

## WHAT'S INSIDE

- 2 What Is a Closed-End Fund?
- 2 Closed-End Fund Pricing
- 4 Assets in Closed-End Funds
- 6 Net Issuance of Closed-End Funds
- 7 Competition in the Closed-End Fund Industry
- 11 Closed-End Fund Distributions
- 13 Closed-End Fund Leverage
- 18 Characteristics of Closed-End Fund Investors
- 20 Glossary
- 22 Notes
- 23 References

*Rochelle Antoniewicz, Senior Economist, and Julieth Saenz, Research Associate, prepared this report.*

*Suggested citation: Antoniewicz, Rochelle, and Julieth Saenz. 2016. "The Closed-End Fund Market, 2016." ICI Research Perspective 23, no. 2 (April).*

## The Closed-End Fund Market, 2016

### KEY FINDINGS

- » **Total closed-end fund assets were \$262 billion at year-end 2016.** This amount is little changed from year-end 2015, as losses from falling municipal bond prices were offset by rising domestic stock prices.
- » **The share of assets in bond closed-end funds was 61 percent of all closed-end fund assets at year-end 2016, up only slightly from 59 percent a decade ago.** This share has remained relatively stable, as demand for bond closed-end funds has outpaced that of equity closed-end funds.
- » **Price deviations from net asset values on taxable bond closed-end funds narrowed through most of 2016, reflecting increased investor interest in bonds.** The average discount for domestic taxable bond closed-end funds narrowed to 4.7 percent at year-end 2016 from 8.2 percent at year-end 2015.
- » **Overall investor demand for closed-end fund shares weakened further in 2016.** Net issuance of closed-end fund shares was \$922 million for 2016, down from \$1.7 billion in 2015 and \$4.9 billion in 2014.
- » **Competitive dynamics have prevented any single closed-end fund sponsor from dominating the closed-end fund market.** At year-end 2016, there were 96 closed-end fund sponsors competing in the US market.
- » **Nearly two-thirds of closed-end funds employed structural leverage, portfolio leverage, or both in 2016.** Closed-end funds had \$50 billion outstanding in preferred shares and other structural leverage at year-end 2016. Portfolio leverage consisting of reverse repurchase agreements and tender option bonds amounted to \$18 billion.
- » **Closed-end fund investors tended to have above-average household incomes and financial assets.** An estimated 2.8 million US households held closed-end funds in 2016. 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 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 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.<sup>2</sup> 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.

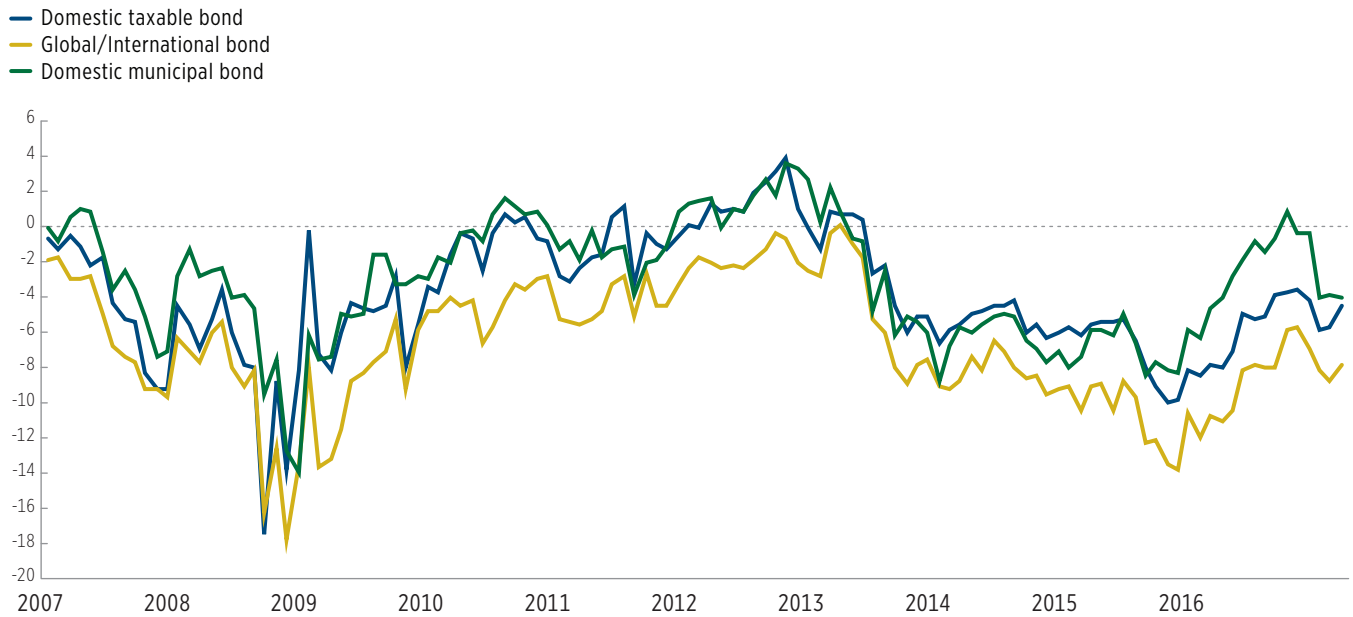
Because a closed-end fund's shares trade in the stock market based on investor demand, the fund may trade at a price higher or lower than its NAV. A closed-end fund trading at a share price higher than its NAV is said to be selling at a "premium" to the NAV, while a closed-end fund trading at a share 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.

Although price deviations for closed-end funds generally increased during the last four months of the year, closed-end funds ended 2016 with narrower discounts than at year-end 2015 (Figure 1). For domestic taxable bond closed-end funds, the average discount fell from 8.2 in December 2015 to 4.7 in December 2016, reaching its lowest point of 3.7 in August. The average discount for global/international closed-end bond funds followed a similar pattern—narrowing from 11.2 in December 2015 to 8.2 in December 2016, also reaching its lowest point of 5.9 in August.

