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The Closed-End Fund Market, 2019

KEY FINDINGS

- » Total closed-end fund assets were \$278 billion at year-end 2019. This represents a 10 percent increase from year-end 2018 and was driven by rising stock prices around the world, strong returns on bonds, and increased demand for both equity and bond closed-end funds.
- » The share of assets in bond closed-end funds was 61 percent of all closed-end fund assets at year-end 2019, the same as it was at year-end 2009. This share has remained relatively stable over the past decade as net issuance to bond closed-end funds has matched the relatively higher total returns in US stocks.
- » Price deviations from net asset values on bond closed-end funds narrowed substantially in 2019. The average discount for bond closed-end funds narrowed from 9.9 percent at year-end 2018 to 6.5 percent by January 31, 2019—further narrowing to 3.0 percent by year-end 2019. The average discount for equity closed-end funds narrowed from 9.4 percent at year-end 2018 to 6.3 percent at year-end 2019.
- » Overall investor demand for closed-end fund shares increased sharply in 2019. Net issuance of closed-end fund shares was \$5.9 billion in 2019 compared with \$1.0 billion in 2018.
- » Competitive dynamics have prevented any single closed-end fund sponsor from dominating the closed-end fund market. At year-end 2019, there were 93 closed-end fund sponsors competing in the US market.
- » Nearly two-thirds of closed-end funds employed structural leverage, portfolio leverage, or both in 2019. Closed-end funds had \$52.2 billion outstanding in preferred shares and other structural leverage at year-end 2019. Portfolio leverage consisting of reverse repurchase agreements and tender option bonds amounted to \$20.0 billion.
- Closed-end fund investors tended to have above-average household incomes and financial assets. An estimated 3.0 million US households held closed-end funds in 2019.
 These households tended to include affluent investors who owned a range of equity and fixed-income investments.

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For a complete set of data files for each figure in this report, see www.ici.org/info/per26-04_data.xls.

The following, unless otherwise specified, apply to all data in this report: (1) funds of funds are excluded from the data to avoid double counting, and (2) dollars and percentages may not add to the totals presented because of rounding.

What Is a Closed-End Fund?

Closed-end funds are one of four main types of investment companies registered under the Investment Company Act of 1940, along with mutual 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.¹ 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 assets. The market price of a closed-end fund 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 reinvestments. Closed-end funds also are permitted to issue one class of preferred shares in addition to common shares. Holders of preferred shares are paid dividends, but do not participate in the gains and losses on the fund's investments.² Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more assets for its portfolio.

Some closed-end funds may adopt stock repurchase programs or periodically tender for shares; however, 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

The vast majority (94 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, or the fund's liabilities change.

Because a closed-end fund's shares often 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.

Price deviations narrowed significantly in January 2019 as financial markets rebounded from losses in the fourth quarter of 2018, when expectations of slowing global growth contributed to a decline in financial markets worldwide (Figure 1, top panel). For the remainder of 2019, price deviations for equity closed-end funds remained relatively stable and price deviations for bond closed-end funds steadily narrowed. For equity closed-end funds, the average discount narrowed from 9.4 percent at year-end 2018 to 6.7 percent by January 31, 2019, and ended 2019 at 6.3 percent. The average discount for bond closed-end funds narrowed from 9.9 percent at year-end 2018 to 6.5 percent by the end of January 2019, and narrowed further to 3.0 percent by the end of the year.

The majority of closed-end funds trade at a discount in any given month (Figure 1, bottom panel). Between 1995 and 2019, the percentage of equity closed-end funds trading at a discount ranged between 53 percent to 93 percent of funds and averaged 80 percent. Over the same period, the percentage of bond closed-end funds trading at a discount ranged between 29 percent and 97 percent and averaged 74 percent.

FIGURE 1

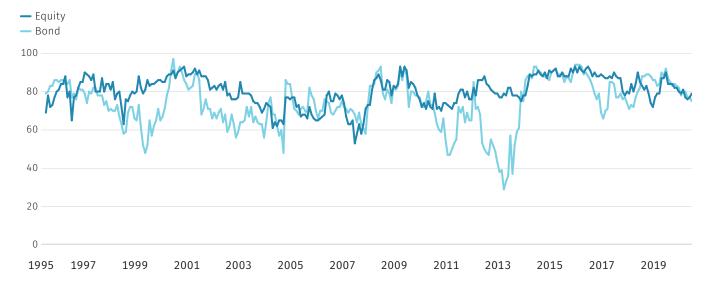
Closed-End Funds' Premium/Discount Rate

Percent, month-end



The Majority of Closed-End Funds Generally Trade at a Discount

Percentage of total closed-end funds trading at a discount, month-end



Note: The premium/discount rate is the simple average of the difference between the share price and NAV at month-end. Source: Investment Company Institute tabulations of Bloomberg data

