ICI RESEARCH PERSPECTIVE

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The Closed-End Fund Market, 2013

KEY FINDINGS

- » Total closed-end fund assets were \$279 billion at year-end 2013, with bond closed-end funds accounting for 59 percent of total assets. Traditionally, bond closed-end funds have comprised the majority of closed-end fund assets, but over the past decade that share has declined from 75 percent.
- The share of assets in equity closed-end funds was 41 percent of all closed-end fund assets at year-end 2013, up from 25 percent a decade ago. Continued demand for equity closed-end funds and recent years' gains in equity prices, which have outpaced bond returns, has bolstered equity closed-end funds' share.
- As long-term interest rates rose in the second half of 2013 and investors pulled back from fixed-income securities generally, price deviations from net asset values for bond closed-end funds' prices widened markedly. For example, the average discount for municipal closed-end bond funds was 7.0 percent at year-end 2013, down from a premium of 3.7 percent in September 2012, which had been the highest premium in the past 10 years.
- » Investor demand for new shares and a slowdown in redemptions of preferred shares has bolstered net share issuance of closed-end funds in the past four years. Net issuance of closed-end fund shares was \$10.1 billion for 2013, about the same as in the previous year, but substantially more than in 2010 and 2011.
- Competitive dynamics have prevented any single closed-end fund sponsor from dominating the closed-end fund market. For example, of the largest 25 closed-end fund sponsors in 2003, only 12 remained in this group at year-end 2013.
- » About two-thirds of closed-end funds employed structural leverage, certain types of portfolio leverage, or both in 2013. Closed-end funds had \$49 billion outstanding in preferred shares and other structural leverage at year-end 2013. Portfolio leverage consisting of reverse repurchase agreements and tender option bonds amounted to \$18 billion.
- » Closed-end fund investors tended to have above-average household incomes and financial assets. An estimated 3.8 million U.S. households held closed-end funds in 2013. These households tended to include affluent, experienced investors who owned a range of equity and fixed-income investments.



What Is a Closed-End Fund?

Closed-end funds are one of four types of investment companies registered under the Investment Company Act of 1940, along with mutual (or open-end) funds, exchange-traded funds (ETFs), and unit investment trusts (UITs). Closed-end funds generally issue a fixed number of shares that are listed on a stock exchange or traded in the over-the-counter market. The assets of a closed-end fund are professionally managed in accordance with the fund's investment objectives and policies, and may be invested in stocks, bonds, and other securities. The market price of closed-end fund shares fluctuates like that of other publicly traded securities and is determined by supply and demand in the marketplace.

A closed-end fund is created by issuing a fixed number of common shares to investors during an initial public offering. Subsequent issuance of common shares can occur through secondary or follow-on offerings, at-the-market offerings, rights offerings, or dividend reinvestment. Closed-end funds also are permitted to issue one class of preferred shares in addition to common shares. Preferred shares differ from common shares in that preferred shareholders are paid dividends but do not share in the gains and losses of the fund.² Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more securities for its portfolio. Although some closed-end funds may adopt stock repurchase programs or periodically tender for shares, once issued, shares of a closed-end fund generally are not purchased or redeemed directly by the fund. Rather, shares are bought and sold by investors in the open market. Because a closed-end fund does not need to maintain cash reserves or sell securities to meet redemptions, the fund has the flexibility to invest in less-liquid portfolio securities. For example, a closed-end fund may invest in securities of very small companies, municipal bonds that are not widely traded, or securities traded in countries that do not have fully developed securities markets.

Closed-End Fund Pricing

More than 90 percent of closed-end funds calculate the value of their portfolios every business day, while others calculate their portfolio values weekly or on some other basis. The net asset value (NAV) of a closed-end fund is calculated by subtracting the fund's liabilities (e.g., fund expenses) from the current market value of its assets and dividing by the total number of shares outstanding. The NAV changes as the total value of the underlying portfolio securities rises or falls.

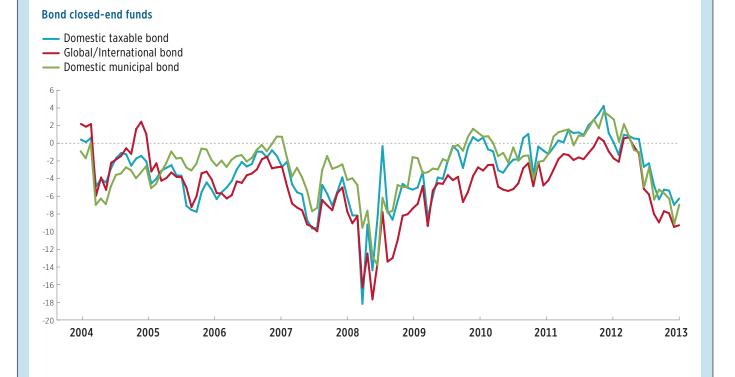
Because a closed-end fund's shares trade in the stock market based on investor demand, the fund may trade at a price higher or lower than its NAV. A closed-end fund trading at a share price higher than its NAV is said to be selling "at a premium" to the NAV; while a closed-end fund trading at a share price lower than its NAV is said to be selling "at a discount." Funds may trade at discounts or premiums to the NAV based on market perceptions or investor sentiment.³ For example, a closed-end fund that invests in securities that are anticipated to generate above-average future returns and are difficult for retail investors to obtain directly may trade at a premium because of a high level of market interest. In contrast, a closed-end fund with large unrealized capital gains may trade at a discount because investors will have priced in any perceived tax liability.