FIGURE 1

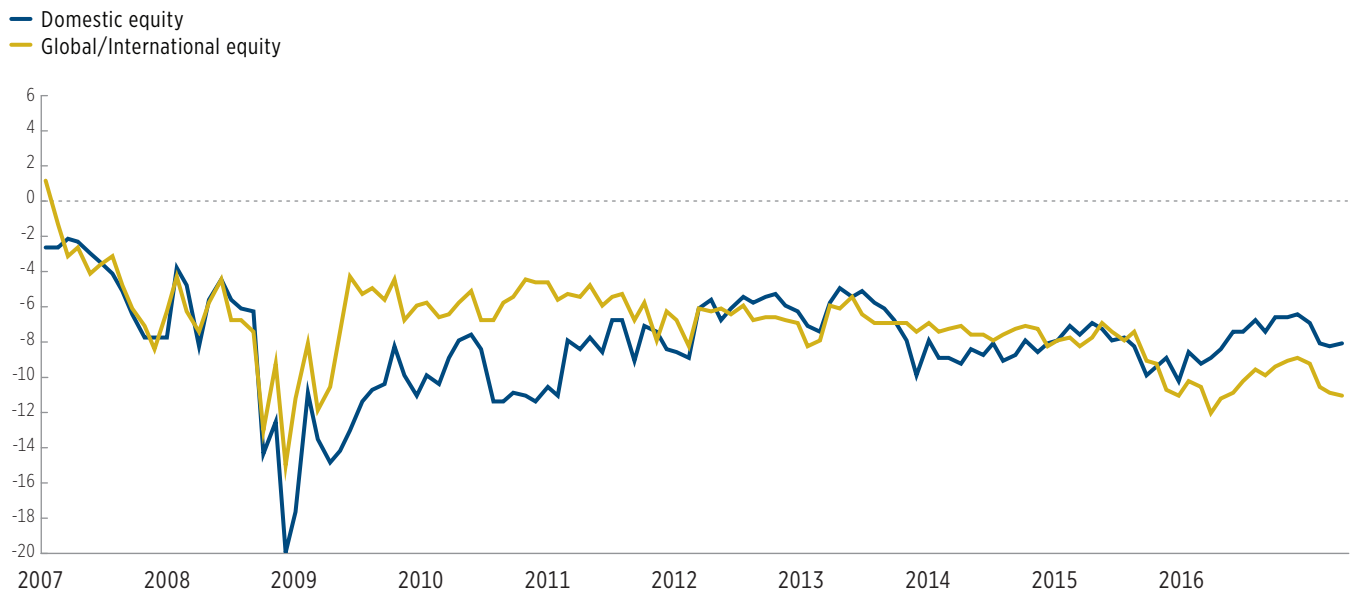
### Bond Closed-End Funds' Premium/Discount Rate\*

Percent; monthly, January 2007–December 2016



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

Percent; monthly, January 2007–December 2016



\* 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

After narrowing during the first eight months of the year, average discounts on domestic municipal bond and equity closed-end funds widened during the rest of the year. Domestic municipal bond closed-end funds went from an average discount of 4.8 at year-end 2015 to a premium of 0.9 in July 2016 before ending the year with a discount of 4.2. Average discounts on domestic and global/international equity closed-end funds decreased slightly from 9.0 and 12.0 in December 2015 to 8.1 and 11.1 in December 2016, respectively.

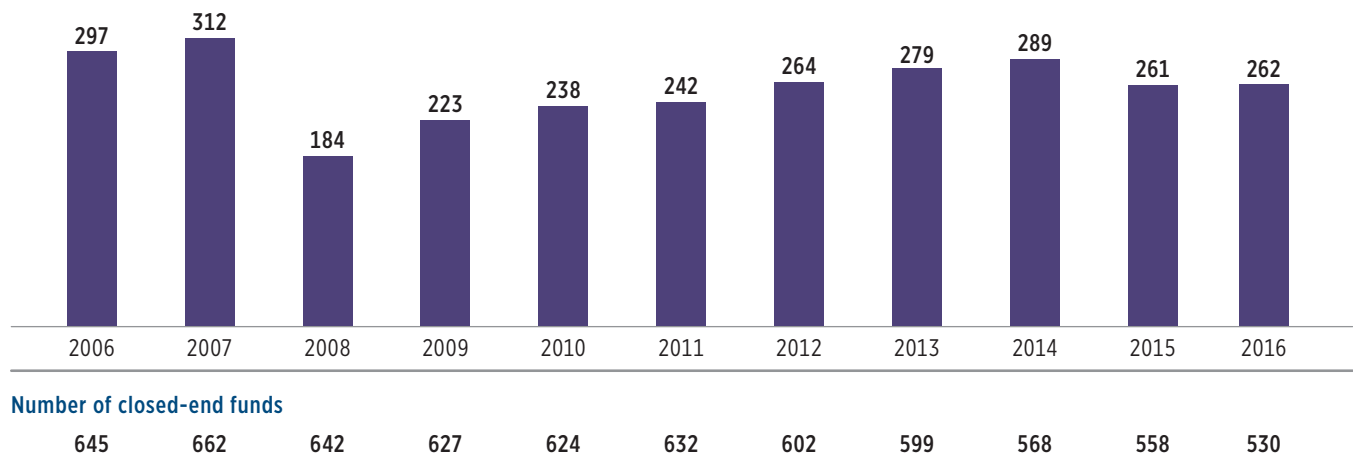
## Assets in Closed-End Funds

At year-end 2016, 530 closed-end funds had total assets<sup>4</sup> of \$262 billion (Figure 2). This total was little changed from year-end 2015, as losses from falling municipal bond prices were offset by rising domestic stock prices.