Shareholder Activism

The persistence and prevalence of discounts (see Figure 1 on page 4)—in combination with trading on the secondary market—provides closed-end fund shareholders the ability to realize gains through changes in the fund's market price. For example, if a closed-end fund is trading at a discount, and a shareholder expects that discount to narrow over some period, then the shareholder may attempt to capture a gain by buying the shares of the closed-end fund at the lower price with the intent of selling them at a higher price in the future.

Closed-end funds also can conduct certain liquidity events to provide shareholders with the difference between the fund's market price and its NAV. Closedend funds may repurchase shares at, or close to, NAV through share repurchases or tender offers. Additionally, if a closed-end fund liquidates, then shareholders will receive a cash distribution equal to NAV for all common shares; and if a closed-end fund converts to (or merges with) an open-end fund, then shareholders will have the option to redeem their shares at NAV. The availability of these liquidity events makes closed-end funds susceptible to activist shareholders—shareholders whose primary objective is to capture short-term profits by purchasing a stake in a fund at a discount and using their voting power to have the fund take an action that results in one of these liquidity events.

How prevalent are activist shareholders in the closed-end fund market?

Shareholder activism is increasingly prominent in the closed-end fund market. Over the past five years, the

number of beneficial ownership and contested proxy solicitation filings indicating activist shareholder activity nearly tripled from the number of similar filings between 1995 and 1999. This increase occurred despite approximately the same number of closed-end funds in both periods.

The Securities and Exchange Commission (SEC) requires any person (or group of persons) who directly or indirectly acquires or has beneficial ownership of more than 5 percent of a class of a fund's securities to file beneficial ownership reports on Schedule 13D or the more-abbreviated Schedule 13G. Investors holding more than 5 percent and less than 20 percent who have the intent of changing or influencing control of the fund must file Schedule 13D. Investors who own 20 percent or more regardless of intent—also must file Schedule 13D. Passive investors who own more than 5 percent but less than 20 percent and claim to have no activist intent may file Schedule 13G. Investors must file Schedules 13D or 13G within 10 days of the date on which they exceed the 5 percent ownership threshold. Filers must amend Schedule 13D and 13G filings continuously. Additionally, the SEC requires any challenging shareholder that solicits votes for its own board candidates and proposals to file a contested proxy solicitation on Schedule 14A.

Figure 2 groups the total number of these filings⁴ into five periods between 1995 and 2019.⁵

Continued on the next page

Shareholder Activism CONTINUED

During the 1995–1999 period, there were only 51 beneficial ownership and related contested proxy solicitation filings, compared with 147 over the 2015–2019 period. Sometimes the same activist shareholder(s) made filings regarding the same fund in successive years or different activist shareholders each made filings in the same year with respect to the same fund. Looking at distinct closed-end funds with beneficial ownership and contested proxy solicitation filings: activist shareholders targeted 37 closed-end funds between 1995 and 1999 compared with 117 between 2015 and 2019. While the number of closed-end funds with activist shareholder involvement has increased between

the two periods, it is important to note that this difference is not a function of the number of funds available to investors. At year-end 1999, there were 512 exchange-listed closed-end funds, not much different from the 494 exchange-listed closed-end funds at year-end 2019.

For more information on shareholder activism and the defenses closed-end funds have available to manage activist shareholder involvement, see "Recommendations Regarding the Availability of Closed-End Fund Takeover Defenses" at www.ici.org/pdf/20_ltr_cef.pdf.

FIGURE 2
Activist Shareholder Involvement in Closed-End Funds Has Steadily Grown

Period	Number of filings	Number of distinct closed-end funds with filings	Five activists with most filings Percentage of filings
1995-1999	51	37	67%
2000-2004	89	60	56
2005-2009	130	92	82
2010-2014	127	102	87
2015-2019	147	117	82

Memo:

Number of exchange-listed closed-end funds at year-end 1999: **512**

Number of exchange-listed closed-end funds at year-end 2019: 494

Note: Filings include Schedule 13D and Schedule 14A (PREC14A) submissions. Data include only traditional exchange-listed closed-end funds.