As long-term interest rates rose and investors pulled back from fixed-income securities generally, price deviations from NAV on bond closed-end funds swung dramatically from recent record-high premiums to substantial discounts by year-end 2013 (Figure 1, upper panel). For domestic municipal closed-end bond funds, the average price-NAV deviation was a 7.0 percent discount at year-end 2013, down from a premium of 3.7 percent in September 2012 the highest premium in the past 10 years. The average price-NAV deviation for domestic taxable closed-end bond funds exhibited a similar pattern, dropping from a peak of a 4.3 percent premium in September 2012 to a 6.3 percent discount at year-end 2013. The average price-NAV deviation on global and international closed-end bond funds also widened significantly, from a premium of 0.3 percent in September 2012 to a discount of 9.4 percent by year-end 2013.

FIGURE 1

Closed-End Funds' Premium (+) or Discount (-) Rate*

Percent, monthly, January 2004-December 2013





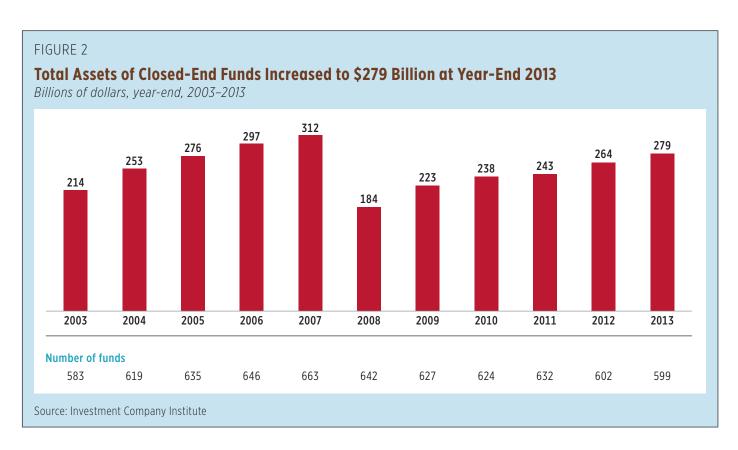


^{*} Simple average of the difference between share price and NAV at month-end for closed-end funds with available data. Sources: Investment Company Institute and Bloomberg

Movements in the price-NAV deviations of equity closed-end funds were less striking—discounts narrowed somewhat in the first part of 2013 before widening in the remainder of the year. The average discount on domestic equity closed-end funds fell from 7.1 percent at year-end 2012 to 4.7 percent in April 2013, then rose to 8.3 percent by year-end. The average discount on global/international equity closed-end funds narrowed from 7.9 percent at year-end 2012 to 5.8 percent in March 2013, then widened to 7.5 percent by year-end 2013.

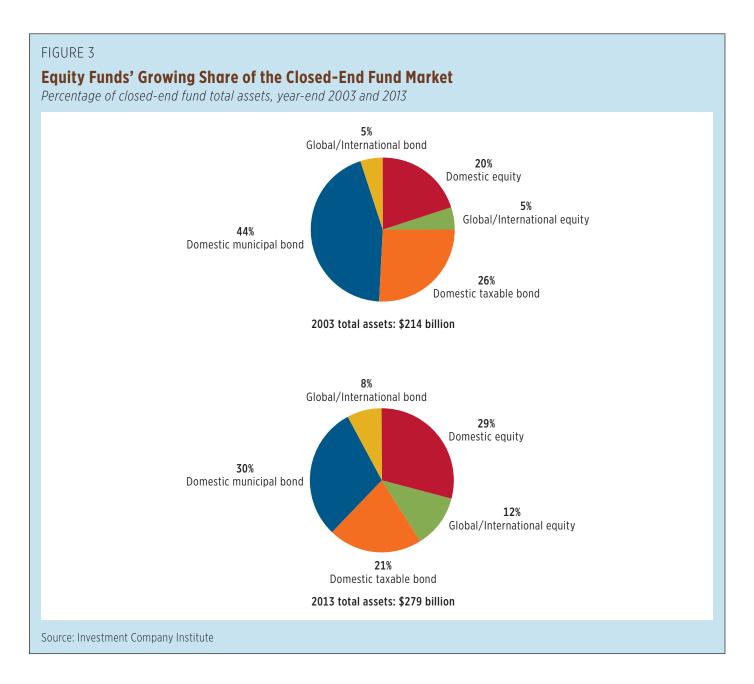
Assets in Closed-End Funds

At year-end 2013, 599 closed-end funds had total assets of \$279 billion (Figure 2). The number of closed-end funds available to investors remains below its peak of 663 at the end of 2007 due to the effects of mergers, liquidations, and conversions. Three factors have limited growth in both the assets and the number of closed-end funds in recent years, so that, although total assets at year-end 2013 were up nearly 6 percent (\$15 billion) from year-end 2012, they have not fully recovered to the year-end 2007 peak of \$312 billion. First, several closed-end funds have repurchased shares through tender offers over the past few years, reducing the number of outstanding shares and the size of assets under management. Second, a few closed-end funds have liquidated each year and others have converted into open-end mutual funds or ETFs. Third, closed-end fund preferred share assets have declined since the financial crisis of 2008.⁵



Historically, bond funds have accounted for a large share of assets in closed-end funds. A decade ago, 75 percent of all closed-end fund assets were held in bond funds, and the remaining 25 percent were held in equity funds (Figure 3). At year-end 2013, assets in bond closed-end funds were \$165 billion, or 59 percent of closed-end fund assets. Equity closed-end fund assets totaled \$114 billion, or 41 percent of

closed-end fund assets. These relative shares have shifted, in part because cumulative net issuance of equity closed-end fund shares has exceeded that of bond fund shares over the past seven years. In addition, total returns on U.S. stocks⁶ averaged 8.1 percent annually from year-end 2003 to year-end 2013, while total returns on bonds⁷ averaged 4.7 percent annually.