FIGURE 2

### Total Assets of Closed-End Funds Were \$262 Billion at Year-End 2016

Billions of dollars; year-end, 2006–2016



Source: Investment Company Institute

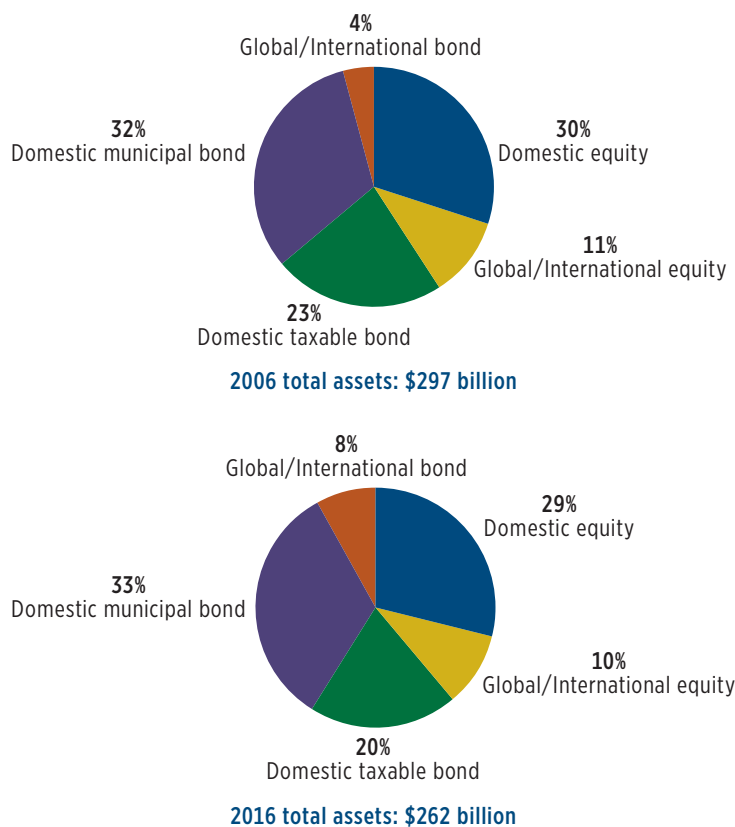
Historically, bond funds have accounted for a large share of assets in closed-end funds. At year-end 2006, 59 percent of all closed-end fund assets were held in bond funds with the remainder held in equity funds (Figure 3). At year-end 2016, assets in bond closed-end funds were \$160 billion, or 61 percent of closed-end fund assets. Equity closed-end fund assets totaled \$101 billion, or 39 percent of closed-end fund assets. These shares have remained relatively stable,

in part because of two offsetting factors. Cumulative net issuance of bond closed-end fund shares has exceeded that of equity fund shares over the past nine years. In addition, total returns on bonds,<sup>5</sup> which averaged 4.4 percent annually, were not much lower than total returns on US stocks,<sup>6</sup> which averaged 5.0 percent annually from 2007 through 2016.

FIGURE 3

### Composition of the Closed-End Fund Market by Investment Objective

Percentage of closed-end fund total assets, year-end 2006 and 2016



Source: Investment Company Institute

## Net Issuance of Closed-End Funds

Net issuance of closed-end fund shares continued to slow in 2016, falling to \$922 million in 2016 from \$1.7 billion in 2015, as investor demand for equity closed-end funds waned. Despite generally rising stock prices worldwide in 2016, equity closed-end funds had net redemptions, for the first time since 2009, of \$254 million. This was a reversal from net issuance of \$1.2 billion in 2015 (Figure 4).

Net issuance for bond closed-end funds increased to \$1.2 billion from \$486 million in 2015. Demand for new shares of domestic taxable bond closed-end funds strengthened in the second half of 2016, despite a substantial rise in interest rates over this period. Net

issuance of domestic taxable bond closed-end funds increased to \$1.2 billion in 2016 from \$678 million in 2015.

In contrast, global/international bond closed-end funds, which typically hold a mix of bonds denominated in US dollars and foreign currencies, had net redemptions of \$498 million following net redemptions of \$104 million in 2015. These net redemptions from global/international closed-end bond funds were, in part, attributable to a stronger US dollar. Appreciation in the US dollar reduces dollar returns on bonds denominated in foreign currencies and makes it more expensive for foreign companies to pay off their dollar-denominated debts.

FIGURE 4

### Closed-End Fund Net Share Issuance

Millions of dollars; annual, 2007–2016\*

	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	13,713	3,554	4,097	-543	10,159	3,921	-220	6,459
2014	4,935	4,314	3,819	494	621	266	567	-212
2015	1,676	1,190	148	1,043	486	678	-87	-104
2016	922	-254	-40	-214	1,176	1,228	446	-498

\*Data are not available for years prior to 2007.

Note: Components may not add to the total because of rounding. Net share issuance is the dollar value of gross issuance (proceeds from initial and additional public offerings of shares) minus the dollar value of 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. Data reflect revisions to previously reported data.

Source: Investment Company Institute

Consistent with substantially smaller discounts on domestic municipal bond closed-end funds in 2016, demand for new domestic municipal bond closed-end fund shares strengthened. In the first half of the year, domestic municipal bond closed-end funds had net issuance of \$479 million. For the year as a whole, domestic municipal bond closed-end funds saw net issuance of \$446 million in 2016, compared to net redemptions of \$87 million in 2015.

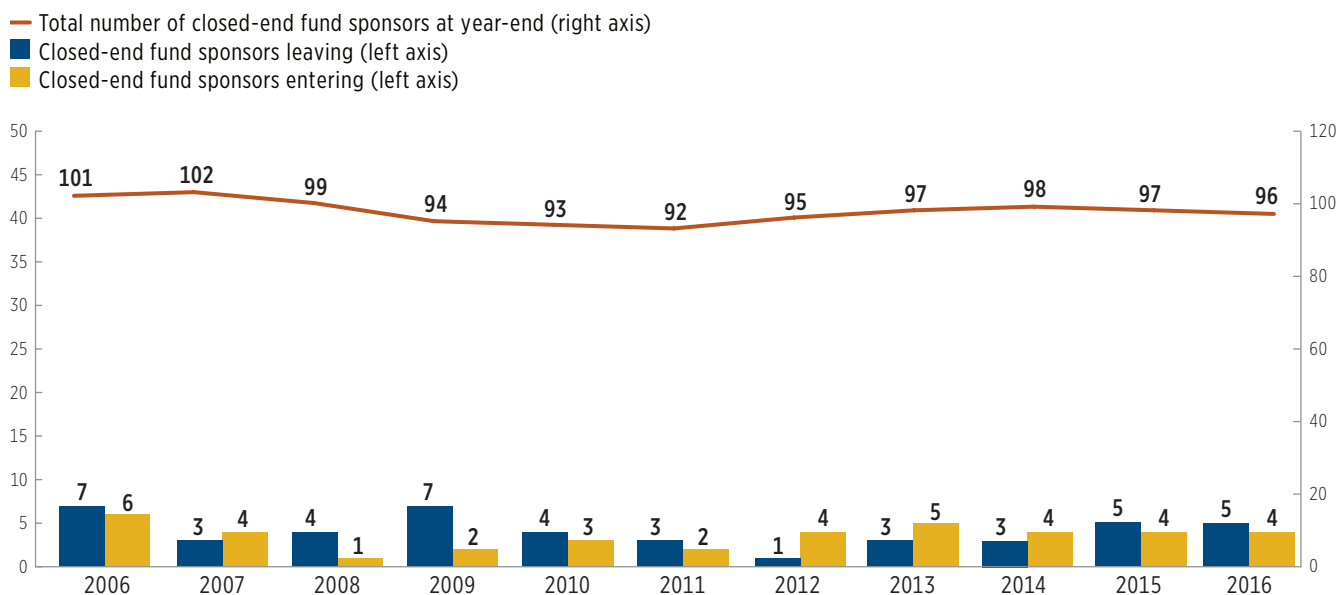
## Competition in the Closed-End Fund Industry

