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## The Closed-End Fund Market, 2015

### KEY FINDINGS

- » **Total closed-end fund assets were \$261 billion at year-end 2015, with bond closed-end funds accounting for 62 percent of total assets.** Even though this percentage has declined from 74 percent in 2000, bond closed-end funds continued to make up the majority of closed-end fund assets.
- » **The share of assets in equity closed-end funds was 38 percent of all closed-end fund assets at year-end 2015, up from 26 percent at year-end 2000.** Continued demand for equity closed-end funds and recent years' gains in equity prices, which have outpaced bond returns, have bolstered equity closed-end funds' share.
- » **Price deviations from net asset values on domestic municipal bond closed-end funds narrowed by year-end 2015, reflecting increased investor interest in municipal securities.** The average discount for domestic municipal bond closed-end funds narrowed to 4.6 percent at year-end 2015 from 7.3 at year-end 2014.
- » **Investor demand for closed-end fund shares weakened further in 2015.** Net issuance of closed-end fund shares was \$1.7 billion for 2015, down from \$4.9 billion in 2014 and \$13.7 billion in 2013.
- » **Competitive dynamics have prevented any single closed-end fund sponsor from dominating the closed-end fund market.** For example, of the largest 25 closed-end fund sponsors in 2005, only 16 remained in this group at year-end 2015.
- » **Nearly two-thirds of closed-end funds employed structural leverage, portfolio leverage, or both in 2015.** Closed-end funds had \$49 billion outstanding in preferred shares and other structural leverage at year-end 2015. Portfolio leverage consisting of reverse repurchase agreements and tender option bonds amounted to \$19 billion.
- » **Closed-end fund investors tended to have above-average household incomes and financial assets.** An estimated 3.4 million U.S. households held closed-end funds in 2015. These households tended to include affluent investors who owned a range of equity and fixed-income investments.

## What Is a Closed-End Fund?

Closed-end funds are one of four types of investment companies registered under the Investment Company Act of 1940, along with mutual (or open-end) funds, exchange-traded funds (ETFs), and unit investment trusts (UITs). Closed-end funds generally issue a fixed number of shares that are listed on a stock exchange or traded in the over-the-counter market.<sup>1</sup> The assets of a closed-end fund are professionally managed in accordance with the fund's investment objectives and policies, and may be invested in stocks, bonds, and other securities. The market price of 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.<sup>2</sup> Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more securities for its portfolio. Although some closed-end funds may adopt stock repurchase programs or periodically tender for shares, once issued, shares of a closed-end fund generally are not purchased or redeemed directly by the fund. Rather, shares are bought and sold by investors in the open market. Because a closed-end fund does not need to maintain cash reserves or sell securities to meet redemptions, the fund has the flexibility to invest in less-liquid portfolio securities. For example, a closed-end fund may invest in securities of very small companies, municipal bonds that are not widely traded, or securities traded in countries that do not have fully developed securities markets.

## Closed-End Fund Pricing

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

Because a closed-end fund's shares trade in the stock market based on investor demand, the fund may trade at a price higher or lower than its NAV. A closed-end fund trading at a share price higher than its NAV is said to be selling at a "premium" to the NAV, while a closed-end fund trading at a share price lower than its NAV is said to be selling at a "discount." Funds may trade at discounts or premiums to the NAV based on market perceptions or investor sentiment.<sup>3</sup> 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.

After narrowing during the first four months of 2015, price deviations for closed-end funds generally increased through the remainder of the second and third quarters of the year (Figure 1). Taxable bond and equity closed-end funds ended 2015 with wider discounts than at year-end 2014; however, domestic municipal bond closed-end fund discounts narrowed during the fourth quarter. For domestic

taxable bond closed-end funds, the average discount rose from 6.7 in December 2014 to 10.7 in August 2015 before narrowing to end the year at 8.5. The average discount for global/international closed-end bond funds widened from 11.2 in December 2014 to 14.6 in September 2015 before narrowing to 11.5 during the fourth quarter. The average discount of domestic equity closed-end funds followed a similar pattern to taxable bond funds, having widened from 8.6 in December 2014 to 10.2 in September 2015 before narrowing to 9.0 at year-end. In contrast, the average discount on global/international equity closed-end funds remained wider through December, ending the year at 11.9 up from 8.2 in 2014.

Average discounts on domestic municipal bond closed-end bond funds followed a similar pattern to taxable bond and domestic equity closed-end funds before diverging during the fourth quarter, reflecting increased demand for municipal securities generally. The average discount on domestic municipal bond closed-end funds grew from 7.3 in December 2014 to 8.4 in September 2015 before falling to 4.6 percent by year-end 2015.

