ICI RESEARCH PERSPECTIVE

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MARCH 2012 | VOL. 18. NO. 1

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Suggested citation: Schrass, Daniel, Judy Steenstra, and Dorothy Donohue. 2012. "The Closed-End Fund Market, 2011." ICI Research Perspective 18, no. 1 (March).

The Closed-End Fund Market, 2011

KEY FINDINGS

- Total closed-end fund assets were \$239 billion at year-end 2011, up 2 percent from year-end 2010. Closed-end funds, which are a type of investment company, generally issue a fixed number of shares that are listed on a stock exchange or traded in the over-the-counter market.
- Bond closed-end funds accounted for more than half of all closed-end fund assets. Bond funds have traditionally accounted for a majority of closed-end fund assets. At year-end 2011, bond closed-end fund assets were \$145 billion, or 61 percent of closed-end fund assets. However, assets in equity closed-end funds grew from 22 percent a decade ago to 39 percent of all closed-end fund assets at year-end 2011.
- At year-end 2011, there were 634 closed-end funds. The number of closed-end funds edged up in 2011, although it is still below the peak reached in 2007. Two-thirds of closed-end funds were bond funds at year-end 2011.
- Closed-end fund investors tended to have above-average household incomes and financial assets. An estimated 2.3 million U.S. households held closed-end funds in 2011. Households that owned closed-end funds tended to include affluent, experienced investors who owned a range of equity and fixed-income investments.



What Is a Closed-End Fund?

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

Closed-end funds offer a fixed number of shares to investors during an initial public offering. Closed-end funds also may make subsequent public offerings of shares in order to raise additional capital. Once issued, the shares of a closed-end fund are not typically purchased or redeemed directly by the fund. Rather, they 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 lessliquid 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 funds also have limited flexibility to borrow against their assets, allowing them to use leverage on a restricted basis as part of their investment strategy.¹

Closed-End Fund Pricing

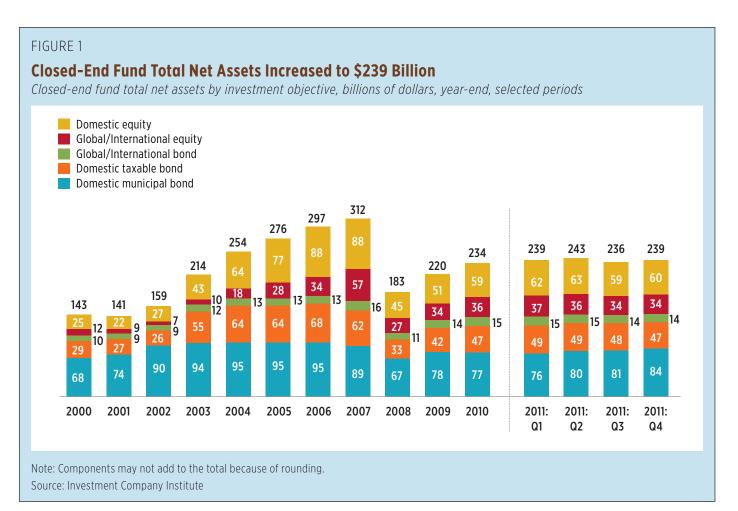
Many closed-end funds calculate the value of their portfolios every business day, while others calculate their portfolio values weekly or on some other basis. The net asset value (NAV) of a closed-end fund is calculated by subtracting the fund's liabilities (e.g., fund expenses) from the current market 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. For example, a closed-end fund in great demand may trade at a share price higher than its NAV. In this case, the fund's shares are said to be selling at a "premium" to the NAV. Conversely, a closed-end fund trading at a share price lower than its NAV is said to be selling at a "discount."

Assets in Closed-End Funds

Total closed-end fund assets were \$239 billion at year-end 2011, up 2 percent from year-end 2010 (Figure 1).² Closed-end fund assets increased by \$5 billion, on net, during 2011.