At year-end 2016, there were 96 closed-end fund sponsors competing in the US market (Figure 5). The number of closed-end fund sponsors has remained stable for the past five years, but is still below its peak of 102 sponsors in 2007. Overall, over the past decade, 38 closed-end fund sponsors left the business while 33 firms entered.

FIGURE 5

### Number of Closed-End Fund Sponsors

Entry, exit, and total number of closed-end fund sponsors; 2006–2016



Source: Investment Company Institute

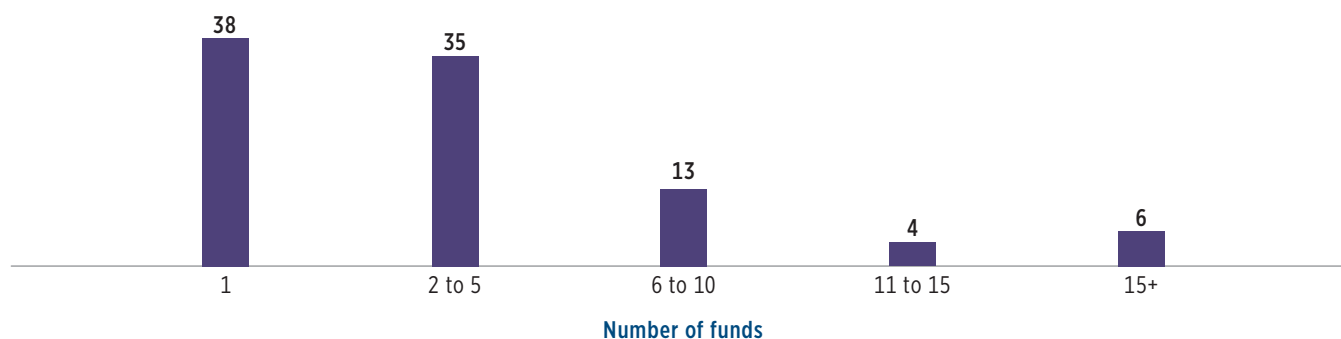
Competitive dynamics have prevented any single sponsor or group of sponsors from dominating the closed-end fund market. For example, in 2016, only 10 sponsors offered more than 10 closed-end funds, whereas 38 sponsors offered only one closed-end fund, and 35 sponsors offered two to five funds (Figure 6). In addition, the share of assets managed by the largest 25 complexes (83 percent) has

edged down since 2006 (85 percent).<sup>7</sup> Also, of the largest 25 closed-end fund complexes in 2006, only 17 remained in this group at year-end 2016. Finally, closed-end funds compete with other registered investment companies. While there are 530 closed-end funds, there are more than 9,500 mutual funds; more than 5,100 UITs; and more than 1,700 ETFs.<sup>8</sup>

FIGURE 6

### Distribution of Closed-End Funds Across Sponsors

Number of fund sponsors, year-end 2016



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

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

	2006	2008	2010	2012	2014	2016
Largest 5 complexes	52	56	51	54	50	52
Largest 10 complexes	66	68	64	66	63	66
Largest 25 complexes	85	87	85	86	83	83

Source: Investment Company Institute



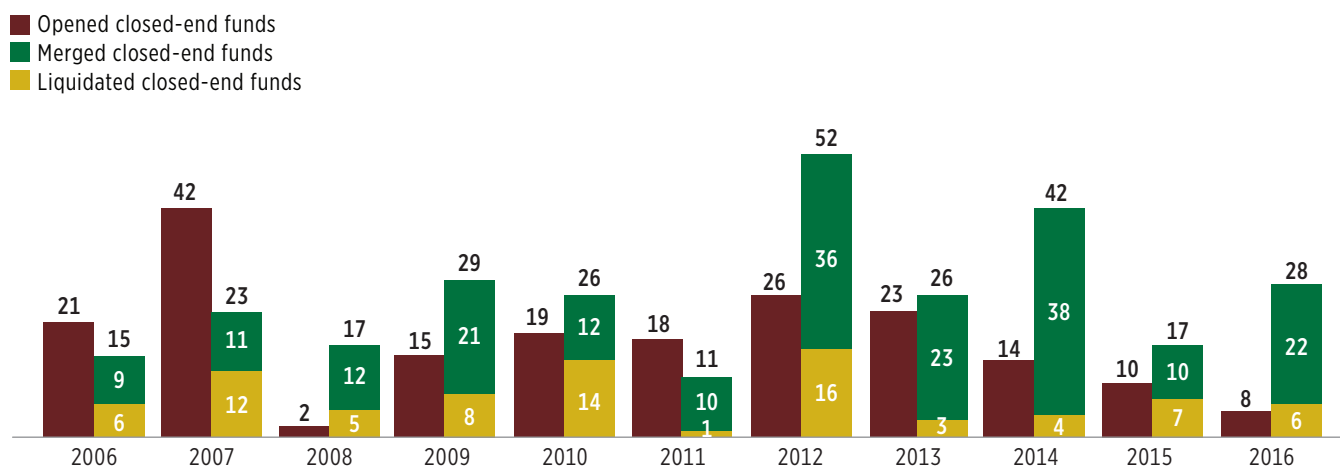
Competitive dynamics also affect the number of closed-end funds offered in any given year. In particular, closed-end fund sponsors create new closed-end funds to meet investor demand, and they merge or liquidate closed-end funds that do not attract sufficient investor interest. In recent years, closed-end 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. In each of the past five years, 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 2016, eight closed-end funds were created, compared with 10 in 2015 and 14 in 2014 (Figure 7). The number of closed-end fund mergers and liquidations increased to 28 in 2016 from 17 in 2015.