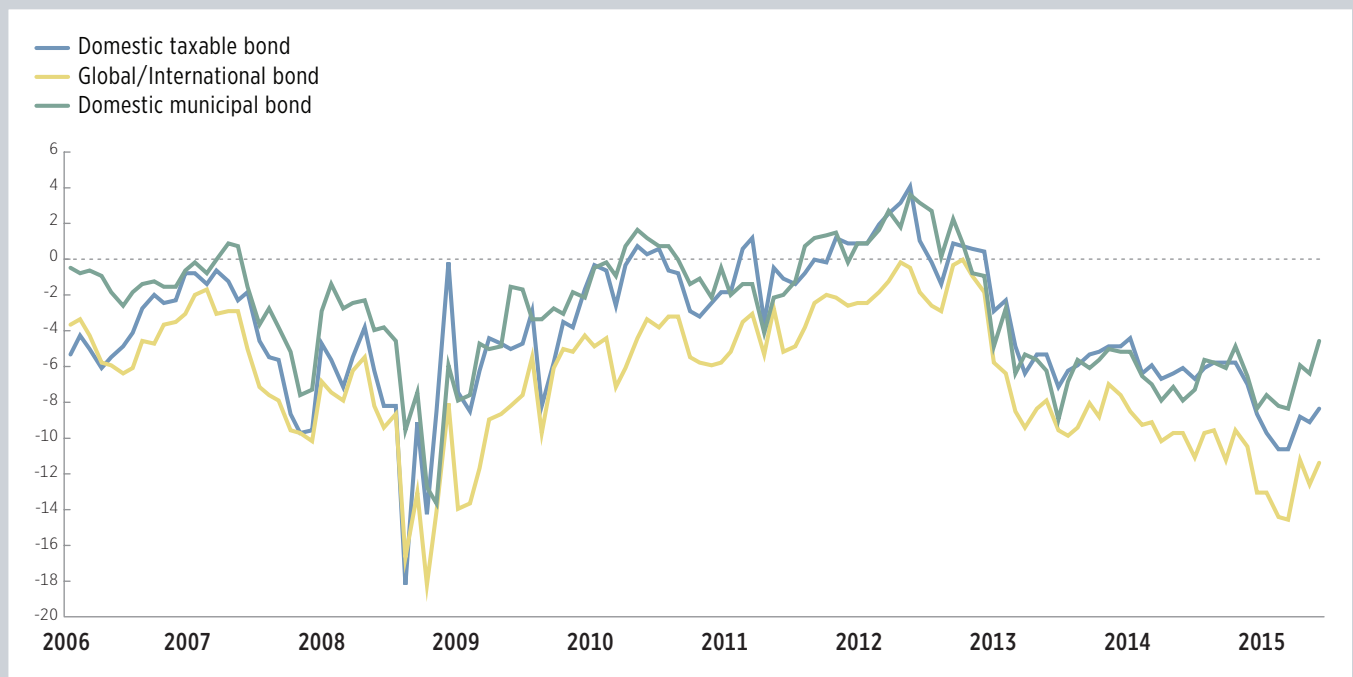
## Assets in Closed-End Funds

At year-end 2015, 558 closed-end funds had total assets<sup>4</sup> of \$261 billion (Figure 2). The number of closed-end funds available to investors has declined from its peak of 662 at the end of 2007 due to the effects of mergers, liquidations, and conversions. Several factors have limited the growth in both assets and the number of closed-end funds in recent years. First, continued widespread discounts on existing closed-end funds has created an environment in which it is difficult for fund sponsors to launch new closed-end funds. Second, several closed-end funds have repurchased shares through tender offers over the past few years, reducing the number of outstanding shares and the size of assets under management. Third, a few closed-end funds have liquidated each year and others have converted into open-end mutual funds or ETFs. Finally, closed-end fund preferred share assets have declined since the financial crisis of 2008.<sup>5</sup>

FIGURE 1

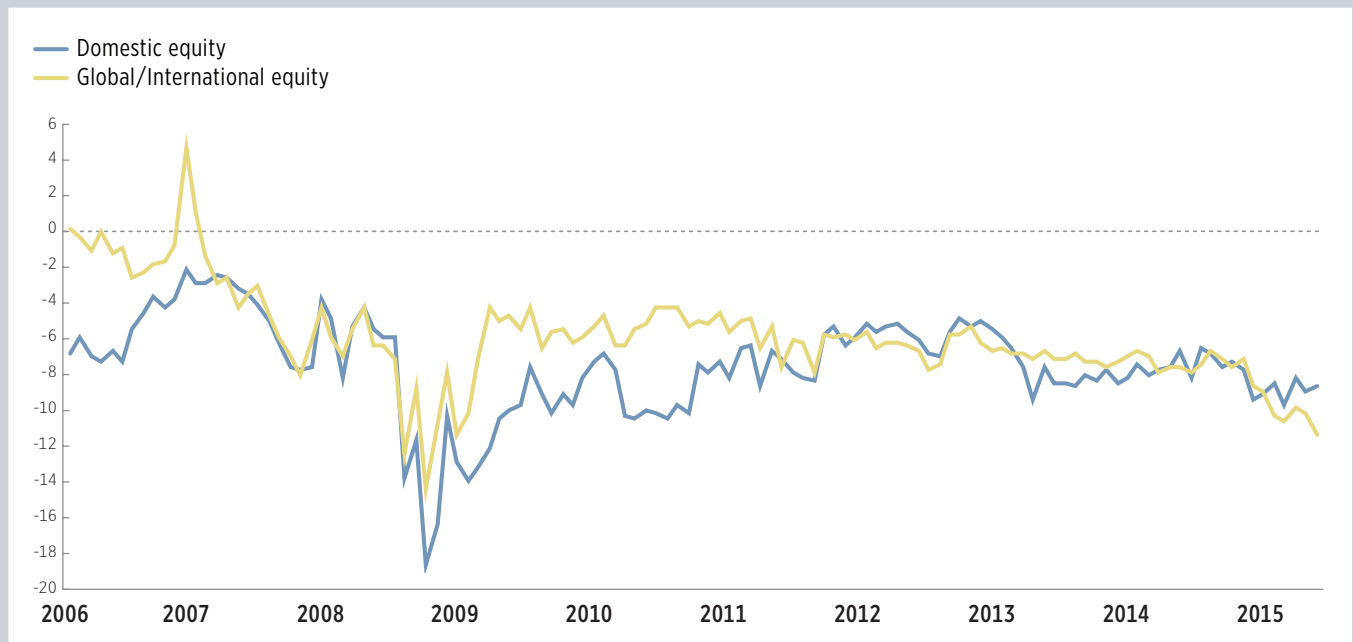
### Bond Closed-End Funds' Premium/Discount Rate\*

Percent; monthly, January 2006–December 2015



### Equity Closed-End Funds' Premium/Discount Rate\*

Percent; monthly, January 2006–December 2015

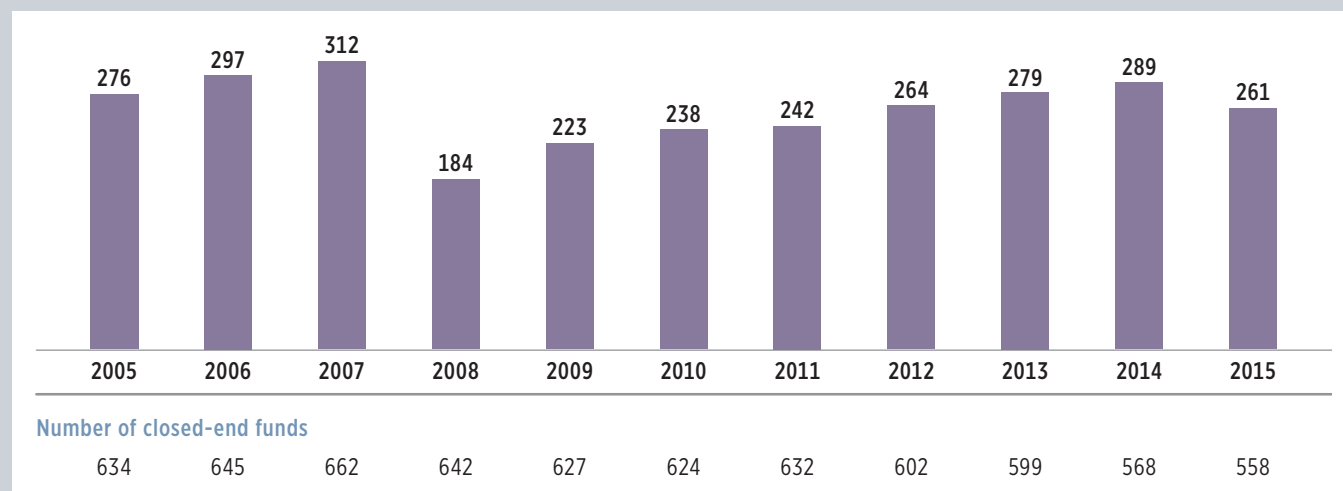


\*Simple average of the difference between share price and NAV at month-end for closed-end funds with available data.  
Source: Bloomberg