Source: Investment Company Institute tabulations of SEC Electronic Data Gathering, Analysis, and Retrieval (EDGAR) data

Assets in Closed-End Funds

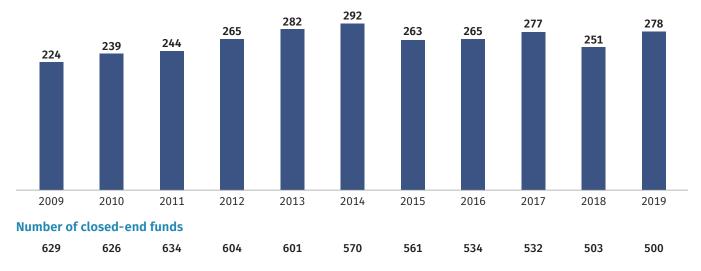
At year-end 2019, 500 closed-end funds had total assets⁶ of \$278 billion (Figure 3). This represents a 10 percent increase in closed-end fund total assets from year-end 2018, and was driven by two factors. First, returns on equities and bonds surged in 2019, increasing the value of the assets held in both equity and bond closed-end funds. In particular, total returns

of US stocks were 31.0 percent, total returns of international stocks were 22.1 percent, total returns on US investment grade bonds were 8.9 percent, and total returns on US municipal bonds were 7.5 percent. In addition, net issuance of closed-end funds increased sharply in 2019 when compared with the prior four years.

FIGURE 3

Total Assets of Closed-End Funds Were \$278 Billion at Year-End 2019

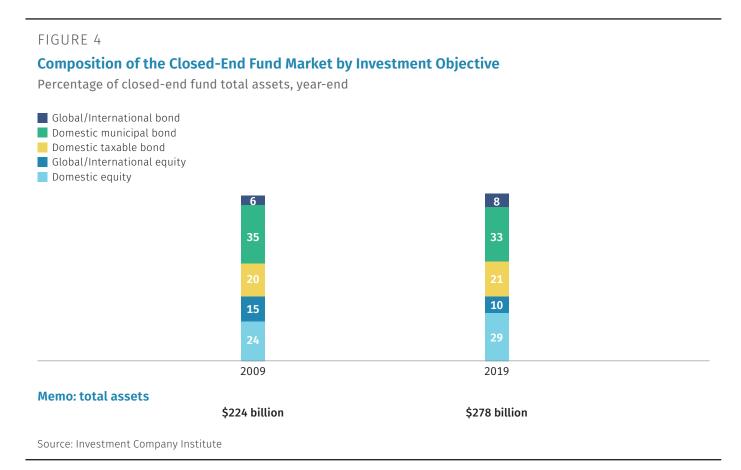
Billions of dollars, year-end



Note: *Total assets* is the fair value of assets held in closed-end fund portfolios funded by common and preferred shares less any liabilities (not including liabilities attributed to preferred shares).

Historically, bond funds have accounted for a large share of assets in closed-end funds. At year-end 2009, 61 percent of all closed-end fund assets were held in bond funds, with the remainder held in equity funds (Figure 4). A decade later, assets in bond closed-end funds were \$171 billion, or 61 percent of closed-end fund assets, and assets in equity closed-end funds

totaled \$107 billion, or 39 percent of closed-end fund assets. These shares have remained relatively stable, in part because of two offsetting factors. Over the past 10 years, cumulative net issuance of bond closed-end fund shares exceeded that of equity fund shares—offsetting the total returns of US stocks,8 which exceeded those of US bonds during this time.9



Net Issuance of Closed-End Funds

Net issuance of closed-end fund shares was \$5.9 billion in 2019, compared with \$1.0 billion in 2018 (Figure 5). Investor demand for closed-end funds in 2019 was strong for both bond and equity closed-end funds, and this demand was spread relatively evenly throughout each quarter of the year.

Bond closed-end funds had positive net issuance of \$3.2 billion in 2019—with \$1.7 billion coming from domestic municipal bond funds; \$1.3 billion coming from taxable municipal bond funds; and \$265 million coming from global/international bond closed-end funds. With interest rates on bonds plummeting in 2019, investors may have increased their demand for bond closed-end funds because of their ability to invest in

less-liquid securities, which helps to boost the income yield that the closed-end funds can generate and distribute to investors in comparison to other fund products. The potentially higher yields that closed-end funds can offer may have driven investor demand in the low interest rate environment.

