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The Closed-End Fund Market, 2018

KEY FINDINGS

- » **Total closed-end fund assets were \$250 billion at year-end 2018.** This represents a 9.8 percent decrease from year-end 2017, and was primarily driven by falling stock prices around the world.
- » **The share of assets in bond closed-end funds was 64 percent of all closed-end fund assets at year-end 2018, slightly more than the 61 percent at year-end 2008.** This share has remained relatively stable over the past decade as net issuance of bond closed-end funds has offset total returns in US stocks.
- » **Price deviations from net asset values on domestic equity closed-end funds widened in the last four months of 2018, as uncertainty grew in a declining equity market.** The average discount for domestic equity closed-end funds widened to 7.1 percent at year-end 2018 from 3.9 percent at the end of August 2018—and 4.0 percent at year-end 2017.
- » **Overall investor demand for closed-end fund shares remained positive in 2018.** Net issuance of closed-end fund shares was \$597 million in 2018 compared with \$570 million in 2017.
- » **Competitive dynamics have prevented any single closed-end fund sponsor from dominating the closed-end fund market.** At year-end 2018, there were 92 closed-end fund sponsors competing in the US market.
- » **Nearly two-thirds of closed-end funds employed structural leverage, portfolio leverage, or both in 2018.** Closed-end funds had \$51.4 billion outstanding in preferred shares and other structural leverage at year-end 2018. Portfolio leverage consisting of reverse repurchase agreements and tender option bonds amounted to \$19.3 billion.
- » **Closed-end fund investors tended to have above-average household incomes and financial assets.** An estimated 3.6 million US households held closed-end funds in 2018. 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/per25-02_data.xls.

The following methods, 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. 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 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

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 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.

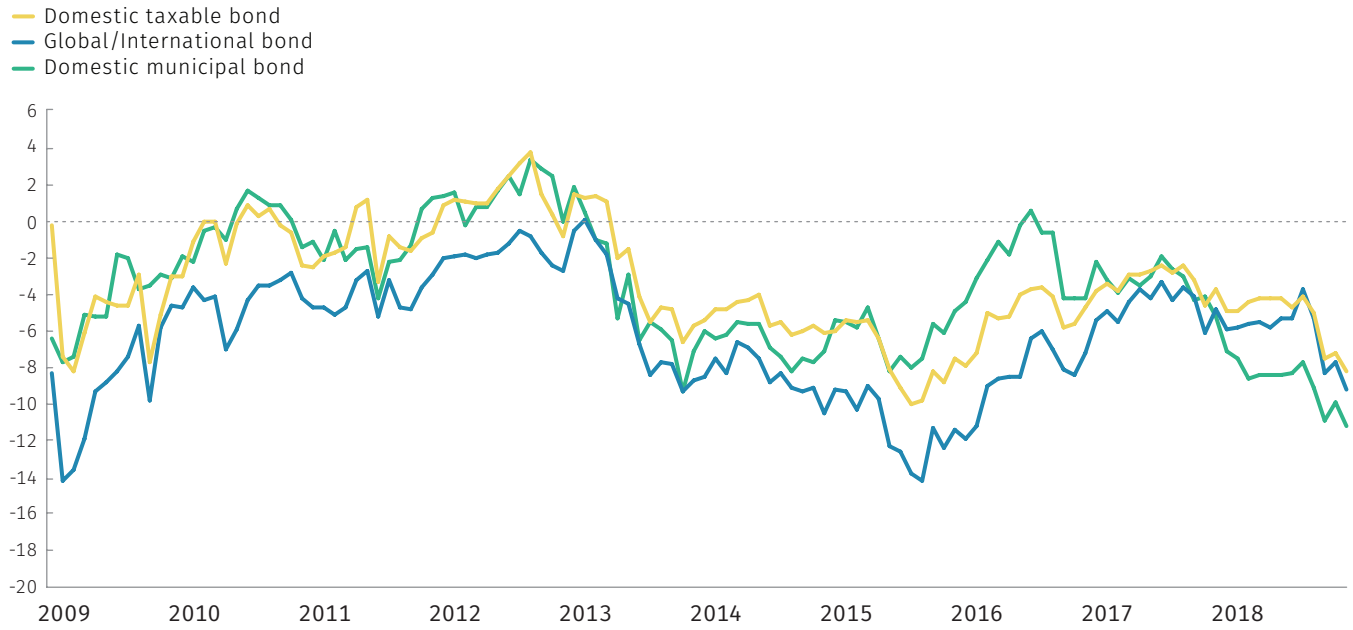
Price deviations for closed-end funds remained relatively stable for most of 2018, but widened significantly during the last four months of the year as financial markets worldwide were buffeted by expectations of slowing global growth (Figure 1). For domestic taxable bond closed-end funds, the average discount doubled from 4.1 percent in August 2018 to 8.2 percent in December 2018, and other asset classes experienced similar behavior. Over the same period, the average discount widened from 3.7 percent to 9.2 percent for global/international bond closed-end funds and from 7.7 percent to 11.2 percent for domestic municipal bond closed-end funds. Similarly, the average discount for domestic equity closed-end funds widened from 3.9 percent to 7.1 percent, and the average discount for global/international equity closed-end funds widened from 7.6 percent to 11.2 percent.

The development of wider discounts in the last four months of 2018 is not surprising, as market perceptions and investor sentiment—common factors that affect closed-end fund discounts—in both equity and bond markets became increasingly negative during this time. The International Monetary Fund revised its expectations for future economic growth downward over concerns of international trade, stock markets around the world fell substantially in the last quarter of 2018, and signals by the Federal Reserve in October caused market participants to grow increasingly concerned about the scope of future interest rate hikes and monetary policy.