Net Issuance of Closed-End Funds

In the past four years, net issuance of closed-end funds has been bolstered by increased investor demand for new shares and a slowdown in redemptions of preferred shares. Net issuance of closed-end fund shares was \$10.1 billion for 2013, about the same as in the previous year, but substantially more than in 2010 and 2011 (Figure 4).

Net issuance of closed-end bond funds, most of which occurred in the first half of the year, accounted for two-thirds (\$6.8 billion) of total net issuance. Bond closed-end fund net issuance fell off in the second half of the year as investors started pulling back from fixed-income securities. Bond prices fell and long-term interest rates moved higher

as market participants anticipated that the Federal Reserve was contemplating tapering back its massive monthly bond buying program. In 2013, domestic taxable bond funds were popular with investors with \$3.9 billion in net issuance, followed by global/international bond funds with \$3.0 billion. Domestic municipal bond funds had net redemptions of \$159 million.

Net issuance of closed-end equity funds amounted to \$3.4 billion in 2013, up from \$2.9 billion in the previous year. As in the previous four years, net issuance of domestic equity closed-end funds accounted for the bulk of the equity fund net issuance.

FIGURE 4

Closed-End Fund Net Share Issuance¹

Millions of dollars, annual, 2007–2013²

		Equity			Bond			
	Total	Total	Domestic	Global/ International	Total	Domestic taxable	Domestic municipal	Global/ International
2007	\$28,369	\$24,608	\$4,949	\$19,659	\$3,761	\$1,966	-\$880	\$2,675
2008	-22,298	-8,739	-7,052	-1,687	-13,560	-6,770	-6,089	-700
2009	-2,759	-2,020	-1,866	-154	-739	-788	-238	287
2010	5,520	2,054	1,995	59	3,466	1,990	1,119	357
2011	6,018	4,466	3,206	1,260	1,551	724	825	2
2012	10,492	2,936	2,840	96	7,556	3,249	2,226	2,081
2013	10,107	3,355	3,898	-543	6,752	3,933	-159	2,978

¹ Dollar value of gross issuance (proceeds from initial and additional public offerings of shares) minus gross redemptions of shares (share repurchases and fund liquidations). A positive number indicates that gross issuance exceeded gross redemptions. A negative number indicates that gross redemptions exceeded gross issuance.

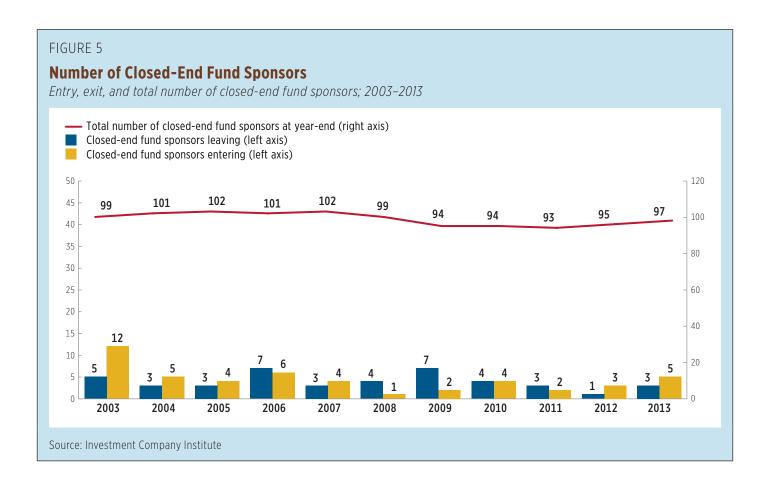
Note: Components may not add to the total because of rounding.

² Data are not available for years prior to 2007.

Competition in the Closed-End Fund Industry

At year-end 2013, there were 97 closed-end fund sponsors that competed in the U.S. market (Figure 5). The number of closed-end fund sponsors hovered just above 100 from 2004 through 2007, as strong gains in the equity and bond markets maintained investors' interest in closed-end funds. However, the strains of the financial crisis, competition

among sponsors, and pressure from other financial products led to a decline in the number of sponsors offering closedend funds from 2007 through 2011. In the past couple of years, more sponsors have entered than left the business. From year-end 2003 to year-end 2013, 38 closed-end fund sponsors left the business while 36 firms entered, for a net reduction of two sponsors.



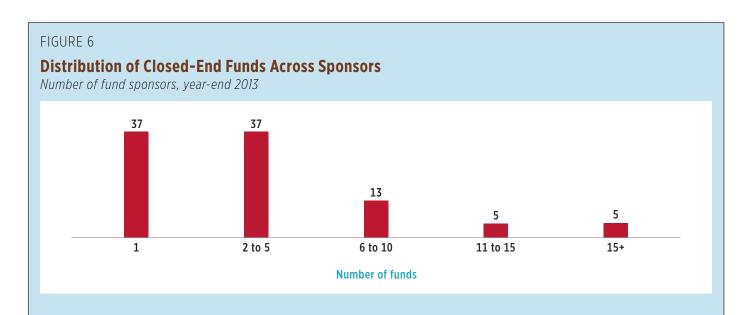
Competitive dynamics have prevented any single sponsor or group of sponsors from dominating the closed-end fund market. For example, only 10 sponsors offer more than 10 closed-end funds, whereas 37 sponsors offer only one closed-end fund, and 37 sponsors offer two to five funds (Figure 6). In addition, the share of assets managed by the largest 10 firms (64 percent) has edged down since 2003. Of the largest 25 closed-end fund sponsors in 2003, only 12 remained in this group at year-end 2013.