Historically, bond funds have accounted for a large share of assets in closed-end funds. A decade ago, 78 percent of all closed-end fund assets were held in bond funds, and the remaining 22 percent were held in equity funds. At year-end 2011, assets in bond closed-end funds were \$145 billion, or 61 percent of closed-end fund assets (Figure 2). Equity closed-end funds totaled \$94 billion, or 39 percent of closed-end fund assets. These relative shares have shifted a bit over time, in part because issuance by equity closed-end funds exceeded that of bond closed-end funds for every year from 2004 through 2008 (Figure 3).



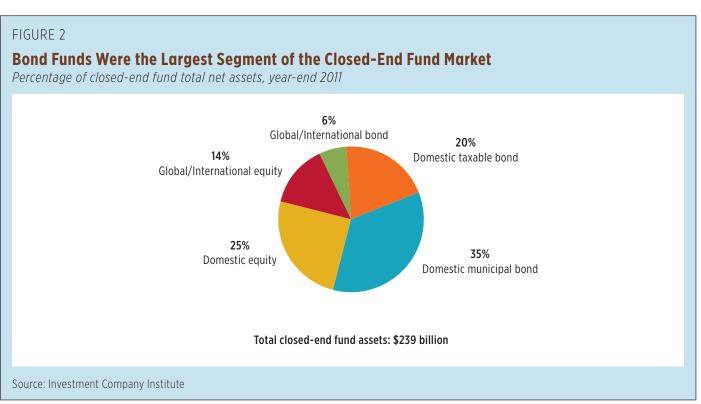


FIGURE 3

Closed-End Fund Share Issuance

Proceeds from the issuance of initial and additional public offerings of closed-end fund shares, millions of dollars, 2002–2011*

			Equity	Bond			
Year	Total	Domestic	Global/International	Domestic	Global/International		
2002	\$24,895	\$9,191	\$3	\$15,701	\$0		
2003	40,851	11,187	50	28,582	1,032		
2004	27,780	15,424	5,714	5,613	1,028		
2005	21,266	12,559	6,628	1,955	124		
2006	12,255	7,692	2,505	1,724	334		
2007	31,086	5,973	19,764	2,654	2,695		
2008	275	8	145	121	0		
2009	3,499	476	485	2,221	317		
2010	13,721	3,634	114	9,616	358		
2011	14,808	3,791	1,469	9,547	2		

^{*}Data are not available for years prior to 2002.

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

Proceeds from issuance of closed-end funds totaled \$14.8 billion in 2011, up from \$13.7 billion in the previous year (Figure 3). In 2011, issuance of closed-end bond funds totaled \$9.5 billion, virtually all of which was domestic bond funds. The remaining \$5.3 billion in proceeds was from issuance of closed-end equity funds. Seventy-two percent of equity closed-end fund issuance was from domestic equity closed-end funds.

Number of Closed-End Funds

At the end of 2011, there were 634 closed-end funds, up slightly from 624 funds at the end of 2010 (Figure 4). The number of equity closed-end funds has grown relative to bond closed-end funds. Equity funds now make up 34 percent of the total number of closed-end funds, compared with 23 percent a decade ago. Bond funds, however, are still the most common type of closed-end fund. For example, municipal bond funds represented 40 percent of all closed-end funds in 2011.

FIGURE 4
Number of Closed-End Funds
Year-end. 2000-2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total	481	491	544	583	618	634	646	663	642	627	624	634
Equity funds	122	115	122	130	157	192	203	229	221	208	204	213
Domestic	53	51	63	75	96	121	129	137	128	117	117	125
Global/ International	69	64	59	55	61	71	74	92	93	91	87	88
Bond funds	359	376	422	453	461	442	443	434	421	419	420	421
Domestic	329	349	397	426	431	411	410	400	388	387	388	389
Taxable	109	109	105	129	136	131	134	131	128	127	130	133
Municipal	220	240	292	297	295	280	276	269	260	260	258	256
Global/ International	30	27	25	27	30	31	33	34	33	32	32	32

Closed-End Fund Preferred Shares

Closed-end funds 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.³ Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more securities for its portfolio. This strategy, known as leveraging, is intended to allow the fund to produce higher returns for its common shareholders. Closed-end funds that issue preferred shares are subject to the Investment Company Act's asset coverage requirements. For each \$1.00 of preferred shares issued, the fund must have \$2.00 of assets at issuance and dividend declaration dates (commonly referred to as 50 percent leverage). At year-end 2011, 13 percent of the \$239 billion in closed-end fund assets were invested in preferred shares (Figure 5). Bond closed-end funds accounted for nearly 90 percent of outstanding preferred share assets.