FIGURE 1

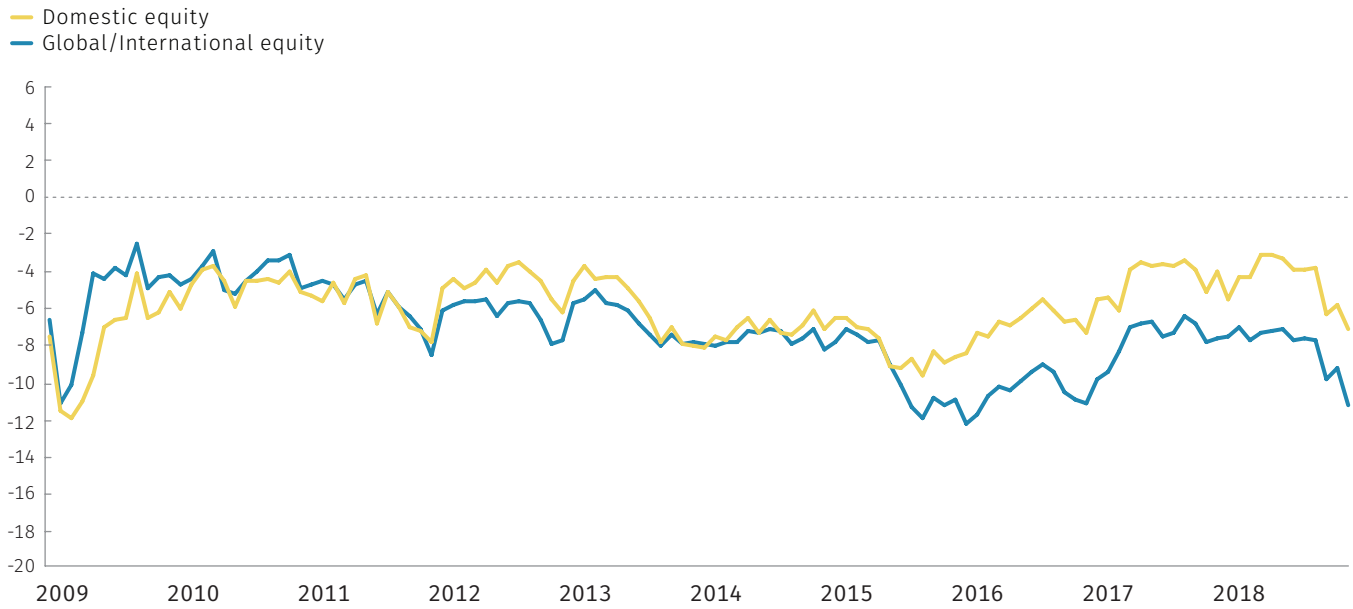
Bond Closed-End Funds' Premium/Discount Rate*

Percent, monthly



Equity Closed-End Funds' Premium/Discount Rate*

Percent, monthly



* The premium/discount rate is the simple average of the difference between share price and NAV at month-end for closed-end funds with available data.

Source: Investment Company Institute tabulations of Bloomberg data

Assets in Closed-End Funds

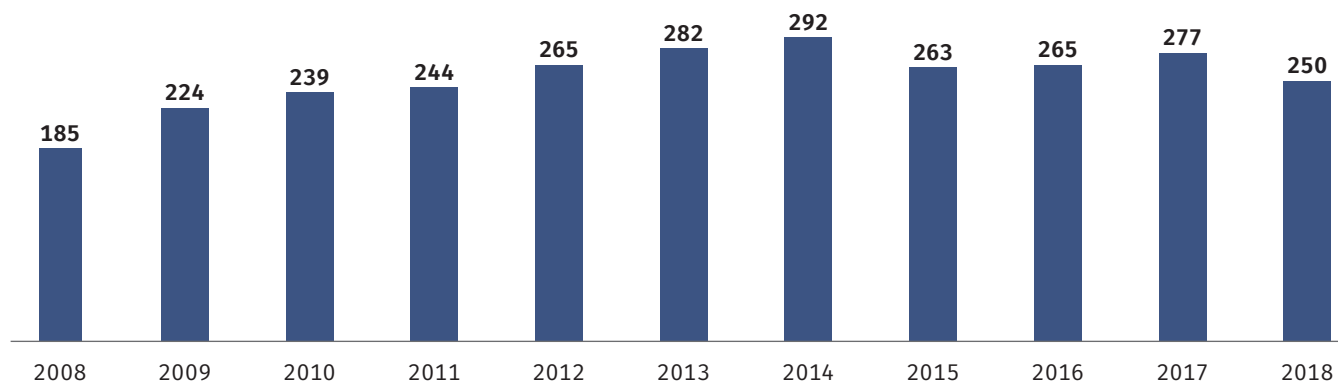
At year-end 2018, 506 closed-end funds had total assets⁴ of \$250 billion (Figure 2). This represents a 9.8 percent decrease in closed-end fund total assets from year-end 2017, and was driven by two factors. First, returns on equities around the world fell in 2018, lowering the value of the assets held in equity closed-

end funds. In particular, total returns of US stocks fell 5.3 percent⁵ and total returns of international stocks fell 13.8 percent.⁶ And second, with negative equity market returns and near-zero bond market returns, return of capital distributions further decreased total assets of closed-end funds.

FIGURE 2

Total Assets of Closed-End Funds Were \$250 Billion at Year-End 2018

Billions of dollars, year-end



Number of closed-end funds

644 629 626 634 604 601 570 561 534 533 506

Note: *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.