Similarly, equity closed-end funds had positive net issuance of \$2.6 billion in 2019, a reversal from 2018, which saw \$412 million in net redemptions. With stock markets around the world showing substantial returns in 2019, increased demand likely followed. In 2019, global/international equity closed-end funds had \$1.8 billion in net issuance and domestic equity closed-end funds had \$808 million in net issuance.

FIGURE 5

Closed-End Fund Net Share Issuance
Millions of dollars

		Equity			Bond			
Year	Total	Total	Domestic	Global/ International	Total	Domestic taxable	Domestic municipal	Global/ International
2010	5,430	2,054	1,995	59	3,376	1,900	1,119	357
2011	6,018	4,466	3,206	1,260	1,551	724	825	2
2012	11,385	2,953	2,840	113	8,432	3,249	3,102	2,081
2013	14,515	3,605	4,097	-491	10,909	3,921	530	6,459
2014	4,935	4,314	3,819	494	621	266	567	-212
2015	1,829	1,267	224	1,043	592	708	-11	-104
2016	829	58	242	-184	771	1,437	-168	-498
2017	678	-548	-147	-401	1,226	758	231	237
2018	1,004	-412	-352	-60	1,416	251	1,169	-4
2019	5,862	2,612	808	1,805	3,249	1,311	1,674	265

Note: Net share issuance is the 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.

Competition in the Closed-End Fund Industry

At year-end 2019, there were 93 closed-end fund sponsors competing in the US market (Figure 6), compared with 92 closed-end fund sponsors at year-end 2018. Overall, in the past decade, 32 closed-end fund sponsors left the business while 31 firms entered.

Competitive dynamics have prevented any single sponsor or group of sponsors from dominating the closed-end fund market. For example, in 2019, only eight sponsors offered more than 10 closed-end funds, whereas 40 sponsors offered only one closed-end fund, and 31 sponsors offered two to five closed-end funds (Figure 7). The share of assets managed by the largest 25 complexes in 2019 (85 percent) is about even with 2009 (86 percent), and of the largest 25 closed-end fund complexes in 2009, only 16 remained in this group at year-end 2019. In addition, the 500 closed-end funds must compete with other registered investment

companies—more than 9,400 mutual funds, nearly 4,600 UITs, and nearly 2,200 ETFs.¹¹

Competitive dynamics also affect the number of closed-end funds offered in any given year. In particular, closed-end fund sponsors launch new closed-end funds to meet investor demand, and they merge or liquidate closed-end funds that do not attract sufficient investor interest. In recent years, closed-end fund sponsors have also merged funds with similar strategies to improve trading efficiency. Consequently, the number of closedend funds available to investors has declined steadily since 2011. From 2012 through 2018, more closedend funds were liquidated, and others converted into open-end mutual funds or ETFs, than new closed-end funds were launched. In 2019, 20 closed-end funds were launched compared with 17 in 2018, while the number of closed-end fund mergers and liquidations was 19 in 2019 compared with 33 in 2018 (Figure 8).

FIGURE 6

Number of Closed-End Fund Sponsors

Entry, exit, and total number of closed-end fund sponsors

Total number of closed-end fund sponsors at year-end (right axis)

Closed-end fund sponsors entering (left axis)

Closed-end fund sponsors exiting (left axis)

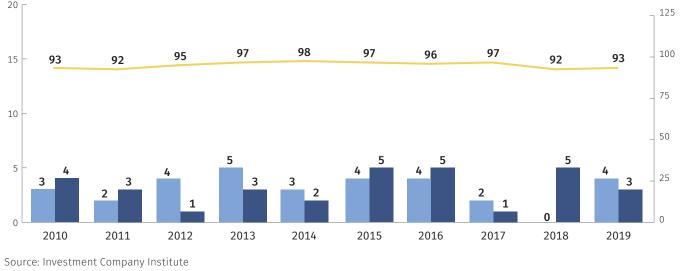
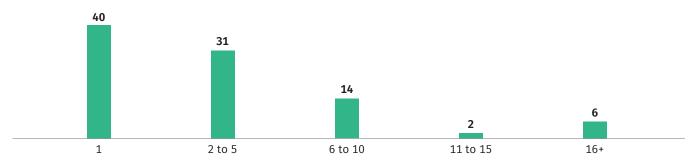