Closed-End Fund Auction Market Preferred Stock

In the early 1990s, closed-end funds began issuing a type of preferred share referred to as auction market preferred stock (AMPS).⁴ AMPS are structured to pay dividends at rates set through auctions run by an independent auction agent. Typically, shares traded hands and dividend rates were reset through auctions that were held every seven or 28 days. Investors submitted bids and sell orders through a broker-dealer who, in turn, submitted them to an auction agent. Bids were filled to the extent shares were available, and sell orders were filled to the extent that there were bids. All filled bids received dividends at the new set dividend, or market clearing, rate.

By mid-February 2008, closed-end funds had outstanding AMPS with a total liquidation preference of approximately \$64 billion. 5 Since then, all auctions for closed-end fund AMPS have failed. 6 The failed auctions have not been caused by defaults under the terms of the AMPS or credit quality concerns with fund investments, but rather simply because there were more shares offered for sale in the auction than there were bids to buy shares.

Prior to the failures, if more shares were tendered for sale than purchased, broker-dealers typically would enter the auction and purchase any excess shares to prevent the auction from failing. However, broker-dealers are not, and never have been, legally required to bid for their own accounts in an auction.

As a result of a series of pressures on their balance sheets, broker-dealers stopped participating in the auctions. After a few auctions failed, all subsequent auctions for closed-end fund preferred stock failed. Preferred shareholders appeared to become concerned about the liquidity of their AMPS, and many sought to sell their shares. This move by preferred shareholders increased the imbalance between supply and demand, making it difficult for the auction market to resume functioning.

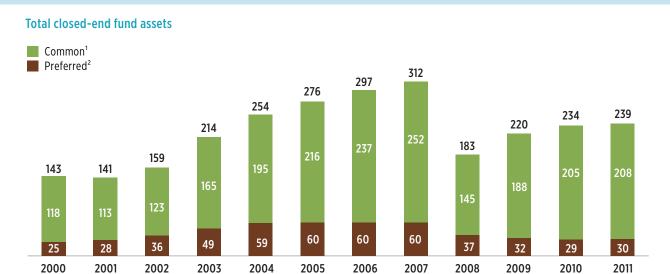
Redemption and Replacement of AMPS

As of year-end 2011, closed-end funds had redeemed or announced plans to redeem approximately \$54 billion, or 84 percent, of the AMPS that were outstanding in mid-February 2008.⁷ Closed-end funds have, among other things, obtained bank loans and lines of credit, issued tender option bonds, engaged in reverse repurchase agreements, and issued extendable notes to replace AMPS while maintaining leverage. Taxable bond closed-end funds have redeemed or announced redemptions for 88 percent of their original outstanding AMPS.8 Tax-exempt bond closedend funds (also known as "municipal bond funds") have redeemed or announced redemptions for approximately 81 percent of the original AMPS outstanding. 9 To redeem AMPS while maintaining leverage, a number of these funds have issued MuniFund Term Preferred (MTP) shares, have privately placed Variable Rate Demand Preferred (VRDP) shares, and have privately placed Variable Rate MuniFund Term Preferred Shares (VMTPs). A few funds have conducted tender offers for their AMPS at a discount to par value.