Source: Investment Company Institute

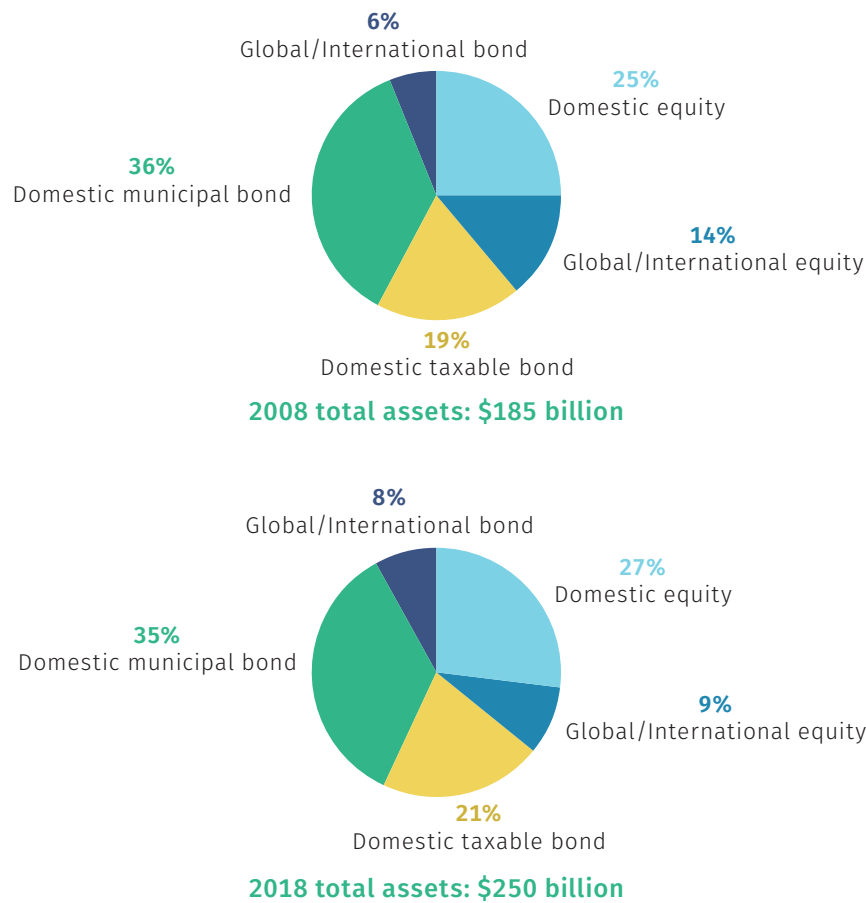
Historically, bond funds have accounted for a large share of assets in closed-end funds. At year-end 2008, 61 percent of all closed-end fund assets were held in bond funds, with the remainder held in equity funds (Figure 3). At year-end 2018, assets in bond closed-end funds were \$159 billion, or 64 percent of closed-end fund assets. Equity closed-end fund assets totaled

\$91 billion, or 36 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,⁷ which exceeded those of US bonds during this time.⁸

FIGURE 3

Composition of the Closed-End Fund Market by Investment Objective

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



Source: Investment Company Institute

Net Issuance of Closed-End Funds

Net issuance of closed-end fund shares was \$597 million in 2018, compared with \$570 million in 2017 (Figure 4). Investor demand in 2018 was focused on bond closed-end funds.

Bond closed-end funds had positive net issuance of \$1 billion in 2018—with \$971 million in domestic municipal bond closed-end funds. Despite recent decreases in marginal tax rates for 2018, preferential tax treatment is a key factor driving the demand for municipal bonds in any given year. In 2018, however, most of the net issuance of municipal bond closed-end

funds was in preferred share classes. Since preferred share classes only pay dividends and do not share in the gains and losses of the fund, they were likely to be attractive to investors while long-term interest rates were rising in 2018.

Equity closed-end funds had net redemptions of \$412 million in 2018, compared with net redemptions of \$548 million in 2017. Only a modest amount of these net redemptions (\$40 million) occurred in the fourth quarter, despite the sharp declines in equity markets around the world during this time.

FIGURE 4

Closed-End Fund Net Share Issuance

Millions of dollars

	Total	Equity			Bond			
		Total	Domestic	Global/ International	Total	Domestic taxable	Domestic municipal	Global/ International
2009	-3,259	-2,520	-2,366	-154	-739	-788	-238	287
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	562	678	-11	-104
2016	1,572	58	242	-184	1,515	1,437	576	-498
2017	570	-548	-147	-401	1,118	758	123	237
2018	597	-412	-352	-60	1,009	42	971	-4

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.

Source: Investment Company Institute

Competition in the Closed-End Fund Industry

At year-end 2018, there were 92 closed-end fund sponsors competing in the US market (Figure 5), down from 97 closed-end fund sponsors at year-end 2017. Overall, since 2008, 40 closed-end fund sponsors left the business while 30 firms entered.