FIGURE 7

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

2006-2016



Source: Investment Company Institute

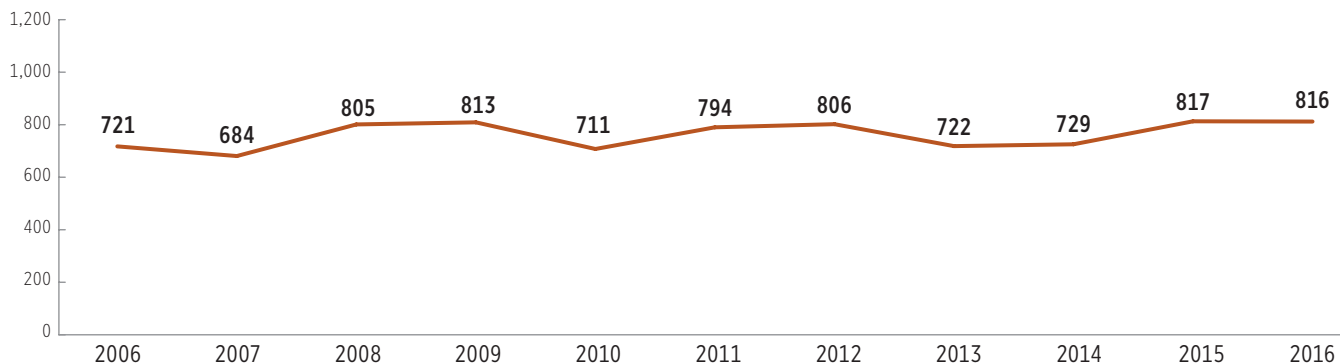
Other measures also indicate that no one firm or group of firms dominates the closed-end fund market. One such measure of market concentration is the Herfindahl-Hirschman Index, which weighs both the number and relative size of firms in the industry.<sup>9</sup> Index numbers smaller than 1,000 indicate 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 2016, the closed-end fund industry had a Herfindahl-Hirschman Index number of 816 (Figure 8).<sup>10</sup>

FIGURE 8

### Closed-End Fund Industry Found Competitive

*Herfindahl-Hirschman Index;\* year-end, 2006–2016*



\* 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

## Closed-End Fund Distributions

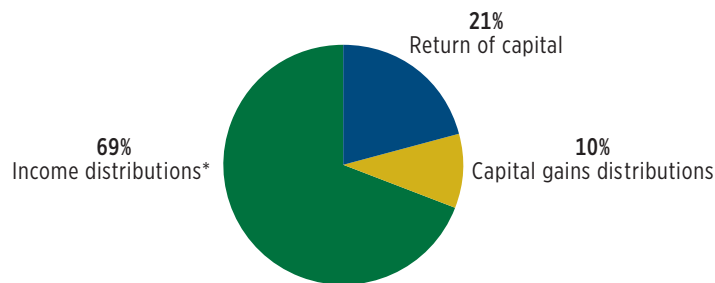
In 2016, closed-end funds distributed \$16.2 billion to shareholders (Figure 9). Closed-end funds may make distributions to shareholders from three possible sources: income from interest and dividends, realized capital gains, and return of capital. Income from interest and dividends

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 21 percent of closed-end fund distributions, and capital gains accounted for 10 percent.

FIGURE 9

### Closed-End Fund Distributions

*Percentage of closed-end fund distributions, 2016*



**Total closed-end fund distributions: \$16.2 billion**

\*Income distributions include payments from interest and dividends.

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.<sup>11</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 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.<sup>12</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>13</sup>

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.<sup>14</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.

## Closed-End Fund Leverage

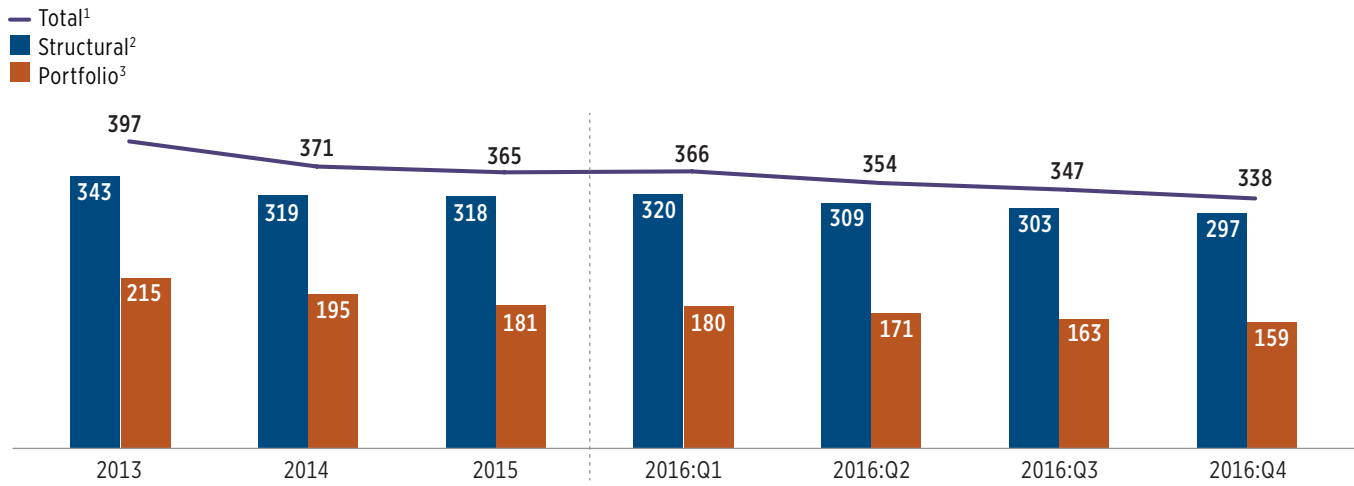
Closed-end funds have the ability, subject to strict regulatory limits, to use leverage as part of their investment strategy.<sup>15</sup> The use of leverage by a closed-end fund can allow it to achieve higher long-term returns, but also increases risk and the likelihood of share price

volatility. Closed-end fund leverage can be classified as either structural leverage or portfolio leverage. At year-end 2016, at least 338 funds, accounting for 64 percent of closed-end funds, were using structural leverage, portfolio leverage consisting of tender option bonds or reverse repurchase agreements, or both (Figure 10).<sup>16</sup>