In addition, closed-end funds compete with other registered investment companies. While there are 599 closed-end funds, there are more than 8,400 stock, bond, and hybrid mutual funds; more than 5,500 UITs; and more than 1,300 ETFs.⁹

Competitive dynamics also affect the number of closed-end funds offered in any given year. In particular, closed-end fund sponsors create new closed-end funds to meet investor demand, and they merge or liquidate closed-end funds

that do not attract sufficient investor interest. The pace of newly created closed-end funds has been restrained since the financial crisis of 2008. In 2013, 28 closed-end funds were created compared with 31 in 2012 (Figure 7). The rate of closed-end fund mergers and liquidations, however, decreased to 19 in 2013 from 52 in 2012.

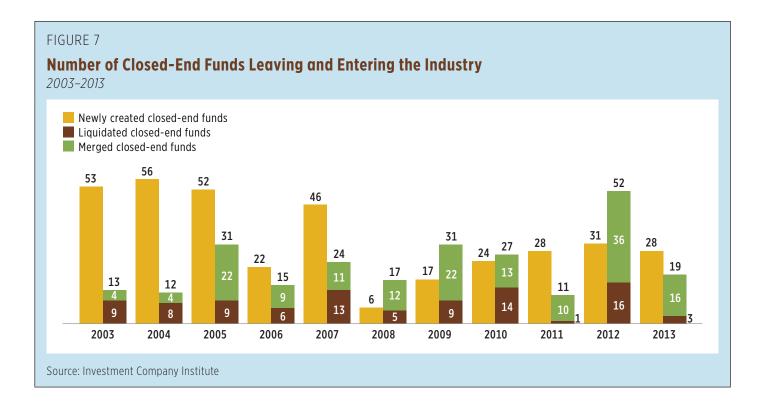
Other measures also indicate that no one firm or group of firms dominates the closed-end fund market. One such measure of market concentration is the Herfindahl-Hirschman Index, which weighs both the number and relative size of firms in the industry. Index numbers below 1,000 indicate that an industry is unconcentrated, index numbers between 1,000 and 1,800 indicate moderate concentration, and index numbers above 1,800 indicate that an industry is highly concentrated. At year-end 2013, the closed-end fund industry had a Herfindahl-Hirschman Index number of 722 (Figure 8).



Share of Closed-End Fund Assets at Largest Complexes

Percentage of total closed-end fund industry assets, year-end, selected years

	2003	2005	2007	2009	2011	2012	2013
Largest 5 complexes	51	46	52	56	53	53	51
Largest 10 complexes	66	64	65	67	65	66	64
Largest 25 complexes	87	86	85	86	86	86	84





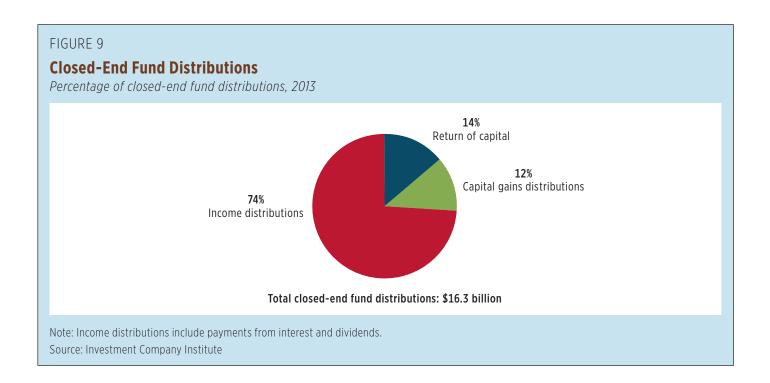
Closed-End Fund Distributions

In 2013, closed-end funds distributed \$16.3 billion to shareholders (Figure 9). Closed-end funds may make distributions to shareholders from three possible sources: income from interest and dividends, realized capital gains, and return of capital. Income from interest and dividends made up 74 percent of closed-end fund distributions, with the majority of income distributions paid by bond closed-end funds. Return of capital comprised 14 percent of closed-end fund distributions, and capital gains accounted for 12 percent.

Some closed-end funds follow a managed distribution policy, which allows a closed-end fund to provide predictable, but not guaranteed, cash flow to common shareholders. The goal of a managed distribution policy is to reduce the uncertainty regarding future cash flows for common shareholders. The payment from a managed distribution policy is typically paid to common shareholders on a monthly or quarterly basis and can be a regular fixed cash payment or based on a percentage of a fund's assets. 12 Managed distribution policies are used most often in multistrategy or equity-based closed-end funds where capital appreciation is an important part of a fund's expected total return.