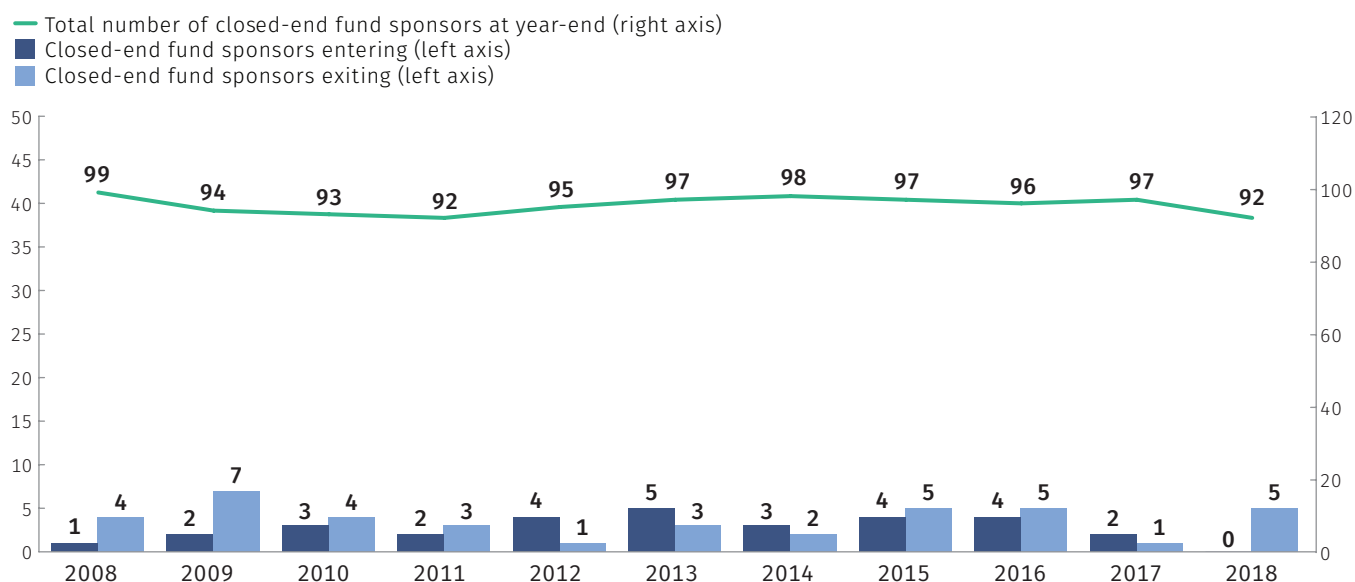
Competitive dynamics have prevented any single sponsor or group of sponsors from dominating the closed-end fund market. For example, in 2018, only nine sponsors offered more than 10 closed-end funds, whereas 39 sponsors offered only one closed-end fund, and 31 sponsors offered two to five closed-end funds (Figure 6). In addition, the share of assets managed by the largest 25 complexes (84 percent) has decreased since 2008 (87 percent).⁹ Also, of the largest 25 closed-end fund complexes in 2008, only 18 remained in this group at year-end 2018. Finally, the 506 closed-end funds must compete with other registered investment companies—nearly 9,600 mutual funds, more than 4,900 UITs, and more than 2,000 ETFs.¹⁰

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. In recent years, closed-end fund sponsors have also merged funds with similar strategies to improve trading efficiency. Consequently, the number of closed-end funds available to investors has declined steadily since 2011. From 2012 through 2017, more closed-end funds were liquidated, and others converted into open-end mutual funds or exchange-traded funds, than new closed-end funds were launched. In 2018, 15 closed-end funds were created, compared with 23 in 2017, while the number of closed-end fund mergers and liquidations increased to 18 in 2018 from 12 in 2017 (Figure 7).

FIGURE 5

Number of Closed-End Fund Sponsors

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

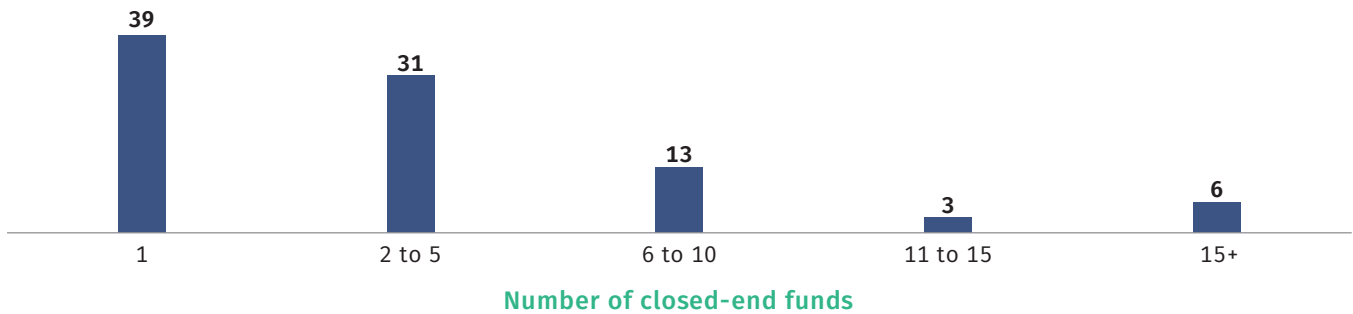


Source: Investment Company Institute

FIGURE 6

Distribution of Closed-End Funds Across Sponsors

Number of fund sponsors, year-end 2018



Share of Closed-End Fund Assets at Largest Complexes

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

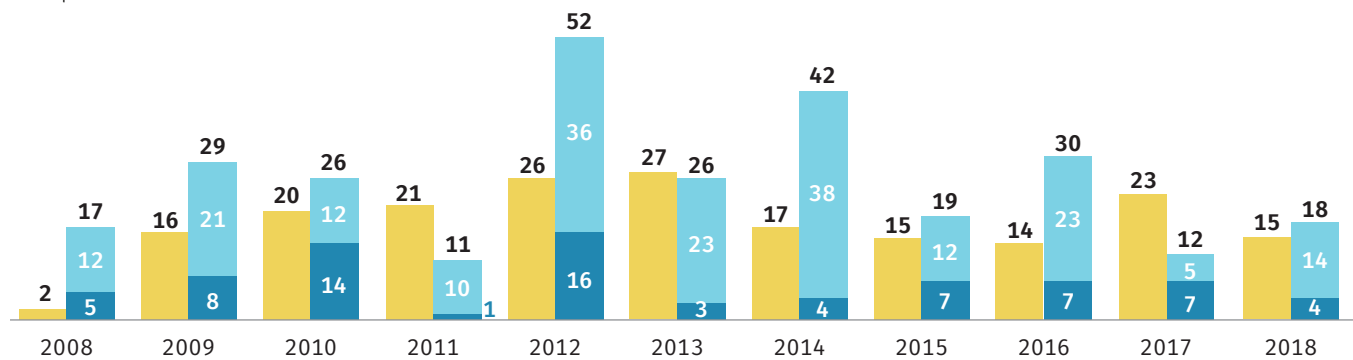
	2008	2010	2012	2014	2016	2017	2018
Largest 5 complexes	56	51	54	50	52	52	53
Largest 10 complexes	68	64	66	63	66	65	66
Largest 25 complexes	87	85	86	83	83	83	84

Source: Investment Company Institute

FIGURE 7

Number of Closed-End Funds Entering and Exiting the Industry

- Opened 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.