FIGURE 2

### Total Assets of Closed-End Funds Were \$261 Billion at Year-End 2015

Billions of dollars; year-end, 2005–2015



Source: Investment Company Institute

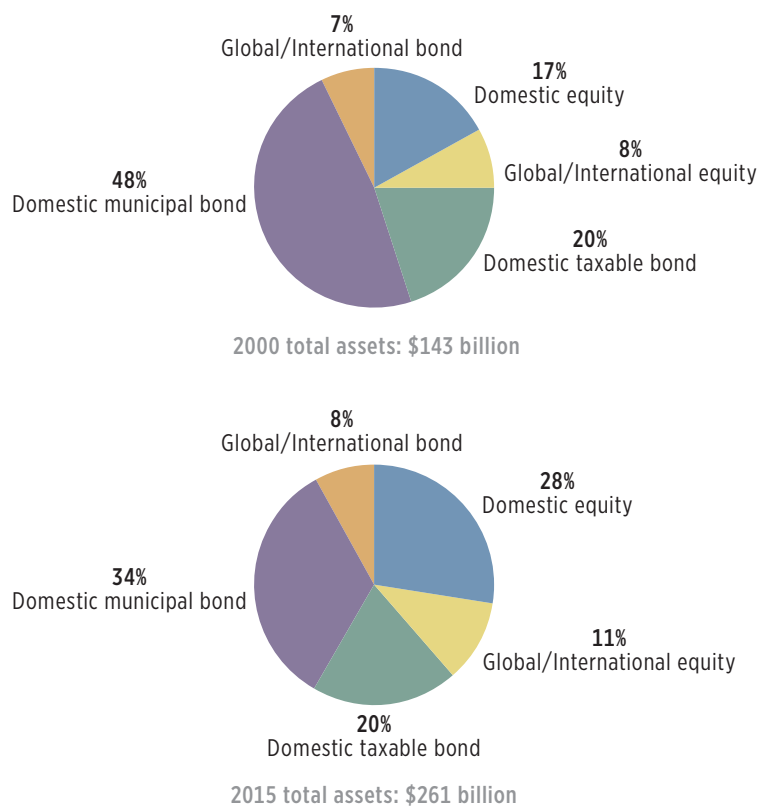
Historically, bond funds have accounted for a large share of assets in closed-end funds. At year-end 2000, 74 percent of all closed-end fund assets were held in bond funds with the remainder held in equity funds (Figure 3). At year-end 2015, assets in bond closed-end funds were \$161 billion, or 62 percent of closed-end fund assets. Equity closed-end fund assets totaled \$100 billion, or 38 percent of closed-

end fund assets. These relative shares have shifted, in part because cumulative net issuance of equity closed-end fund shares has exceeded that of bond fund shares over the past nine years. In addition, total returns on U.S. stocks<sup>6</sup> averaged 7.5 percent annually from year-end 2000 to year-end 2015, while total returns on bonds<sup>7</sup> averaged 5.1 percent annually.

FIGURE 3

### Equity Funds' Growing Share of the Closed-End Fund Market

Percentage of closed-end fund total assets, year-end 2000 and 2015



Note: Components may not add to 100 percent because of rounding.

Source: Investment Company Institute

### Net Issuance of Closed-End Funds

Net issuance of closed-end fund shares continued to slow in 2015, falling to \$1.7 billion in 2015 from \$4.9 billion in 2014, as investor demand for equity closed-end funds waned (Figure 4). Widening of average discounts for equity and taxable bond closed-end funds, combined with continued market volatility in 2015 and interest rate uncertainty, may have played a role in tamping down net share issuance in 2015.

Demand for equity closed-end funds fell in 2015, with net issuance amounting to \$1.2 billion, down from \$4.3 billion in 2014 and \$3.6 billion in 2013. For the first time since 2007, net issuance of global/international equity closed-end funds accounted for the bulk of the equity fund net issuance.

Net issuance of bond closed-end funds edged down to \$486 million in 2015 from \$578 million in 2014. Domestic taxable bond and global/international bond closed-end funds saw modest increases although demand has not yet

FIGURE 4

**Closed-End Fund Net Share Issuance<sup>1</sup>**

Millions of dollars; annual, 2007–2015<sup>2</sup>

	Total	Equity			Bond			
		Total	Domestic	Global/ International	Total	Domestic taxable	Domestic municipal	Global/ International
2007	\$28,369	\$24,608	\$4,949	\$19,659	\$3,761	\$1,966	-\$880	\$2,675
2008	-22,298	-8,739	-7,052	-1,687	-13,560	-6,770	-6,089	-700
2009	-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	13,677	3,554	4,097	-543	10,123	3,921	-220	6,423
2014	4,891	4,314	3,819	494	578	266	523	-212
2015	1,676	1,190	148	1,043	486	678	-87	-104

<sup>1</sup> Net 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.

<sup>2</sup> Data are not available for years prior to 2007.

Note: Components may not add to the total because of rounding. Data reflect revisions to previously reported data.

Source: Investment Company Institute

recovered after falling off in 2014. Demand for new shares of domestic taxable bond closed-end funds rose to \$678 million in 2015 from \$266 million in 2014. Net redemptions of global/international bond closed-end funds slowed to \$104 million in 2015 from \$212 million in 2014.

Despite narrowing of discounts in 2015, weakness in demand for new domestic municipal bond closed-end fund shares continued throughout the year. Domestic municipal bond closed-end funds saw net redemptions of \$87 million in 2015, compared to net issuance of \$523 million in 2014.