Closed-end fund managed distribution policies have potential advantages and disadvantages for common shareholders. First, a closed-end fund with a managed distribution policy can be an important tool for investors seeking steady income or cash flow. Second, a managed distribution policy permits a fund to offer regular cash flow from strategies not typically associated with regular income. Third, having a managed distribution policy in place may help support the fund's share price and may help reduce any discount between the closed-end fund's share price and NAV.¹³

Closed-end fund managed distribution policies also may have disadvantages for common shareholders. Regular distributions provide common shareholders with predictable cash inflows, but also result in consistent cash outflows from the fund. This reduces the amount of assets available for investment by a fund's adviser and may cause a fund to hold a larger cash position than otherwise necessary in order to pay regular distributions. Finally, if a closed-end fund consistently pays distributions that are greater than the fund's total return, a portion of the distributions will be made from a return of capital and the fund eventually will deplete its capital.¹⁴

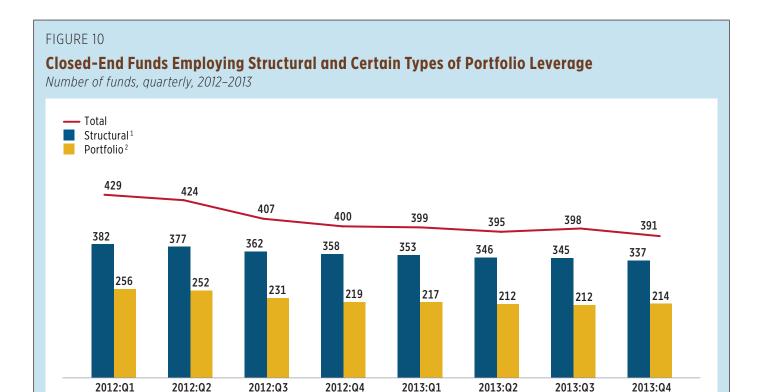


Closed-End Fund Leverage

Closed-end funds have the ability, subject to strict regulatory limits, to use leverage as part of their investment strategy. The use of leverage by a closed-end fund can allow it to achieve higher long-term returns, but also increases risk and the likelihood of share price volatility. Closed-end fund leverage can be classified as either structural leverage or portfolio leverage. At year-end 2013, at least 391 funds, accounting for 65 percent of closed-end funds, were using structural leverage, portfolio leverage consisting of tender option bonds or reverse repurchase agreements, or both as a part of their investment strategy (Figure 10).

Structural Leverage

Structural leverage, the most common type of leverage, affects the closed-end fund's capital structure by increasing the fund's portfolio assets. Types of closed-end fund structural leverage include borrowing and issuing debt and preferred shares. Closed-end funds are subject to asset coverage requirements if they issue debt or preferred shares. For each \$1.00 of debt issued, the fund must have \$3.00 of assets immediately after issuance and at the time of dividend declarations (commonly referred to as 33 percent leverage). Similarly, for each \$1.00 of preferred stock issued, the fund must have \$2.00 of assets immediately after issuance and at the time of dividend declaration dates (commonly referred to as 50 percent leverage).



¹ Structural leverage affects the closed-end fund's capital structure by increasing the fund's portfolio assets through borrowing and issuing debt and preferred stock.

Note: Components do not add to the total because funds may employ both structural and portfolio leverage. In those cases, the funds will be included in the numbers in both columns.

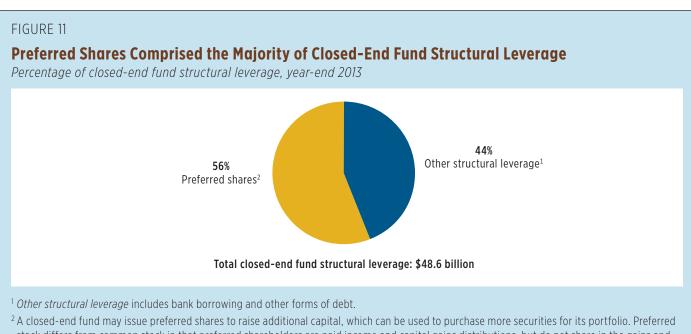
² Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of investment/transactions with a leverage characteristic (and the use of different definitions of *leverage*), actual portfolio leverage may be materially different than what is reflected above.

At the end of 2013, 337 funds had a total of \$49 billion in structural leverage, with a little more than half (56 percent) of those assets from preferred shares (Figure 11). Forty-four percent of closed-end fund structural leverage was other structural leverage. The average leverage ratio across those closed-end funds employing structural leverage was 27.2 percent at year-end 2013. Among bond funds employing structural leverage, the average leverage ratio was somewhat higher (29.3 percent) than that of equity funds (19.8 percent) employing structural leverage.

At year-end 2013, about 10 percent of the \$279 billion in closed-end fund total assets was funded by proceeds from preferred shares, with bond funds accounting for 93 percent of outstanding preferred share assets (Figure 12). The dollar amount of outstanding closed-end fund preferred shares has declined since auction market preferred stock, once

a common type of preferred share, suffered a liquidity crisis in mid-February 2008. Since then, closed-end funds have replaced auction market preferred stock with alternative forms of structural and portfolio leverage, such as bank loans, lines of credit, tender option bonds, reverse repurchase agreements, puttable preferred shares, mandatory redeemable preferred shares, or extendible notes.

At year-end 2013, the vast majority (95 percent) of closedend fund preferred share assets were floating-rate preferred shares (Figure 13). Puttable preferred shares, which include variable rate demand preferred shares, were 46 percent of closed-end fund preferred share assets, and auction market preferred shares were 42 percent. Fixed-rate preferred shares accounted for 5 percent of closed-end fund preferred shares.

