NAV. Although this may have an impact on narrowing the discount in the short term, we have not seen any lasting effects from share repurchases that improve share valuation.

Open ending—Open ending is not a common occurrence; in fact, it is quite difficult to bring about. For a fund to convert to an open-end fund, generally 50-70% of shareholders are required to vote in favor of the conversion, and this normally appears to be successful only when management backs the proposal.

Managed distribution policies—At year-end, funds normally distribute realized short- and long-term capital gains. Shareholders pay taxes on their gains unless the shares are held in a tax-exempt account. A trend that seems to be taking hold is that domestic equity funds are paying out 2.5% of NAV on a quarterly basis or 10% annually. Instead of paying out one lump sum at year-end, the gains are spread out on a quarterly basis.

The Opportunity for Higher Yields

When a closed-end income fund is purchased at a discount, investors get the benefit of a higher yield since dividends are based on NAV. Therefore, an investor who purchases a fund at a market price lower than the NAV will earn income in excess of the income earned by the fund's NAV.

Example: A CEF with an NAV of $10 is trading at a discount of 10%, or $9, and the NAV yield is 10%, or $1. Assuming an investor has put in only $9 to buy the CEF, the current yield would be 11% ($1/$9). In this example, an investor is purchasing $1.00 of assets and is only paying $0.90 to have those assets working for him.

VI. The Similarities Between CEFs and Mutual Funds

Most investors are familiar with mutual funds. CEFs are like mutual funds in many respects. Both are investment companies that pool assets from investors to buy securities. An investor buys into a fund by purchasing shares of the fund. The investor believes the fund will meet its objectives and perform well, enabling him to capture a satisfactory total return on his investment.

Diversification

The risk of investing in a single security is that a company or security will decline in value, and the share price will be reduced. Mutual funds reduce this risk through diversification. Mutual funds invest in many companies, industries and markets. Even funds that invest in a particular sector of the economy tend to be reasonably diversified within that sector.
Professional Management

Funds are managed by portfolio managers and are assisted by a team of analysts who research the companies, industries and markets in which the funds invest. Such managers typically have years of experience and in-depth knowledge of the asset class in which they invest.

Economies of Scale

The costs of buying and selling securities in large quantities is considerably less than the cost of effecting many smaller transactions. In addition, accounting can be simplified for the small investor.

VII. The Differences Between Open- and Closed-End Funds

Buying/Selling Shares

Open-end funds create new shares each time investors invest in the fund. When an investor wishes to sell his shares, the open-end fund redeems them. The number of outstanding shares of a mutual fund is constantly changing; thus, the amount of assets in an open-end fund is also fluctuating as a result of inflows and outflows.

When an investor wishes to buy or sell shares of an existing CEF, the investor must purchase shares on the secondary market. After the initial public offering, the shares created by the CEF remain largely constant, although additional shares can be created through secondary offerings, rights offerings, or the issuance of shares for dividend reinvestment.

Fees and Commissions

A mutual fund investor may pay a commission to buy and sell shares of the mutual fund, depending on whether the fund is no-load or load. In addition, the investor pays fees to the fund company for managing and administering the fund. Similarly, a CEF investor pays a commission to a broker to buy or sell shares, and a fee to the fund company to manage and operate the fund.

Closed-end funds do not have 12b-1 fees, which pay for the marketing and the distributions of open-end funds; thus, the expenses of closed-end funds tend to be somewhat lower than for open-end funds. Since there isn’t a consistent marketing effort by fund managers, this absence may explain, in part, why some funds trade at a discount.
VIII. Why a Closed-End Fund?

Consistency

The pool of assets available for investment remains stable for CEFs; in contrast, assets fluctuate for mutual funds depending on inflows and the redemption of shares. In closed-end funds, the investment manager can better manage for total return without the added pressure of inflows and outflows. In open-end funds, large fluctuations and sentiment in the market tend to influence inflows and outflows. During a bull market, there may be a large inflow into a fund, thus leaving the fund manager with a decision as to whether to invest into a richly valued market or hold a larger portion of cash. During market downturns, redemptions may occur, forcing a manager to sell securities into a declining market.

Increased Investment Opportunities

Closed-end funds may take advantage of longer-term less liquid issues, since they do not have to worry about such redemptions. The closed-end structure is more suitable to investing in less liquid or illiquid securities, which include funds that invest in reorganizations and emerging markets securities. Open-end mutual funds invest in less liquid securities to a lesser extent since mass redemptions may occur during adverse market conditions and fund managers would have to sell assets at depressed prices.

Those income funds that have a leveraged capital structure and that invest in higher-yielding, lower-credit-quality securities often trade at the highest valuations since investors appear to value the yield more than the quality of a portfolio. For example, high-yield closed-end funds as a group trade at premiums; since investors are placing a value or a premium on that high yield, they bid up the price of the fund.

Leverage

Many funds utilize leverage to enhance returns to shareholders by borrowing capital at a lower rate than the fund earns on investments.

When an investment advisor is particularly bullish, he may borrow additional funds with which to invest. The closed-end structure, with its stable pool of assets, is a good structure through which to utilize leverage. Many CEFs do utilize leverage. It is more difficult for a mutual fund to utilize leverage since the pool of assets is constantly changing.

There are many types of leverage utilized by closed-end funds, including preferred stock, reverse purchase agreements, bank loans and notes. For income funds, when the yield curve is positively sloped, leverage can be an excellent tool to increase income and total return. But the downside of leverage includes increased volatility. Leveraged funds’ earnings are sensitive to changes in short-term interest rates. When the spread narrows as a result of increasing short-term rates, the funds’ earnings capability declines. Conversely, if the cost of borrowing declines, there can be a positive impact on earnings.
Liquidity

The large majority of CEFs trade on the NYSE and, for most, liquidity is not an issue. Some CEFs are fairly illiquid because of their relatively small size. For an investor in mutual funds, liquidity is not much of an issue.

Fund Expenses

CEFs tend to have a lower turnover, and thus somewhat lower operating costs, since they do not have to sell securities in order to meet redemptions. Also CEFs tend not to advertise since these costs would cut into the fund’s asset base. CEF management minimizes such costs, thereby benefiting the shareholder. Mutual fund management makes more money if it manages more assets. Often, the asset base is raised by extensive advertising, and this is reflected in higher costs to the shareholder.

IX. How Does the Ranking System Work at PaineWebber?

At PaineWebber, we do not rate closed-end funds; rather, we have a ranking system resulting from quantitative and qualitative analysis. The ranking system is best used as a guide to those funds that offer the greatest relative value within their specific subgroup.

The ranking system is a snapshot at a given point in time and, since the valuation process is ever changing, changes may have occurred since the publication of a specific report that may affect the rankings.

A relative ranking system has a number one fund as well as a lowest-ranked fund, but an entire sector may be attractive or unattractive so that a single ranking system is not always a reflection of fair value. We encourage investors to use the ranking system in conjunction with more in-depth fund reports.

X. Conclusion

We believe that closed-end funds can provide good opportunities, when selected properly, whether utilized as income-generating vehicles with fixed-income funds or capital appreciation through equity funds. Although closed-end funds in general may be somewhat riskier than a typical open-end mutual fund, owing to their leveraged capital structure and the nature of the investments, there may be the potential for higher yields and total returns.