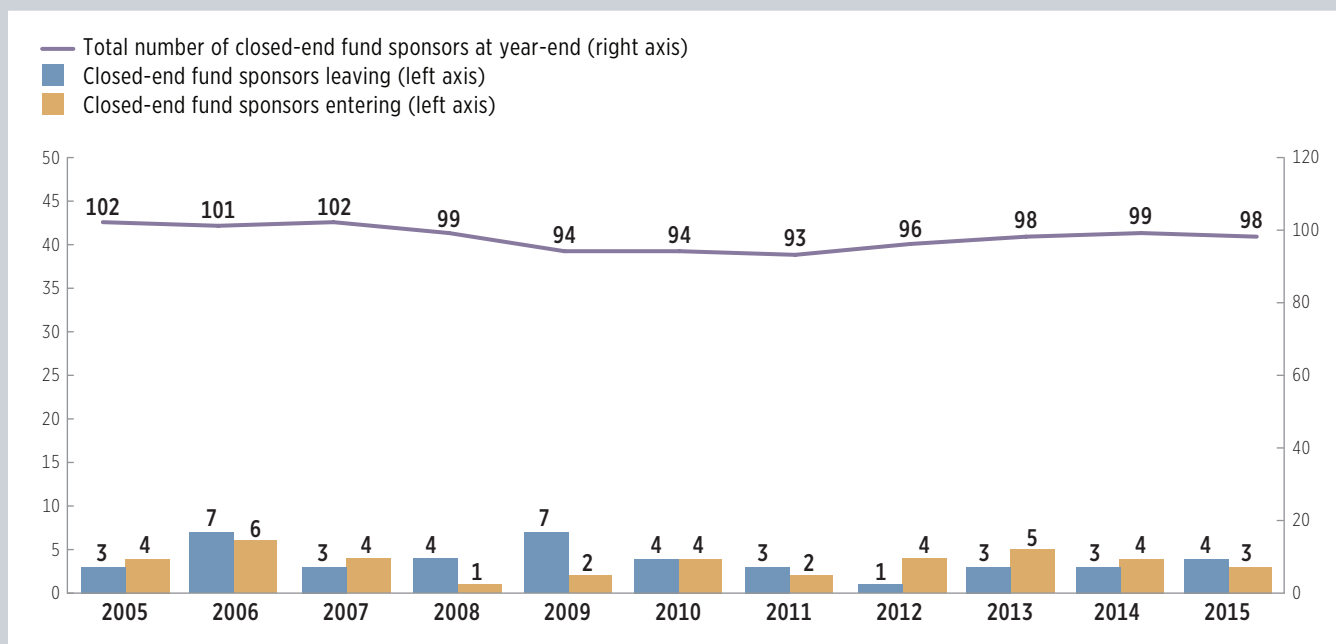
**Competition in the Closed-End Fund Industry**

At year-end 2015, there were 98 closed-end fund sponsors competing in the U.S. market (Figure 5). The number of closed-end fund sponsors was a little more than 100 from 2005 through 2007, as strong gains in the equity and bond markets maintained investor interest in closed-end funds. However, the strains of the financial crisis, competition among sponsors, and pressure from other financial products led to a decline in the number of sponsors offering closed-end funds from 2007 through 2011. In contrast, from 2011 through 2014, more sponsors entered the business than left. Overall, from year-end 2005 to year-end 2015, 39 closed-end fund sponsors left the business while 35 firms entered, for a net reduction of four sponsors.

FIGURE 5

### Number of Closed-End Fund Sponsors

Entry, exit, and total number of closed-end fund sponsors; 2005–2015



Source: Investment Company Institute

Competitive dynamics have prevented any single sponsor or group of sponsors from dominating the closed-end fund market. For example, in 2015, only 10 sponsors offered more than 10 closed-end funds, whereas 37 sponsors offered only one closed-end fund, and 33 sponsors offered two to five funds (Figure 6). In addition, the share of assets managed by the largest 25 firms (84 percent) has edged down since 2005.<sup>8</sup> Of the largest 25 closed-end fund sponsors in 2005, only 16 remained in this group at year-end 2015.

In addition, closed-end funds compete with other registered investment companies. While there are 558 closed-end funds, there are more than 9,500 mutual funds; more than 5,100 UITs; and nearly 1,600 ETFs.<sup>9</sup>

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. The pace of newly created closed-end funds has been restrained since the financial crisis of 2008 but widening discounts in 2015 for many existing closed-end funds further limited new fund launches. In 2015, 10 closed-end funds were created, compared with 14 in 2014 (Figure 7) and 23 in 2013. The rate of closed-end fund mergers and liquidations fell to 17 in 2015 from 42 in 2014.

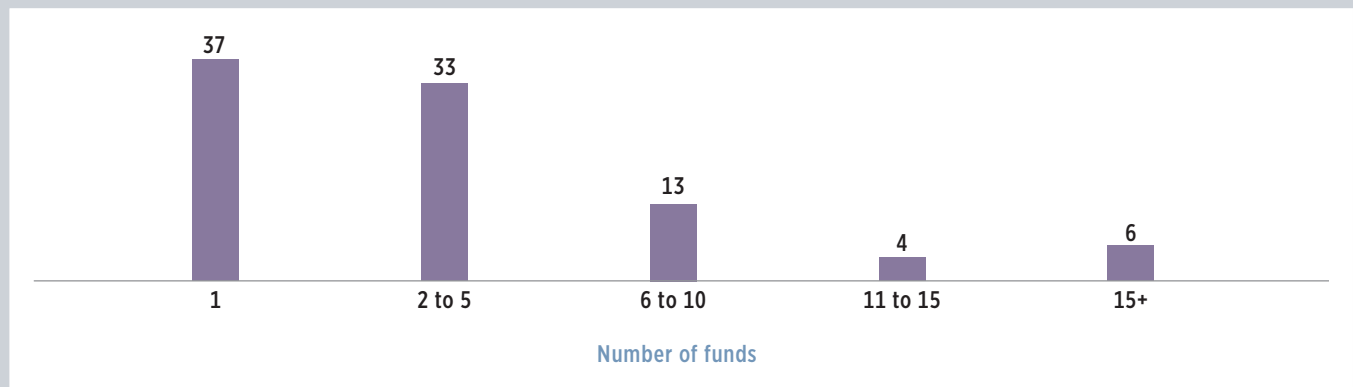
Other measures also indicate that no one firm or group of firms dominates the closed-end fund market. One such measure of market concentration is the Herfindahl-Hirschman Index, which weighs both the number and relative size of firms in the industry.<sup>10</sup> Index numbers smaller than 1,000 indicate 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 2015, the closed-end fund industry had a Herfindahl-Hirschman Index number of 817 (Figure 8).<sup>11</sup>