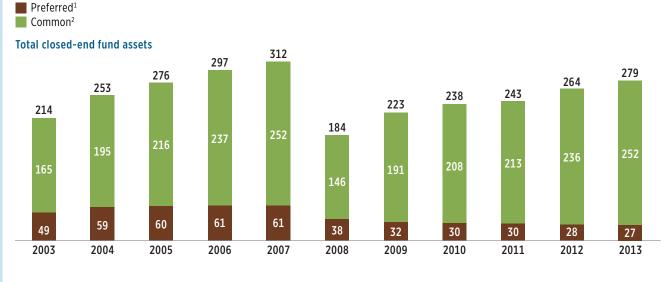


² A closed-end fund may issue preferred shares to raise additional capital, which can be used to purchase more securities for its portfolio. Preferred stock differs from common stock in that preferred shareholders are paid income and capital gains distributions, but do not share in the gains and losses in the value of the fund's shares.

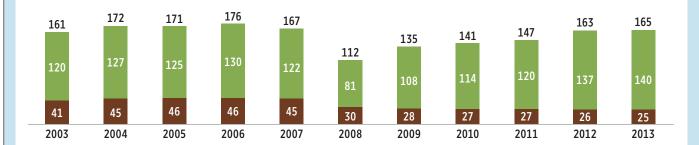
FIGURE 12

Closed-End Fund Preferred Share Assets

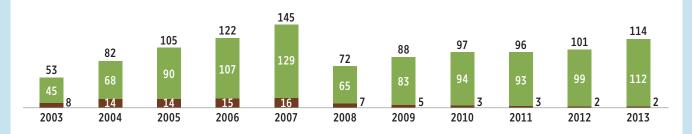
Billions of dollars, year-end, 2003-2013



Bond closed-end fund assets



Equity closed-end fund assets



¹ A closed-end fund may issue preferred shares to raise additional capital, which can be used to purchase more securities for its portfolio. Preferred stock differs from common stock in that preferred shareholders are paid income and capital gains distributions, but do not share in the gains and losses in the value of the fund's shares.

Note: Components may not add to the total because of rounding.

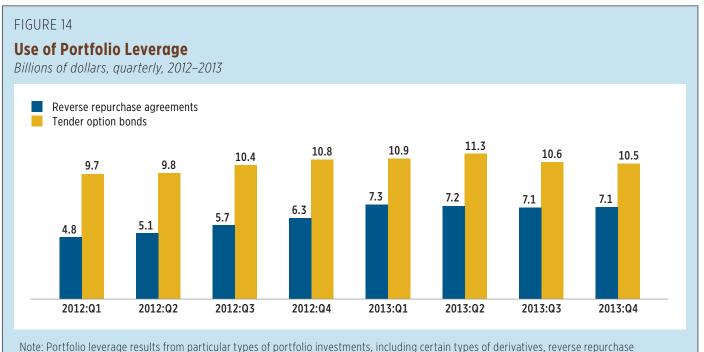
² All closed-end funds issue common stock, also known as common shares.

Portfolio Leverage

Portfolio leverage is leverage that results from certain portfolio investments.¹⁹ Types of closed-end fund portfolio leverage include certain types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2013, 214 closed-end funds used portfolio leverage

in the form of tender option bonds and reverse repurchase agreements as part of their investment strategy (Figure 10). Closed-end funds had \$17.6 billion outstanding in reverse repurchase agreements and tender option bonds at year-end 2013 (Figure 14).

FIGURE 13 Closed-End Fund Preferred Share Class Assets by Type Percentage of closed-end fund preferred share assets, year-end 2013					
Floating-rate	95				
Auction market preferred	42				
Puttable preferred	46				
Mandatory redeemable (floating) preferred	7				
Fixed-rate	5				
Mandatory redeemable (fixed) preferred	4				
Perpetual (fixed) preferred	1				



Note: Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of investment/transactions with a leverage characteristic (and the use of different definitions of *leverage*), actual portfolio leverage may be materially different than what is reflected above. Source: Investment Company Institute

Characteristics of Closed-End Fund Investors

An estimated 3.8 million U.S. households owned closedend funds in 2013.²⁰ These households tended to include affluent, experienced investors who owned a range of equity and fixed-income investments. In 2013, 96 percent of households owning closed-end funds also owned equities, either directly or through equity mutual funds or variable annuities (Figure 15).

Sixty-eight percent of households that owned closed-end funds also held bonds, bond mutual funds, or fixed annuities (Figure 15). In addition, 43 percent of these households owned investment real estate. Because a large number of households that owned closed-end funds also owned equities and mutual funds, the characteristics of closed-end fund owners were similar in many respects to those of

equity and mutual fund owners. For instance, households that owned closed-end funds (like equity- and mutual fund-owning households) tended to be headed by college-educated individuals and had household incomes above the national average (Figure 16).

Nonetheless, households that owned closed-end funds exhibit certain characteristics that distinguish them from equity- and mutual fund-owning households. For example, households owning closed-end funds tended to be slightly older (median age 54) than households owning either individual equities or mutual funds (both with a median age of 52) (Figure 16). Households with closed-end funds tended to have significantly greater household financial assets than either equity or mutual fund investors. Nearly 40 percent of closed-end fund-owning households were retired from their lifetime occupations, making them more likely to be retired than households owning either individual equities or mutual funds.