Source: Investment Company Institute

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.¹¹ 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 2018, the closed-end fund industry had a Herfindahl-Hirschman Index number of 892 (Figure 8).¹²

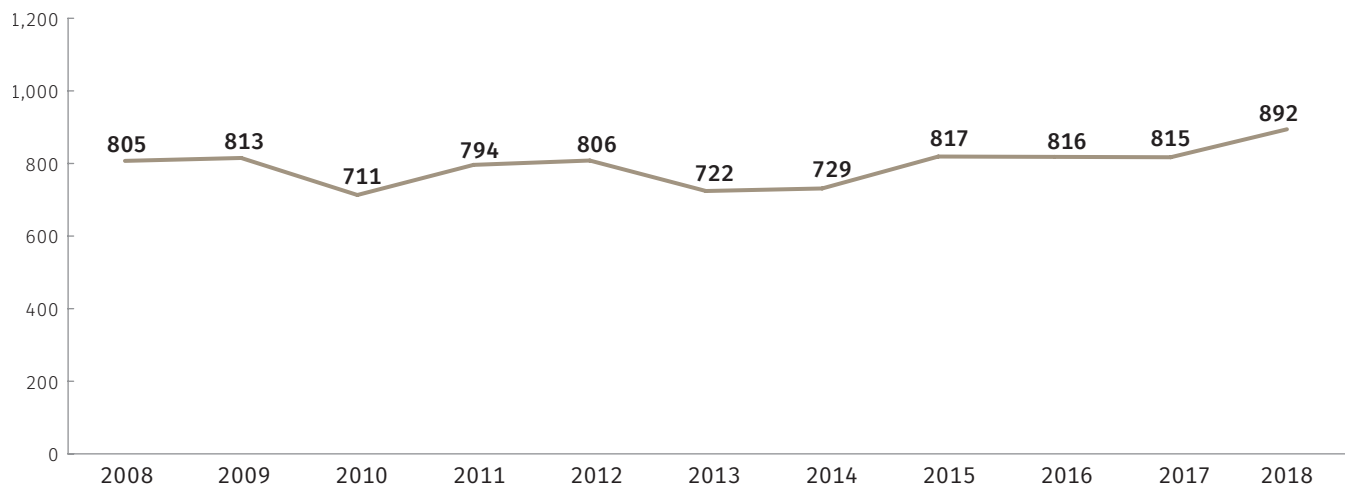
Closed-End Fund Distributions

In 2018, closed-end funds distributed \$16.7 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 67 percent of closed-end fund distributions, with a relatively even share of income distributions paid by both equity and bond closed-end funds. Capital gains represented 18 percent of closed-end fund distributions, and return of capital accounted for 15 percent.

FIGURE 8

Closed-End Fund Industry Found Competitive

Herfindahl-Hirschman Index,* year-end



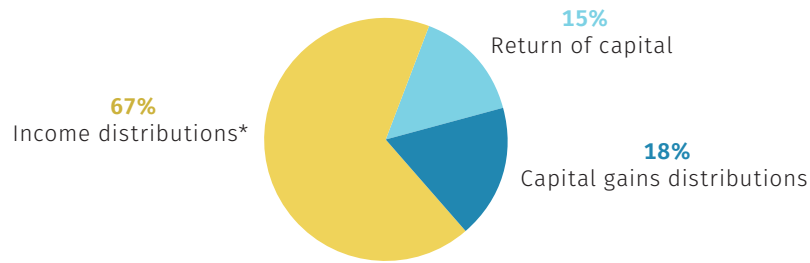
* The Herfindahl-Hirschman Index weighs both the number and relative size of firms in the industry to measure competition. Index numbers less than 1,000 indicate that an industry is unconcentrated.

Source: Investment Company Institute

FIGURE 9

Closed-End Fund Distributions

Percentage of closed-end fund distributions, 2018



Total closed-end fund distributions: \$16.7 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 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.¹³ 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.

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 NAV.¹⁴

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.¹⁵

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.¹⁶

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.¹⁷ The use of leverage by a closed-end 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 2018, at least 332 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 10).¹⁸