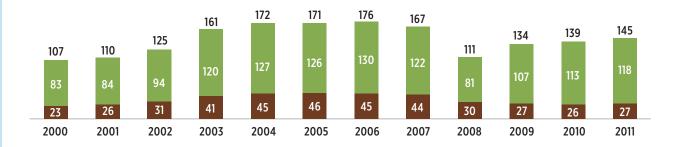
FIGURE 5

Bulk of Closed-End Fund Total Net Assets Was in Common Share Classes

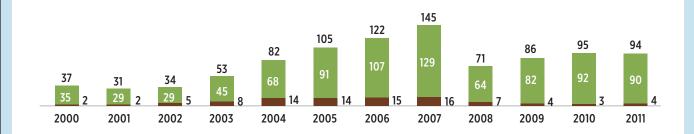
Billions of dollars, year-end, 2000-2011



Bond closed-end fund assets



Equity closed-end fund assets



¹ All closed-end funds issue common stock, which is also known as common shares.

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

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

MuniFund Term Preferred Shares

A number of municipal bond closed-end funds issued—or announced their intention to issue—MTP shares in 2011. MTP shares are exchange-listed closed-end fund preferred shares that have a fixed dividend rate set at the time of issuance. MTP shares have a mandatory redemption period (typically five years) unless they are redeemed or repurchased earlier by the fund. Unlike the fixed-rate preferred stock previously issued, MTP shares were created for issuance by closed-end funds investing in municipal bonds.

Variable Rate Demand Preferred Shares

Further, VRDP shares—a type of puttable preferred stock—were privately placed for municipal bond closed-end funds in 2011.^{10, 11} They are similar to AMPS in that they pay dividends at variable rates, and sell orders are filled to the extent that there are bids. Unlike AMPS, however, rates are set through remarketings (rather than through auctions); and if there are more sell orders than bids, a third party, commonly referred to as a liquidity provider, purchases the VRDP shares. Dividends are set weekly at a rate established by the remarketing agent subject to a maximum rate, which will increase over time in the event of an extended period of unsuccessful remarketing. Closed-end funds are required to redeem VRDP shares still owned by the liquidity provider if there are six months of continuous, unsuccessful remarketing.

Variable Rate MuniFund Term Preferred Shares

VMTP shares—limited-term, floating-rate securities—also were privately placed by several municipal bond closed-end funds in 2011. Shares pay floating dividend rates based on an index and have a three-year mandatory term redemption unless they are redeemed earlier by the fund, at its option. They are privately placed with institutional investors, including banks, insurance companies, and mutual funds. Dividend rates are reset weekly and dividends are paid monthly. VMTP shares do not have an unconditional demand feature but are required to be redeemed if the fund does not maintain certain asset coverage and effective leverage ratios.

Competition in the Closed-End Fund Industry

At year-end 2011, there were 92 closed-end fund sponsors, down 3 percent from 95 at year-end 2010 (Figure 6). Competitive dynamics have prevented any single firm or group of firms from dominating the closed-end fund market. For example, of the largest 25 firms in 2000, only 11 remained in this group at year-end 2011. The share of assets managed by the largest 25 firms has remained fairly consistent since 2000 (Figure 7).¹² 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.¹³ Index numbers below 1,000 indicate that an industry is unconcentrated, and index numbers between 1.000 and 1.800 indicate moderate concentration. Index numbers above 1,800 indicate that an industry is highly concentrated. At year-end 2011, the closed-end fund industry had a Herfindahl-Hirschman Index of 773.¹⁴ In addition to the low Herfindahl-Hirschman Index, it is important to note that closed-end funds compete with other registered investment companies. While there are 634 closed-end funds, there are more than 8,000 mutual funds, more than 6,000 UITs, and more than 1,100 ETFs.¹⁵