FIGURE 7

Distribution of Closed-End Funds Across Sponsors

Number of fund sponsors, year-end 2019



Number of closed-end funds

Share of Closed-End Fund Assets at Largest Complexes

Percentage of total closed-end fund assets, year-end

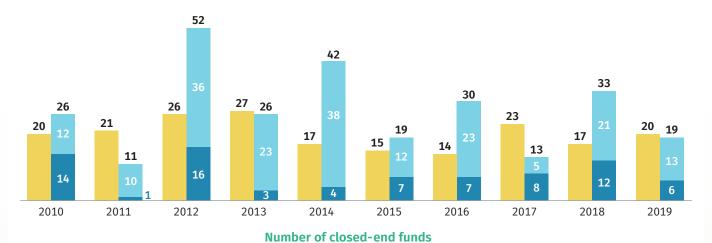
	2009	2011	2013	2015	2017	2018	2019
Largest 5 complexes	56	53	51	52	52	54	54
Largest 10 complexes	67	65	64	65	65	67	67
Largest 25 complexes	86	86	84	84	83	85	85

Source: Investment Company Institute

FIGURE 8

Number of Closed-End Funds Entering and Exiting the Industry

- Launched closed-end funds
- Merged closed-end funds
- Liquidated closed-end funds



Note: Data include closed-end funds that do not report statistical information to the Investment Company Institute and closed-end funds that invest primarily in other closed-end funds.

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 smaller than 1,000 indicate that an industry is unconcentrated, index numbers between 1,000 and 1,800 indicate moderate concentration, and index numbers greater than 1,800 indicate that an industry is highly concentrated. At year-end 2019, the closedend fund industry had a Herfindahl-Hirschman Index number of 861 (Figure 9).

Closed-End Fund Distributions

In 2019, closed-end funds distributed an estimated \$16.4 billion to shareholders (Figure 10). 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 an estimated 70 percent of closed-end fund distributions in 2019. Capital gains represented an estimated 10 percent of closed-end fund distributions, and return of capital accounted for an estimated 20 percent.

FIGURE 9

Closed-End Fund Industry Found Competitive

Herfindahl-Hirschman Index,* year-end



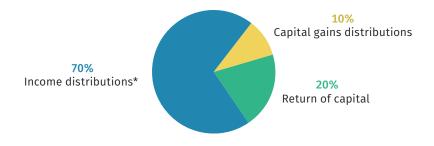
^{*} The Herfindahl-Hirschman Index weighs both the number and relative size of firms in the industry to measure competition. Index numbers less than 1,000 indicate that an industry is unconcentrated.

Source: Investment Company Institute

FIGURE 10

Closed-End Fund Distributions

Percentage of closed-end fund distributions, 2019



Total closed-end fund distributions: \$16.4 billion

^{*} Income distributions are paid from interest and dividends that the fund earns on its investments in securities. Source: Investment Company Institute

Some closed-end funds follow a managed distribution policy, which allows them 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. Managed distribution policies are used most often in multi-strategy or equity-based closed-end funds where capital appreciation is an important part of a fund's expected total return. 15

Closed-end fund managed distribution policies may have potential advantages 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 its NAV.¹⁶

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. In addition, 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.¹⁷

Return of capital distributions from closed-end funds may result from unrealized capital gains, pass-through return of capital from underlying holdings, or just the return of investors' own capital. In order to avoid selling securities that are expected to continue to appreciate, a closed-end fund may use cash holdings to pay a distribution based on the expected capital gains. In this scenario, the fund's total return would exceed the distribution rate if the expected gains were realized.

Certain types of portfolio securities, such as master limited partnerships (MLPs), generate return of capital through their ordinary business operations. MLPs generally do not pay taxes as they pass through income and gains to investors. MLPs pay distributions based on their cash flow, but, because MLPs tend to be focused on energy-related operations, they typically have large depreciation and amortization costs that offset the income. Therefore, the cash that is generated from operations is issued as a return of capital from the MLP, and a closed-end fund holding these types of securities must pass through the return of capital to its shareholders. ¹⁸

When a closed-end fund maintains a distribution rate that exceeds income generated from interest income, dividends, and capital gains, then the excess will result in a return of the investors' own capital, which will decrease the assets available to the fund to generate income.