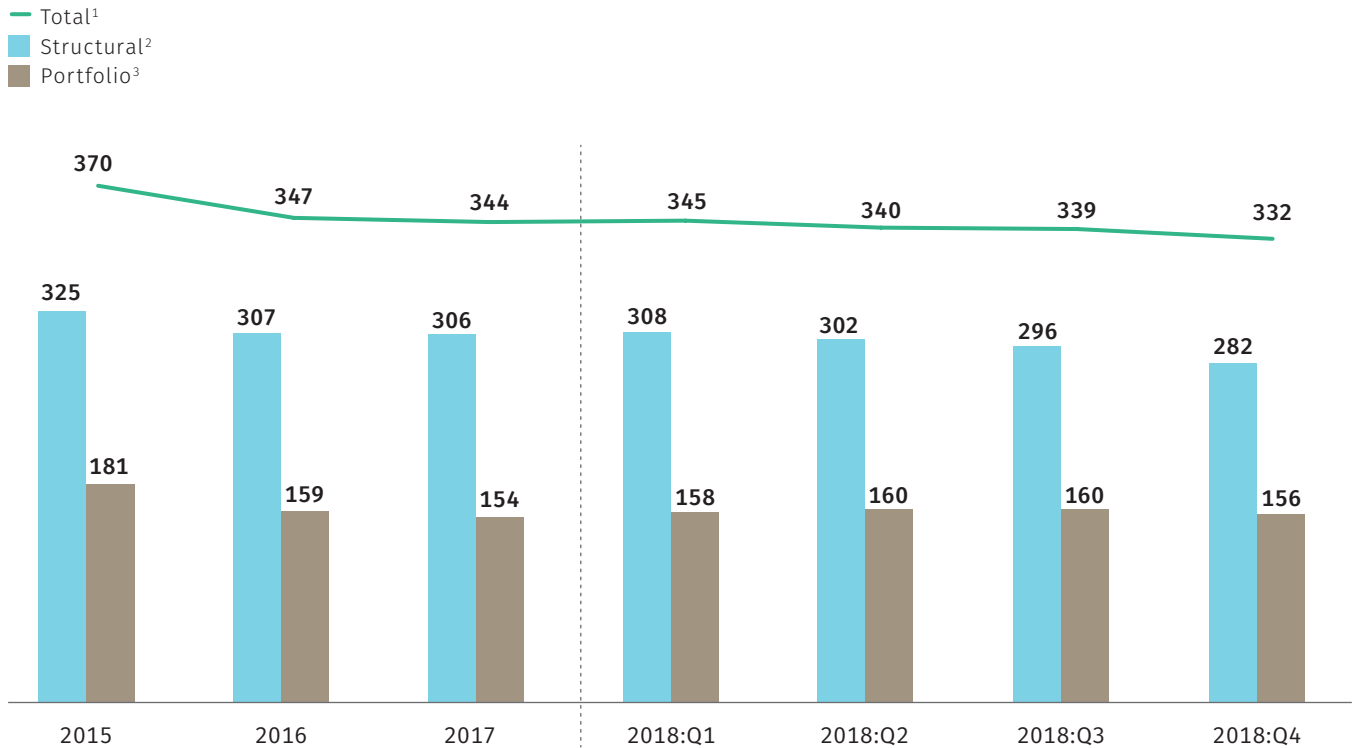
Structural Leverage

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 and issuing debt and preferred shares.¹⁹ 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).

FIGURE 10

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 and issuing debt and preferred stock.

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.

Source: Investment Company Institute

At the end of 2018, 282 funds had a total of \$51.4 billion in structural leverage, with a little more than half (54 percent) of those assets from preferred shares (Figure 11); 46 percent came from other types of structural leverage. The average leverage ratio across those closed-end funds employing structural leverage was 28 percent at year-end 2018. Among closed-end funds employing structural leverage, the average leverage ratio for bond funds was somewhat higher (30 percent) than that of equity funds (24 percent).

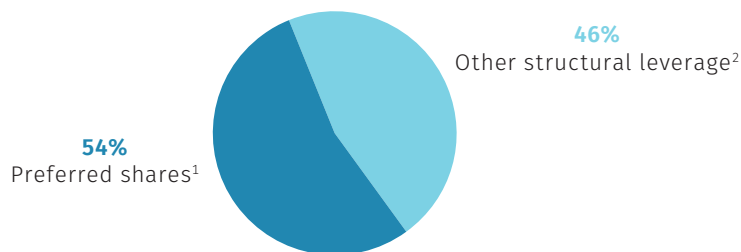
At year-end 2018, 11 percent of the \$250 billion in closed-end fund total assets was funded by proceeds

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 2008.²⁰ 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.

FIGURE 11

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

Percentage of closed-end fund structural leverage, year-end 2018



Total closed-end fund structural leverage: \$51.4 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. Preferred shares differ from common shares 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.

² *Other structural leverage* includes bank borrowing and other forms of debt.