FIGURE 15

Closed-End Fund Investors Owned a Broad Range of Investments

Percentage of closed-end fund-owning households holding each type of investment, May 2013

Equity mutual funds, individual equities, or variable annuities (total)	96	
Bond mutual funds, bonds, or fixed annuities (total)	68	
Mutual funds (total)	91	
Equity mutual funds	88	
Bond mutual funds	50	
Hybrid mutual funds	40	
Money market funds	60	
Individual equities	77	
Bonds	23	
Fixed or variable annuities	43	
Investment real estate	43	

Note: Multiple responses are included.

Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

FIGURE 16

Closed-End Fund Investors Had Above-Average Household Incomes and Financial Assets

May 2013

	All U.S. households	Households owning closed-end funds	Households owning mutual funds	Households owning individual equities			
Median							
Age of head of household ¹	51	54	52	52			
Household income ²	\$50,000	\$94,000	\$80,000	\$90,000			
Household financial assets ³	\$75,000	\$500,000	\$200,000	\$300,000			
Percentage of households							
Household primary or co-decisionmaker for saving and investing							
Married or living with a partner	63	77	76	75			
Widowed	11	8	7	8			
Four-year college degree or more	33	50	47	52			
Employed (full- or part-time)	57	67	69	67			
Retired from lifetime occupation ⁴	30	38	28	32			
Household owns							
IRA(s)	38	80	63	65			
DC retirement plan account(s)	53	76	85	76			

¹ Age is based on the sole or co-decisionmaker for household saving and investing.

Additional Reading

- » Closed-End Fund Resource Center, Investment Company Institute. Available at www.ici.org/cef.
- » Frequently Asked Questions About Closed-End Funds and Their Use of Leverage, Investment Company Institute. These FAQs include information related to failed auctions for auction market preferred stock. Available at www.ici.org/pubs/faqs/faqs_closed_end.
- » A Guide to Closed-End Funds, Investment Company Institute. This publication includes an overview of the types of closed-end funds and how they operate. Available at www.ici.org/cef/background/bro_g2_ce.
- » Find quarterly updates to closed-end fund asset data at www.ici.org/research/stats.

² Total reported is household income before taxes in 2012.

³ Household financial assets include assets in employer-sponsored retirement plans but exclude the household's primary residence.

⁴The head of household was considered retired if they responded affirmatively to the question: "Are you retired from your lifetime occupation?" Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

Glossary

at-the-market offering. Offering of new shares at a price determined by the same class currently trading in the market. At-the-market offerings tend to be smaller than follow-on offerings and are conducted through equity distribution programs using a shelf registration statement.

auction market preferred stock. A type of preferred shares paying dividends that vary over time. The dividend rates are set through auctions run by an independent auction agent. An auction agent is governed by a set of procedures established by the closed-end fund and its auction agent.

closed-end fund. A type of investment company that issues a fixed number of shares that trade intraday on stock exchanges at market-determined prices. Investors in a closed-end fund buy or sell shares through a broker, just as they would trade the shares of any publicly traded company.

discount. A closed-end fund is said to be selling "at a discount" when the share price of the fund is less than its NAV.

distributions. Payments of dividends, capital gains, or return of capital by a closed-end fund.

equity. A security or investment representing ownership in a company—unlike a bond, which represents a loan to a borrower. Often used interchangeably with **stock**.

exchange-traded fund (ETF). An investment company, typically an open-end or unit investment trust, whose shares are traded intraday on stock exchanges at market-determined prices. Investors may buy or sell ETF shares through a broker just as they would the shares of any publicly traded company.

extendible note. Gives bondholders the right to extend the maturity date of the bond by a number of years. This type of bond works to the advantage of investors during periods of declining interest rates. Sometimes, the bond may be structured to give the option to extend the maturity to the issuer. In this case, the bond works to the advantage of issuers during periods of rising interest rates.

fixed-rate securities. Pay a fixed rate of return in the form of interest or dividend income.

floating-rate securities. Pay a variable rate of return in the form of interest or dividend income. The rate of return is tied to a specified benchmark rate and is adjusted periodically in response to changes in the benchmark rate.

follow-on offering. See secondary offering.

initial public offering (IPO). A corporation's or closed-end fund's first offering of stock or fund shares to the public.

liquidity. Ability to gain ready access to invested money. In the securities market, a security is said to be liquid if the spread between bid and ask prices is narrow and reasonably sized trades can take place at those quotes.

managed distribution policy. A type of distribution policy that provides common shareholders with a predictable, but not assured, level of cash flow, which typically takes the form of a regular fixed cash payment or a payment based on a percentage of a fund's assets. Payments are generally made on a monthly or quarterly basis.

mandatory redeemable preferred. A type of preferred shares that pays either fixed or variable dividends. The shares have a stated liquidation value that the fund sponsor is required to redeem for cash or other assets at the stated maturity date.

mutual fund. An investment company registered with the SEC that buys a portfolio of securities selected by a professional investment adviser to meet a specified financial goal (investment objective). Mutual funds issue "redeemable securities," meaning that the fund stands ready to buy back its shares at their current net asset value (NAV). Also known as an *open-end fund*.

net asset value (NAV). The per-share value of an investment company, calculated by subtracting the fund's liabilities from the current market value of its assets and dividing by the number of shares outstanding.

open-end fund. See mutual fund.

portfolio leverage. Leverage that results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions.

preferred shares. A form of structural leverage. Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more securities for its portfolio. The most common types of preferred shares are auction market preferred shares and puttable preferred shares.

premium. A closed-end fund is said to be selling "at a premium" when the share price of the fund is greater than its NAV.