Closed-End Fund Leverage

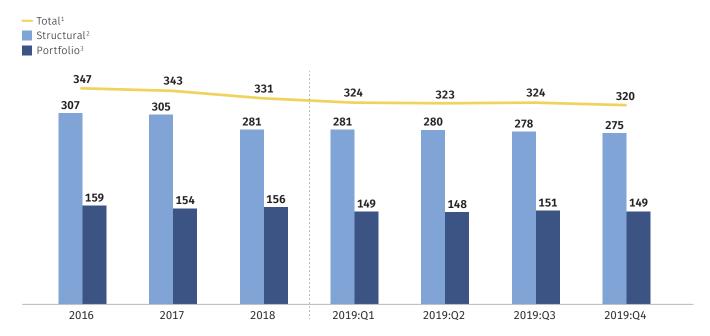
Closed-end funds have the ability, subject to strict regulatory limits, to use leverage as part of their investment strategy. The use of leverage by a closedend fund can enable it to achieve higher long-term returns, but also increases risk and the likelihood of share price volatility. Closed-end fund leverage can

be classified as either structural leverage or portfolio leverage. At year-end 2019, at least 320 funds—nearly two-thirds of closed-end funds—were using structural leverage, portfolio leverage consisting of tender option bonds or reverse repurchase agreements, or both (Figure 11).²⁰

FIGURE 11

Closed-End Funds Are Employing Structural and Some Types of Portfolio Leverage

Number of funds, end of period



- ¹ Components do not add to the total because funds may employ both structural and portfolio leverage.
- ² Structural leverage affects the closed-end fund's capital structure by increasing the fund's portfolio assets through borrowing capital and issuing debt and preferred shares.
- ³ Portfolio leverage is 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. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of investments/transactions with a leverage characteristic (and the use of different definitions of *leverage*), actual portfolio leverage may be materially different from what is reflected above.

Structural Leverage

Structural leverage, the most common type of leverage used by closed-end funds, affects the closed-end fund's capital structure by increasing the fund's portfolio assets. Types of closed-end fund structural leverage include borrowing capital 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).

At the end of 2019, 275 funds had a total of \$52.2 billion in structural leverage, with the majority (56 percent) of those assets from preferred shares (Figure 12); 44 percent came from other types of structural leverage. The average leverage ratio²² across those closed-end funds employing structural leverage was 27 percent at year-end 2019. Among closed-end funds employing structural leverage ratio for bond funds was somewhat higher (28 percent) than that of equity funds (22 percent).

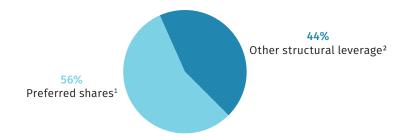
At year-end 2019, nearly 11 percent of the \$278 billion in closed-end fund total assets was funded by proceeds from preferred shares, with bond funds accounting for 89 percent of outstanding preferred share assets (Figure 13). The dollar amount of outstanding closed-end fund preferred shares has declined since auction market preferred stock, once a common type of preferred share, suffered a liquidity crisis in mid-February 2008.²³ 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, or extendible notes.

The vast majority (92 percent) of closed-end fund preferred share assets at year-end 2019 were floating-rate preferred shares (Figure 14). Puttable preferred shares, which include variable rate demand preferred shares, were 65 percent of closed-end fund preferred share assets; auction market preferred shares were 13 percent; and fixed-rate preferred shares accounted for 8 percent.

FIGURE 12

Preferred Shares Constituted the Majority of Closed-End Fund Structural Leverage

Percentage of closed-end fund structural leverage, year-end 2019



Total closed-end fund structural leverage: \$52.2 billion

- ¹ A closed-end fund may issue preferred shares to raise additional capital, which can be used to purchase more securities for its portfolio. Holders of preferred shares are paid dividends, but do not participate in the gains and losses on the fund's investments.
- ² Other structural leverage includes bank borrowing and other forms of debt. Source: Investment Company Institute

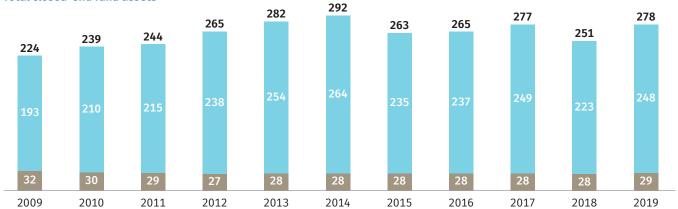
FIGURE 13

The Vast Majority of Preferred Share Assets Are in Bond Closed-End Funds

Billions of dollars, year-end

Common¹
Preferred²





Bond closed-end fund assets



Equity closed-end fund assets



¹ All closed-end funds issue common stock (also known as common 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. Holders of preferred shares are paid dividends, but do not participate in the gains and losses on the fund's investments.Source: Investment Company Institute

Portfolio Leverage

Portfolio leverage is leverage that results from certain portfolio investments.²⁴ Types of closed-end fund portfolio leverage include some types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2019, 149 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 \$20.0 billion outstanding in reverse repurchase agreements and tender option bonds at year-end 2019 (Figure 15).