Source: Investment Company Institute

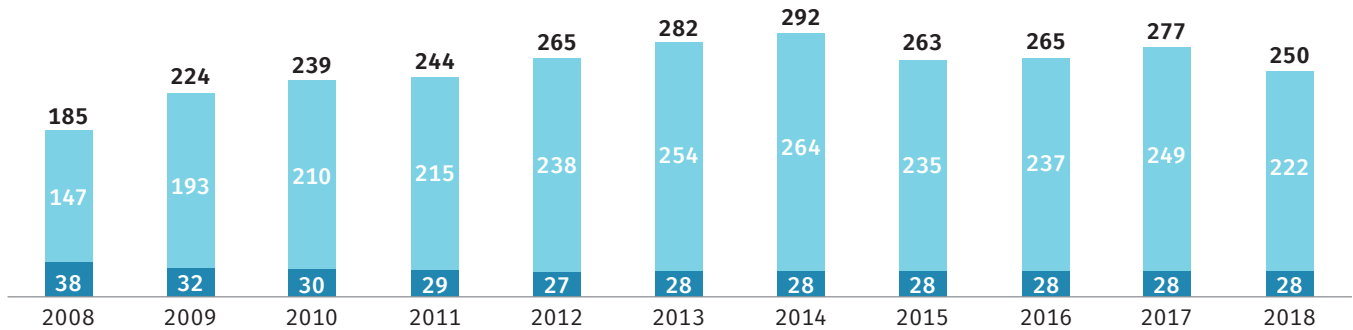
FIGURE 12

Closed-End Fund Preferred Share Assets

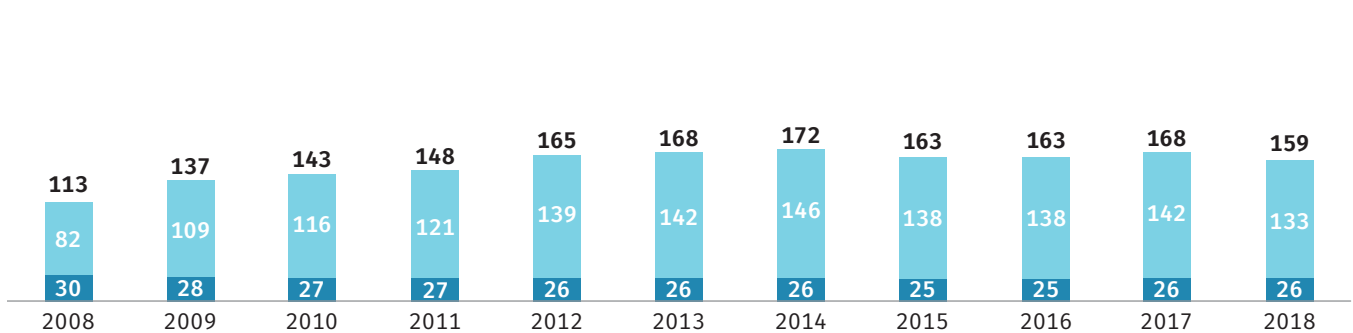
Billions of dollars, year-end

Common¹
Preferred²

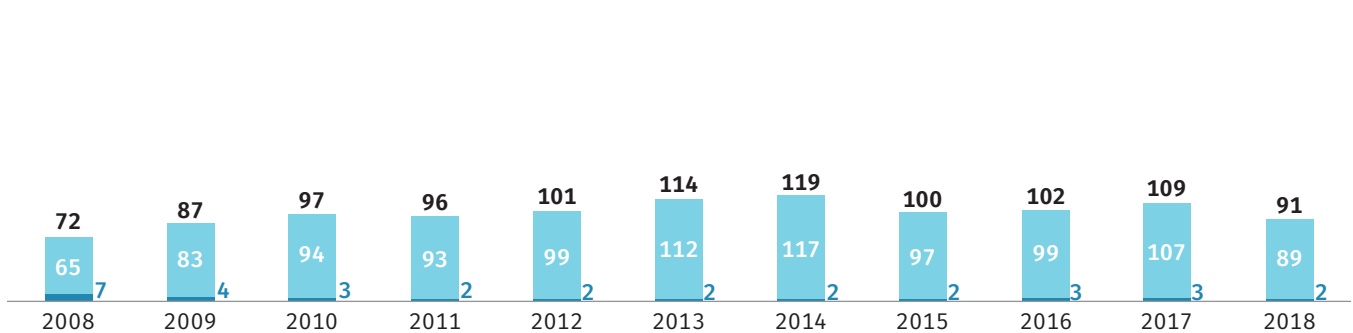
Total closed-end fund assets



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. Preferred shares differ from common shares 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.

Source: Investment Company Institute

The vast majority (92 percent) of closed-end fund preferred share assets at year-end 2018 were floating-rate preferred shares (Figure 13). 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 15 percent; and fixed-rate preferred shares accounted for 8 percent.

FIGURE 13

Closed-End Fund Preferred Share Class Assets by Type

Percentage of closed-end fund preferred share class assets, year-end 2018

Floating-rate	92
Auction market preferred	15
Puttable preferred	65
Mandatory redeemable (floating) preferred	13
Fixed-rate	8
Mandatory redeemable (fixed) preferred	4
Perpetual (fixed) preferred	4

Source: Investment Company Institute

Portfolio Leverage

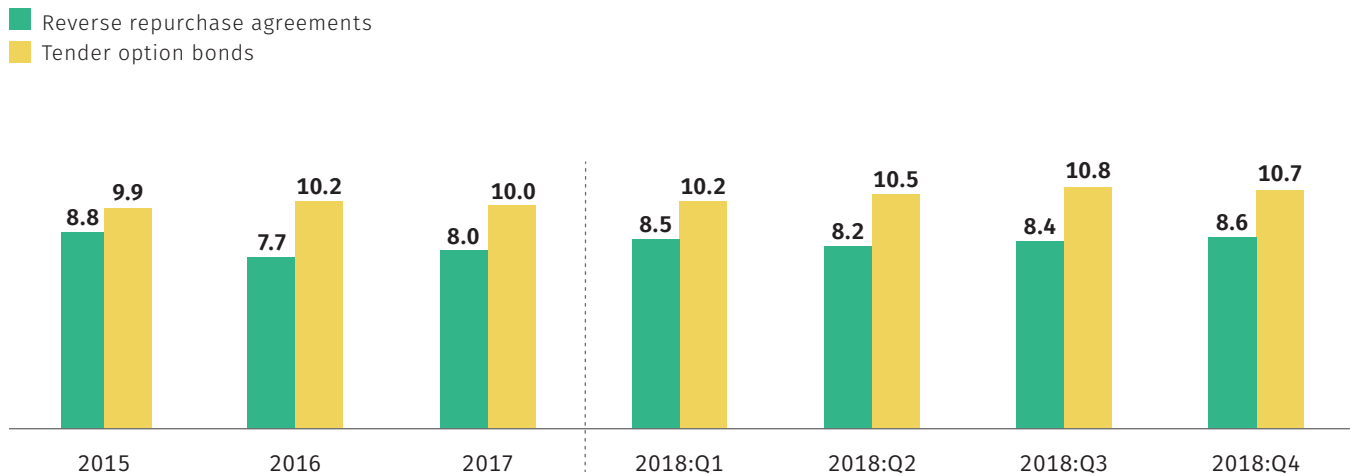
Portfolio leverage is leverage that results from certain portfolio investments.²¹ Types of closed-end fund portfolio leverage include some types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2018, 156 closed-end funds used

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 \$19.3 billion outstanding in reverse repurchase agreements and tender option bonds at year-end 2018 (Figure 14).