puttable preferred shares. A type of preferred shares that pays dividends at variable rates. Rates are set through remarketings run by one or more financial institutions acting as remarketing agents. Agents solicit existing holders and potential buyers for indications of interest to buy or sell, and then they match up buyers and sellers at the lowest possible dividend rate. Sell orders are filled to the extent that there are bids in a remarketing. If there are more sell orders than bids, a third party (commonly referred to as a liquidity provider) is contractually obligated to unconditionally purchase the shares.

reverse repurchase agreement. A form of short-term borrowing for closed-end funds. The fund sells portfolio securities to investors with an agreement to buy them back at a higher price reflecting the cost of funding. Also known as *reverse repo*.

rights offering. Fund shareholders are issued rights to purchase additional fund shares at a price established by the fund, usually at a discount to NAV.

secondary offering. Offerings of new shares of a same class that are already publicly traded. The new shares are offered at a price established by the fund that is generally lower than the current price traded in the market.

structural leverage. Leverage that results from borrowing and/or issuing preferred shares.

tender offer. In a closed-end fund tender offer, shareholders are given a limited opportunity to sell a portion of their shares back to the fund at a price—the tender price.

Generally, the tender price is close to the fund's NAV and is higher than the market price.

tender option bond. A security issued by a special purpose trust (a Tender Option Bond Trust) into which bonds are deposited, and which then issues two types of securities—floating-rate securities and an inverse floating-rate security. The floating-rate securities are sold to investors and the inverse floating-rate security is generally retained by the closed-end fund. Tender option bonds effectively enable a closed-end fund to borrow and then use the money to purchase additional long-term, fixed-rate bonds for the closed-end fund's portfolio. The expectation is that the purchased long-term bonds will yield more than the borrowing rate paid on short-term floating-rate securities issued by the trust.

unit investment trust (UIT). A type of fund with some characteristics of mutual funds and some of closed-end funds. Like mutual funds, UITs issue redeemable shares. Like closed-end funds, however, UITs typically issue only a specific, fixed number of shares. A UIT does not actively trade its investment portfolio, instead buying and holding a set of particular investments until a set termination date, at which time the trust is dissolved and proceeds are paid to shareholders.

variable annuity. An investment contract sold by an insurance company; capital is accumulated, often through mutual fund investments, with the option to convert to an income stream in retirement.

Notes

- A small subset of closed-end funds are structured as "interval" funds. These closed-end funds, under Rule 415 and Rule 486 of the 1933 Act and Rule 23c-3 under the Investment Company Act of 1940, are allowed to continuously offer their shares and make offers to repurchase shares at net asset value at periodic intervals.
- Section 18 of the Investment Company Act provides that preferred shareholders, voting as a class, are entitled to elect at least two directors at all times and to vote along with common shareholders on the remaining directors. In addition, preferred shareholders, voting as a class, are entitled to elect a majority of the directors if at any time the dividends on the preferred shares are unpaid in an amount equal to two full years' dividends on the preferred shares, and continue to be entitled to elect a majority of the directors until all dividends in arrears are paid.
- For more information on closed-end fund discounts and premiums, see Lee, Schleifer, and Thaler (1991).
- For the purposes of this report, total assets is the fair value of assets held in closed-end fund portfolios funded by common and preferred shares less any liabilities besides preferred shares. Total net assets are the assets of the fund available to common shareholders and are calculated for the purposes of this report as total assets less the value of preferred shares. Total net assets of closed-end funds were \$252 billion at yearend 2013.
- For additional information, see Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- ⁶ Measured by the Wilshire 5000 Total Market Index.
- Measured by the Citigroup Broad Investment Grade Bond Index.
- By comparison, the share of mutual fund assets managed by the 25 largest firms was 72 percent at year-end 2013. See Investment Company Institute 2014.
- See Investment Company Institute 2014 for more information. The number of mutual funds includes mutual funds that invest primarily in other mutual funds. The number of ETFs includes investment companies not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.
- See Cabral 2000 and U.S. Department of Justice and the Federal Trade Commission 1992 for more information about the Herfindahl-Hirschman Index.

- The mutual fund industry had a Herfindahl-Hirschman Index number of 481 as of December 2013. See Investment Company Institute 2014. For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- ¹² In order to implement a managed distribution policy, a closed-end fund must petition the Securities and Exchange Commission (SEC) for exemption from Section 19(b) and Rule 19-b1 of the Investment Company Act.
- For more information on dividend policy and discounts on closed-end funds, see Johnson, Lin, and Song 2006.
- For more information on closed-end fund distributions, see Gabelli Funds, LLC 2004; Nuveen Investments 2013; and Morningstar 2013.
- For additional information, see Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- More closed-end funds may be using portfolio leverage because data are only available on the use of reverse repurchase agreements and tender option bonds. Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investment or types of transactions.
- For more information on the different types of closed-end fund preferred shares, see Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- See, e.g., Galley 2010 and Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- ¹⁹ For more information on the types of closed-end fund leverage, see Nuveen Investments 2013.
- The Investment Company Institute conducts the Annual Mutual Fund Shareholder Tracking Survey each spring to gather information on the demographic and financial characteristics of households in the United States. The most recent survey was undertaken in May 2013 and was based on a sample of 4,001 U.S. households selected by random digit dialing. All interviews were conducted over the telephone with the member of the household who was the sole or codecisionmaker most knowledgeable about the household's savings and investments. For additional information on the incidence of closed-end fund ownership across mutual fundowning households by various demographic and financial characteristics, see Bogdan and Schrass 2014. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Burham, Bogdan, and Schrass 2013.

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