FIGURE 10

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

Number of funds; end of period, 2013–2015, 2016:Q1–2016:Q4



<sup>1</sup> Components do not add to the total because funds may employ both structural and portfolio leverage.

<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 from what is reflected above.

Source: Investment Company Institute

## 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 borrowings and issuing debt and preferred shares. Closed-end funds are subject to asset coverage requirements if they issue debt or preferred shares.<sup>17</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 2016, 297 funds had a total of \$49.8 billion in structural leverage, with a little more than half (53 percent) of those assets from preferred shares (Figure 11). Forty-seven percent of closed-end fund structural leverage was other structural leverage. The average leverage ratio across

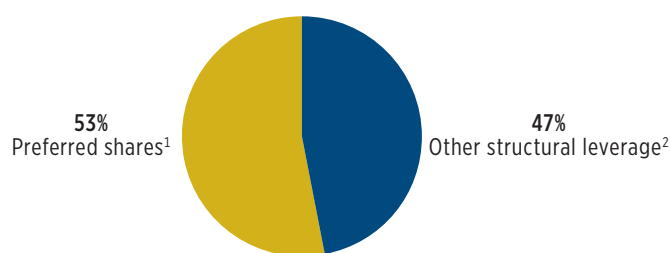
those closed-end funds employing structural leverage was 26.6 percent at year-end 2016. Among closed-end funds employing structural leverage, the average leverage ratio for bond funds was somewhat higher (28.4 percent) than that of equity funds (21.2 percent).

At year-end 2016, about 10 percent of the \$262 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>18</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.

FIGURE 11

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

Percentage of closed-end fund structural leverage, year-end 2016



Total closed-end fund structural leverage: \$49.8 billion

<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.

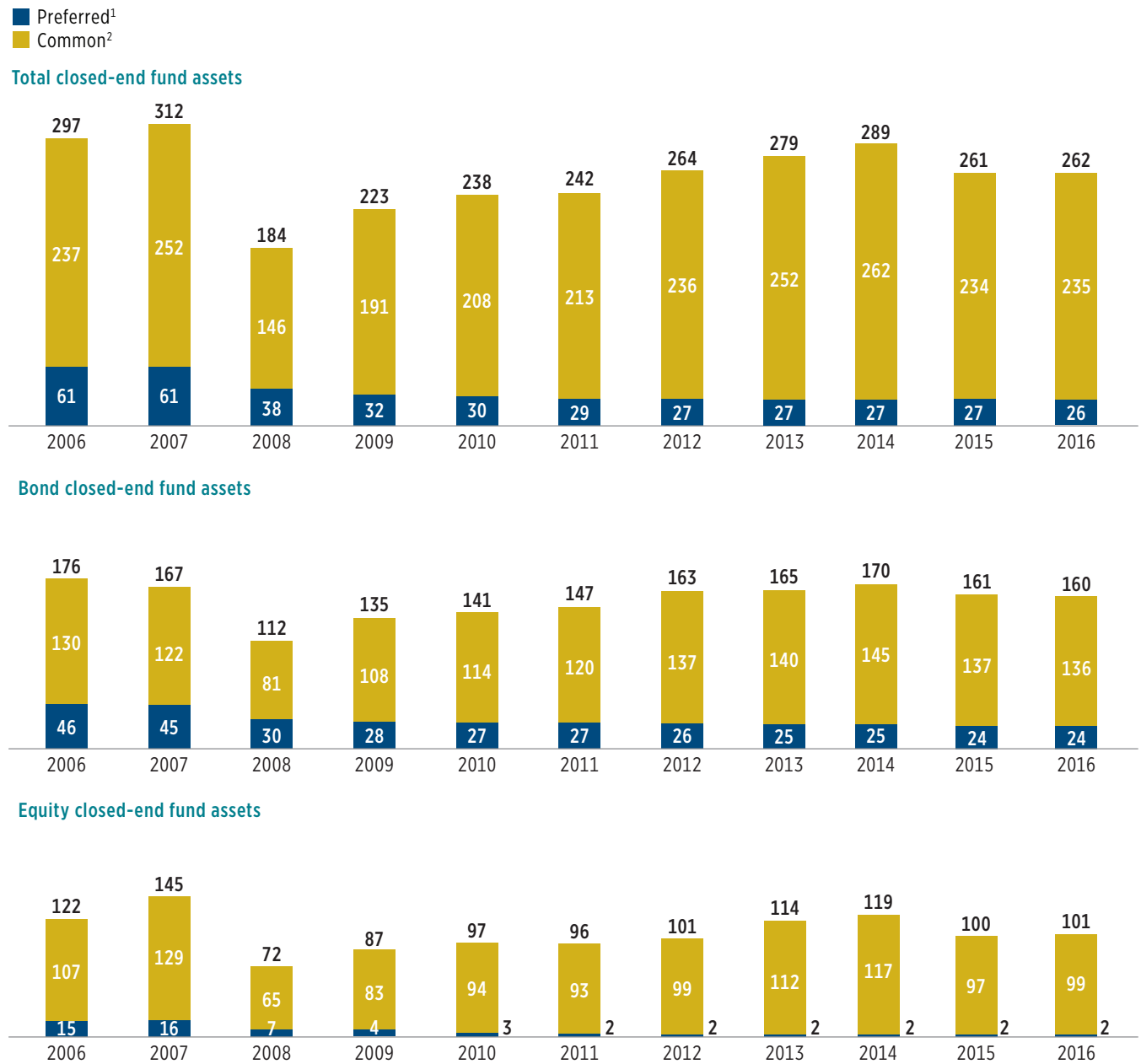
<sup>2</sup> Other structural leverage includes bank borrowing and other forms of debt.