Characteristics of Closed-End Fund Investors

An estimated 3.0 million US households owned closedend funds in 2019.²⁵ These households tended to include affluent investors who owned a range of equity and fixed-income investments. In 2019, 90 percent of households owning closed-end funds also owned equities, either directly or through equity mutual funds or variable annuities (Figure 16). Sixty-three percent of households that owned closed-end funds also held bond mutual funds, individual bonds, or fixed annuities.

FIGURE 14

Closed-End Fund Preferred Share Class Assets by Type

Percentage of closed-end fund preferred share class assets, year-end 2019

Floating-rate	92
Auction market preferred	13
Puttable preferred	65
Mandatory redeemable (floating) preferred	13
Fixed-rate	8
Mandatory redeemable (fixed) preferred	3
Perpetual (fixed) preferred	5

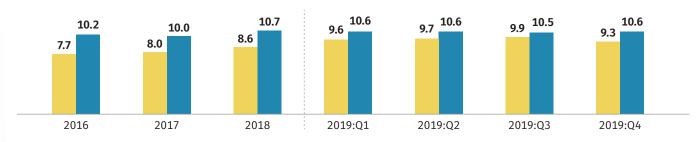
Source: Investment Company Institute

FIGURE 15

Use of Portfolio Leverage

Billions of dollars, end of period





Note: Portfolio leverage is 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. Data are only available for reverse repurchase agreements and tender options bonds. Given data collection constraints, and the continuing development of types of investments/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.

In addition, 48 percent of these households owned investment real estate.

Because a large number of households that owned closed-end funds also owned stocks and mutual funds, the characteristics of closed-end fund owners were similar in many respects to those of stock and mutual

fund owners. For instance, households that owned closed-end funds (like stock- and mutual fund-owning households) tended to be headed by college-educated individuals and tended to have household incomes above the national median (Figure 17).

FIGURE 16

Closed-End Fund Investors Owned a Broad Range of Investments

Percentage of closed-end fund-owning households holding each type of investment, 2019

Equity mutual funds, individual stocks, or variable annuities (total)	90	
Bond mutual funds, individual bonds, or fixed annuities (total)	63	
Mutual funds (total)	86	
Equity	80	
Bond	45	
Hybrid	40	
Money market	69	
Individual stocks	75	
Individual bonds	27	
Fixed or variable annuities	34	
Investment real estate	48	

Note: Multiple responses are included.

Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

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 of 55) than households owning either individual stocks (median age

of 53) or mutual funds (median age of 51) (Figure 17). Households with closed-end funds tended to have greater household financial assets. Also, 30 percent of households owning closed-end funds were retired from their lifetime occupations, compared with 24 percent of households owning mutual funds.

FIGURE 17

Closed-End Fund Investors Had Above-Average Household Incomes and Financial Assets
2019

	All US Households	Households owning closed-end funds	Households owning mutual funds	Households owning individual stocks
Median				
Age of head of household ¹	52	55	51	53
Household income ²	\$62,500	\$130,000	\$100,000	\$110,000
Household financial assets ³	\$80,000	\$450,000	\$250,000	\$350,000
Percentage of households				
Household primary or co-decisionmak	er for saving and inve	sting		
Married or living with a partner	56	64	68	70
College or postgraduate degree	37	66	54	57
Employed (full- or part-time)	64	70	77	75
Retired from lifetime occupation	28	30	24	27
Household owns				
IRA(s)	36	73	65	68
DC retirement plan account(s)	49	61	84	76

 $^{^{\}rm 1}$ Age is based on the sole or co-decision maker for household saving and investing.

² Total reported is household income before taxes in 2018.