FIGURE 6

### Distribution of Closed-End Funds Across Sponsors

Number of fund sponsors, year-end 2015



### Share of Closed-End Fund Assets at Largest Complexes

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

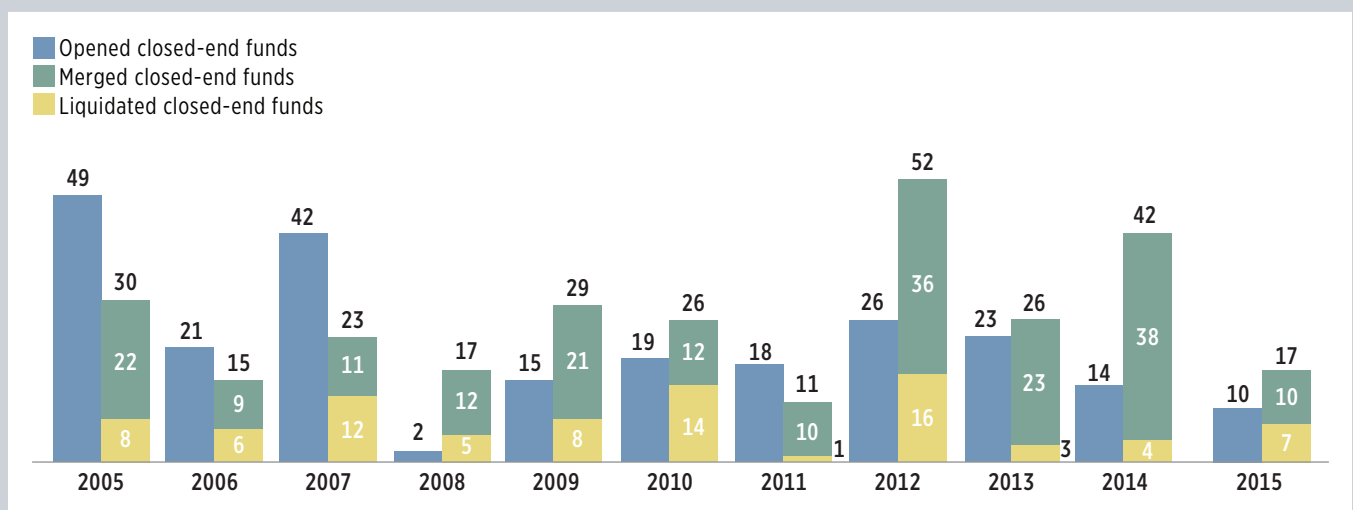
	2005	2006	2008	2010	2012	2014	2015
Largest 5 complexes	46	52	56	51	53	50	52
Largest 10 complexes	64	65	68	64	66	63	65
Largest 25 complexes	86	85	87	85	86	83	84

Source: Investment Company Institute

FIGURE 7

### Number of Closed-End Funds Leaving and Entering the Industry

2005-2015



Source: Investment Company Institute

## Closed-End Fund Distributions

In 2015, closed-end funds distributed \$16.8 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 69 percent of closed-end fund distributions, with the majority of income distributions paid by bond closed-end funds. Return of capital comprised 17 percent of closed-end fund distributions, and capital gains accounted for 13 percent.

Some closed-end funds follow a managed distribution policy, which allows a closed-end fund to provide predictable, but not guaranteed, cash flow to common shareholders. The goal of a managed distribution policy is to reduce the uncertainty regarding future cash flows for common shareholders. The payment from a managed distribution policy is typically paid to common shareholders on a monthly or quarterly basis and can be a regular fixed cash payment or based on a percentage of a fund's assets.<sup>12</sup> 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 have potential advantages and disadvantages for common shareholders. First, a closed-end fund with a managed distribution policy can be an important tool for investors seeking steady income or cash flow. Second, a managed distribution policy permits a fund to offer regular cash flow from strategies not typically associated with regular income. Third, having a managed distribution policy in place may help support the fund's share price and may help reduce any discount between the closed-end fund's share price and NAV.<sup>13</sup>

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

Closed-end fund return of capital distributions may come 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.<sup>15</sup>

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.

FIGURE 8

### Closed-End Fund Industry Found Competitive

Herfindahl-Hirschman Index;\* year-end, 2005-2015



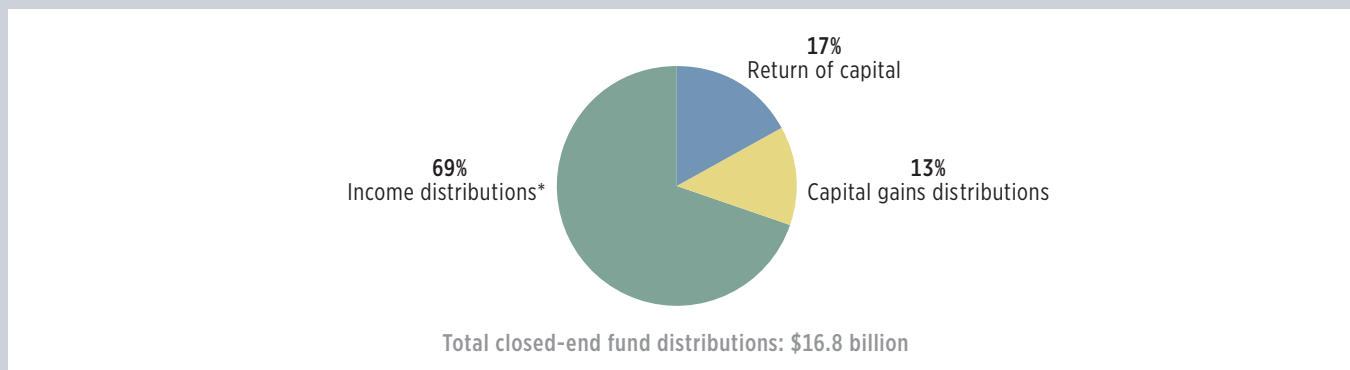
\*The Herfindahl-Hirschman Index weighs both the number and relative size of firms in the industry to measure competition. Index numbers less than 1,000 indicate that an industry is unconcentrated.

Source: Investment Company Institute

FIGURE 9

### Closed-End Fund Distributions

Percentage of closed-end fund distributions, 2015



\*Income distributions include payments from interest and dividends.

Note: Components do not add to 100 percent because of rounding.

Source: Investment Company Institute

## Closed-End Fund Leverage

Closed-end funds have the ability, subject to strict regulatory limits, to use leverage as part of their investment strategy.<sup>16</sup> The use of leverage by a closed-end fund can allow it to achieve higher long-term returns, but also increases risk and the likelihood of share price volatility. Closed-end fund leverage can be classified as either structural leverage or portfolio leverage. At year-end 2015, at least 365 funds,<sup>17</sup> accounting for 65 percent of closed-end funds, were using structural leverage, portfolio leverage consisting of tender option bonds or reverse repurchase agreements, or both (Figure 10).

### Structural Leverage

Structural leverage, the most common type of leverage, affects the closed-end fund's capital structure by increasing the fund's portfolio assets. Types of closed-end fund structural leverage include borrowings and issuing debt and preferred shares. Closed-end funds are subject to asset coverage requirements if they issue debt or preferred shares.<sup>18</sup> 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 2015, 316 funds had a total of \$49.3 billion in structural leverage, with a little more than half (54 percent) of those assets from preferred shares (Figure 11). Forty-six percent of closed-end fund structural leverage was other structural leverage. The average leverage ratio across those closed-end funds employing structural leverage was 26.0 percent at year-end 2015. Among closed-end funds employing structural leverage, the average leverage ratio for bond funds was somewhat higher (27.3 percent) than that of equity funds (22.0 percent).