FIGURE 14

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 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 than what is reflected above.

Source: Investment Company Institute

Characteristics of Closed-End Fund Investors

An estimated 3.6 million US households owned closed-end funds in 2018.²² These households tended to include affluent investors who owned a range of equity and fixed-income investments. In 2018, 95 percent of households owning closed-end funds also owned equities, either directly or through equity mutual funds or variable annuities (Figure 15). Eighty-one percent of households that owned closed-end funds also held bond mutual funds, individual bonds, or fixed annuities. In addition, 53 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 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 stocks (median age of 53) or mutual funds (median age of 51) (Figure 16). Households with closed-end funds tended to have greater household financial assets. Also, 37 percent of households owning closed-end funds were retired from their lifetime occupations, compared with 23 percent of households owning 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, 2018

Equity mutual funds, individual stocks, or variable annuities (total)	95
Bond mutual funds, individual bonds, or fixed annuities (total)	81
Mutual funds (total)	89
Equity	86
Bond	53
Hybrid	38
Money market	52
Individual stocks	70
Individual bonds	44
Fixed or variable annuities	45
Investment real estate	53

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

2018

	All US households	Households owning closed-end funds	Households owning mutual funds	Households owning individual stocks
Median				
Age of head of household ¹	52	54	51	53
Household income ²	\$60,000	\$125,000	\$100,000	\$113,000
Household financial assets ³	\$80,000	\$500,000	\$250,000	\$400,000
Percentage of households				
<i>Household primary or co-decisionmaker for saving and investing</i>				
Married or living with a partner	57	63	70	69
College or postgraduate degree	35	55	53	57
Employed (full- or part-time)	62	65	76	72
Retired from lifetime occupation	29	37	23	28
<i>Household owns</i>				
IRA(s)	33	78	61	64
DC retirement plan account(s)	48	70	84	72

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

² Total reported is household income before taxes in 2017.

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

Glossary

at-the-market offering. An offering of new shares at a price determined by the same class of shares 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 that pays dividends that vary over time. The dividend rates are set through auctions run by an independent auction agent.

closed-end fund. A type of investment company registered with the Securities and Exchange Commission (SEC) that issues a fixed number of shares that typically 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 market price of its shares is less than the fund’s NAV.

distributions. Payments of dividends, capital gains, or return of capital by a 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 fund 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. Unlike closed-end funds, ETF shares are redeemable only to certain authorized participants at their current NAV but only in units typically consisting of thousands of shares (e.g., 25,000 shares).

extendible note. Gives bondholders the right to extend the maturity date of a 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 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 guaranteed, 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 share that pays dividends that may be fixed or variable. 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 open-end 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 NAV.

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

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 puttable preferred shares, followed by auction market preferred shares.

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

puttable preferred shares. A type of preferred share 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 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 purchase the shares unconditionally.

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. An offering of new shares of a same class of shares that is 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. Also known as *follow-on offering*.

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

tender offer. In a closed-end fund tender offer, shareholders are given a limited opportunity to sell a portion of their holding 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 investment company registered with the SEC 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, it buys and holds 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, and paid out periodically either immediately or at some future date.

Notes

- ¹ 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.
- ⁴ 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 besides the value of 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 \$222 billion at year-end 2018.
- ⁵ As measured by the Wilshire 5000 Total Market Index.
- ⁶ As measured by the MSCI All Country World Daily ex-US Total Return Index.
- ⁷ US stocks had an annualized total return of 13.2 percent during this period, as measured by the Wilshire 5000 Total Market Index.
- ⁸ US investment grade bonds had an annualized total return of 3.4 percent during this period, as measured by the FTSE US Broad Investment Grade Bond Index.
- ⁹ By comparison, the share of mutual fund and exchange-traded fund total net assets managed by the 25 largest firms was 79 percent at year-end 2018. See Investment Company Institute 2019.
- ¹⁰ See Investment Company Institute 2019 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.
- ¹¹ See Cabral 2000 and US Department of Justice and the Federal Trade Commission 1992 for more information about the Herfindahl-Hirschman Index.
- ¹² The mutual fund industry had a Herfindahl-Hirschman Index number of 720 as of December 2018. For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- ¹³ In order to implement a managed distribution policy, a closed-end fund must apply for, and the Securities and Exchange Commission (SEC) must provide an exemption from, Section 19(b) of the Investment Company Act of 1940 and Rule 19b-1 thereunder.
- ¹⁴ For more information on dividend policy and discounts on closed-end funds, see Johnson, Lin, and Song 2006.
- ¹⁵ For more information on closed-end fund distributions, see Gabelli Funds, LLC 2004; Nuveen Investments, “Understanding Managed Distributions”; and Morningstar 2014.
- ¹⁶ For more information on MLPs, see Tortoise Capital Advisors, LLC 2016.
- ¹⁷ For additional information, see Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- ¹⁸ 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.
- ¹⁹ 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.”
- ²⁰ See, e.g., Galley 2010 and Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- ²¹ For more information on the types of closed-end fund leverage, see Nuveen Investments, “Understanding Leverage in Closed-End Funds.”
- ²² 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 2018 and was based on a dual frame telephone sample of 5,001 US households. Of these, 2,251 households were from a landline random digit dial (RDD) frame and 2,750 households were from a cell phone RDD frame. All interviews were conducted over the telephone with the member of the household who was either the sole or the co-decisionmaker 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 2018. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Holden, Schrass, and Bogdan 2018.

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