³ Household financial assets include assets in employer-sponsored retirement plans but exclude the household's primary residence. Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

Additional Reading

- » Closed-End Fund Resource Center www.ici.org/cef
- » Frequently Asked Questions About Closed-End Funds and Their Use of Leverage www.ici.org/faqs/faq/other/faqs_closed_end
- » A Guide to Closed-End Funds www.ici.org/cef/background/bro_g2_ce
- » Quarterly Closed-End Fund Asset Data www.ici.org/research/stats/closedend

Notes

- A small subset of closed-end funds are structured as "interval" funds. These closed-end funds, under Rule 415 and Rule 486 under the Securities Act of 1933 and Rule 23c-3 under the Investment Company Act of 1940, may continuously offer their shares and make offers to repurchase shares at net asset value at periodic intervals.
- ² Section 18 of the Investment Company Act of 1940 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.
- ³ For more information on closed-end fund discounts and premiums, see Lee, Schleifer, and Thaler 1991.
- Specifically, these would include Schedule 13D filings and Schedule 14A filings identified as "PREC14A," or preliminary contested proxy solicitation filings.
- Some filings downloaded from the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system were deleted from the final data set, including: Schedule 13D filings by certain banks with no formal intent; Schedule 13D filings that appeared simply to be amendments to a previously filed Schedule 13D; Schedule 13D or PREC14A filings by affiliated persons; duplicate Schedule 13D or PREC14A filings made on the same day; and Schedule 13D and PREC14A filings that were duplicates of each other (i.e., their intent was assumed to be the same). Data may include a small number of Schedule 13D filings where shareholders did not disclose an activist intent.
- For the purposes of this report, total assets are the fair value of assets held in closed-end fund portfolios funded by common and preferred shares less any liabilities (not including liabilities attributed to preferred shares). Total net assets are the assets of the fund available to common shareholders and are calculated for purposes of this report as total assets less the value of preferred shares. Total net assets of closed-end funds were \$248 billion at year-end 2019.
- The total return on US stocks is measured by the Wilshire 5000 Total Market Index; the total return on international stocks is measured by the MSCI All Country World Daily ex-US Total Return Index; the total return on US investment grade bonds is measured by the FTSE US Broad Investment Grade Bond Index; and the total return on US municipal bonds is measured by the Bloomberg Barclays Municipal Bond Total Return Index.

- US stocks had an annualized total return of 13.4 percent during this period, as measured by the Wilshire 5000 Total Market Index
- 9 US investment grade bonds had an annualized total return of 3.7 percent during this period, as measured by the FTSE US Broad Investment Grade Bond Index.
- By comparison, the share of mutual fund and ETF total net assets managed by the 25 largest firms was 80 percent at year-end 2019. See Investment Company Institute 2020.
- ¹¹ See Investment Company Institute 2020 for more information. The number of mutual funds includes mutual funds that invest primarily in other mutual funds. The number of ETFs includes ETFs not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.
- ¹² See Cabral 2000 and US Department of Justice and the Federal Trade Commission 2010 for more information about the Herfindahl-Hirschman Index.
- ¹³ The mutual fund industry had a Herfindahl-Hirschman Index number of 764 as of December 2019. For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- ¹⁴ In order to implement a managed distribution policy, a closed-end fund must apply for, and the SEC must provide an exemption from, Section 19(b) of the Investment Company Act of 1940 and Rule 19b-1 thereunder.
- ¹⁵ According to Morningstar data, 21 percent of traditional exchange-listed closed-end funds had managed distribution policies as of March 2020—the vast majority of which were in multi-strategy or equity-based closed-end funds.
- ¹⁶ 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 and Nuveen Investments, "Understanding Managed Distributions."
- ¹⁸ For more information on MLPs, see Tortoise Capital Advisors, LLC 2018.
- ¹⁹ For additional information, see Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- ²⁰ More closed-end funds may be using portfolio leverage, but data are only available on the use of reverse repurchase agreements and tender option bonds. Portfolio leverage is 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.

- ²¹ 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."
- The leverage ratio is the ratio of the amount of preferred shares and other structural leverage to the sum of the amount of common assets, preferred shares, and other structural leverage.
- ²³ See, e.g., Galley 2010 and Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- For more information on the types of closed-end fund leverage, see Nuveen Investments, "Understanding Leverage in Closed-End Funds."
- ²⁵ The Investment Company Institute conducts the Annual Mutual Fund Shareholder Tracking Survey each year to gather information on the demographic and financial characteristics of mutual fund-owning households in the United States. The most recent survey was conducted from May to July 2019 and was based on a dual-frame telephone sample of 4,000 randomly selected US households. Of these, 1,800 households were from a landline random digit dial (RDD) frame and 2,200 households were from a cell phone RDD frame. All interviews were conducted with the investment decisionmaker, the person most knowledgeable about the household's savings and investments. For additional information on the incidence of closed-end fund ownership across mutual fund-owning households by various demographic and financial characteristics, see Schrass and Bogdan 2019. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Holden, Schrass, and Bogdan 2019.

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