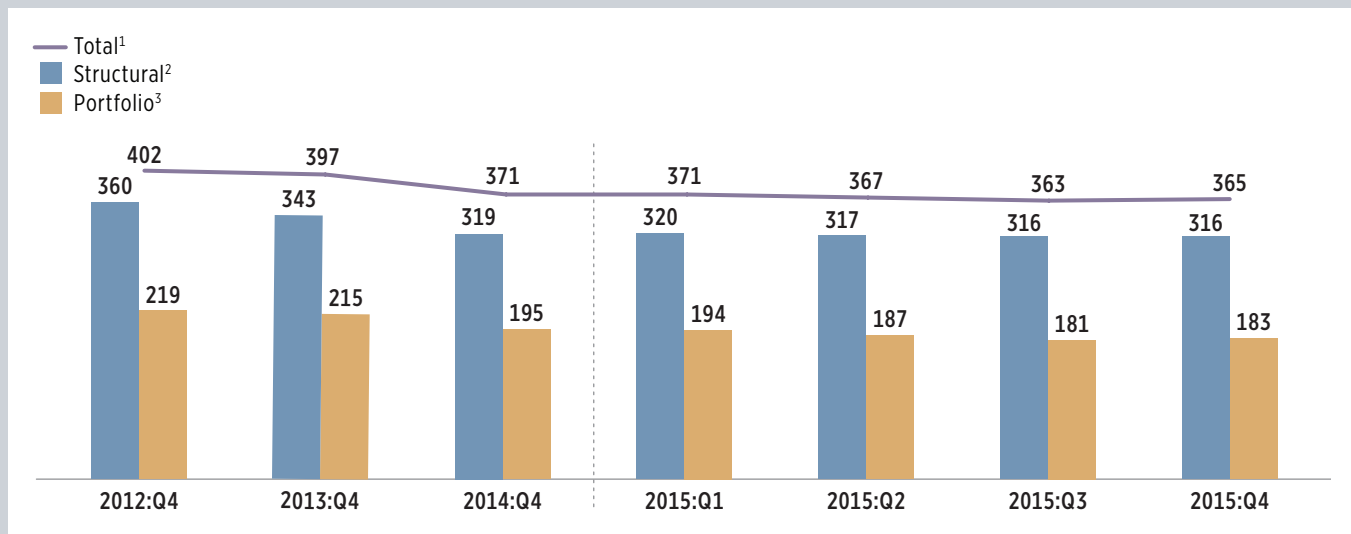
At year-end 2015, about 10 percent of the \$261 billion in closed-end fund total assets was funded by proceeds from preferred shares, with bond funds accounting for 91 percent of outstanding preferred share assets (Figure 12). The dollar amount of outstanding closed-end fund preferred shares has declined since auction market preferred stock, once a common type of preferred share, suffered a liquidity crisis in mid-February 2008.<sup>19</sup> 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.

The vast majority (93 percent) of closed-end fund preferred share assets at year-end 2015 were floating-rate preferred shares (Figure 13). Puttable preferred shares, which include variable rate demand preferred shares, were 59 percent of closed-end fund preferred share assets, and auction market preferred shares were 20 percent. Fixed-rate preferred shares accounted for 7 percent of closed-end fund preferred share classes.

FIGURE 10

### Closed-End Funds Employing Leverage by Leverage Type

Number of funds; quarterly, selected quarters



<sup>1</sup> Components do not add to the total because funds may employ both structural and portfolio leverage. In those cases, the funds will be included in the numbers in both columns.

<sup>2</sup> 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.

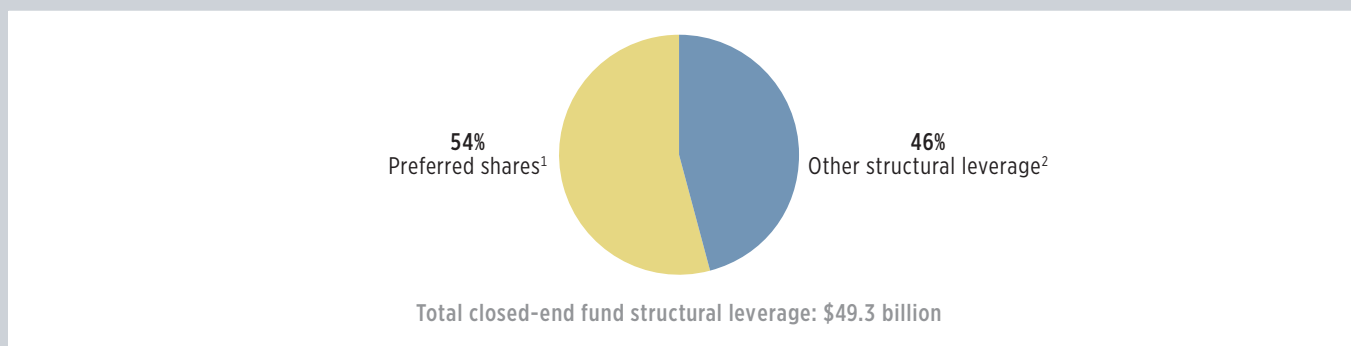
<sup>3</sup> Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of 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