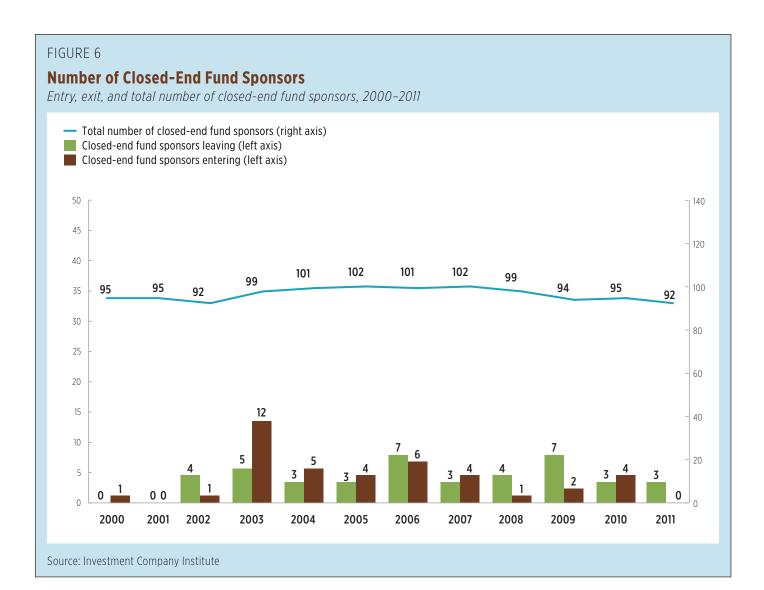
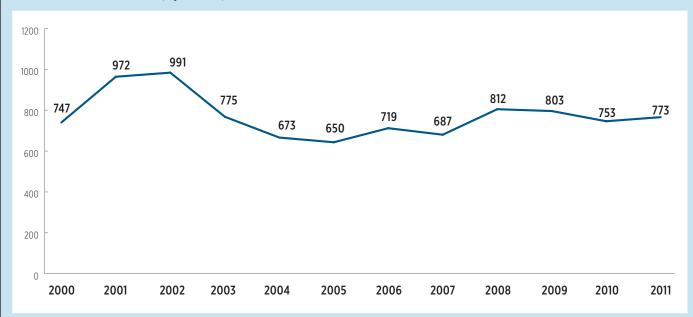


FIGURE 7

Closed-End Fund Industry Found Competitive

Herfindahl-Hirschman Index,* year-end, 2000-2011



Share of Closed-End Fund Assets at the Largest Complexes

Percentage of total closed-end fund industry assets, year-end, 2000–2011

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Top 5 complexes	48	56	56	51	46	46	52	52	56	56	52	52
Top 10 complexes	65	70	70	66	64	64	65	65	68	67	65	65
Top 25 complexes	88	90	91	87	86	86	85	85	87	86	86	86

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

Characteristics of Closed-End Fund Investors

An estimated 2.3 million U.S. households owned closed-end funds in 2011.¹⁶ These households tended to include affluent, experienced investors who owned a range of equity and fixed-income investments. In 2011, 91 percent of households owning closed-end funds also owned stocks, either directly or through stock mutual funds or variable annuities (Figure 8).

Seventy-one percent of households that owned closed-end funds also held bonds, bond mutual funds, or fixed annuities (Figure 8). In addition, 45 percent of these households owned investment real estate. Because a large number of households that owned closed-end funds also owned stocks and mutual funds, the characteristics of closed-end fund owners were similar in many respects to those of stock and

mutual fund owners. For instance, households that owned closed-end funds—like stock- and mutual fund-owning households—tended to be headed by college-educated individuals and had household incomes above the national average (Figure 9).

Nonetheless, households that owned closed-end funds exhibit certain characteristics that distinguish them from stock- and mutual fund-owning households. For example, households with closed-end funds tended to have much greater household financial assets than either stock or mutual fund investors (Figure 9). Closed-end fund investors were also more likely to be retired from their lifetime occupations than either stock or mutual fund investors.

Closed-End Fund Investors Owned a Broad Range of Investor Percentage of closed-end fund-owning households holding each type of inv		
Stock mutual funds, stocks, or variable annuities (total)	91	
Bond mutual funds, bonds, or fixed annuities (total)	71	
Mutual funds (total)	77	
Stock mutual funds	68	
Bond mutual funds	57	
Hybrid mutual funds	50	
Money market funds	52	
Stocks	73	
Bonds	27	
Fixed or variable annuities	41	
Investment real estate	45	

FIGURE 9 **Closed-End Fund Investors Had Above-Average Household Incomes and Financial Assets** *May 2011*