Source: Investment Company Institute

FIGURE 12

### Closed-End Fund Preferred Share Assets

Billions of dollars; year-end, 2006–2016



<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

The vast majority (93 percent) of closed-end fund preferred share assets at year-end 2016 were floating-rate preferred shares (Figure 13). Puttable preferred shares, which include variable rate demand preferred shares, were 57 percent of

closed-end fund preferred share assets, and auction market preferred shares were 18 percent. Fixed-rate preferred shares accounted for 7 percent of closed-end fund preferred share classes.

FIGURE 13

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

*Percentage of closed-end fund preferred share assets, year-end 2016*

<b>Floating-rate</b>	<b>93</b>
Auction market preferred	18
Puttable preferred	57
Mandatory redeemable (floating) preferred	18
<b>Fixed-rate</b>	<b>7</b>
Mandatory redeemable (fixed) preferred	3
Perpetual (fixed) preferred	3

Source: Investment Company Institute



## Portfolio Leverage

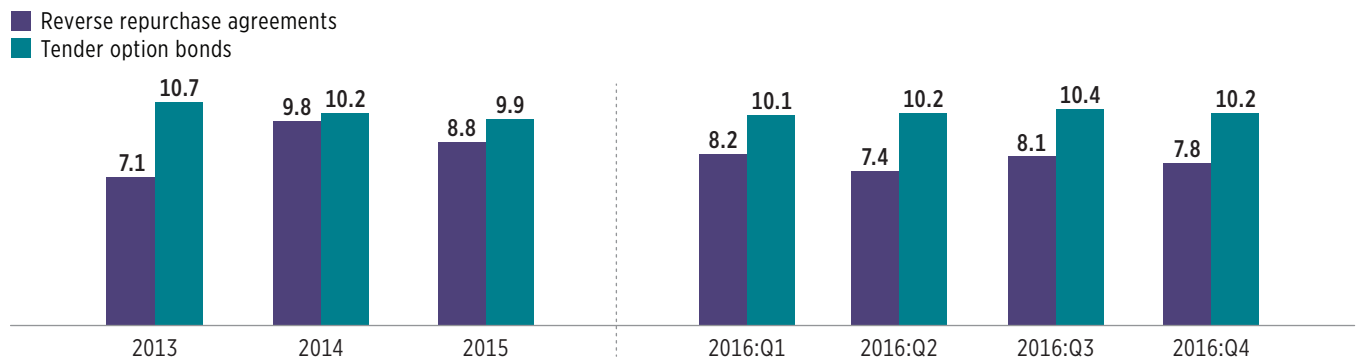
Portfolio leverage is leverage that results from certain portfolio investments.<sup>19</sup> Types of closed-end fund portfolio leverage include certain types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2016, 159 closed-end funds used portfolio

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 billion outstanding in reverse repurchase agreements and tender option bonds at year-end 2016 (Figure 14).

FIGURE 14

### Use of Portfolio Leverage

Billions of dollars; end of period, 2013–2015, 2016:Q1–2016:Q4



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 2.8 million US households owned closed-end funds in mid-2016.<sup>20</sup> These households tended to include affluent investors who owned a range of equity and fixed-income investments. In mid-2016, 92 percent

of households owning closed-end funds also owned equities, either directly or through equity mutual funds or variable annuities (Figure 15). Seventy-four percent of households that owned closed-end funds also held bonds, bond mutual funds, or fixed annuities. In addition, 46 percent of these households owned investment real estate.

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-2016

<b>Equity mutual funds, individual stocks, or variable annuities (total)</b>	<b>92</b>
<b>Bond mutual funds, individual bonds, or fixed annuities (total)</b>	<b>74</b>
<b>Mutual funds (total)</b>	<b>90</b>
Equity	86
Bond	56
Hybrid	42
Money market	66
<b>Individual stocks</b>	<b>78</b>
<b>Individual bonds</b>	<b>37</b>
<b>Fixed or variable annuities</b>	<b>39</b>
<b>Investment real estate</b>	<b>46</b>

Note: Multiple responses are included.

Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

#### Additional Reading

- » **Closed-End Fund Resource Center**  
[www.ici.org/cef](http://www.ici.org/cef)
- » **Frequently Asked Questions About Closed-End Funds and Their Use of Leverage**  
[www.ici.org/pubs/faqs/faq/other/faqslosedend](http://www.ici.org/pubs/faqs/faq/other/faqslosedend)
- » **A Guide to Closed-End Funds**  
[www.ici.org/cef/background/brog2ce](http://www.ici.org/cef/background/brog2ce)
- » **Quarterly Closed-End Fund Asset Data**  
[www.ici.org/research/stats/closedend](http://www.ici.org/research/stats/closedend)

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 54) than households owning either individual equities (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 than mutual fund investors did. Thirty-five 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 16

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

Mid-2016

	All US 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	54	51	53
Household income <sup>2</sup>	\$55,000	\$125,000	\$94,300	\$100,000
Household financial assets <sup>3</sup>	\$85,000	\$450,000	\$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	69	73	73
Widowed	9	10	6	7
Four-year college degree or more	33	54	50	55
Employed (full- or part-time)	62	64	76	74
Retired from lifetime occupation	28	35	24	26
<i>Household owns</i>				
IRA(s)	34	78	63	62
DC retirement plan account(s)	47	73	85	74

<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 2015.