FIGURE 11

### Preferred Shares Comprised the Majority of Closed-End Fund Structural Leverage

Percentage of closed-end fund structural leverage, year-end 2015



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

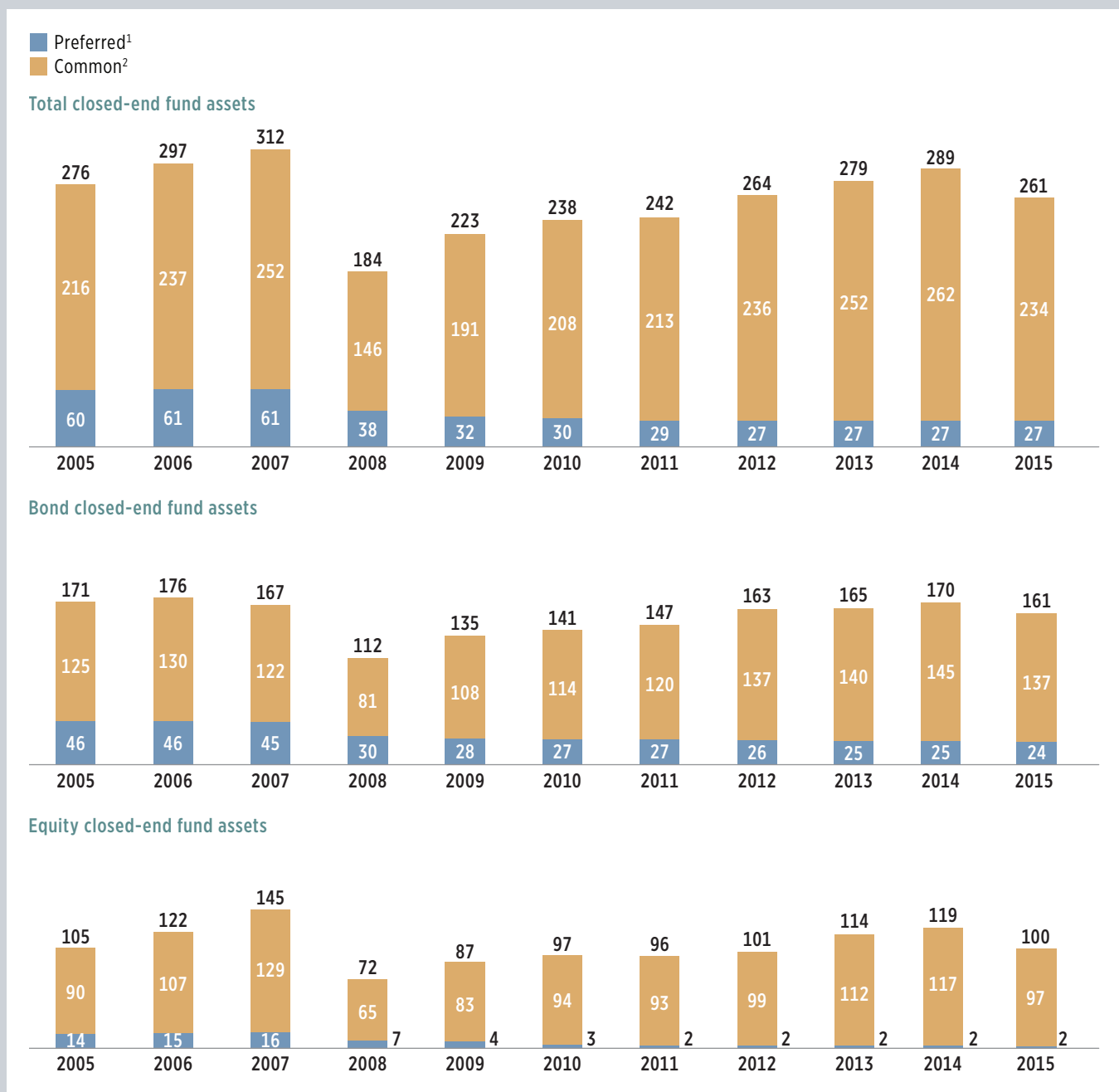
<sup>2</sup> Other structural leverage includes bank borrowing and other forms of debt.

Source: Investment Company Institute

FIGURE 12

### Closed-End Fund Common and Preferred Share Assets

Billions of dollars; year-end, 2005–2015



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

<sup>2</sup> All closed-end funds issue common stock, also known as common shares.

Note: Components may not add to the total because of rounding. Data reflect revisions to previously reported data.

Source: Investment Company Institute

FIGURE 13

### Closed-End Fund Preferred Share Class Assets by Type

Percentage of closed-end fund preferred share assets, year-end 2015

<b>Floating-rate</b>	<b>93</b>
Auction market preferred	20
Puttable preferred	59
Mandatory redeemable (floating) preferred	15
<b>Fixed-rate</b>	<b>7</b>
Mandatory redeemable (fixed) preferred	3
Perpetual (fixed) preferred	3

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

Source: Investment Company Institute

### Portfolio Leverage

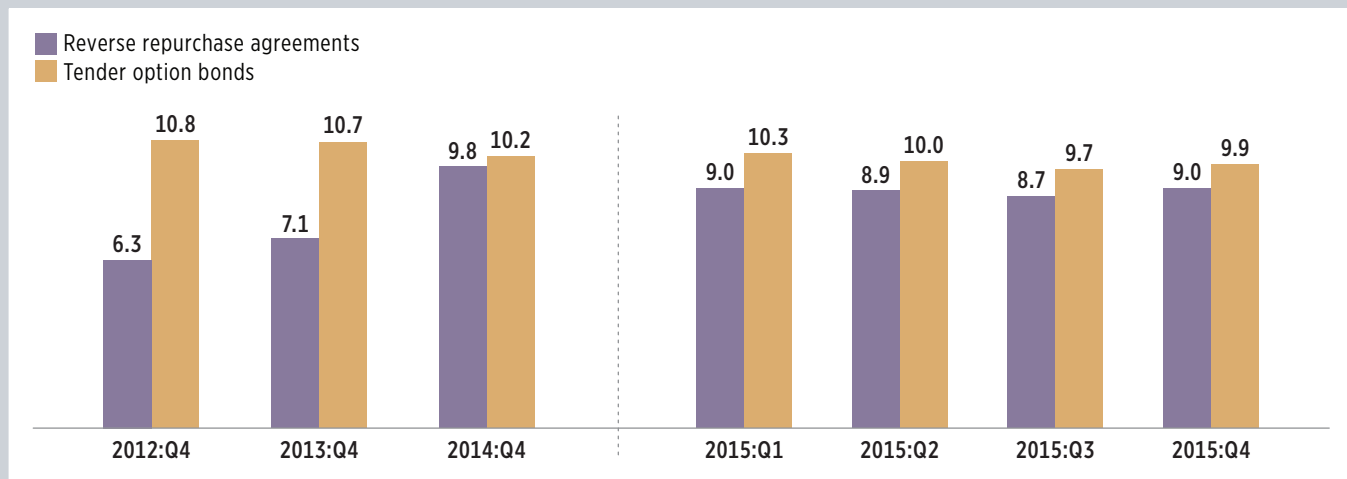
Portfolio leverage is leverage that results from certain portfolio investments.<sup>20</sup> Types of closed-end fund portfolio leverage include certain types of derivatives, reverse repurchase agreements, and tender

option bonds. At the end of 2015, 183 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 \$18.9 billion outstanding in reverse repurchase agreements and tender option bonds at year-end 2015 (Figure 14).

FIGURE 14

### Use of Portfolio Leverage

Billions of dollars; quarterly, selected quarters



Note: Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of 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 3.4 million U.S. households owned closed-end funds in mid-2015.<sup>21</sup> These households tended to include affluent investors who owned a range of equity and fixed-income investments. In mid-2015, 92 percent of households owning closed-end funds also owned equities, either directly or through equity mutual funds or variable annuities (Figure 15). Seventy-three percent of households that owned closed-end funds also held bonds, bond mutual funds, or fixed annuities. In addition, 51 percent of these households owned investment real estate.

Because a large number of households that owned closed-end funds also owned equities and mutual funds, the characteristics of closed-end fund owners were similar in many respects to those of stock and mutual fund owners. For instance, households that owned closed-end funds (like equity- and mutual fund-owning households) tended to be headed by college-educated individuals and had household incomes above the national average (Figure 16).

Nonetheless, households that owned closed-end funds exhibit certain characteristics that distinguish them from equity- and mutual fund-owning households. For example, households owning closed-end funds tended to be slightly older (median age 53) than households owning either individual equities (median age of 52) or mutual funds (median age of 51) (Figure 16). Households with closed-end funds tended to have greater household financial assets than mutual fund investors. Nearly 40 percent of households owning closed-end funds were retired from their lifetime occupations, making them more likely to be retired than households owning either individual equities or mutual funds.

FIGURE 15

### Closed-End Fund Investors Owned a Broad Range of Investments

Percentage of closed-end fund-owning households holding each type of investment, mid-2015

<b>Equity mutual funds, individual equities, or variable annuities (total)</b>	<b>92</b>
<b>Bond mutual funds, individual bonds, or fixed annuities (total)</b>	<b>73</b>
<b>Mutual funds (total)</b>	<b>83</b>
Equity	78
Bond	54
Hybrid	51
Money market	61
<b>Individual equities</b>	<b>72</b>
<b>Individual bonds</b>	<b>39</b>
<b>Fixed or variable annuities</b>	<b>42</b>
<b>Investment real estate</b>	<b>51</b>

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**

Mid-2015

	All U.S. households	Households owning closed-end funds	Households owning mutual funds	Households owning individual equities
<b>Median</b>				
Age of head of household <sup>1</sup>	51	53	51	52
Household income <sup>2</sup>	\$50,500	\$87,500	\$87,500	\$100,000
Household financial assets <sup>3</sup>	\$75,000	\$250,000	\$200,000	\$300,000
<b>Percentage of households</b>				
<i>Household primary or co-decisionmaker for saving and investing</i>				
Married or living with a partner	58	66	71	69
Widowed	9	6	6	8
Four-year college degree or more	32	53	51	54
Employed (full- or part-time)	59	68	71	69
Retired from lifetime occupation	28	39	26	29
<i>Household owns</i>				
IRA(s)	32	63	61	62
DC retirement plan account(s)	46	69	84	69

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

<sup>2</sup> Total reported is household income before taxes in 2014.

<sup>3</sup> 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**, Investment Company Institute. Available at [www.ici.org/cef](http://www.ici.org/cef).
- » **Frequently Asked Questions About Closed-End Funds and Their Use of Leverage**, Investment Company Institute. These FAQs include information related to failed auctions for auction market preferred stock. Available at [www.ici.org/pubs/faqs/faq/other/faqs\\_closed\\_end](http://www.ici.org/pubs/faqs/faq/other/faqs_closed_end).
- » **A Guide to Closed-End Funds**, Investment Company Institute. This publication includes an overview of the types of closed-end funds and how they operate. Available at [www.ici.org/cef/background/bro\\_g2\\_ce](http://www.ici.org/cef/background/bro_g2_ce).
- » Find quarterly updates to closed-end fund asset data at [www.ici.org/research/stats/closedend](http://www.ici.org/research/stats/closedend).

## Glossary

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

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

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

**discount.** Difference between the share price of a closed-end and its NAV when the share price is less than the fund's NAV. The fund is said to be selling "at a discount."

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

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

**exchange-traded fund (ETF).** Investment company, typically a mutual 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.

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

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

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

**follow-on offering.** See **secondary offering**.

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

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

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

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

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

**open-end fund.** See **mutual fund**.

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

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

**premium.** Difference between the share price of a closed-end and its NAV when the share price is greater than the fund's NAV. The fund is said to be selling "at a premium."

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

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

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

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

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

**tender offer.** In a closed-end fund tender offer, shareholders are given a limited opportunity to sell a portion of their 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, with the option to convert to an income stream in retirement.

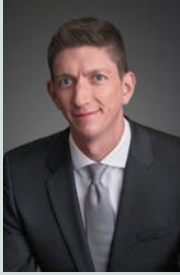
## Notes

- <sup>1</sup> 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, are allowed to continuously offer their shares and make offers to repurchase shares at net asset value at periodic intervals.
- <sup>2</sup> 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.
- <sup>3</sup> For more information on closed-end fund discounts and premiums, see Lee, Schleifer, and Thaler 1991.
- <sup>4</sup> For the purposes of this report, *total assets* is the fair value of assets held in closed-end fund portfolios funded by common and preferred shares less any liabilities besides preferred shares. *Total net assets* are the assets of the fund available to common shareholders and are calculated for the purposes of this report as total assets less the value of preferred shares. Total net assets of closed-end funds were \$234 billion at year-end 2015.
- <sup>5</sup> For additional information about preferred shares generally, see Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- <sup>6</sup> Measured by the Wilshire 5000 Total Return Index (float-adjusted).
- <sup>7</sup> Measured by the Citigroup Broad Investment Grade Bond Index.
- <sup>8</sup> By comparison, the share of mutual fund and exchange-traded fund assets managed by the 25 largest firms was 75 percent at year-end 2015. See Investment Company Institute 2016.
- <sup>9</sup> See Investment Company Institute 2016 for more information. The number of mutual funds includes mutual funds that invest primarily in other mutual funds. The number of ETFs includes investment companies not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.
- <sup>10</sup> See Cabral 2000 and U.S. Department of Justice and the Federal Trade Commission 1992 for more information about the Herfindahl-Hirschman Index.
- <sup>11</sup> The mutual fund industry had a Herfindahl-Hirschman Index number of 551 as of December 2015. For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- <sup>12</sup> In order to implement a managed distribution policy, a closed-end fund must petition the Securities and Exchange Commission (SEC) for exemption from Section 19(b) of the Investment Company Act of 1940 and Rule 19b-1 thereunder.
- <sup>13</sup> For more information on dividend policy and discounts on closed-end funds, see Johnson, Lin, and Song 2006.
- <sup>14</sup> For more information on closed-end fund distributions, see Gabelli Funds, LLC 2004; Nuveen Investments 2013; and Morningstar 2013.
- <sup>15</sup> For more information on MLPs, see Tortoise Capital Advisors, LLC 2016.
- <sup>16</sup> For additional information, see Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- <sup>17</sup> More closed-end funds may be using portfolio leverage because data are only available on the use of reverse repurchase agreements and tender option bonds. Portfolio leverage results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions.
- <sup>18</sup> 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.”
- <sup>19</sup> See, e.g., Galley 2010 and Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- <sup>20</sup> For more information on the types of closed-end fund leverage, see Nuveen Investments 2013.
- <sup>21</sup> The Investment Company Institute conducts the Annual Mutual Fund Shareholder Tracking Survey each spring to gather information on the demographic and financial characteristics of households in the United States. The most recent survey was conducted from May to July 2015 and was based on a dual frame sample of 6,000 U.S. households. Of these, 3,000 households were from a landline random digit dial (RDD) frame and 3,000 households were from a cell phone RDD frame. All interviews were conducted over the telephone with the member of the household who was the sole or 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 Bogdan and Schrass 2016. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Burham, Bogdan, and Schrass 2015.

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