	All U.S. households	Households owning closed-end funds	Households owning mutual funds	Households owning individual stocks
Median				
Age of head of household	50	52	50	52
Household income ¹	\$48,800	\$122,300	\$80,000	\$87,500
Household financial assets ²	\$75,000	\$600,000	\$200,000	\$242,000
Percentage of households Household primary or co-decisionmaker for saving and investing:				
Married or living with a partner	64	81	74	73
Widowed	10	7	7	7
Four-year college degree or more	31	55	47	49
Employed (full- or part-time)	58	68	71	67
Retired from lifetime occupation	30	36	26	30
Household owns:				
IRA(s)	39	76	65	66
DC retirement plan account(s)	51	72	78	71

¹ Total reported is household income before taxes in 2010.

Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey

² Household financial assets include assets in employer-sponsored retirement plans but exclude the household's primary residence.

Additional Reading

- "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/faqs/faqs_closed_end/.
- "A Guide to Closed-End Funds," Investment Company Institute. This publication includes an overview of the types of closed-end funds and how they operate. Available at www.ici.org/investor_ed/brochures/ bro_g2_ce.
- » Find quarterly updates to closed-end fund asset data at www.ici.org/research#statistics.

About the Annual Mutual Fund Shareholder Tracking Survey

The Investment Company Institute conducts the Annual Mutual Fund Shareholder Tracking Survey each spring to gather information on the demographic and financial characteristics of households in the United States. The most recent survey was undertaken in May 2011 and was based on a sample of 4,216 U.S. households selected by random digit dialing. All interviews were conducted over the telephone with the member of the household who was the sole or co-decisionmaker most knowledgeable about the household's savings and investments.

Notes

- For additional information, see Investment Company Institute, "Frequently Asked Questions About Closed-End Funds and Their Use of Leverage."
- See Investment Company Institute 2012a. The survey was conducted annually from 1988 through 2001, and quarterly since 2002.
- ³ Section 18 of the Investment Company Act provides that preferred shareholders, voting as a class, are entitled to elect at least two directors at all times and to vote along with common shareholders on the remaining directors. In addition, preferred shareholders, voting as a class, are entitled to elect a majority of the directors if at any time the dividends on the preferred shares are unpaid in an amount equal to two full years' dividends on the preferred shares, and continue to be entitled to elect a majority of the directors until all dividends in arrears are paid. Section 18 also requires funds to have at least \$3 of assets for each \$1 of debt issued and \$2 of assets for each \$1 of preferred shares issued.
- ⁴ See, e.g., Thomas J. Herzfeld Advisors, Inc. 2008b, 3.
- ⁵ See, e.g., Thomas J. Herzfeld Advisors, Inc. 2008a, 11.
- ⁶ See, e.g., Galley 2010.
- ⁷ See, e.g., Thomas J. Herzfeld Advisors, Inc. 2012.
- ⁸ See, e.g., Thomas J. Herzfeld Advisors, Inc. 2012.
- Municipal bond funds primarily have used tender option bonds because alternative forms of leverage would negatively affect the tax status of the fund's income and distributions to shareholders. For additional information about municipal bond closed-end funds and tender option bonds, see Investment Company Institute, "Frequently Asked Questions About Municipal Bonds."
- ¹⁰ See, e.g., Nuveen Investments 2012.

- 11 The term *puttable* describes a security that has a put option feature. This means that the holder of the security has the right, under certain conditions, to sell the security back to the issuer.
- By comparison, the share of mutual fund assets managed by the 25 largest firms is 74 percent at year-end 2011. See Investment Company Institute 2012b.
- See Cabral 2000 and U.S. Department of Justice and the Federal Trade Commission 1992 for more information about the Herfindahl-Hirschman Index.
- ¹⁴ For additional discussion of the Herfindahl-Hirschman measure of mutual funds and other industries, see Stevens 2006.
- See Investment Company Institute 2012b 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.
- 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 2012. For additional information on the Annual Mutual Fund Shareholder Tracking Survey, see Bogdan, Holden, and Schrass 2011.

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