<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

## 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.

**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).** 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 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 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 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 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 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 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 auction market preferred shares and puttable 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. 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 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 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 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 \$235 billion at year-end 2016.
- <sup>5</sup> Measured by the Citigroup Broad Investment Grade Bond Index.
- <sup>6</sup> Measured by the Wilshire 5000 Total Return Index (float-adjusted).
- <sup>7</sup> By comparison, the share of mutual fund and exchange-traded fund assets managed by the 25 largest firms was 76 percent at year-end 2016. See Investment Company Institute 2017.
- <sup>8</sup> See Investment Company Institute 2017 for more information. The number of mutual funds includes mutual funds that invest primarily in other mutual funds. The number of ETFs includes funds not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.
- <sup>9</sup> See Cabral 2000 and US Department of Justice and the Federal Trade Commission 2010 for more information about the Herfindahl-Hirschman Index.
- <sup>10</sup> The mutual fund industry had a Herfindahl-Hirschman Index number of 615 as of December 2016. For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- <sup>11</sup> In order to implement a managed distribution policy, a closed-end fund must apply to the Securities and Exchange Commission (SEC) for an exemption from Section 19(b) of the Investment Company Act of 1940 and Rule 19b-1 thereunder.
- <sup>12</sup> For more information on dividend policy and discounts on closed-end funds, see Johnson, Lin, and Song 2006.
- <sup>13</sup> For more information on closed-end fund distributions, see Gabelli Funds, LLC 2004; Nuveen Investments 2014; and Morningstar 2014.
- <sup>14</sup> For more information on MLPs, see Tortoise Capital Advisors 2016.
- <sup>15</sup> For additional information, see Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- <sup>16</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>17</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>18</sup> See, e.g., Galley 2010 and Investment Company Institute, “Frequently Asked Questions About Closed-End Funds and Their Use of Leverage.”
- <sup>19</sup> For more information on the types of closed-end fund leverage, see Nuveen Investments 2014.
- <sup>20</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 2016 and was based on a dual frame sample of 5,500 US households. Of these, 2,750 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 investment decisionmaker, the person most knowledgeable about the household’s savings and investments. For additional information on the incidence of closed-end fund ownership across mutual fund-owning households by various demographic and financial characteristics, see Schrass and Bogdan 2017. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Holden, Schrass, and Bogdan 2016.

## References

Cabral, Luis M. B. 2000. *Introduction to Industrial Organization*. Cambridge, MA: MIT Press.

Gabelli Funds, LLC. 2004. "Closed-End Funds Managed Distribution Policy" (June). Available at [www.gabelli.com/Gab\\_pdf/articles/clef\\_200604.pdf](http://www.gabelli.com/Gab_pdf/articles/clef_200604.pdf).

Galley, Patrick W. 2010. "Finding Value in the ARS Wreckage." *InvestmentNews* (April 25).

Holden, Sarah, Daniel Schrass, and Michael Bogdan. 2016. "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016." *ICI Research Perspective* 22, no. 6 (October). Available at [www.ici.org/pdf/per22-06.pdf](http://www.ici.org/pdf/per22-06.pdf).

Investment Company Institute. "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage." Available at [www.ici.org/faqs/faq/other/faqs\\_closed\\_end](http://www.ici.org/faqs/faq/other/faqs_closed_end).

Investment Company Institute. 2017, forthcoming. *2017 Investment Company Fact Book: A Review of Trends and Activities in the Investment Company Industry*. Washington, DC: Investment Company Institute. Available May 2017 at [www.icifactbook.org](http://www.icifactbook.org).

Johnson, Shane, Ji-Chai Lin, and Kyojik Song. 2006. "Dividend Policy, Signaling, and Discounts on Closed-End Funds." *Journal of Financial Economics* 81, no. 3: 539–562.

Lee, Charles, Andrei Schleifer, and Richard Thaler. 1991. "Investor Sentiment and the Closed-End Fund Puzzle." *Journal of Finance* 46, no. 1: 75–109.

Morningstar. 2014. "CEF Solutions Center." Available at [www.morningstar.com/solutions/Solutions.aspx?docid=370720](http://www.morningstar.com/solutions/Solutions.aspx?docid=370720).

Nuveen Investments. 2014. "Understanding Closed-End Funds." Available at [www.nuveen.com/CEF/Learn/Step1.aspx](http://www.nuveen.com/CEF/Learn/Step1.aspx).

Schrass, Daniel, and Michael Bogdan. 2017. "Profile of Mutual Fund Shareholders, 2016." *ICI Research Report* (February). Washington, DC: Investment Company Institute. Available at [www.ici.org/pdf/rpt\\_17\\_profiles.pdf](http://www.ici.org/pdf/rpt_17_profiles.pdf).

Stevens, Paul Schott. 2006. "The Success of America's Mutual Fund Marketplace: Benefiting Fund Investors." Presentation at AEI/Brookings Forum, Washington, DC. Available at [www.ici.org/policy/trading/domestic/06\\_aei\\_stevens\\_remarks](http://www.ici.org/policy/trading/domestic/06_aei_stevens_remarks).

Tortoise Capital Advisors. 2016. "Making Sense of Taxes: The ABCs of MLPs." Available at [www.tortoiseadvisors.com/mc/attachments/350/ABCs-of-MLPs\\_021816\\_Final.pdf](http://www.tortoiseadvisors.com/mc/attachments/350/ABCs-of-MLPs_021816_Final.pdf).

US Department of Justice and the Federal Trade Commission. 2010. *Horizontal Merger Guidelines*. Washington, DC: US Department of Justice and the Federal Trade Commission (revised: August 19, 2010). Available at [www.justice.gov/atr/public/guidelines/hmg-2010.pdf](http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf).

### *Rochelle Antoniewicz*

Rochelle Antoniewicz, senior economist at the Investment Company Institute, conducts research on the structure of and trends in the mutual fund, ETF, and closed-end fund industries, as well as in the broader financial markets. She also contributes to economic analysis of proposed laws and regulations governing regulated funds. Before joining the Institute in 2005, Antoniewicz was a senior economist at the Federal Reserve Board of Governors. She has a PhD in economics from the University of Wisconsin–Madison and a BA in management science and quantitative analysis from the University of California, San Diego.

### *Julieth Saenz*

Julieth Saenz is a research associate in the industry and financial analysis section of ICI's research department. Since she joined ICI in 2015, she has supported senior staff with research of mutual fund and ETF assets and flows, as well as analysis of proposed regulations and their effects on the industry. She graduated *summa cum laude* from Pace University with a BA in economics.



1401 H Street, NW  
Washington, DC 20005  
202-326-5800  
[www.ici.org](http://www.ici.org)

Copyright © 2017 by the Investment Company Institute. All rights reserved.

The Investment Company Institute (ICI) is a leading global association of regulated funds, including mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers.