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2017 INVESTMENT COMPANY

FACT BOOK

A Review of Trends and Activities in the Investment Company Industry

57th edition

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ICI INVESTMENT COMPANY INSTITUTE®

2016 Facts at a Glance

Total worldwide assets invested in regulated open-end funds*	**$40.4 trillion**
Americas	$21.1 trillion
Europe	$14.1 trillion
Africa and Asia-Pacific	$5.2 trillion
US-registered investment company total net assets	**$19.2 trillion**
Mutual funds	$16.3 trillion
Exchange-traded funds	$2.5 trillion
Closed-end funds	$262 billion
Unit investment trusts	$85 billion
US-registered investment companies' share of:	
US corporate equity	31%
US and foreign corporate bonds	19%
US Treasury and government agency securities	13%
US municipal securities	23%
Commercial paper	19%
US household ownership of US-registered funds	
Number of households owning funds	55.9 million
Number of individuals owning funds	95.8 million
Percentage of households owning funds	44.4%
Median mutual fund assets of mutual fund–owning households	$125,000
Median number of mutual funds owned	4
US retirement market	
Total retirement market assets	$25.3 trillion
Percentage of households with tax-advantaged retirement savings	61%
IRA and DC plan assets invested in mutual funds	$7.6 trillion

* Regulated open-end funds include mutual funds, exchange-traded funds (ETFs), and institutional funds.

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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.

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LETTER FROM THE CHIEF ECONOMIST

Have you ever tried to put a jigsaw puzzle together without knowing what the finished work should look like? It's difficult—even with help from family and friends. Are those blue pieces part of a peaceful lake or a cloudless sky? Are those dark pieces a forest floor or storm clouds brewing on the horizon? Without the completed picture on the puzzle box as a guide, everyone has their own idea of what the completed work will look like and how to put it together.

The development of public policy is often compared to making sausage. But to me, it's more like assembling a jigsaw puzzle without the benefit of the box. Legislators and regulators typically are tasked with coordinating a policy action, but they often have very limited information available to them. They do not know how the pieces will fit together, and they all have their own ideas of what the policy should look like. But unlike a jigsaw puzzle, a flawed law or regulation can't easily be disassembled and put back in the box.

Economists and researchers are frequently called upon to bring greater clarity to this uncertain process. But the picture they see—complete with unintended consequences and unexpected costs—doesn't always match the vision that policy advocates are pursuing. Sometimes that leaves researchers in a position of having to explain that their analysis does not support a particular policy action, or that changes need to be made to reduce the chances of negative effects.

The process can be frustrating for the policy's proponents. This is particularly the case when the potential benefits of a rule are more tangible or measurable than its costs. Despite this, economists have a responsibility to help policymakers know not only what the final policy should look like, but also the effect it will have.

Over the past 12 years, in my introduction to this book, I have addressed the role of ICI Research. Our mission is to help "facilitate sound, well-informed public policies affecting investment companies, their investors, and retirement markets." It directs us to undertake research to guide fact-based, defensible policy proposals, rather than using data and analysis to defend a predetermined position.

What is the difference? Guiding policy with research means that data and analysis are used at the outset to help determine what a policy position should be. We best serve the interests of funds and their investors when we direct our resources to understanding the potential benefits, as well as the risks, of policies under consideration. The alternative—using research to defend a predetermined policy position—amounts to no more than forcing together mismatched pieces of a puzzle. Doing so can create a distorted picture of that policy, exposing our members and their shareholders to unintended consequences.

In the past few years, ICI researchers have raised public concerns about the economic analysis behind various government proposals in the retirement and financial markets. Challenging a proposed rule that has significant political muscle behind it requires considerable fortitude and perseverance. My colleagues and I serve our members by bringing comprehensive, informed analysis to a particular issue; we have the same obligation in the public forum.

The mission to bring fact-based analysis to the formulation of public policy guides our work at ICI Research. Like everyone else participating in the process, we do not know with certainty how all of the pieces of the public policy will fit together, or whether the positive impact will outweigh any negative effects. But bringing our evidence-based analysis to the discussion increases the chances that the policy will—on balance—benefit the economy and society as a whole.

This same mission also drives our annual update of the *Investment Company Fact Book*. Dozens of staff members across ICI spend months putting together the pieces of this volume. As with anything of value, it requires hard work and dedication—but we know, based on the feedback we receive, that the collective effort is worth it. We are confident that this volume, like the 56 volumes preceding it, will positively contribute to the private and public discussions that lead to good policies and decisions for funds and their investors.

ICI Senior Research Staff

CHIEF ECONOMIST

Brian Reid leads the Institute's Research Department. The department serves as a source for statistical data on the investment company industry and conducts public policy research on fund industry trends, shareholder demographics, the industry's role in US and international financial markets, and the retirement market. Before joining ICI in 1996, Reid served as an economist at the Federal Reserve Board of Governors. He has a PhD in economics from the University of Michigan and a BS in economics from the University of Wisconsin–Madison.

SENIOR DIRECTOR OF INDUSTRY AND FINANCIAL ANALYSIS

Sean Collins heads ICI's research on the structure of the mutual fund industry, industry trends, and the broader financial markets. Collins, who joined ICI in 2000, is responsible for research on the flows, assets, and fees of mutual funds, as well as a research initiative to better understand the costs and benefits of laws and regulations governing mutual funds. Before joining ICI, Collins was an economist at the Federal Reserve Board of Governors and at the Reserve Bank of New Zealand. He has a PhD in economics from the University of California, Santa Barbara, and a BA in economics from Claremont McKenna College.

SENIOR DIRECTOR OF RETIREMENT AND INVESTOR RESEARCH

Sarah Holden leads the Institute's research efforts on investor demographics and behavior and retirement and tax policy. Holden, who joined ICI in 1999, heads efforts to track trends in household retirement saving activity and ownership of funds as well as other investments inside and outside retirement accounts. Before joining ICI, Holden served as an economist at the Federal Reserve Board of Governors. She has a PhD in economics from the University of Michigan and a BA in mathematics and economics from Smith College.

SENIOR DIRECTOR OF STATISTICAL RESEARCH

Judy Steenstra oversees the collection and publication of weekly, monthly, quarterly, and annual data on open-end mutual funds, as well as data on closed-end funds, exchange-traded funds, unit investment trusts, and the worldwide fund industry. Steenstra joined ICI in 1987 and was appointed director of statistical research in 2000. She has a BS in marketing from The Pennsylvania State University.

ICI Research Department

The ICI Research Department consists of 42 members, including economists and research analysts. This staff collects and disseminates data for all types of registered investment companies, offering detailed analyses of fund shareholders, the economics of investment companies, and the retirement and education savings markets.

2016 ICI Research and Statistical Publications

ICI is the primary source of analysis and statistical information on the investment company industry. In addition to the annual *Investment Company Fact Book*, the Institute's Research Department released 19 research and policy publications and more than 300 statistical reports in 2016.

The *Investment Company Fact Book* remains one of ICI Research's most visible products—garnering more than 37,000 visits and downloads in 2016. In its 57th edition, this ICI publication continues to provide the public and policymakers with a comprehensive summary of ICI's data and analysis. The *Fact Book* is available at **www.icifactbook.org** in both PDF and HTML formats. The HTML version contains downloadable data for all charts and tables.

Papers

INDUSTRY AND FINANCIAL ANALYSIS

» "The Closed-End Fund Market, 2015," ICI Research Perspective, April 2016

» "What Happens When Rates Rise? A Forecast of Bond Mutual Fund Flows Under a 2013 Taper Tantrum Interest Rate Scenario," *ICI Research Report*, December 2016

INVESTOR RESEARCH

» "American Views on Defined Contribution Plan Saving, 2015," *ICI Research Report*, February 2016

» "Profile of Mutual Fund Shareholders, 2015," *ICI Research Report*, March 2016

» "Characteristics of Mutual Fund Investors, 2016," *ICI Research Perspective*, October 2016

» "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016," *ICI Research Perspective*, October 2016

RETIREMENT RESEARCH

- “The Role of IRAs in US Households’ Saving for Retirement, 2015,” *ICI Research Perspective*, February 2016
- “Defined Contribution Plan Participants’ Activities, First Three Quarters of 2015,” *ICI Research Report*, February 2016
- “401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014,” *ICI Research Perspective*, April 2016
- *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at ERISA 403(b) Plans, 2013*, May 2016
- “Defined Contribution Plan Participants’ Activities, 2015,” *ICI Research Report*, June 2016
- “The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2015,” *ICI Research Perspective*, July 2016
- “Defined Contribution Plan Participants’ Activities, First Quarter 2016,” *ICI Research Report*, August 2016
- “The IRA Investor Profile: Traditional IRA Investors’ Activity, 2007–2014,” *ICI Research Report*, August 2016
- “The IRA Investor Profile: Roth IRA Investors’ Activity, 2007–2014,” *ICI Research Report*, August 2016
- “What Does Consistent Participation in 401(k) Plans Generate? Changes in 401(k) Account Balances, 2010–2014,” *ICI Research Perspective*, September 2016
- “Defined Contribution Plan Participants’ Activities, First Half 2016,” *ICI Research Report*, October 2016
- *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*, December 2016
- “A Look at Private-Sector Retirement Plan Income After ERISA, 2015,” *ICI Research Perspective*, December 2016

ICI’s papers and more are available at ***www.ici.org/research****.*

Analysis and Commentary: *ICI Viewpoints*

In addition to research papers, ICI staff produce analysis and commentary for the Institute's blog, *ICI Viewpoints*. Below are some examples of the analysis published in 2016. Please visit **www.ici.org/viewpoints** to find these and more.

- The SEC's Liquidity Proposal: Good Goals, Unintended Consequences
- How the SEC's Six-Bucket Approach Could Provide a False Picture of Liquidity
- Liquidity Risk Management Must Be Done Right
- US and European Fund Investors Continue to Take Long View on EM Economies
- Derivatives—Please Don't Let Them Be Misunderstood
- New Research by New York Fed Confirms: Bond Funds *Don't* Pose Systemic Risks
- Models vs. the Real World—Why Bond Funds Aren't the Bond Market
- How America Supports Retirement
    - Tackling the Myths That Surround Us
    - No, Benefits Are Not "Tilted" to the Higher Earners
    - What Do Tax Rates Have to Do with the Benefits of Tax Deferral? Less Than You Think
    - The Incentive to Save Is Not Upside Down
- Getting Started in a 401(k) Plan—and Getting the Most Out of It
- Three Reasons Why You Should Consider an IRA
- The "Waterfall Theory" of Liquidity Management Doesn't Hold Water
- Yes, Funds Come and Go—Without Government Help
- Factors Contributing to the Decline of Expense Ratios in 2015
- The Liquidity Provided by ETFs Is No Mirage
- Building on the Success of the Private-Sector Retirement System Is the Real "Secure Choice"
- Matching Models to Reality
    - Doomsayers Are Disappointed—Again—as Funds Weather Brexit Shock
    - The Real-World Challenges to Regulators' "First-Mover" Hypothesis
    - In a Falling Market, the Real "Movers" May Be...the Buyers
    - Bond Market Investors Don't Follow the "First-Mover" Script
- Ten Years After the PPA, the Path to Retirement Saving Is Easier
- Revised Fed Data Show Mutual Funds' Share of Corporate Bond Market Is Small and Stable
- As Money Market Fund Investors Adjust, Funds Have Managed Flows
- Money Market Fund Reforms Combine with Bank Regulations to Boost Interest Rates
- Fund Fees Have Been Falling for Two Decades
- The Taper Tantrum—Take II

Statistical Releases

TRENDS IN MUTUAL FUND INVESTING

- » Monthly report that includes mutual fund sales, redemptions, assets, cash positions, exchange activity, and portfolio transactions for the period by 42 investment objectives.

ESTIMATED LONG-TERM MUTUAL FUND FLOWS

- » Weekly report that provides aggregate estimates of net new cash flows to 16 categories of equity, hybrid, and bond mutual funds.

ESTIMATED EXCHANGE-TRADED FUND (ETF) NET ISSUANCE

- » Weekly report that provides aggregate estimates of net issuance to six categories of ETFs.

COMBINED ESTIMATED LONG-TERM MUTUAL FUND FLOWS AND ETF NET ISSUANCE

- » Weekly news release and report that provides aggregate estimates of net new cash flows and net issuance to six categories of long-term mutual funds and ETFs.

MONEY MARKET FUND ASSETS

- » Weekly report on money market fund assets by type of fund.

MONTHLY TAXABLE MONEY MARKET FUND PORTFOLIO DATA

- » Monthly report based on data contained in SEC Form N-MFP that provides insights into the aggregated holdings of prime and government money market funds and the nature and maturity of security holdings and repurchase agreements.

RETIREMENT MARKET DATA

- » Quarterly report that includes individual retirement account (IRA) and defined contribution (DC) plan assets, mutual fund assets, and estimates of mutual fund net new cash flows to retirement accounts by type of fund.

MUTUAL FUND DISTRIBUTIONS

- » Quarterly report that includes paid and reinvested capital gains and paid and reinvested income dividends of mutual funds by broad investment classification.

INSTITUTIONAL MUTUAL FUND SHAREHOLDER DATA

- » Annual report that includes mutual fund asset information for various types of institutional shareholders, broken out by broad investment classification.

CLOSED-END FUND DATA

» Quarterly report that includes closed-end fund assets, number of funds, issuance, redemptions, distributions, use of leverage, and number of shareholders by investment objective.

EXCHANGE-TRADED FUND DATA

» Monthly report that includes assets, number of funds, issuance, and redemptions of ETFs by investment objective.

UNIT INVESTMENT TRUST DATA

» Monthly report that includes the value and number of new trust deposits by type and maturity.

WORLDWIDE REGULATED OPEN-END FUND DATA

» Quarterly report that includes assets, number of funds, and net sales by broad investment classification of funds in 48 jurisdictions worldwide.

These and other ICI statistics are available at ***www.ici.org/research/stats****. To subscribe to ICI's statistical releases, visit* ***www.ici.org/pdf/stats_subs_order.pdf****.*

Acknowledgments

Publication of the *2017 Investment Company Fact Book* was directed by Morris Mitler, economist, and Judy Steenstra, senior director of statistical research, working with Miriam Bridges, editorial director, James Duvall, assistant economist, Candice Gullett, senior copyeditor, and Stephanie Lacasse, senior designer. Contributors from ICI's research team who developed and edited analysis, text, and data are Shelly Antoniewicz, Steven Bass, Mike Bogdan, Peter Brady, Grace Kelemen, Sheila McDonald, Matthew Nolan, Doug Richardson, Julieth Saenz, and Dan Schrass.

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Analysis and Statistics

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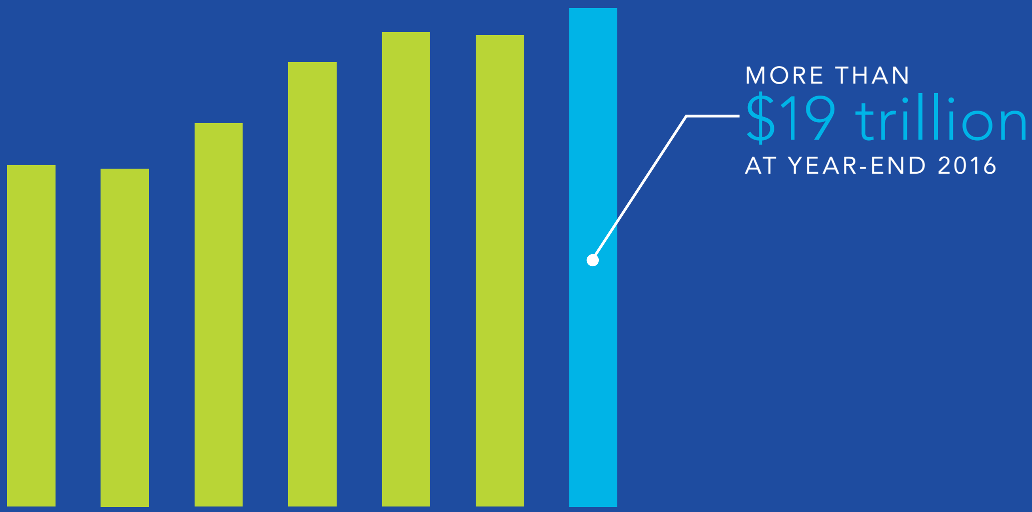
CHAPTER ONE

US-Registered Investment Companies

The largest segment of the asset management business in the United States is made up of registered investment companies. US-registered investment companies play a major role in the US economy and financial markets, and a growing role in global financial markets. These funds managed more than $19 trillion in assets at year-end 2016, largely on behalf of more than 95 million US retail investors. The industry has experienced robust growth over the past quarter century from asset appreciation and strong demand from households due to rising household wealth, the aging US population, and the evolution of employer-based retirement systems. Funds supplied investment capital in securities markets around the world and were among the largest groups of investors in the US stock and municipal securities markets.

The assets of US-registered investment companies exceeded $19 trillion in 2016



In this chapter:

Investment Company Assets in 2016

US-registered investment companies* managed $19.2 trillion in assets at year-end 2016, $1.1 trillion more than at year-end 2015 (Figure 1.1). Broad-based gains in US stock markets contributed to the increase. International stock markets† posted increases in dollar terms, despite the dollar strengthening against the currencies of some of its major trading partners. The gains in dollar-denominated asset values contributed to the year-over-year increase in assets managed by US investment companies.

The US mutual fund and exchange-traded fund (ETF) markets—with combined assets of $18.9 trillion at year-end 2016—remained the largest in the world, accounting for 47 percent of the $40.4 trillion in regulated open-end fund assets worldwide (Figure 1.2).

The majority of US mutual fund and ETF assets at year-end 2016 were in long-term funds, with equity funds comprising 56 percent (Figure 1.2). Within equity funds, domestic funds (those that invest primarily in shares of US corporations) held 42 percent of total assets and world funds (those that invest significantly in shares of non-US corporations) accounted for 14 percent. Bond funds held 22 percent of US mutual fund and ETF assets. Money market funds, hybrid funds, and other funds—such as those that invest primarily in commodities—held the remainder (22 percent).

* The terms *investment companies* and *US investment companies* are used at times throughout this book in place of *US-registered investment companies*. US-registered investment companies are open-end mutual funds, closed-end funds, exchange-traded funds, and unit investment trusts.

† As measured by the MSCI All Country World Daily ex-US Gross Total Return Index.

FIGURE 1.1

Investment Company Total Net Assets by Type

Billions of dollars; year-end, 1998–2016

	Mutual funds[1]	Closed-end funds[2]	ETFs[3]	UITs	Total[4]
1998	5,525	156	16	94	5,790
1999	6,846	147	34	92	7,119
2000	6,965	143	66	74	7,247
2001	6,975	141	83	49	7,248
2002	6,383	159	102	36	6,680
2003	7,402	214	151	36	7,803
2004	8,096	253	228	37	8,614
2005	8,891	276	301	41	9,509
2006	10,398	297	423	50	11,168
2007	12,000	312	608	53	12,974
2008	9,621	184	531	29	10,365
2009	11,113	223	777	38	12,151
2010	11,834	238	992	51	13,114
2011	11,633	242	1,048	60	12,983
2012	13,054	264	1,337	72	14,727
2013	15,049	279	1,675	87	17,090
2014	15,873	289	1,975	101	18,238
2015	15,650	261	2,101	94	18,106
2016	16,344	262	2,524	85	19,215

[1] Mutual fund data exclude mutual funds that invest primarily in other mutual funds.

[2] Closed-end fund data include preferred share classes.

[3] ETF data prior to 2001 were provided by Strategic Insight Simfund. ETF data include ETFs not registered under the Investment Company Act of 1940 and exclude ETFs that primarily invest in other ETFs.

[4] Total investment company assets include mutual fund holdings of closed-end funds and ETFs.

Note: Data are for investment companies that report statistical information to the Investment Company Institute. Assets of these companies comprise 98 percent of investor assets. Components may not add to the total because of rounding.

Sources: Investment Company Institute and Strategic Insight Simfund

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Monthly Trends in Mutual Fund Investing

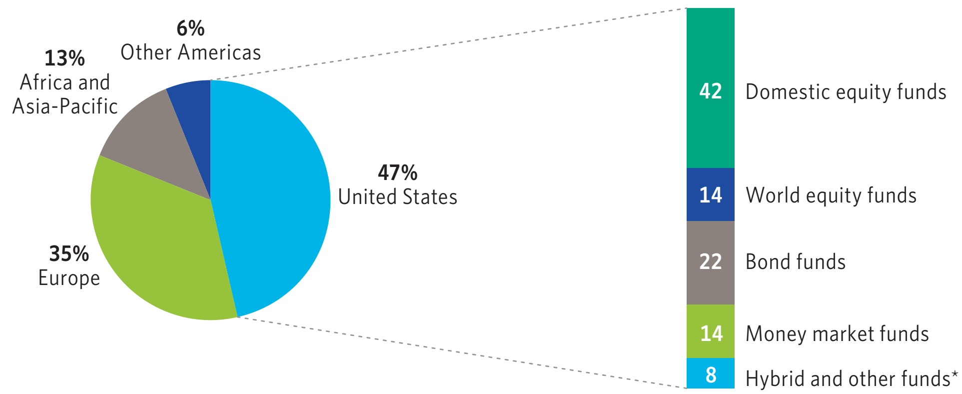
www.ici.org/research/stats/trends

Mutual funds recorded $229 billion in net outflows in 2016 (Figure 2.4), while other US-registered investment companies attracted new investments. On net, investors redeemed $199 billion from long-term mutual funds. Money market funds also experienced net outflows of $30 billion. Mutual fund shareholders reinvested $227 billion in income dividends and $213 billion in capital gains distributions that mutual funds paid out during the year. Investors continued to show strong demand for ETFs with net share issuance (which includes reinvested dividends) totaling $284 billion in 2016 (Figure 3.7). Unit investment trusts (UITs) had new deposits of $49 billion, a modest decrease from the previous year, and closed-end funds issued $922 million in new shares, on net (Figure 4.3).

FIGURE 1.2

The United States Has the World's Largest Regulated Open-End Fund Market

Percentage of total net assets, year-end 2016



Total worldwide regulated open-end fund assets: $40.4 trillion

Total US mutual fund and ETF assets: $18.9 trillion

* This category includes ETFs—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds. Components may not add to 100 percent because of rounding.

Sources: Investment Company Institute and International Investment Funds Association

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Money Market Fund Resource Center

www.ici.org/mmfs

Americans' Continued Reliance on Investment Companies

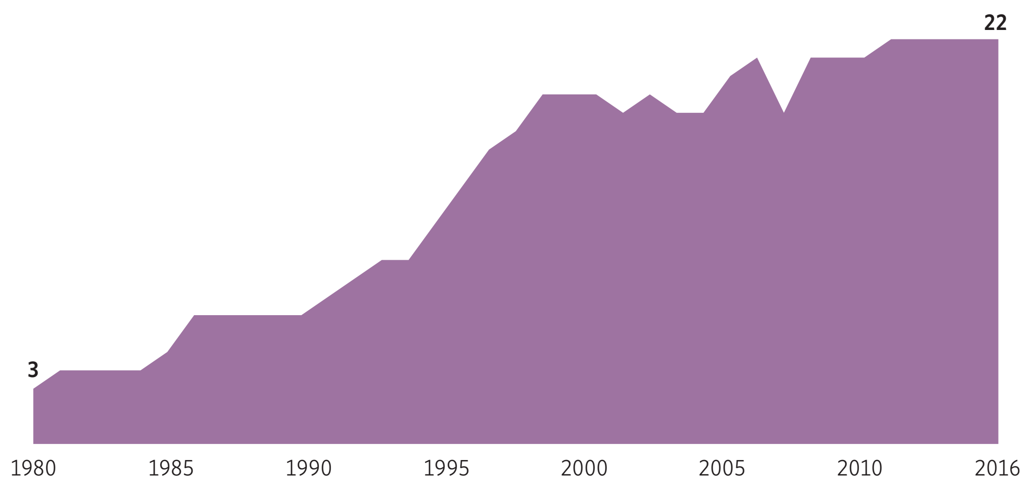
Households make up the largest group of investors in funds, and registered investment companies managed 22 percent of household financial assets at year-end 2016 (Figure 1.3).

The growth of individual retirement accounts (IRAs) and defined contribution (DC) plans, particularly 401(k) plans, explains some of the increased household reliance on investment companies during the past two decades. IRAs made up 10.4 percent of household financial assets at year-end 2016, with mutual funds managing 47 percent of IRA assets (Figure 1.4). At year-end 2016, households had 9.3 percent of their financial assets in 401(k) and other DC retirement plans, up from 8.2 percent in 1996. Mutual funds managed 55 percent of the assets in these plans in 2016, nearly double the 29 percent in 1996. Mutual funds also managed $1.2 trillion in variable annuities outside retirement accounts, as well as nearly $7.6 trillion of other assets outside retirement accounts.

FIGURE 1.3

Share of Household Financial Assets Held in Investment Companies

Percentage of household financial assets; year-end, 1980–2016



Note: Household financial assets held in registered investment companies include household holdings of ETFs, closed-end funds, UITs, and mutual funds. Mutual funds held in employer-sponsored DC plans, IRAs, and variable annuities are included.

Sources: Investment Company Institute and Federal Reserve Board

FIGURE 1.4

Mutual Funds in Household Retirement Accounts

Percentage of retirement assets in mutual funds by type of retirement vehicle, 1996–2016

* This category includes private employer-sponsored DC plans (including 401(k) plans), 403(b) plans, 457 plans, and the Federal Employees Retirement System (FERS) Thrift Savings Plan (TSP).

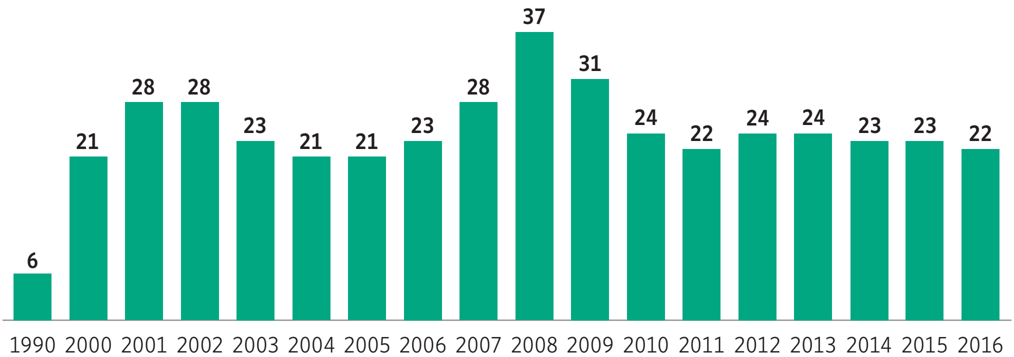
Sources: Investment Company Institute, Federal Reserve Board, Department of Labor, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service Statistics of Income division. See Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016."

Businesses and other institutional investors also rely on funds. Many institutions use money market funds to manage some of their cash and other short-term assets. Nonfinancial businesses held 22 percent of their short-term assets in money market funds at year-end 2016 (Figure 1.5). Institutional investors also have contributed to growing demand for ETFs. Investment managers—including mutual funds, pension funds, hedge funds, and insurance companies—use ETFs to invest in markets, to manage liquidity and investor flows, or to hedge their exposures.

FIGURE 1.5

Money Market Funds Managed 22 Percent of US Nonfinancial Businesses' Short-Term Assets in 2016

Percent; year-end, selected years



Note: US nonfinancial businesses' short-term assets consist of foreign deposits, checkable deposits, time and savings deposits, money market funds, repurchase agreements, and commercial paper.

Sources: Investment Company Institute and Federal Reserve Board

Role of Investment Companies in Financial Markets

Investment companies have been among the largest investors in the domestic financial markets for much of the past 20 years. They have held a fairly stable share of the securities outstanding across a variety of asset classes. At year-end 2016, investment companies held approximately 31 percent of the shares of US-issued equities outstanding, up slightly from 29 percent in 2013 (Figure 1.6). Investment companies also held 19 percent of bonds issued by domestic corporations and foreign bonds held by US residents at year-end 2016. The percentage of bonds outstanding held by investment companies has been unchanged since 2013, with mutual funds holding a significantly larger share of corporate bonds relative to other registered investment companies.

Investment companies also held 13 percent of the US Treasury and government agency securities outstanding at year-end 2016, a share that has remained fairly stable since 2013 (Figure 1.6). As a whole, investment companies have been one of the largest groups of investors in US municipal securities, holding 23 percent of the municipal securities outstanding at year-end 2016.

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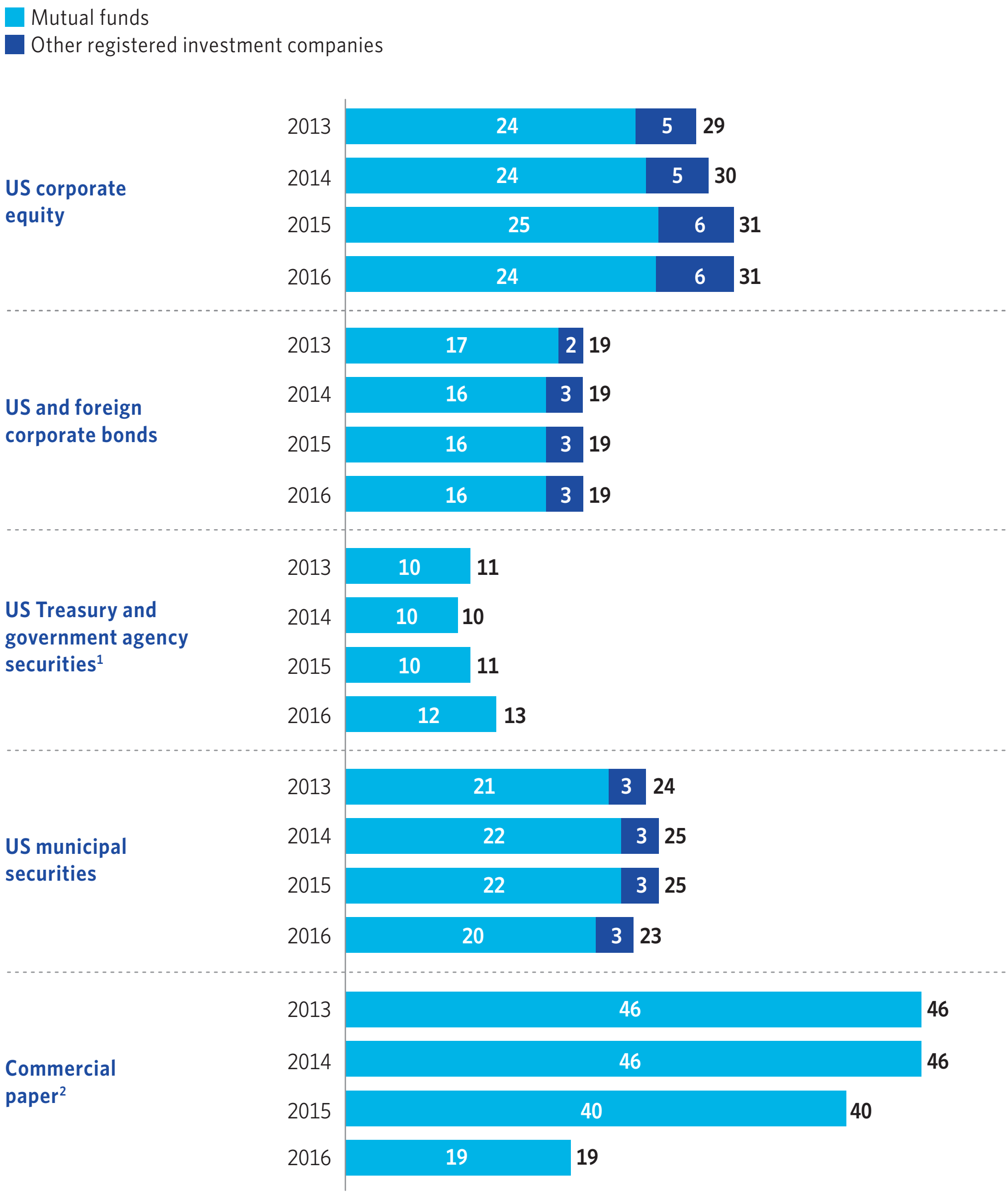
Revised Fed Data Show Mutual Funds' Share of Corporate Bond Market Is Small and Stable
www.ici.org/viewpoints/view_16_corporate_bond_share

FIGURE 1.6

Investment Companies Channel Investment to Stock, Bond, and Money Markets

Percentage of total market securities held by investment companies; year-end, 2013–2016



[1] Total US Treasury and government agency securities held by other registered investment companies was less than 0.5 percent in each year.

[2] Other registered investment companies held no commercial paper in each year.

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

Sources: Investment Company Institute, Federal Reserve Board, and World Federation of Exchanges

Historically, mutual funds have been one of the largest investors in the US commercial paper market—an important source of short-term funding for major corporations around the world. Mutual fund demand for commercial paper arose primarily from prime money market funds. In 2016, however, the assets of prime money market funds fell 70 percent (nearly $900 billion) as these funds adapted to the 2014 SEC rule amendments that required the money market fund industry to make substantial changes by October 2016 (see chapter 2). Consequently, prime money market funds sharply reduced their holdings of commercial paper. From year-end 2015 to year-end 2016, mutual funds' share of the commercial paper market fell from 40 percent to 19 percent (Figure 1.6).

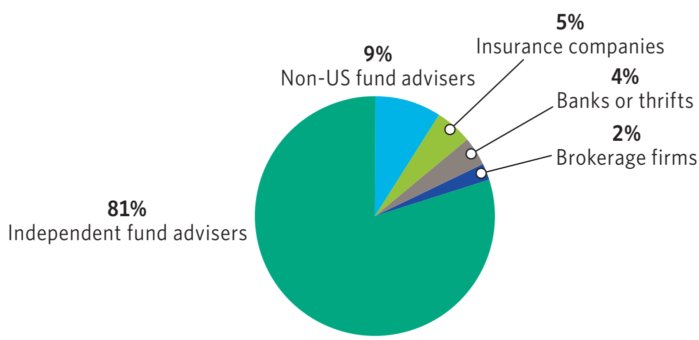
Types of Intermediaries and Number of Investment Companies

A variety of financial services companies offer registered funds in the United States. At year-end 2016, 81 percent of investment company complexes were independent fund advisers (Figure 1.7), and these firms managed 69 percent of investment company assets. Other types of investment company complexes in the US market include non-US fund advisers, insurance companies, banks, thrifts, and brokerage firms.

FIGURE 1.7

More Than 80 Percent of Investment Company Complexes Were Independent Fund Advisers

Percentage of investment company complexes by type of intermediary, year-end 2016



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

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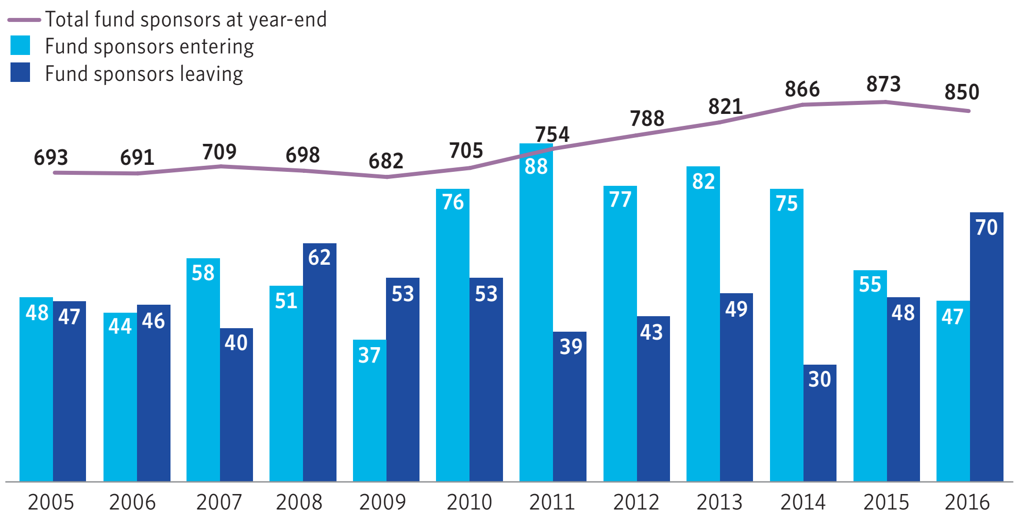
Money Market Fund Reforms Combine with Bank Regulations to Boost Interest Rates
www.ici.org/viewpoints/view_16_mmf_transition_3

In 2016, 850 fund sponsors from around the world competed in the US market to provide investment management services to fund investors (Figure 1.8). The decrease in the number of fund sponsors since year-end 2015 may be due to a variety of business decisions including larger fund sponsors acquiring smaller ones, fund sponsors liquidating funds and leaving the business, or larger sponsors selling their advisory businesses. In recent years, the number of fund sponsors had been increasing as the economy and financial markets recovered from the 2007–2009 financial crisis. After 2009, 500 sponsors entered the market while 332 left, for a net increase of 168.

FIGURE 1.8

Number of Fund Sponsors

2005–2016



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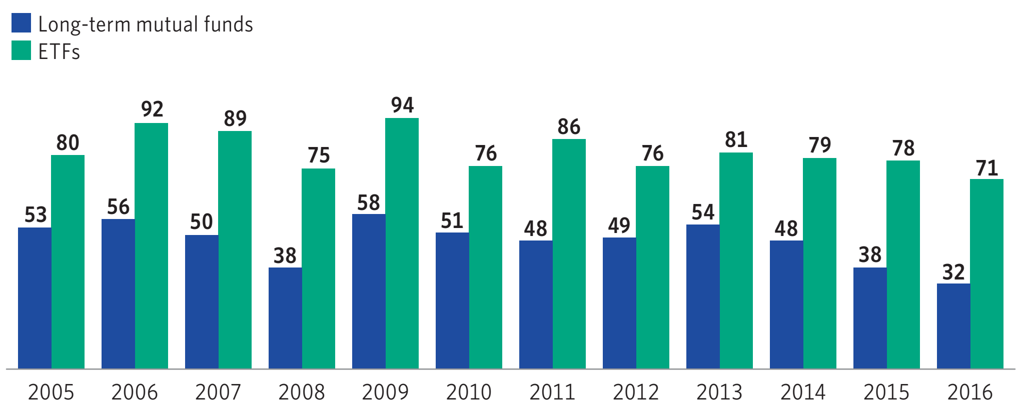
Many of the entering sponsors adopt solutions in which the fund's sponsor arranges for a third party to provide certain services (e.g., audit, trustee, some legal) through a turnkey setup. This allows the sponsor to focus more on managing portfolios and gathering assets. Through an arrangement known as a series trust, the third party provides services to a number of independent fund sponsors under a single complex that serves as an "umbrella." This can be cost-efficient because the costs of operating funds are spread across the combined assets of a number of funds in the series trust.

The increased availability of other investment products has led to changes in how investors are allocating their portfolios. The percentage of mutual fund companies retaining assets and attracting net new investments generally has been lower in recent years. In 2016, 32 percent of fund complexes saw inflows to their long-term mutual funds; 71 percent of ETF sponsors had positive net share issuance (Figure 1.9).

FIGURE 1.9

Positive Net Share Issuance of ETFs and Positive Net New Cash Flow to Long-Term Mutual Funds

Percentage of fund complexes, 2005–2016



Note: Data do not include funds that invest primarily in other funds.

The decline in the percentage of fund complexes attracting new money likely reflects, in part, the influx of new entrants and an increasing concentration of mutual fund and ETF assets managed by the largest fund complexes. The share of assets managed by the five largest firms rose from 36 percent in 2005 to 47 percent in 2016, and the share managed by the 10 largest firms increased from 47 percent to 58 percent (Figure 1.10). Some of the increase in market share occurred at the expense of the middle tier of firms—those ranked from 11 to 25—whose market share fell from 22 percent in 2005 to 18 percent in 2016.

FIGURE 1.10

Share of Mutual Fund and ETF Assets at the Largest Fund Complexes

Percentage of total net assets of mutual funds and ETFs; year-end, selected years

	2005	2010	2015	2016
Largest 5 complexes	36	42	45	47
Largest 10 complexes	47	55	56	58
Largest 25 complexes	69	74	75	76

Note: Data include only mutual funds and ETFs registered under the Investment Company Act of 1940. Mutual fund data do not include mutual funds that invest primarily in other mutual funds. ETFs registered as UITs and ETFs that invest primarily in other ETFs are excluded.

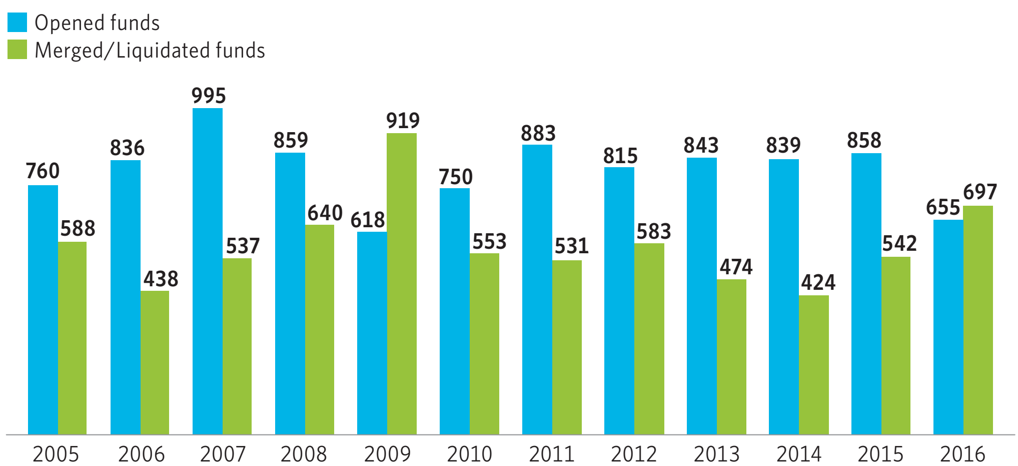
At least two factors have contributed to the rise in industry concentration. First, the growing popularity of index funds increased concentration because the 10 largest fund complexes manage most of the assets in index mutual funds. Actively managed domestic equity mutual funds had outflows in every year since 2005, while index domestic equity mutual funds and ETFs had inflows in each of these years. Second, strong inflows over the past decade to bond mutual funds (Figure 2.8), which are fewer in number and are less likely to be offered by smaller fund sponsors, helped boost the share of assets managed by large fund complexes.

Macroeconomic conditions and competitive dynamics can affect the supply of funds offered for sale. Fund sponsors create new funds to meet investor demand, and they merge or liquidate those that do not attract sufficient investor interest. A total of 655 mutual funds and ETFs opened in 2016, the fewest since 2009 and well below the 2005–2015 annual average of 823 (Figure 1.11). The rate of mutual fund and ETF mergers and liquidations increased significantly from 542 in 2015 to 697 in 2016.

FIGURE 1.11

Number of Mutual Funds and ETFs Entering and Exiting the Industry

2005–2016



Note: Data include mutual funds that do not report statistical information to the Investment Company Institute and mutual funds that invest primarily in other mutual funds. ETF data include ETFs not registered under the Investment Company Act of 1940 but exclude ETFs that invest primarily in other ETFs.

The total number of investment companies has increased since 2005 (the recent low point), but it remains well below the year-end 2000 peak (Figure 1.13). This largely reflects the sharp decline in UITs in the early 2000s. The number of UITs declined to 5,103 at year-end 2016 from 5,188 at year-end 2015. The number of mutual funds decreased slightly in 2016 to a total of 9,511 funds. The total number of closed-end funds fell to 530 at year-end 2016, the lowest level since 2001. The number of ETFs continues to grow, with 1,716 ETFs at year-end 2016, more than double the total number of ETFs at year-end 2009.

Unit Investment Trusts

Unit investment trusts (UITs) are registered investment companies with characteristics of both mutual funds and closed-end funds. Like mutual funds, UITs issue redeemable shares (called units), and like closed-end funds, they typically issue a specific, fixed number of shares. But unlike either mutual funds or closed-end funds, UITs have a preset termination date based on the portfolio's investments and the UIT's investment goals. UITs investing in long-term bonds might have a preset termination date of 20 to 30 years, depending on the maturity of the bonds they hold. UITs investing in stocks might seek to capture capital appreciation in a few years or less. When a UIT terminates, proceeds from the securities are paid to unit holders or, at a unit holder's election, reinvested in another trust.

UITs fall into two main categories: bond trusts and equity trusts. Bond trusts are either taxable or tax-free; equity trusts are either domestic or international/global. The first UIT, introduced in 1961, held tax-free bonds, and historically, most UIT assets were invested in bonds. Equity UITs, however, have grown in popularity over the past two decades. Assets in equity UITs have exceeded the combined assets of taxable and tax-free bond UITs in recent years, and constituted 85 percent of the assets in UITs in 2016 (Figure 1.12). The number of trusts outstanding has been decreasing as sponsors created fewer new trusts and existing trusts reached their preset termination dates.

Federal law requires that UITs have a largely fixed portfolio—one that is not actively managed or traded. Once the trust's portfolio has been selected, its composition may change only in very limited circumstances. Most UITs hold a diversified portfolio, described in detail in the prospectus, with securities professionally selected to meet a stated investment goal, such as growth, income, or capital appreciation.

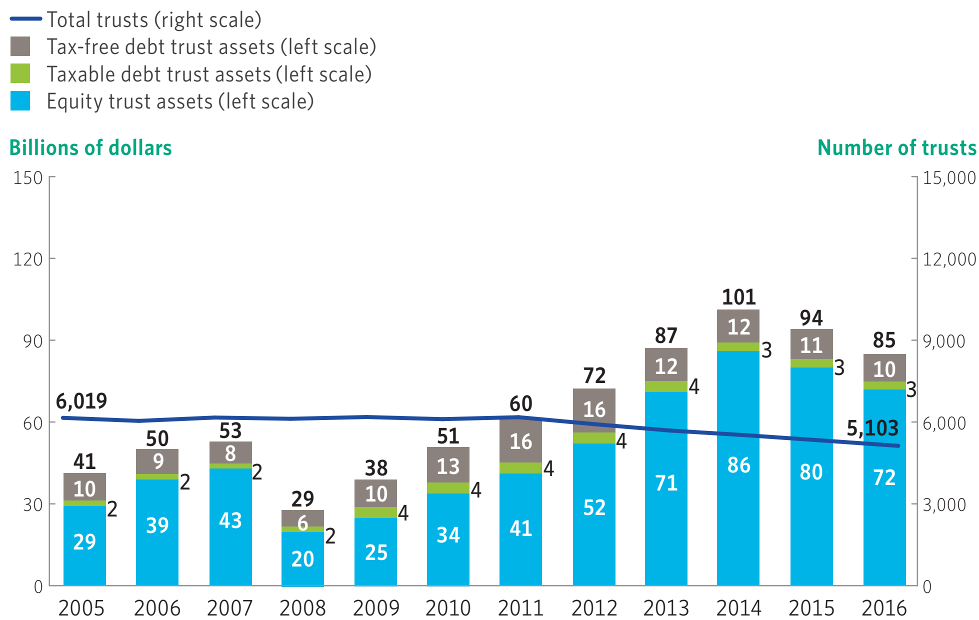
Investors can obtain UIT price quotes from brokerage or investment firms and investment company websites, and some but not all UITs list their prices on NASDAQ's Mutual Fund Quotation Service. Some broker-dealers offer their own trusts or sell trusts offered by nationally recognized independent sponsors. Units of these trusts can be bought through their registered representatives. Units can also be bought from the representatives of smaller investment firms that sell trusts sponsored by third-party firms.

Though a fixed number of units of a UIT are sold in a public offering, a trust sponsor is likely to maintain a secondary market, in which investors can sell their units back to the sponsor and other investors can buy those units. Even absent a secondary market, UITs are required by law to redeem outstanding units at their net asset value (NAV), which is based on the underlying securities' current market value.

FIGURE 1.12

Total Net Assets and Number of UITs

Year-end, 2005-2016



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

FIGURE 1.13

Number of Investment Companies by Type

Year-end, 1998–2016

	Mutual funds[1]	Closed-end funds	ETFs[2]	UITs	Total
1998	7,489	491	29	10,966	18,975
1999	8,003	510	30	10,414	18,957
2000	8,370	481	80	10,072	19,003
2001	8,518	489	102	9,295	18,404
2002	8,511	543	113	8,303	17,470
2003	8,426	581	119	7,233	16,359
2004	8,417	618	152	6,499	15,686
2005	8,449	634	204	6,019	15,306
2006	8,721	645	359	5,907	15,632
2007	8,745	662	629	6,030	16,066
2008	8,879	642	728	5,984	16,233
2009	8,611	627	797	6,049	16,084
2010	8,535	624	923	5,971	16,053
2011	8,673	632	1,135	6,043	16,483
2012	8,744	602	1,195	5,787	16,328
2013	8,972	599	1,295	5,552	16,418
2014	9,258	568	1,412	5,381	16,619
2015	9,517	558	1,595	5,188	16,858
2016	9,511	530	1,716	5,103	16,860

[1] Data include mutual funds that invest primarily in other mutual funds.

[2] ETF data prior to 2001 were provided by Strategic Insight Simfund. ETF data include ETFs not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.

Note: Data are for investment companies that report statistical information to the Investment Company Institute. Assets of these companies are 98 percent of investor assets.

Sources: Investment Company Institute and Strategic Insight Simfund

Investment Company Employment

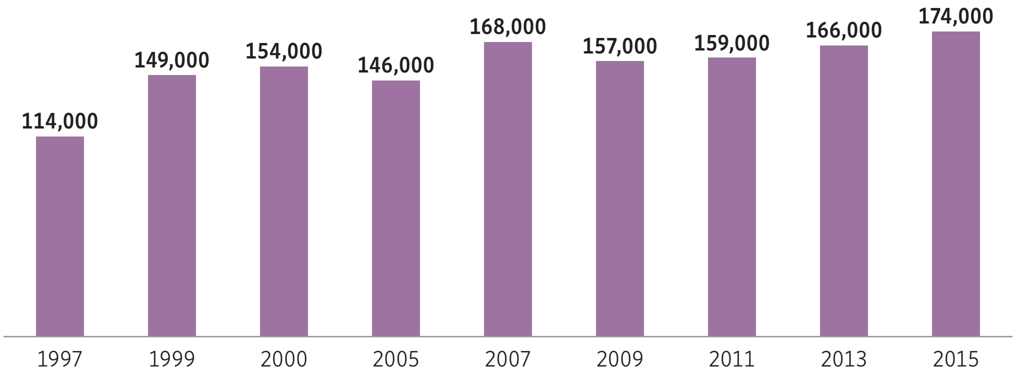
Registered investment companies typically do not have employees—instead, they contract with other businesses to provide services to the fund. Except for UITs, funds in the United States have fund boards that oversee the management of the fund and represent the interests of the fund shareholders. Fund boards must approve all major contracts between the fund and its service providers including the advisory contract with a fund's investment adviser, who is usually also the fund's sponsor.

Fund sponsors and third-party service providers offer advisory, recordkeeping, administrative, custody, and other services to a growing number of funds and their investors. Fund industry employment in the United States has grown 53 percent since 1997, from 114,000 workers in 1997 to 174,000 workers in 2015 (Figure 1.14).

FIGURE 1.14

Investment Company Industry Employment

*Estimated number of employees of fund sponsors and their service providers, selected years**



* Years are those in which ICI conducted its employment survey.

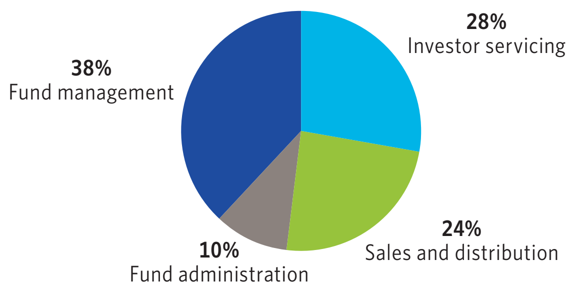
Fund investment advisers are one of the prominent providers of services to funds. This group of service providers is responsible for managing the fund's business affairs, ensuring compliance with laws and regulations, overseeing other third-party service providers the fund may rely on, and directing funds' investments by undertaking investment research and determining which securities to buy and sell. The adviser will often undertake trading and security settlement for the fund. In March 2015, 38 percent of the industry worked in support of fund management functions such as investment research, trading and security settlement, information systems and technology, and other corporate management functions (Figure 1.15).

The second-largest group of workers (28 percent) provides services to fund investors and their accounts (Figure 1.15). Shareholder account servicing encompasses a wide range of activities to help investors monitor and update their accounts. These employees work in call centers and help shareholders and their financial advisers with questions about investor accounts. They also process applications for account openings and closings. Other services include retirement plan transaction processing, retirement plan participant education, participant enrollment, and plan compliance.

FIGURE 1.15

Investment Company Industry Employment by Job Function

Percentage of employees of fund sponsors and their service providers, March 2015



Total employment: 174,000 employees

Distribution and sales force personnel together accounted for 24 percent of the workforce (Figure 1.15). Employees in these areas may work in marketing, product development and design, or investor communications, and can include sales support staff, registered representatives, and supermarket representatives.

Fund administration, which includes financial and portfolio accounting and regulatory compliance duties, accounted for 10 percent of industry employment (Figure 1.15). Employees performing those services are often affiliated with a fund's investment adviser. Fund administration encompasses the middle- and back-office functions necessary to operate the fund, and includes clerical and fund accounting services, data processing, recordkeeping, internal audits, and compliance and risk management functions.

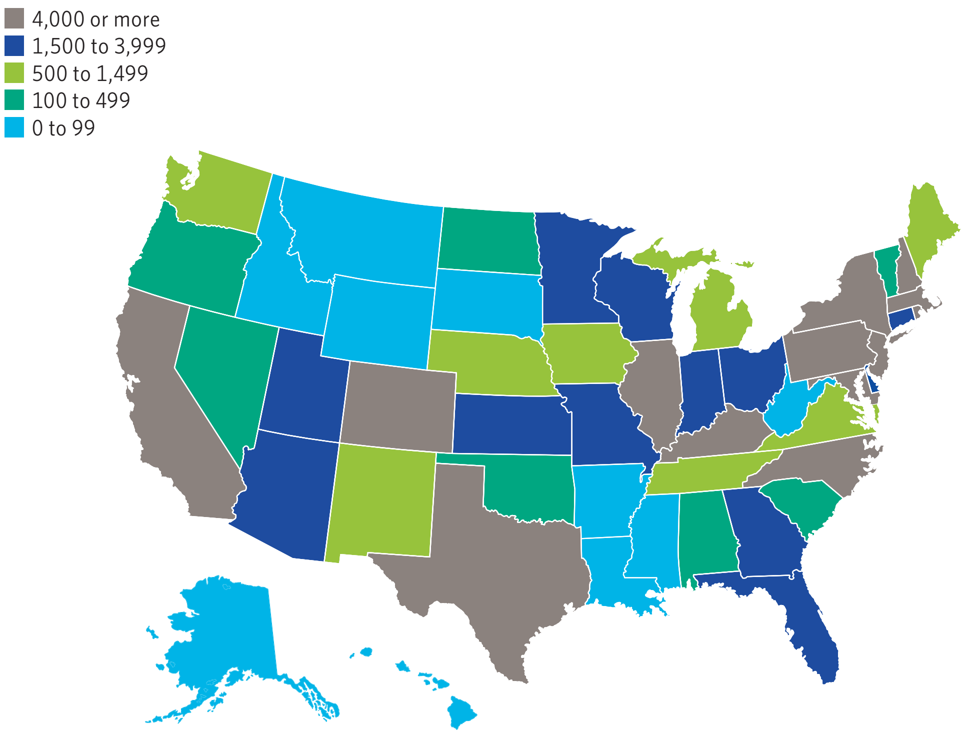
Typically, employees with administration duties are responsible for regulatory and compliance requirements, such as preparing and filing regulatory reports, overseeing fund service providers, preparing and submitting reports to regulators and tax authorities, and producing shareholder reports such as prospectuses and financial statements of the funds. Administration services also help to maintain compliance procedures and internal controls, subject to approval by a fund's board and chief compliance officer.

For many industries, employment tends to be concentrated in locations where the industry began. The same is true for investment companies: those located in Massachusetts and New York, early hubs of investment company operations (Figure 1.16), employ 24 percent of fund industry workers. As the industry has grown, other states—including California, Pennsylvania, and Texas—have become major centers of fund employment. Fund companies in these three states employed one-quarter of US fund industry employees as of March 2015.

FIGURE 1.16

Investment Company Industry Employment by State

Estimated number of employees of fund sponsors and their service providers by state, March 2015

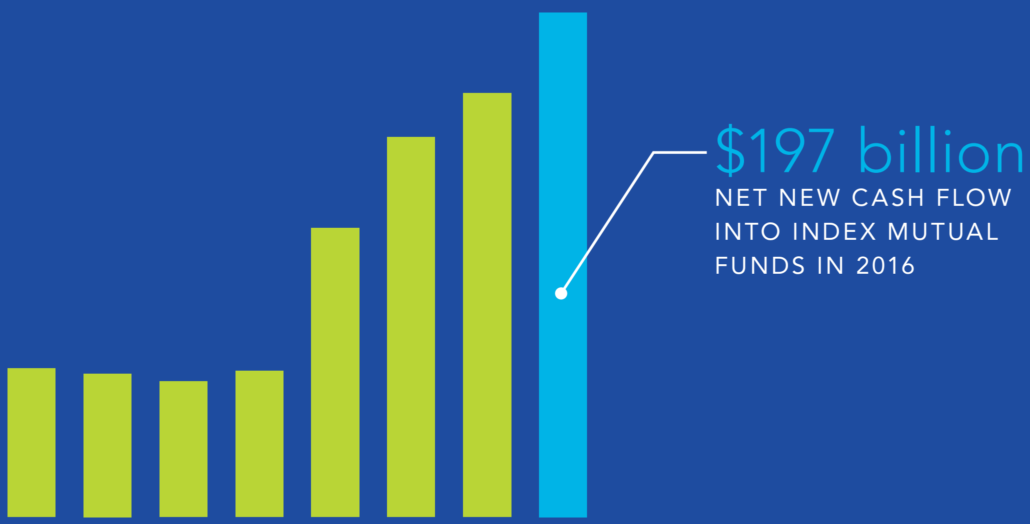


CHAPTER TWO

Recent Mutual Fund Trends

With $16.3 trillion in assets, the US mutual fund industry remained the largest in the world at year-end 2016. Measured in terms of net new cash flow, however, investor demand for mutual funds declined for the second straight year with net redemptions totaling $229 billion in 2016, or 1.5 percent of year-end 2015 assets. Investor demand for certain types of money market funds was driven in large part by regulatory reform to money market funds, while net outflows from domestic equity mutual funds appeared to be a continuation of a shift by investors to index-based products. Despite rising long-term interest rates over the second half of 2016, demand for bond mutual funds remained strong, in part because of the aging of the US population.

Index mutual funds had record inflows in 2016



In this chapter:

Investor Demand for US Mutual Funds

A variety of factors influence investor demand for mutual funds, such as funds' ability to assist investors in achieving their investment objectives. For example, US households rely on equity, bond, and hybrid mutual funds to meet long-term personal financial objectives such as preparing for retirement. US households, as well as businesses and other institutional investors, use money market funds as cash management tools because they provide a high degree of liquidity and competitive short-term yields. Changing demographics and investors' reactions to US and worldwide economic and financial conditions play important roles in determining how demand for specific types of mutual funds—and for mutual funds in general—evolves.

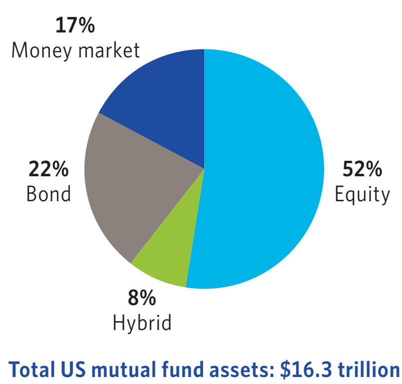
US Mutual Fund Assets

The majority of US mutual fund assets at year-end 2016 were in long-term funds, with equity funds alone comprising 52 percent of total US mutual fund assets (Figure 2.1). Bond funds were the second-largest category, with 22 percent of assets. Money market funds (17 percent) and hybrid funds (8 percent) held the remainder.

FIGURE 2.1

Equity Mutual Funds Held About Half of Total Mutual Fund Assets

Percentage of total net assets, year-end 2016



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

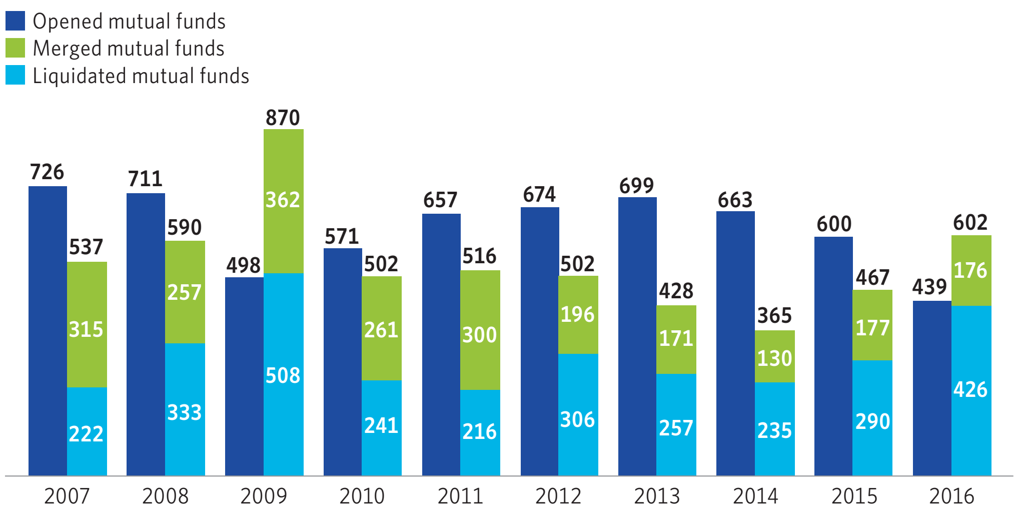
Entry and Exit of US Mutual Funds

Mutual fund sponsors create new funds to meet investor demand, and they merge or liquidate those that do not attract sufficient investor interest. A total of 439 mutual funds opened in 2016 (Figure 2.2). Fewer world equity and taxable bond fund launches contributed to the decline in the number of new mutual funds offered from 2015 to 2016. In addition, the number of mutual fund liquidations increased substantially—from 290 in 2015 to 426 in 2016, pushing up the total number of funds that exited the industry to 602. Of the funds that were liquidated in 2016, about 30 percent were domestic equity mutual funds.

FIGURE 2.2

Number of Mutual Funds Entering and Exiting the Industry

2007–2016



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

Investors in US Mutual Funds

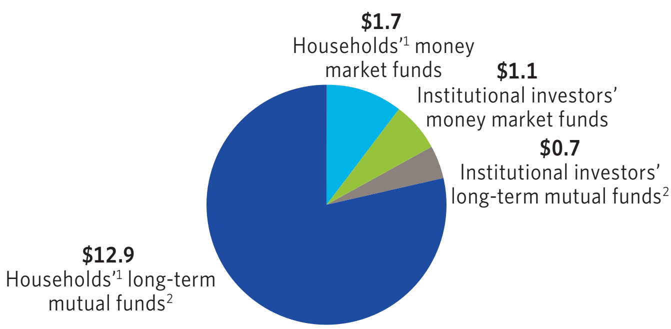
Demand for mutual funds is, in part, related to the types of investors who hold mutual fund shares. Retail investors (i.e., households) held the vast majority (89 percent) of the $16.3 trillion in US mutual fund assets (Figure 2.3). The proportion of long-term mutual fund assets held by retail investors is even higher (95 percent). Retail investors also held substantial money market fund assets ($1.7 trillion), but that amounts to a relatively small share (11 percent) of their total mutual fund assets.

In contrast, institutional investors such as nonfinancial businesses, financial institutions, and nonprofit organizations held a relatively small portion of mutual fund assets. At year-end 2016, institutions held about 11 percent of mutual fund assets. One of the primary reasons institutions use mutual funds is to help manage cash balances. Sixty-one percent of the $1.7 trillion that institutions held in mutual funds was in money market funds.

FIGURE 2.3

Households Held the Majority (89 Percent) of Mutual Fund Assets

Trillions of dollars, year-end 2016



Total mutual fund assets: $16.3 trillion
Total long-term mutual fund[2] assets: $13.6 trillion
Total money market fund assets: $2.7 trillion

[1] Mutual funds held as investments in individual retirement accounts, defined contribution retirement plans, variable annuities, 529 plans, and Coverdell Education Savings Accounts are counted as household holdings of mutual funds.

[2] Long-term mutual funds include equity, hybrid, and bond mutual funds.

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

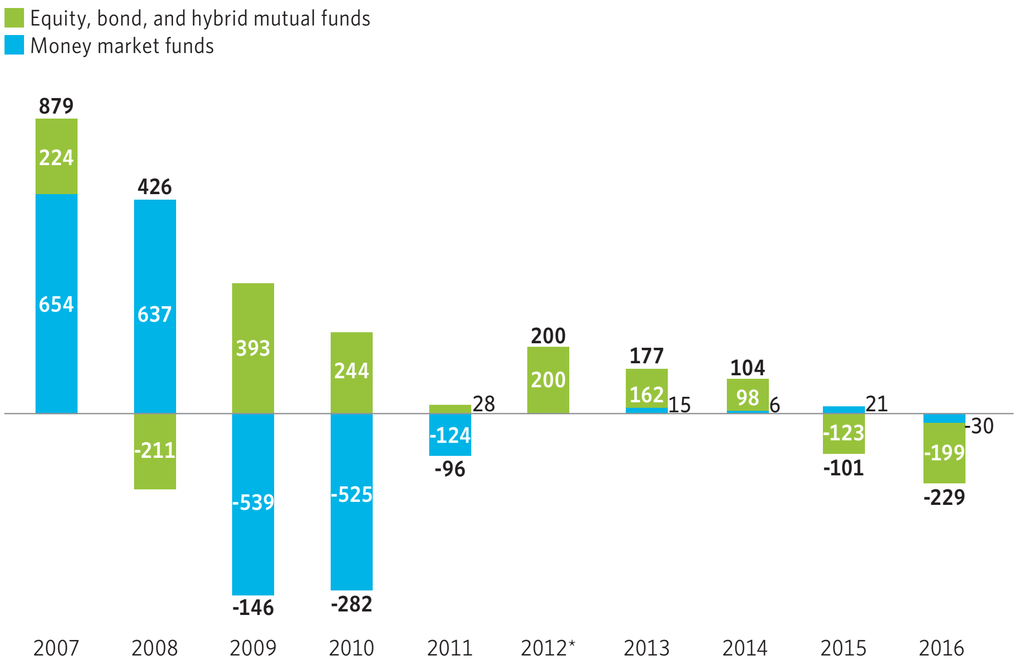
Developments in Mutual Fund Flows

Overall demand for mutual funds as measured by net new cash flow—new fund sales less redemptions plus net exchanges—declined further in 2016 (Figure 2.4). Lower demand for equity, hybrid, and money market funds was only partly offset by greater demand for bond funds. Overall, mutual funds had a net cash outflow of $229 billion in 2016, following a net cash outflow of $101 billion in 2015. In 2016, investors redeemed $199 billion, on net, from long-term funds, and $30 billion, on net, from money market funds. A number of factors—including regulatory reform of money market funds, ongoing demographic trends, and increased demand for indexed products—appeared to influence mutual fund flows in 2016.

FIGURE 2.4

Net New Cash Flow to Mutual Funds

Billions of dollars; annual, 2007–2016



* In 2012, investors withdrew less than $500 million from money market funds.
Note: Components may not add to the total because of rounding.

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The Global Economy and Financial Markets in 2016

Economic activity hit a soft patch in the United States in 2016 with real gross domestic product (GDP) expanding at a tepid 1.6 percent rate, down from 2.6 percent in 2015. A couple of major items contributed to the slowdown in GDP growth. For 2016 as a whole, capital spending declined for the first time since 2009, as businesses were reluctant to replace or upgrade plants and equipment. In addition, businesses kept their inventory levels in check, which produced a drag on GDP growth in 2016.

Despite weaker overall economic activity, other aspects of the US economy continued to improve in 2016. The labor market strengthened further with the unemployment rate dropping from 5.0 percent at year-end 2015 to 4.7 percent at year-end 2016. In addition, average hourly earnings, which had lagged job growth through most of the recovery from the 2007–2009 financial crisis, rose 2.9 percent in 2016, up from a 2.5 percent increase in 2015. Strong gains in domestic stock prices and house prices fueled a 6.3 percent increase in US household wealth in 2016. The S&P 500 index returned 12.0 percent and the S&P Corelogic Case-Shiller US National Home Price Index rose 5.7 percent. The December 2016 level of the home price index indicated that house prices had fully recovered relative to their previous peak in 2006.

Weaker than expected economic growth in 2016 prompted the Federal Reserve to delay any further increases in the federal funds rate until the end of the year. This tightening in monetary policy was widely expected, so the quarter-point move in short-term rates in December 2016 had little impact on the markets. The decision to raise the federal funds rate was made easier by a moderate increase in inflation. The Consumer Price Index rose 2.1 percent over the year, closer to the Fed's target of 2 percent inflation and up from 0.7 percent in 2015. Also easing the Fed's task, the yield on the 10-year Treasury bond rose 96 basis points* over the second half of 2016, with more than half of that increase coming after the US presidential election. The higher yield on long-term bonds likely reflected market participants' expectations of more expansionary fiscal policies.

The rest of the world also experienced lackluster growth in 2016. The pace of growth edged down in China, where the government reported the economy grew 6.7 percent in 2016—the slowest growth rate in 26 years. In the euro area, GDP growth slipped to 1.7 percent in 2016 and Japan's economy expanded at only a 0.9 percent pace. A decline in business investment after the United Kingdom unexpectedly voted to initiate the process of withdrawing from the European Union (commonly referred to as Brexit) contributed to moderately slower GDP growth in the United Kingdom in 2016.

* Basis points simplify percentages written in decimal form. A basis point equals one-hundredth of 1 percent (0.01 percent), so 100 basis points equals 1 percentage point.

The result was generally more accommodative central bank policies around the globe. Central banks in Europe, Japan, the United Kingdom, and Brazil eased policies, while the US Federal Reserve—which at the start of the year had been widely expected to raise its key lending rate four times in 2016—only increased the federal funds rate once. The Federal Reserve's less aggressive monetary policy stance, however, was not enough to offset further appreciation of the US dollar,* which rose 5.0 percent over the year as a whole. Although this factor, among others, weighed on American exports in 2016, reported 12-month earnings per share for the S&P 500 improved to $95 in 2016 from $87 in 2015.

Global stock markets in 2016 were temporarily rattled by China's currency devaluation in January, Brexit in June, and the US presidential election in November, but each time quickly settled down; average volatilities for the year as a whole were at the lower end of their historical ranges. At the start of 2016, global stock prices were decreasing, but most indexes had begun to rise by March and moved up further over the course of the year. In the United States, the S&P 500 advanced 9.5 percent, while the NASDAQ Composite Index gained 7.5 percent. In the United Kingdom, the Financial Times Stock Exchange (FTSE) 100 Index was up 14.4 percent for the year, and in Germany, the Deutscher Aktienindex (DAX) rose 6.9 percent. The MSCI Emerging Markets Index indicated that stock prices in emerging market countries also increased (8.6 percent) in 2016.

Long-Term Mutual Fund Flows

Flows into long-term mutual funds, though correlated with market returns, tend to be moderate as a percentage of assets even during episodes of market turmoil. Several factors may contribute to this phenomenon. One factor is that households (i.e., retail investors) own the vast majority of US long-term mutual fund assets (Figure 2.3). Retail investors generally respond less strongly to market events than do institutional investors. Most notably, households often use mutual funds to save for the long term, such as for college or retirement. Many of these investors make stable contributions through periodic payroll deductions, even during periods of market stress. In addition, many long-term fund shareholders seek the advice of financial advisers, who may provide a steadying influence during market downturns. These factors are amplified by the fact that assets in mutual funds are spread across 94 million investors and that fund investors have a wide variety of individual characteristics (such as age or appetite for risk) and goals (such as saving for purchase of a home, for education, or for retirement). They also are bound to have a wide range of views on market conditions and how best to respond to those conditions to meet their individual goals. As a result, even during months when funds as a whole see net outflows, some investors continue to purchase fund shares.

* In this chapter, unless otherwise noted, the value of the US dollar is measured by the Trade Weighted US Dollar Index: Broad.

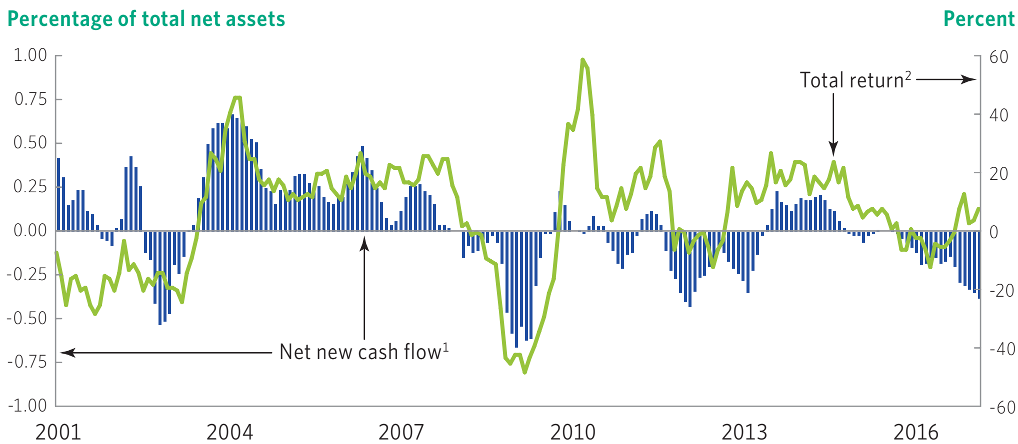
Equity Mutual Funds

Flows to equity funds tend to rise and fall with stock prices (Figure 2.5). The MSCI All Country World Daily Gross Total Return Index, a measure of returns on global stock markets, increased 8.5 percent in 2016, following a 1.8 percent decline in 2015. At the same time, equity mutual funds experienced net outflows totaling $260 billion in 2016 (or 3.2 percent of December 2015 assets), on the heels of $77 billion in net outflows in 2015.

FIGURE 2.5

Net New Cash Flow to Equity Mutual Funds Typically Is Related to World Equity Returns

Monthly, 2001–2016



[1] Net new cash flow is the percentage of previous month-end equity mutual fund assets, plotted as a six-month moving average.

[2] The total return on equities is measured as the year-over-year percent change in the MSCI All Country World Daily Gross Total Return Index.

Sources: Investment Company Institute, Morgan Stanley Capital International, and Bloomberg

With the exception of February, equity funds had net outflows in every month in 2016 (Figure 2.6). In the first three months of the year, investors had redeemed, on net, only $6 billion* from equity funds. Flows to mutual funds, in general, tend to be higher in the first quarter than at other times of the year because investors who receive year-end bonuses may invest that money relatively quickly in the new year. In addition, some investors wait to make their tax-deductible contributions to their individual retirement accounts before filing their tax returns. As the year progressed, net outflows from equity funds accelerated with investors redeeming, on net, a total of $253 billion from April through December.

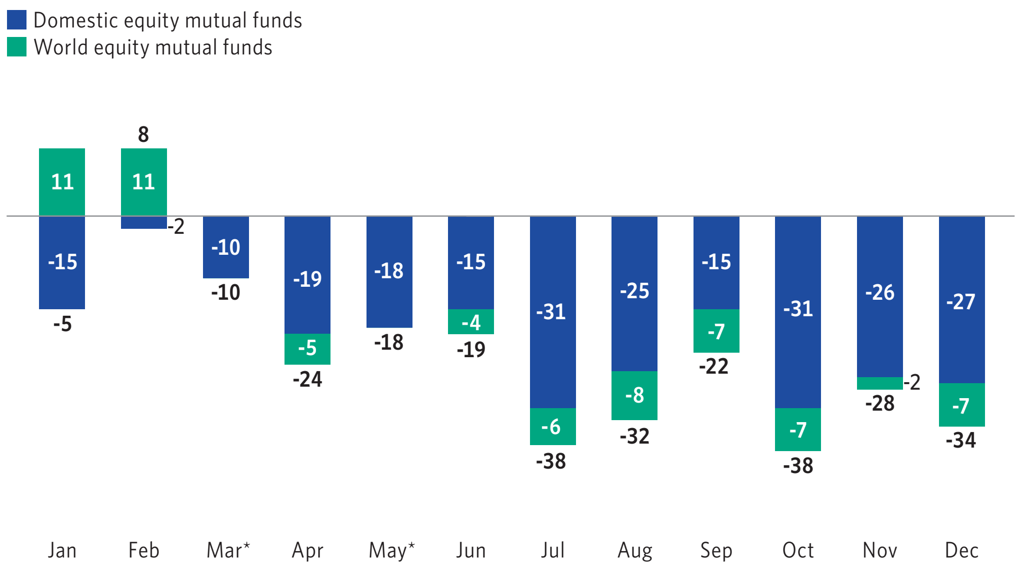
* Does not match sum of months shown in Figure 2.6 because of rounding.

Despite major US stock indexes hitting record highs and US stocks* returning 10.8 percent (including dividend payments) in 2016, domestic equity mutual funds had net outflows of $235 billion† in 2016 (Figure 2.6). Volatility does not appear to have been a major factor in the outflows as the equity market was quiet, for the most part, over 2016. The Chicago Board Options Exchange Volatility Index (VIX), which tracks the volatility of the S&P 500 index, is a widely used measure of market risk. Values greater than 30 typically reflect a high degree of investor fear and values less than 20 are associated with a period of market calm. During 2016, the daily VIX averaged 16, with the peak at 28 in mid-February.

FIGURE 2.6

Net New Cash Flow to Equity Mutual Funds in 2016

Billions of dollars; monthly, January 2016–December 2016



* In March and May 2016, world equity mutual funds had net outflows of less than $500 million.
Note: Components may not add to the total because of rounding.

Rather than volatility, net outflows appear to have been driven primarily by assets shifting from domestic equity mutual funds into domestic equity exchange-traded funds (ETFs). As discussed in chapter 3, demand for ETFs has been very strong over the past several years. Although domestic equity ETFs, like domestic equity mutual funds, had net redemptions in January and February of 2016, demand for domestic equity ETFs strengthened rapidly over the rest of year. From March to December, net share issuance of domestic equity ETFs totaled $190 billion. In contrast, domestic equity mutual funds had net redemptions of $217 billion over the same 10-month period.

* In this chapter, unless otherwise noted, the return on US stocks is measured by the Wilshire 5000 Total Return Index (float-adjusted).

† Does not match sum of months shown in Figure 2.6 because of rounding.

Before 2016, investors in the United States had increasingly diversified their portfolios toward equity mutual funds that invest significantly or primarily in foreign markets (world equity funds). In the decade from 2006 to 2015, domestic equity mutual funds experienced net outflows totaling $834 billion and world equity funds received net inflows of $643 billion.

This pattern seemed relatively insensitive to differences between domestic and world equity returns and changes in the US dollar exchange rate. For example, since 2010, US stocks have significantly outperformed international stocks.[*] From 2011 through 2015, domestic stocks returned an average of 9.8 percent per year compared with 1.5 percent per year for international stocks. Also, in 2015, the US dollar strengthened considerably over the year, and, though this development normally would have been expected to dampen overseas investment, world equity funds received $94 billion in net new cash, up from $85 billion in 2014.

One factor that likely contributed to boosting flows to world equity funds is that some types of funds, such as target date mutual funds (discussed in more detail on page 43), rebalance portfolios automatically as part of an asset allocation strategy. The assets in funds offering asset allocation strategies have grown considerably over the past decade. These funds typically hold higher weights in foreign equities and bonds than many US investors had traditionally allocated to foreign investments. In addition, as the US domestic equity market rose over the past few years, these kinds of asset allocation funds naturally rebalanced their portfolios away from domestic stocks toward foreign stocks.

Flows to world equity funds in 2016, however, defied what had become the norm as demand weakened considerably and investors redeemed, on net, $25 billion[‡] from world equity funds (Figure 2.6). The year started off fairly strong in January and February, with world equity funds receiving $21 billion[†] in inflows—all of which went to international equity funds. Over the next 10 months, however, demand for world equity funds waned, with net outflows amounting to $46 billion.

* In this chapter, unless otherwise noted, the return on international stocks is measured by the MSCI All Country World ex-US Gross Total Return Index.

† Does not match sum of components shown in Figure 2.6 because of rounding.

A few developments ultimately may have prompted investors to pull back from world equity funds in 2016 after years of strong interest. First, the expected timeline for the global recovery was pushed out another year. China's official reported GDP growth rates have ratcheted down consistently each year since 2010. In early spring 2016, China once again lowered its official economic growth target for the year. This reinforced concerns that a continued slowdown in the Chinese economy would further impede economic growth in emerging markets across Asia and Latin America due to weaker Chinese demand for imported goods and services. Elsewhere in the world, GDP forecasts for 2016 were marked down midyear as economic activity was weaker than expected. Second, returns on US stocks continued to outpace those of international stocks in 2016. Third, and perhaps most important, after retracing part of its run-up in 2015, the US dollar resumed its climb in May 2016 and ended the year at its highest level since early 2002.

Bond Mutual Funds

Bond fund flows typically are correlated with the performance of bonds (Figure 2.8), which, in turn, is largely driven by the US interest rate environment. In the first half of 2016, long-term interest rates declined about 80 basis points, likely reflecting weaker than expected economic activity and diminished prospects of tighter monetary policy. As economic activity picked up in the third quarter, long-term interest rates started to rise, then jumped after the US presidential election and continued to drift higher, ending the year at about 20 basis points more than at the beginning of 2016. These developments created a seesaw pattern (up first, then down) in the total return on bonds for the year. Bond mutual funds had net inflows of $107 billion in 2016, a significant reversal from $25 billion in net outflows in 2015.

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New Research by New York Fed Confirms: Bond Funds *Don't* Pose Systemic Risks
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Asset-Weighted Turnover Rate

The turnover rate—the percentage of a fund's holdings that have been bought or sold over a year—is a measure of a fund's trading activity. The rate is calculated by dividing the lesser of purchases or sales (excluding those of short-term assets) in a fund's portfolio by average net assets.

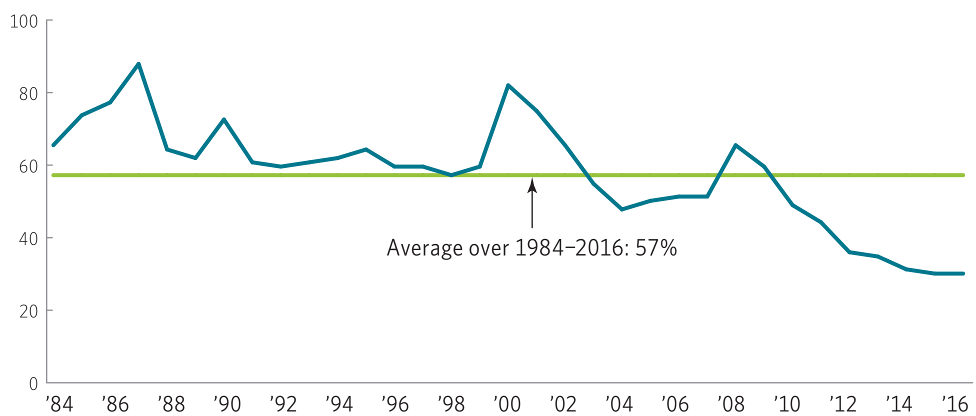
To analyze the turnover rate that shareholders actually experience in their funds, it is important to identify those funds in which shareholders are most heavily invested. Neither a simple average nor a median takes into account where fund assets are concentrated. An asset-weighted average gives more weight to funds with more assets, and accordingly, indicates the average portfolio turnover actually experienced by fund shareholders. In 2016, the asset-weighted annual turnover rate experienced by equity fund investors was 34 percent, well below the average of the past 33 years (Figure 2.7).

Investors tend to own equity funds with relatively low turnover rates. In 2016, about half of equity fund assets were in funds with portfolio turnover rates of less than 26 percent. This reflects the propensity for funds with below-average turnover to attract shareholder dollars.

FIGURE 2.7

Turnover Rate Experienced by Equity Mutual Fund Investors

1984–2016

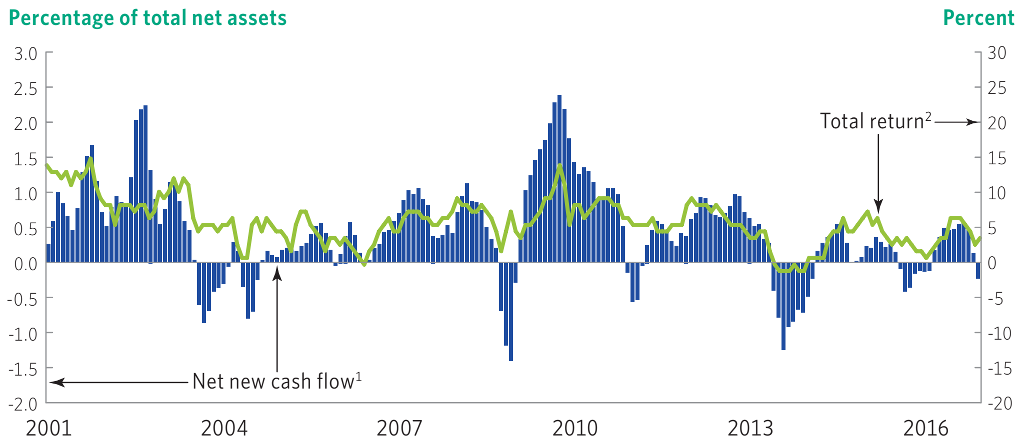


Note: The turnover rate is an asset-weighted average. Data exclude mutual funds available as investment choices in variable annuities.

FIGURE 2.8

Net New Cash Flow to Bond Mutual Funds Typically Is Related to Bond Returns

Monthly, 2001–2016



[1] Net new cash flow is the percentage of previous month-end bond mutual fund assets, plotted as a three-month moving average. Data exclude flows to high-yield bond mutual funds.

[2] The total return on bonds is measured as the year-over-year percent change in the Citigroup Broad Investment Grade Bond Index.

Sources: Investment Company Institute, Citigroup, and Bloomberg

Demand for taxable bond mutual funds remained relatively strong throughout 2016, despite the increase in long-term interest rates in the second half of the year. For example, during the first half of 2016 when long-term interest rates were declining, taxable bond funds received $25 billion* in net new cash flow (Figure 2.9). During the second half of the year, investors added $59 billion,* on net, to taxable bond funds even though long-term interest rates were moving up. Certainly, bond fund investors reacted to the sharp jump in long-term interest rates after the US presidential election, but their response was mild, with only $6 billion (0.2 percent of October 2016 taxable bond fund assets) redeemed in November, on net.

* Does not match sum of months shown in Figure 2.9 because of rounding.

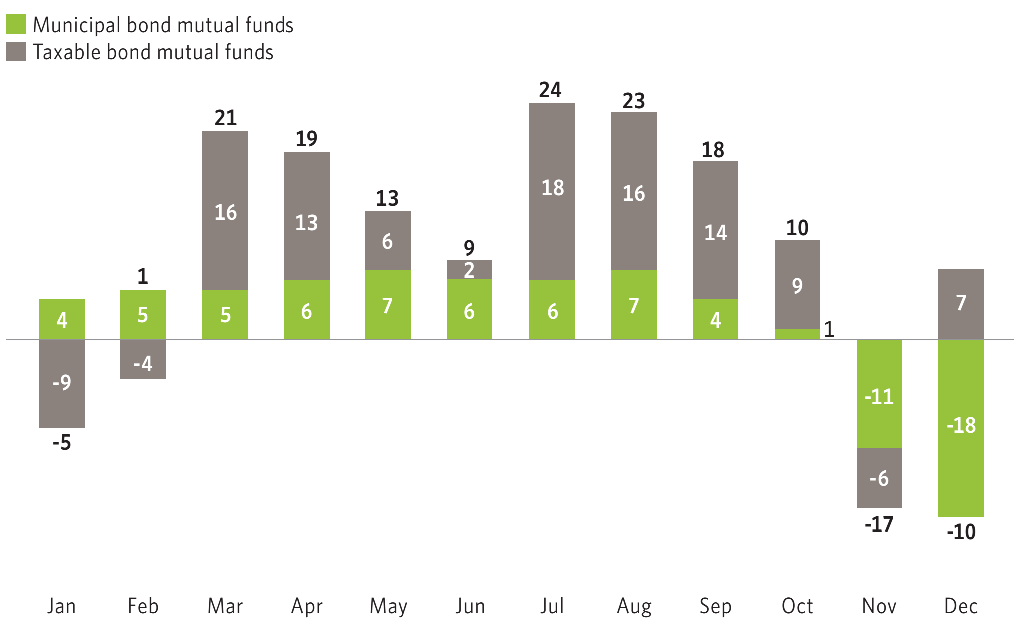
Investor demand varied across specific categories of taxable bond mutual funds in 2016. Investment grade bond funds (and multisector bond funds) were the most sought after, receiving $105 billion of net inflows in 2016. Government bond funds had $11 billion in net new cash flow and high-yield bond funds received $7 billion in 2016. In contrast, investors redeemed $40 billion, on net, from world bond funds, which typically hold a mix of bonds denominated in US dollars and foreign currencies. These outflows from world 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.

Demand for municipal bond funds was fairly steady through the first 10 months of 2016 with inflows amounting to $51 billion (Figure 2.9). Flows turned negative in November and December as investors likely responded to higher long-term municipal interest rates and uncertainty regarding the continuation of the tax-exempt status of municipal bonds in any future tax reform overhaul. Investors redeemed, on net, $11 billion in November and $18 billion in December from municipal bond funds. These net outflows represented 4.3 percent of municipal bond fund assets as of October 2016.

FIGURE 2.9

Net New Cash Flow to Bond Mutual Funds in 2016

Billions of dollars; monthly, January 2016–December 2016



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

How Bond Mutual Funds Manage Investor Flows

Since the 2007–2009 financial crisis, some observers have expressed concerns that outflows from bond mutual funds could pose challenges for fixed-income markets. There are many reasons to believe such concerns are overstated.

First, although US bond mutual fund assets have risen in the past decade, bond mutual fund assets were only 10 percent of the US bond market (US government bonds, corporate bonds, and tax-exempt bonds) in December 2016, up from 7 percent at year-end 2006. This means that 90 percent of the US bond market is held by investors outside of mutual funds.

Second, bond mutual fund managers have other means of meeting redemption requests than selling bonds. Each day, bond mutual funds receive cash in the form of interest income from bonds held in the portfolio and proceeds from matured bonds. Also, mutual funds in general have cash coming in from new sales of fund shares on any given day. Bond fund managers can often fulfill the vast majority of redemption requests using these cash sources.

In addition, bond fund managers employ a wide range of strategies to prepare to meet shareholder redemptions, including holding short-term assets or using derivatives. Derivatives can be more liquid than their physical counterparts. Funds are required to segregate liquid assets to support their derivatives positions. As these positions are closed, this cash collateral provides a ready source of liquidity to meet redemptions. This is especially true for many funds referred to as liquid alternative funds, which are explicitly designed to allow frequent investor trading, and do so in large measure through derivatives.

Finally, when meeting redemptions, managers use a nuanced approach in their bond trading, with their actions guided by market conditions, expected investor flows, and other factors. For example, during a market downturn, a manager might determine that the fund can add shareholder value by buying some less-liquid bonds. With liquidity at a premium, the manager might judge that the prices of such bonds are depressed relative to their fundamental values and thus represent a buying opportunity. On the other hand, the fund might seek to add shareholder value by selling some of its more-liquid bonds (which, being in high demand, are trading at a premium to fundamental value). Other fund managers may conclude that it is necessary and appropriate to meet outflows by selling a “slice” of the fund’s portfolio.

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Revised Fed Data Show Mutual Funds’ Share of Corporate Bond Market Is Small and Stable
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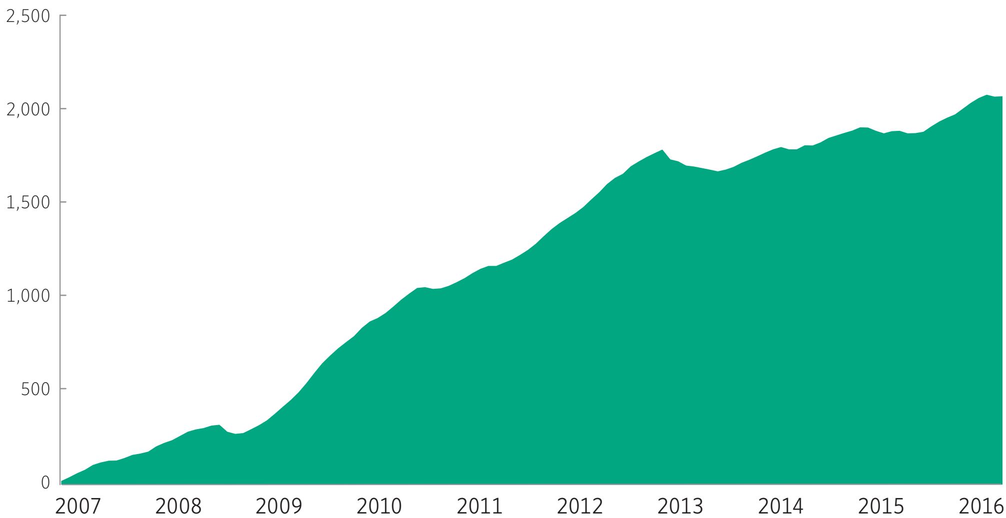
Despite several periods of market turmoil, bond mutual funds have experienced net inflows through most of the past decade. Bond funds received $2.0 trillion in net inflows and reinvested dividends from 2007 through 2016 (Figure 2.10). A number of factors have helped sustain this long-term demand for bond mutual funds.

FIGURE 2.10

Bond Mutual Funds Have Experienced Net Inflows Through Most of the Past Decade

Cumulative flows to bond mutual funds, billions of dollars; monthly, January 2007–December 2016



Note: Bond mutual fund data include net new cash flow and reinvested dividends. Data exclude mutual funds that invest primarily in other mutual funds.

Demographics influence the demand for bond mutual funds. Older investors tend to have higher account balances because they have had more time to accumulate savings and take advantage of compounding. At the same time, as investors age, they tend to shift toward fixed-income products. Over the past decade, the aging of Baby Boomers has boosted flows to bond funds. Although net outflows from bond funds would have been expected when long-term interest rates rose over the second half of 2016, they were likely mitigated, in part, by the demographic factors that have supported bond fund flows over the past decade.

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"What Happens When Rates Rise? A Forecast of Bond Mutual Fund Flows Under a 2013 Taper Tantrum Interest Rate Scenario" www.ici.org/research/reports

The continued popularity of target date mutual funds also likely helped to limit outflows from bond funds in 2016. Target date funds invest in a changing mix of equities and fixed-income investments. As the fund approaches and passes its target date (which is usually specified in the fund's name), the fund gradually reallocates assets from equities to fixed-income investments, including bonds. Target date funds usually invest through a fund-of-funds approach, meaning they primarily hold and invest in shares of other equity and bond mutual funds. Over the past 10 years, target date funds have received net inflows of $509 billion. In 2016, target date funds had net inflows of $65 billion and ended the year with assets of $887 billion. The growing investor interest in these funds likely reflects their automatic rebalancing features as well as their inclusion as an investment option in many defined contribution (DC) plans. The adoption of the Pension Protection Act of 2006 and the Department of Labor's regulations encouraging target date funds as default investments for DC plans also contributed to their growth.

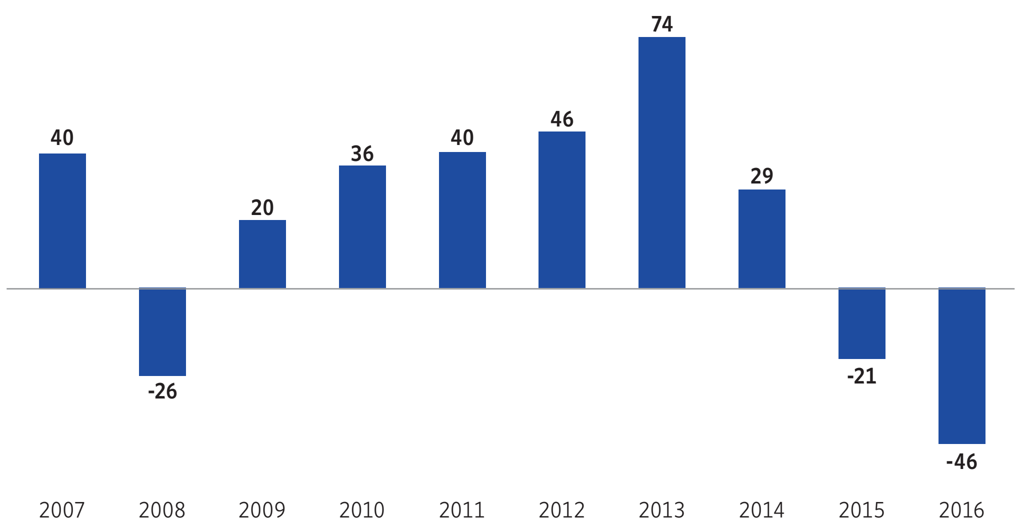
Hybrid Mutual Funds

Over the past 10 years, investors added $192 billion in net new cash flow to hybrid funds, which were an increasingly popular way to help investors achieve a managed, balanced portfolio of stocks and bonds (Figure 2.11). In 2016, however, investors redeemed, on net, $46 billion (or 3.4 percent of prior year-end assets), following $21 billion in net redemptions in 2015.

FIGURE 2.11

Net New Cash Flow to Hybrid Mutual Funds

Billions of dollars; annual, 2007–2016



Hybrid funds (also called asset allocation funds or balanced funds) invest in a mix of stocks and bonds. This approach offers a way to balance the potential capital appreciation of stocks with the income and relative stability of bonds over the long term. The fund's portfolio may be periodically rebalanced to bring the fund's asset allocation more in line with prospectus objectives, which could be necessary following capital gains or losses in the stock or bond markets.

Net outflows in 2016 from hybrid funds were concentrated in "flexible portfolio" funds, which can hold any proportion of stocks, bonds, cash, and commodities, both in the United States and overseas. In many ways, the 2007–2009 financial crisis evoked a desire among investors to broaden their portfolios and lower the correlation of their investments with the market or limit downside risk. Flexible portfolio funds can help investors achieve those goals. As a result, flexible portfolio funds saw net inflows of $88 billion in the six years following 2008. However, after a long bull market and comparably lower returns in funds offering downside protection, investors redeemed, on net, $22 billion in 2015 and $35 billion in 2016 from flexible portfolio hybrid funds.

The Growth of Other Investment Products

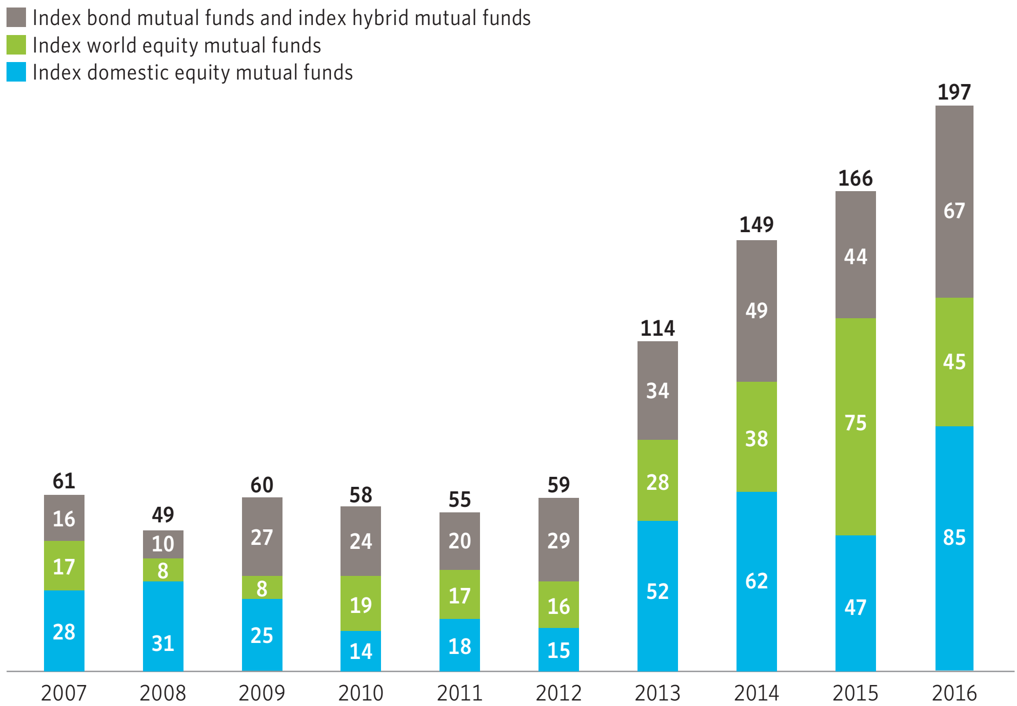
Some of the outflows from long-term mutual funds in 2016 reflect a broader shift, driven by both investors and retirement plan administrators, toward other pooled investment vehicles. This trend is reflected in the outflows from actively managed funds and the growth of index mutual funds, ETFs, and collective investment trusts (CITs) since 2007.

In 2016, index mutual funds—which hold all (or a representative sample) of the securities on a specified index—remained popular with investors. Of households that owned mutual funds, 35 percent owned at least one equity index mutual fund in 2016. As of year-end 2016, 421 index mutual funds managed total net assets of $2.6 trillion. For 2016 as a whole, investors added $197 billion in net new cash flow to these funds (Figure 2.12). Of the new money that flowed to index mutual funds, 43 percent was invested in funds tied to domestic stock indexes, 34 percent was invested in funds tied to bond or hybrid indexes, and 23 percent went to funds tied to world stock indexes. Assets in index equity mutual funds made up 25 percent of all equity mutual fund assets in 2016 (Figure 2.13).

FIGURE 2.12

Net New Cash Flow to Index Mutual Funds

Billions of dollars; annual, 2007–2016

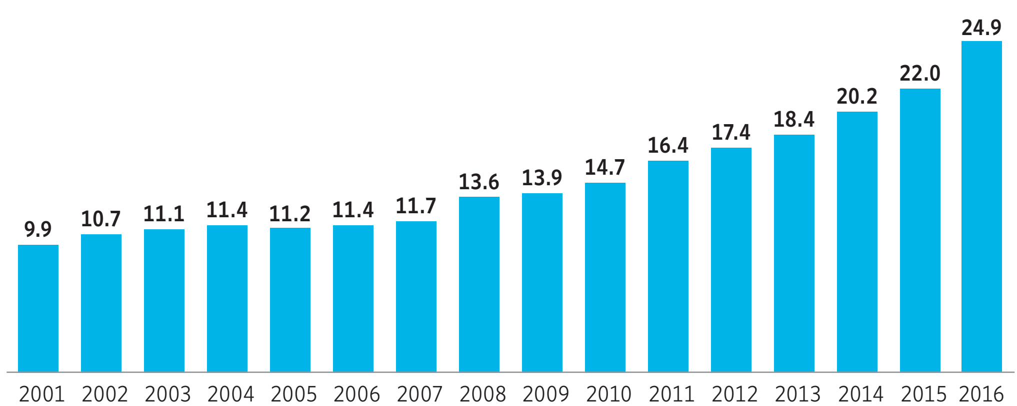


Note: Components may not add to the total because of rounding.

FIGURE 2.13

Index Equity Mutual Funds' Share Continued to Rise

Percentage of equity mutual funds' total net assets; year-end, 2001–2016

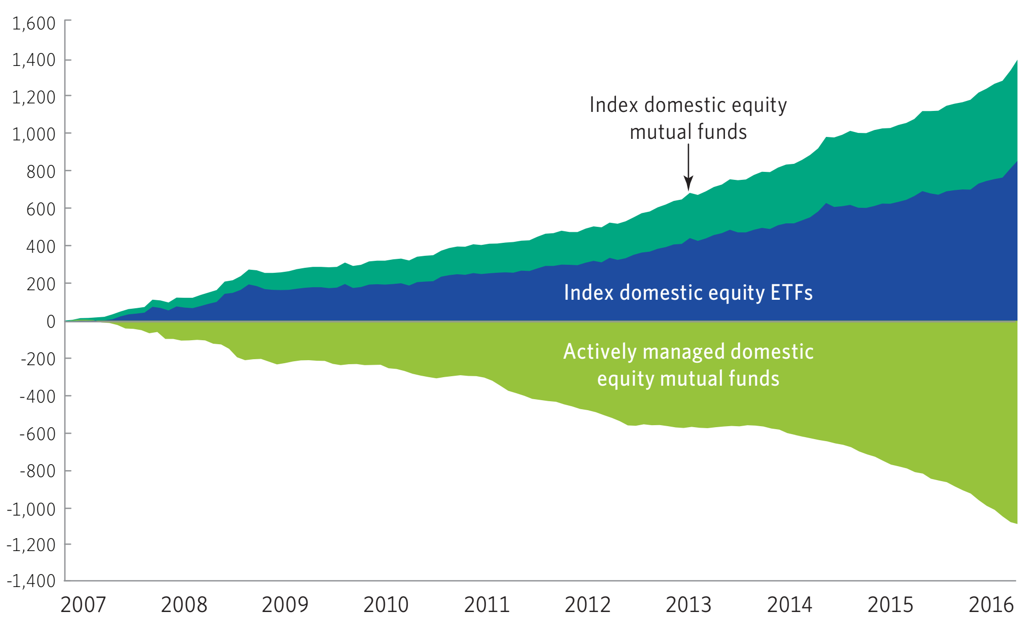


Index domestic equity mutual funds and index-based ETFs have particularly benefited from the investor trend toward more index-oriented investment products. From 2007 through 2016, index domestic equity mutual funds and ETFs received $1.4 trillion in net new cash and reinvested dividends, while actively managed domestic equity mutual funds experienced a net outflow of $1.1 trillion (including reinvested dividends) (Figure 2.14). Index domestic equity ETFs have grown particularly quickly—attracting one and a half times the net inflows of index domestic equity mutual funds since 2007. Part of the recent increasing popularity of ETFs is likely attributable to more brokers and financial advisers using them in their clients' portfolios. In 2015, full-service brokers and fee-based advisers had 11 percent and 17 percent, respectively, of their clients' household assets invested in ETFs, up from 6 percent and 10 percent in 2011 (Figure 2.15).

FIGURE 2.14

Some of the Outflows from Domestic Equity Mutual Funds Have Gone to ETFs

Cumulative flows to and net share issuance of domestic equity mutual funds and index ETFs, billions of dollars; monthly, January 2007–December 2016*



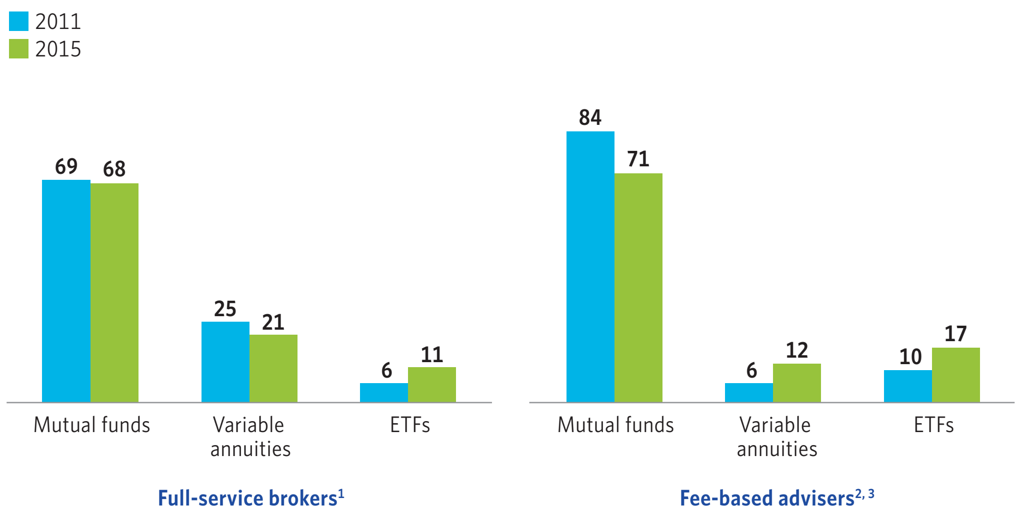
* Prior to October 2009, index domestic equity ETF data include a small number of actively managed domestic equity ETFs.

Note: Equity mutual fund data include net new cash flow and reinvested dividends. Data exclude funds that invest primarily in other funds.

FIGURE 2.15

Fee-Based Advisers Are Driving Larger Portions of Client Portfolios Toward ETFs

Percentage of household assets invested in investment category by adviser type, 2011 and 2015



[1] This category includes wirehouses as well as regional, independent, and bank broker-dealers.

[2] This category includes registered investment advisers and dually registered investment adviser broker-dealers.

[3] This category excludes an unknown portion of assets from investors who received fee-based advice but implemented trades themselves through discount brokers and fund supermarkets.

Source: Cerulli Associates

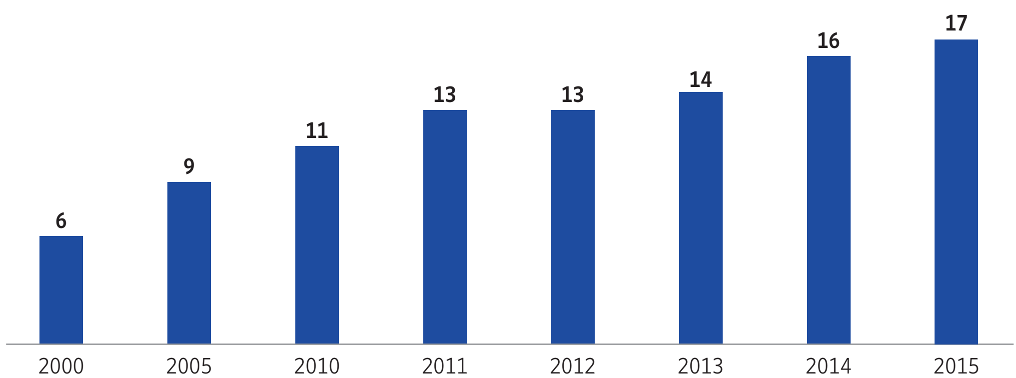
CITs are an alternative to mutual funds for DC plans. Like mutual funds, CITs pool the assets of investors and (either actively or passively) invest those assets according to a particular strategy. Much like institutional share classes of mutual funds, CITs generally require substantial minimum investment thresholds, which can limit the costs of managing pooled investment products. Unlike mutual funds, which are regulated under the Investment Company Act of 1940, CITs are regulated under banking laws and are not marketed as widely as mutual funds; this can also reduce their operational and compliance costs as compared with mutual funds.

More retirement plan sponsors have begun offering CITs as options in 401(k) plan lineups. As Figure 2.16 demonstrates, this trend has translated into a growing share of assets held in CITs by 401(k) plans with 100 participants or more. That share increased from 6 percent in 2000 to an estimated 17 percent in 2015. This recent expansion is due, in part, to the growth in target date fund CITs.

FIGURE 2.16

Assets of Large 401(k) Plans Are Increasingly Held in Collective Investment Trusts

Percentage of assets in 401(k) plans with 100 participants or more, selected years



Note: Assets exclude Direct Filing Entity (DFE) assets that are reinvested in collective investment trusts. Data prior to 2015 come from the Form 5500 Research data sets released by the Department of Labor. Data for 2015 are preliminary, based on Department of Labor 2015 Form 5500 raw data sets.

Source: Investment Company Institute tabulations of Department of Labor Form 5500 data

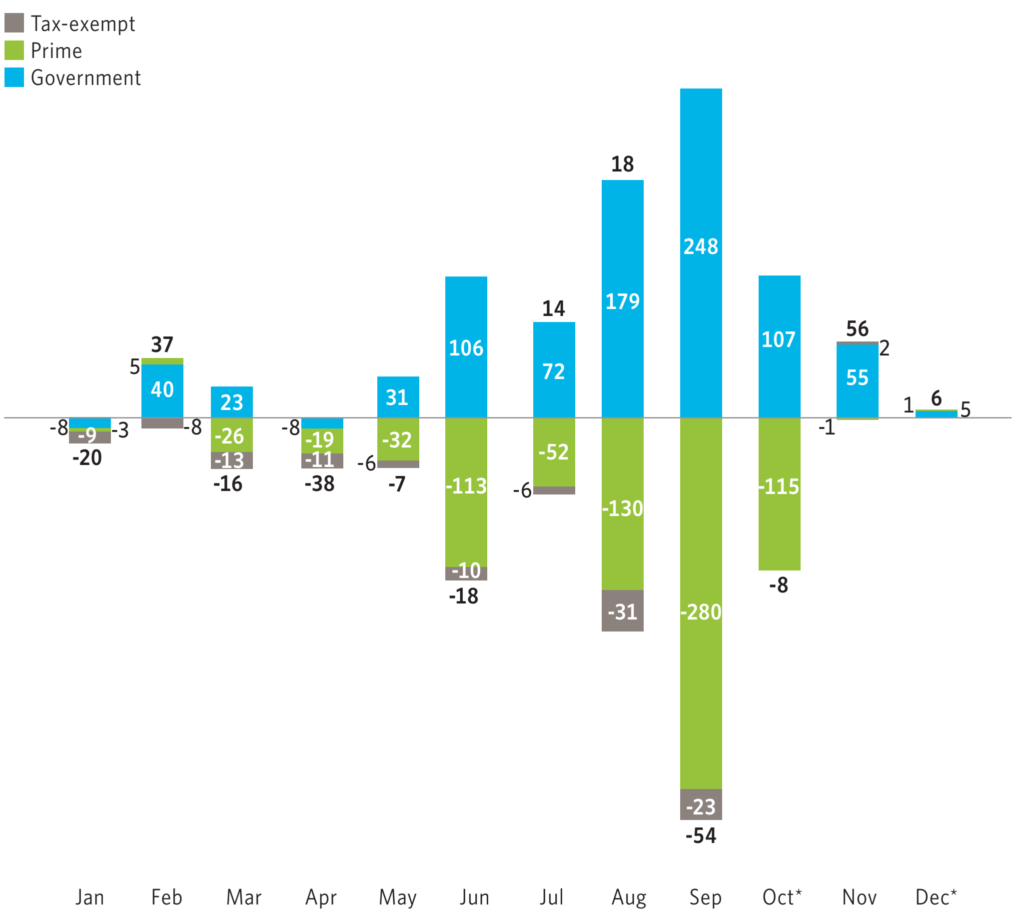
Demand for Money Market Funds

In 2016, investors redeemed, on net, $30 billion from money market funds. This modest topline net outflow for the year, however, masks significant shifts in flows for different types of money market funds that was spurred by the final implementation of new rules governing money market funds (see page 50). In 2016, government money market funds received $851 billion in net inflows, while prime and tax-exempt money market funds saw net redemptions of $765 billion and $116 billion, respectively (Figure 2.17).

FIGURE 2.17

Net New Cash Flow to Money Market Funds

Billions of dollars; monthly, January–December 2016



* In October and December 2016, tax-exempt money market funds had net flows of less than $500 million.
Note: Components may not add to the total because of rounding.

Recent Reforms to Money Market Funds

In July 2014, the SEC adopted additional rules for money market funds. All money market funds were required to comply with the new rules by October 14, 2016. The new rules largely centered around two key reforms. First, nongovernment (prime and tax-exempt) money market funds that are sold to institutional investors must price and transact their shares to the nearest one-hundredth of a cent (i.e., float their net asset values [NAVs]). Additionally, all prime and tax-exempt money market funds, whether retail or institutional, can impose gates (i.e., temporarily halt redemptions) or redemption fees on redeeming shareholders under limited situations. A fund is required to impose redemption fees if the fund's weekly liquid assets fall below 10 percent of its total assets, unless the fund's board decides a redemption fee is not in the best interest of the fund's shareholders.

These rules clearly had an impact on investor demand for money market funds beginning in late 2015. The changes pushed investors toward government money market funds—those that invest principally in securities issued by the US Treasury or government agencies (or repurchase agreements backed by government securities). Institutional investors that preferred money market funds with stable $1.00 NAVs appear to have moved from prime to government money market funds. From October 2015 through October 2016, assets in prime institutional money market funds fell $814 billion (Figure 2.18). Over the same period, assets in government institutional money market funds rose by $772 billion.

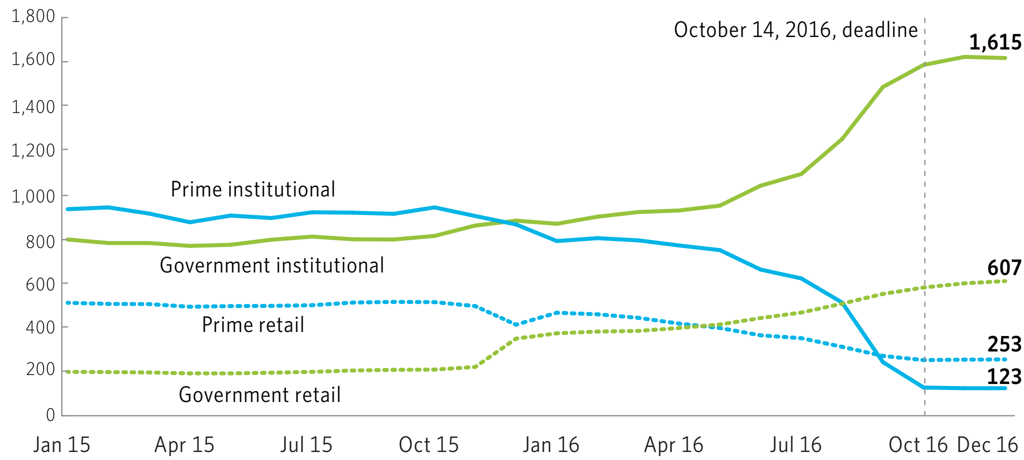
A similar, though muted, shift occurred in retail money market funds. From October 2015 to October 2016, assets in prime retail money market funds dropped by $262 billion (Figure 2.18) and assets in tax-exempt money market funds—the vast majority of which are held by retail investors—fell $117 billion. In contrast, assets of retail government money market funds rose by $371 billion.

Under the new rules, prime and tax-exempt retail money market funds may continue to transact at stable $1.00 NAVs. Thus, the shift in retail money market fund assets was not related to floating the NAV. Rather, the requirement that all nongovernment money market funds (including prime and tax-exempt retail money market funds) must now be able to impose redemption fees and gates pushed retail investors toward government money market funds. Before the rule change, prime and tax-exempt money market funds were often used as "sweeps" in brokerage accounts. In a sweep arrangement, any available client funds not yet needed to pay for investments generally are moved daily into a money market fund so that the investor is fully invested at all times. Broker-dealers with sweep arrangements reportedly moved client assets from prime retail and tax-exempt money market funds to government money market funds to avoid the possibility that clients would not be able to fulfill settlement obligations for securities transactions if a gate or redemption fee were imposed on their prime or tax-exempt money market fund.

FIGURE 2.18

Assets Migrated from Prime Money Market Funds into Government Money Market Funds in 2015 and 2016

Total net assets, billions of dollars; month-end, January 2015–December 2016



Orderly Transition to Government Money Market Funds

This massive shift in assets between prime money market funds and government money market funds proceeded smoothly. Prime money market funds prepared for the October 14, 2016, deadline by investing predominantly in securities with very short maturities, which made their portfolios extremely liquid. The weighted average maturity (WAM) on prime money market funds fell from 33 days in mid-October 2015 to 14 days in early October 2016, about 10 days before the deadline (Figure 2.19). Similarly, the weighted average life (WAL) dropped from 59 days to 24 days over the same period. With the shorter maturities, prime money market funds had ample liquidity to accommodate high levels of outflows. Prime money markets funds' WAMs and WALs increased after the October 14, 2016, deadline passed, but remained low in comparison to levels before October 2015.

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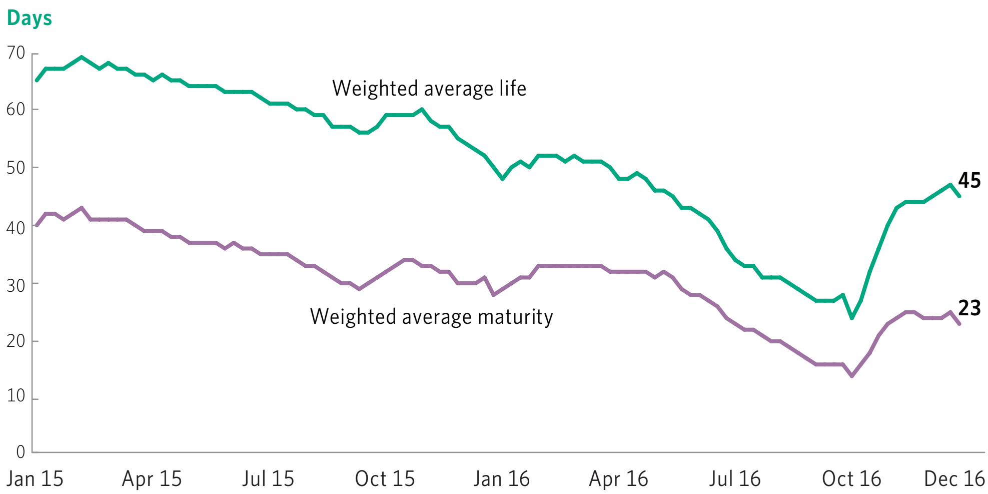
As Money Market Fund Investors Adjust, Funds Have Managed Flows
www.ici.org/viewpoints/view_16_mmf_transition_2

FIGURE 2.19

Prime Money Market Funds Shortened Maturities Before October 14, 2016, Deadline

Number of days; weekly, January 6, 2015–December 27, 2016



Source: iMoneyNet

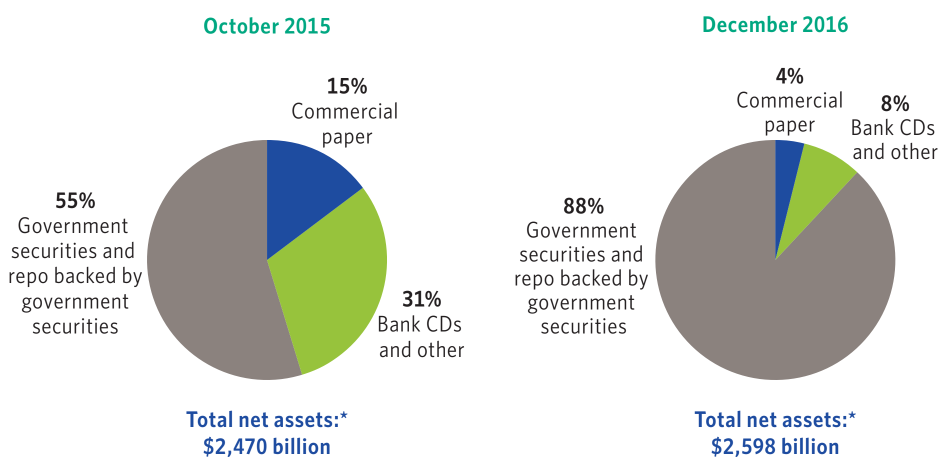
As assets in government money market funds rose, those funds' demand for government securities (and repurchase agreements backed by government securities) jumped sharply. The market accommodated the increased demand for government securities in good order. From October 2015 to October 2016, the US Treasury added $480 billion to the supply of Treasury bills, in part to fund a significant increase in the Treasury's cash balance. In addition, the Federal Home Loan Banks increased their issuance of floating rate notes, which government money market funds can hold. Government money market funds also can place dollars with the Federal Reserve's overnight reverse repurchase agreement (ON RRP) facility, which allows money market funds to make collateralized overnight loans to the Federal Reserve, earning interest on those loans. In the month leading up to the October 14, 2016, deadline, the ON RRP facility expanded with an average of $464 billion in overnight lending—this amount was about $145 billion higher than the comparable period in 2015.

Unsurprisingly, the composition of assets held by taxable money market funds at the end of 2016 was vastly different than it was before the shift from prime into government funds, even though total assets of taxable money market funds were little changed. In October 2015, taxable money market funds had $2.5 trillion in assets; by year-end 2016, total assets had grown modestly to $2.6 trillion (Figure 2.20). In October 2015, 15 percent of taxable money market funds' portfolio securities were invested in commercial paper and 55 percent was invested in government securities, including repurchase agreements backed by government securities. As of December 2016, commercial paper accounted for a much smaller proportion (4 percent) and government securities a substantially larger proportion (88 percent) of portfolio securities held by taxable money market funds. Taxable money market funds' commercial paper holdings fell $232 billion over the period and their share of the commercial paper market shrank significantly (Figure 1.6). Despite a sizable reduction in holdings of commercial paper by money market funds, the overall commercial paper market was minimally affected over this period. Seasonally adjusted total outstanding commercial paper declined only $37 billion from $1,027 billion in October 2015 to $990 billion in December 2016, as other buyers entered the commercial paper market in place of prime money market funds.

FIGURE 2.20

The Share of Government Securities in Taxable Money Market Fund Portfolios Has Risen Sharply

Percentage of portfolio securities of taxable money market funds, October 2015 and December 2016



* *Total net assets* includes portfolio securities, cash, liabilities, receivables, and payables.

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

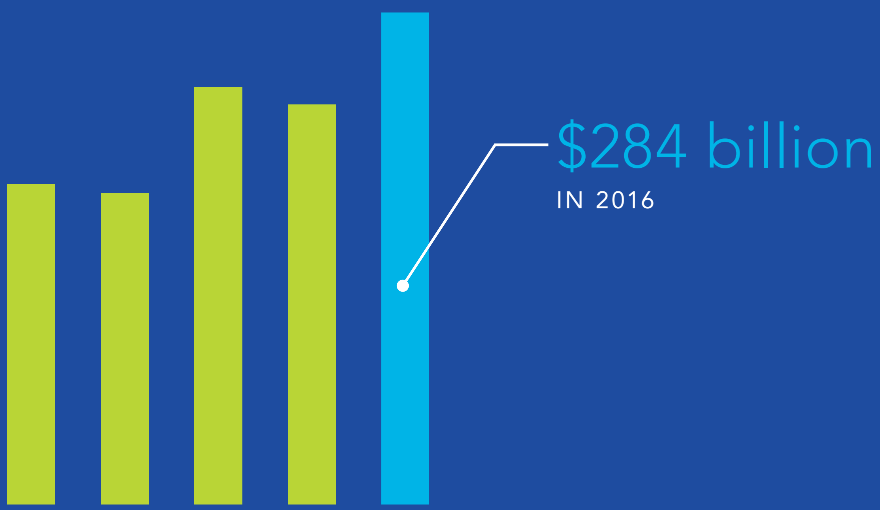
Source: Investment Company Institute tabulations of SEC Form N-MFP data

CHAPTER THREE

Exchange-Traded Funds

For investors seeking to gain or shed exposure to broad market indexes, particular sectors or geographical regions, or specific rules-based investment strategies, ETFs are a convenient, cost-effective tool to achieve these objectives. Over the past decade, demand for ETFs has grown markedly as investors—both institutional and retail—increasingly turn to them as investment options. In the past 10 years, $1.8 trillion of net new ETF shares have been issued. With the increase in demand, sponsors have offered more ETFs with a greater variety of investment objectives. With $2.5 trillion in assets, the US ETF industry remained the largest in the world at year-end 2016. Though ETFs share some basic characteristics with mutual funds, there are key operational and structural differences between the two types of investment products.

Net share issuance at record high in 2016



In this chapter:

What Is an ETF?

An exchange-traded fund (ETF) is a pooled investment vehicle with shares that investors can buy and sell throughout the day on a stock exchange at a market-determined price. Investors may buy or sell ETF shares through a broker or in a brokerage account just as they would the shares of any publicly traded company. In the United States, most ETFs are structured as open-end investment companies, like mutual funds, and governed by the same regulations. Other ETFs—primarily those investing in commodities, currencies, and futures—have different structures and are subject to different regulatory requirements.

ETFs have been available as an investment product for nearly 25 years in the United States. The Securities and Exchange Commission (SEC) approved the first ETF—a broad-based domestic equity fund tracking the S&P 500 index—in 1993. Until 2008, the SEC had only approved ETFs that tracked specified indexes. These ETFs, commonly referred to as index-based ETFs, are designed to track the performance of their designated indexes or, in some cases, a multiple of or an inverse (or a multiple of an inverse) of their indexes.

In early 2008, the SEC granted approval to several fund sponsors to offer fully transparent, actively managed ETFs meeting certain requirements. Each business day, these actively managed ETFs must disclose on their publicly available websites the identities and weightings of the component securities and other assets held by the ETF. Actively managed ETFs do not seek to track the return of a particular index. Instead, an actively managed ETF's investment adviser, like that of an actively managed mutual fund, creates a unique mix of investments to meet a particular investment objective and policy. At year-end 2016, 148 actively managed ETFs—with nearly $29 billion in assets—were registered with the SEC as investment companies.

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Exchange-Traded Funds Resource Center
www.ici.org/etf_resources

ETFs and Mutual Funds

An ETF is a registered investment company that is similar to a mutual fund because it offers investors a proportionate share in a pool of stocks, bonds, and other assets. Like a mutual fund, an ETF is required to post the mark-to-market net asset value (NAV) of its portfolio at the end of each trading day and must conform to the main investor protection mechanisms of the Investment Company Act, including limitations on leverage, daily valuation and liquidity requirements, prohibitions on transactions with affiliates, and rigorous disclosure obligations. Also like mutual funds, creations and redemptions of ETF shares are aggregated and executed just once per day at NAV. Despite these similarities, key features differentiate ETFs from mutual funds.

Key Differences

One major difference is that retail investors buy and sell ETF shares on the secondary market (stock exchange) through a broker-dealer, much like they would any other type of stock. In contrast, mutual fund shares are not listed on stock exchanges, but are purchased and sold through a variety of distribution channels, including through investment professionals—full-service brokers, independent financial planners, bank or savings institution representatives, or insurance agents—or directly from a fund company or discount broker.

Pricing also differs between mutual funds and ETFs. Mutual funds are "forward priced," which means that although investors can place orders to buy or sell shares throughout the day, all orders placed during the day will receive the same price—the NAV—the next time it is computed. Most mutual funds calculate their NAV as of 4:00 p.m. eastern time because that is the time US stock exchanges typically close. In contrast, the price of an ETF share is continuously determined on a stock exchange. Consequently, the price at which investors buy and sell ETF shares on the secondary market may not necessarily equal the NAV of the portfolio of securities in the ETF. Two investors selling the same ETF shares at different times on the same day may receive different prices for their shares, both of which may differ from the ETF's NAV, which—like a mutual fund—is calculated as of 4:00 p.m. eastern time.

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US ETF Assets

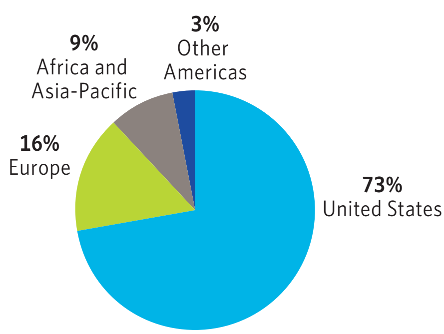
The US ETF market—with 1,716 funds and $2.5 trillion in assets under management at year-end 2016—remained the largest in the world, accounting for 73 percent of the $3.5 trillion in ETF assets worldwide (Figure 3.1 and Figure 3.2).

The vast majority of assets in US ETFs are in funds registered with and regulated by the SEC under the Investment Company Act of 1940 (Figure 3.2). At year-end 2016, about 2 percent of assets were held in non–1940 Act ETFs, which are not registered with or regulated by the SEC under the Investment Company Act of 1940; these ETFs invest primarily in commodities, currencies, and futures. Non–1940 Act ETFs that invest in commodity or currency futures are regulated by the Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act and by the SEC under the Securities Act of 1933. Those that invest solely in physical commodities or currencies are regulated by the SEC under the Securities Act of 1933.

FIGURE 3.1

The United States Has the Largest ETF Market

Percentage of total net assets, year-end 2016



Total worldwide ETF assets: $3.5 trillion

Note: Components do not add to 100 percent because of rounding.
Sources: Investment Company Institute and ETFGI

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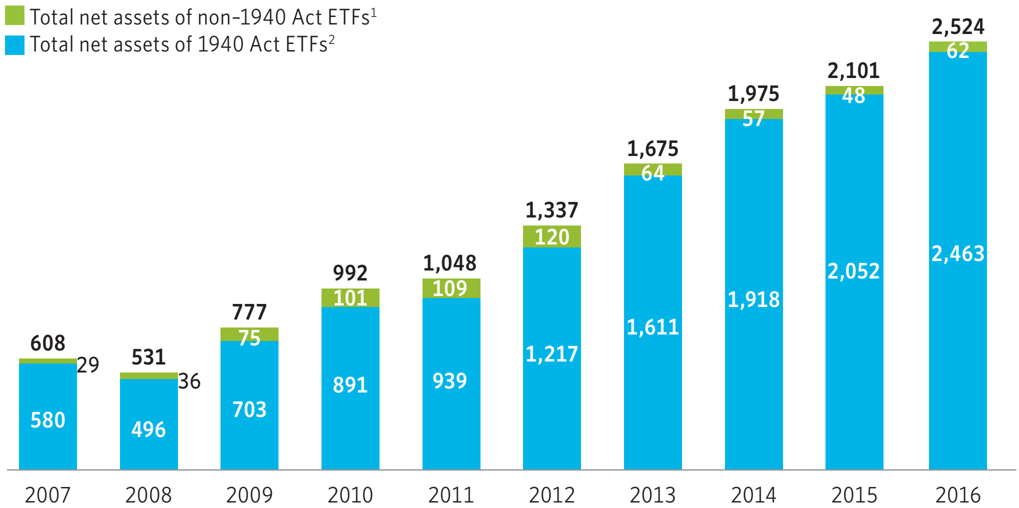
Mutual Funds and ETFs' Share of the Corporate Bond Market: What's the Right Answer?
www.ici.org/viewpoints/view_17_corp_bond_etf

FIGURE 3.2

Total Net Assets and Number of ETFs

Billions of dollars; year-end, 2007–2016



Number of ETFs

629	728	797	923	1,135	1,195	1,295	1,412	1,595	1,716

[1] The funds in this category are not registered under the Investment Company Act of 1940 and invest primarily in commodities, currencies, and futures.

[2] The funds in this category are registered under the Investment Company Act of 1940.

Note: Data for ETFs that invest primarily in other ETFs are excluded from the totals. Components may not add to the total because of rounding.

Origination of an ETF

An ETF originates with a sponsor—a company or financial institution—that chooses the investment objective of the ETF. In the case of an index-based ETF, the sponsor chooses both an index and a method of tracking its target index. Many early ETFs tracked traditional indexes, mostly those weighted by market capitalization. More-recently launched index-based ETFs follow benchmarks that use an array of index construction methodologies, with weightings based on market capitalization, as well as other fundamental factors, such as sales or book value. Others follow factor-based metrics—indexes that first screen potential securities for a variety of attributes, including value, growth, or dividend payments—and then weight the selected securities equally or by market capitalization. Other customized index approaches include screening, selecting, and weighting securities to minimize volatility, maximize diversification, or achieve a high or low degree of correlation with the market.

Index-based ETFs track their target index in various ways. An index-based ETF may replicate its index (that is, it may invest 100 percent of its assets proportionately in all the securities in the target index) or it may sample its index by investing in a representative sample of securities in the target index. Representative sampling is a practical solution for ETFs that track indexes containing thousands of securities (such as broad-based or total stock market indexes), that have restrictions on ownership or transferability (certain foreign securities), or that are difficult to obtain (some fixed-income securities).

The sponsor of an actively managed ETF determines the investment objective of the fund and may trade securities at its discretion, much like an actively managed mutual fund. For instance, the sponsor may try to achieve an investment objective such as outperforming a segment of the market or investing in a particular sector through a portfolio of stocks, bonds, or other assets.

Creation and Redemption of ETF Shares—Primary Market Activity

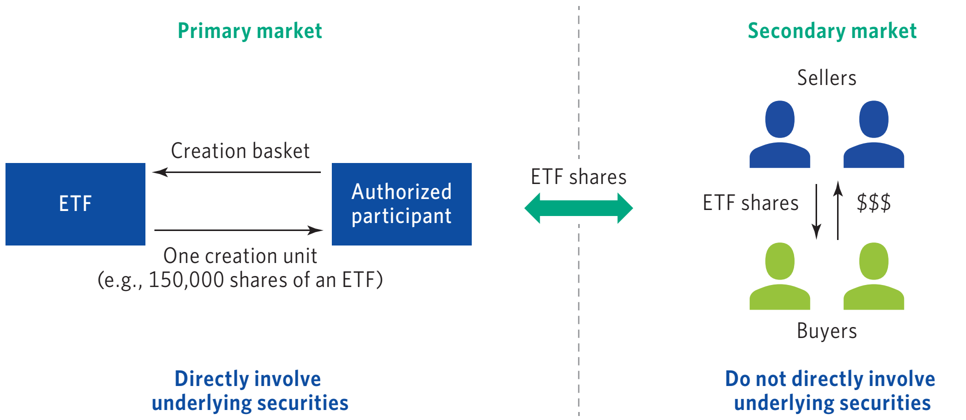
The creation or redemption of ETF shares is categorized as primary market activity. The creation and redemption mechanism in the ETF structure allows the number of shares outstanding in an ETF to expand or contract based on demand (Figure 3.3). Each business day, ETFs are required to publish the creation and redemption baskets for the next trading day. The creation and redemption baskets are specific lists of names and quantities of securities, cash, and/or other assets. Often baskets will track the ETF's portfolio through either a pro rata slice or a representative sample, but, at times, baskets may be limited to a subset of the ETF's portfolio and contain a cash component. For example, the composition of baskets for bond ETFs may vary from day to day with the mix of cash and the selection of bonds in the baskets based on liquidity in the underlying bond market. Typically, the composition of an ETF's daily creation and redemption baskets mirror one another.

Creation

ETF shares are created when an authorized participant, or AP (see page 62), submits an order for one or more creation units. A creation unit consists of a specified number of ETF shares, generally ranging from 25,000 to 250,000 shares. The ETF shares are delivered to the AP when the specified creation basket is transferred to the ETF. The ETF may permit or require an AP to substitute cash for some or all of the securities or assets in the creation basket, particularly when an instrument in the creation basket is difficult to obtain or may not be held by certain types of investors (such as certain foreign securities). An AP also may be charged a cash adjustment or transaction fee to offset any transaction expenses the fund undertakes. The value of the creation basket and any cash adjustment equals the value of the creation unit based on the ETF's NAV at the end of the day on which the transaction was initiated.

FIGURE 3.3

Creation of ETF Shares



Note: The creation basket represents a specific list of securities, cash, and/or other assets.

The AP can either keep the ETF shares that make up the creation unit or sell all or part of them to its clients or to other investors on a stock exchange, in a "dark pool" (private exchange), or in other trading venues. Any purchases and sales of existing ETF shares among investors, including APs, are referred to as secondary market trading or activity.

Redemption

The redemption process in the primary market is simply the reverse of the creation process. A creation unit is redeemed when an AP acquires the number of ETF shares specified in the ETF's creation unit and returns the creation unit to the ETF. In return, the AP receives the daily redemption basket of securities, cash, and/or other assets. The total value of the redemption basket and any cash adjustment is equivalent to the value of the creation unit based on the ETF's NAV at the end of the day on which the transaction was initiated.

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The Creation and Redemption Process and Why It Matters
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What Is an AP?

An authorized participant (AP) is typically a large financial institution that enters into a legal contract with an ETF distributor to create and redeem shares of the fund. In addition, APs are US-registered, self-clearing broker-dealers that can process all required trade submission, clearance, and settlement transactions on their own account; they are also full participating members of the National Securities Clearing Corporation and the Depository Trust Company.

APs play a key role in the primary market for ETF shares because they are the only investors allowed to interact directly with the fund. APs do not receive compensation from an ETF or its sponsor and have no legal obligation to create or redeem the ETF's shares. APs typically derive their compensation from acting as dealers in ETF shares and create and redeem shares in the primary market when doing so is a more effective way of managing their firms' aggregate exposure than trading in the secondary market. Some APs are clearing brokers (rather than dealers) and receive payment for processing creations and redemptions as an agent for a wide array of market participants such as registered investment advisers and various liquidity providers, including market makers, hedge funds, and proprietary trading firms.

Some APs also play another role in the ETF ecosystem by acting as registered market makers in ETF shares that trade on an exchange. Secondary market trading of ETFs, however, does not rely solely on these APs. In fact, a host of other entities provide liquidity—two-sided (buy and sell) quotes—in ETF shares other than APs. These other entities also help facilitate trading of ETF shares in the secondary market. Domestic equity ETFs have the most liquidity providers (Figure 3.4). But other types of ETFs—such as emerging market equity, domestic high-yield bond, and emerging market bond—also have multiple liquidity providers in the secondary market.

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The Role and Activities of Authorized Participants of Exchange-Traded Funds
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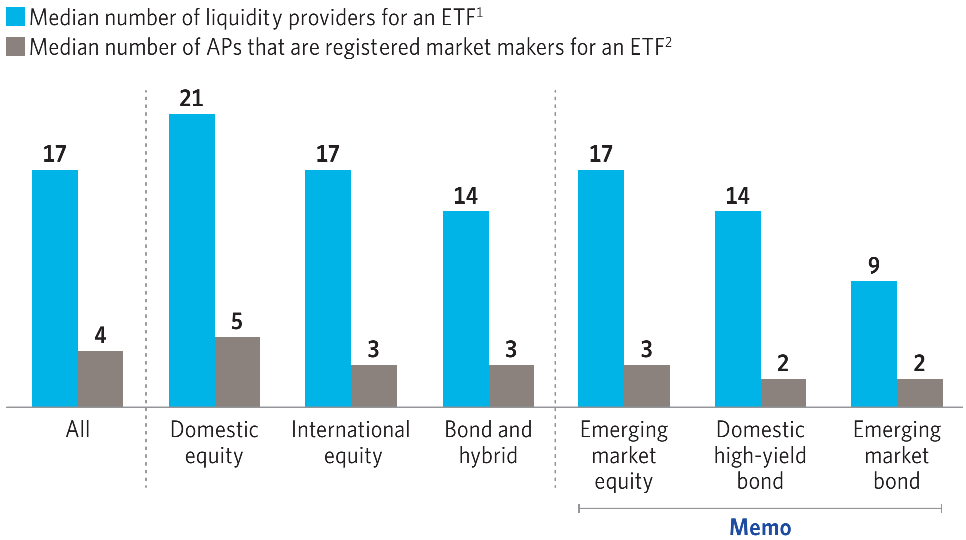
FIGURE 3.4

The Secondary Market Has Many ETF Liquidity Providers

December 2014



[1] For the purposes of the survey, *liquidity provider* was defined as an entity that regularly provides two-sided quotes in an ETF's shares.

[2] A registered market maker is registered with a particular exchange to provide two-sided markets in an ETF's shares.

Source: Investment Company Institute, *The Role and Activities of Authorized Participants of Exchange-Traded Funds*

How ETFs Trade

The price of an ETF share on a stock exchange is influenced by the forces of supply and demand. Though imbalances in supply and demand can cause the price of an ETF share to deviate from its underlying value, substantial deviations tend to be short-lived for many ETFs. Two primary features of an ETF's structure promote trading of an ETF's shares at a price that approximates the ETF's underlying value: portfolio transparency and the ability for APs to create or redeem ETF shares at the NAV at the end of each trading day.

Transparency of an ETF's holdings—either through full disclosure of the portfolio or through established relationships of the components of the ETF's portfolio with published indexes, financial or macroeconomic variables, or other indicators—enables investors to observe and attempt to profit from discrepancies between the ETF's share price and its underlying value during the trading day. ETFs contract with third parties (typically market data vendors) to calculate an estimate of an ETF's underlying value. This calculation, often called the intraday indicative value (IIV), is based on the prior day's portfolio holdings and is disseminated at regular intervals during the trading day (typically every 15 seconds). Some market participants also can make this assessment in real time using their own computer programs and proprietary data feeds.

When there are discrepancies between an ETF's share price and the value of its underlying securities, trading can more closely align the ETF's price and its underlying value. For example, if an ETF is trading at a discount to its underlying value, investors may buy ETF shares or sell the underlying securities or do both. The increased demand for the ETF should raise its share price and the sales of the underlying securities should lower their share prices, narrowing the gap between the ETF and its underlying value. If the ETF is trading at a premium to its underlying value, investors may choose to sell the ETF or buy the underlying securities or do both. These actions should bring the price of the ETF and the market value of its underlying securities closer together by reducing the ETF share price or raising the price of the underlying securities or both.

The ability to create or redeem ETF shares at the end of each trading day also helps an ETF trade at market prices that approximate the underlying market value of the portfolio. When a deviation between an ETF's market price and its underlying value occurs, APs (for their own behalf or on behalf of other market participants) may create or redeem creation units in the primary market in an effort to capture a profit. For example, when an ETF is trading at a discount, market participants may find it profitable to buy the ETF shares and sell short the underlying securities. At the end of the day, APs return ETF shares to the fund in exchange for the ETF's redemption basket, which is used to cover the short positions in the underlying securities. When an ETF is trading at a premium, market participants may find it profitable to sell short the ETF during the day while simultaneously buying the underlying securities. At the end of the day, the APs (for their own behalf or on behalf of other market participants) will deliver the creation basket to the ETF in exchange for ETF shares that are used to cover the ETF short sales.

These actions by market participants, commonly described as *arbitrage*, help keep the market-determined price of an ETF's shares close to its underlying value.

Secondary Market Trading in ETF Shares

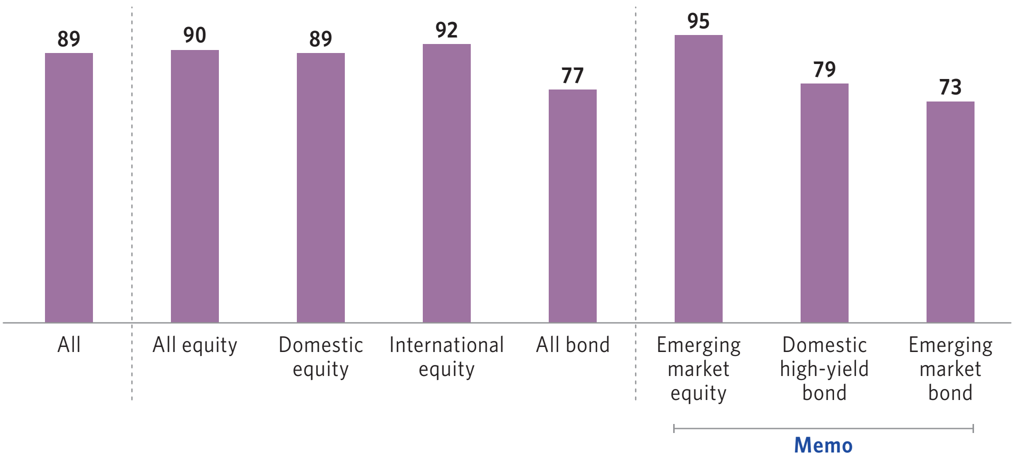
ETF investors trading in the secondary market (e.g., on an exchange) do not interact with the ETF directly and do not create transactions in the underlying securities, because only the ETF shares are changing hands. Although many large institutional investors can access ETFs in both the primary and secondary markets, most retail investors only access them in the secondary market. Most ETF investors trading in the secondary market generally are not motivated by arbitrage.

Across all ETFs, investors make greater use of the secondary market (trading ETF shares) than the primary market (creations and redemptions of ETF shares through an AP). On average, 89 percent of the total daily activity in ETFs occurs on the secondary market (Figure 3.5). Even for ETFs with narrower investment objectives—such as emerging market equity, domestic high-yield bond, and emerging market bond—the bulk of the trading occurs on the secondary market (95 percent, 79 percent, and 73 percent, respectively). On average, secondary market trading is a smaller proportion (77 percent) of total trading for bond ETFs than for equity ETFs (90 percent). Because bond ETFs are a growing segment of the industry, many small bond ETFs tend to have less-established secondary markets. As they increase their assets under management, the secondary market for bond ETFs is likely to deepen.

FIGURE 3.5

Most ETF Activity Occurs on the Secondary Market

Percentage of secondary market activity[1] relative to total activity;[2] daily, January 2, 2014–December 31, 2016



[1] Secondary market activity is measured as average daily dollar volume of ETF shares traded in each category over the 756 daily observations in the sample.

[2] Total activity is measured as the sum of primary market and secondary market activity. Primary market activity is computed as daily creations or redemptions for each ETF, which are estimated by multiplying the daily change in shares outstanding by the daily NAV from Bloomberg. Aggregate daily creations and redemptions are computed by adding creations and the absolute value of redemptions across all ETFs in each investment objective each day. Average daily creations and redemptions are the average of the aggregate daily creations and redemptions over the 756 daily observations in the sample.

Sources: Investment Company Institute and Bloomberg

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Does Liquidity in ETFs Depend Solely on Authorized Participants?

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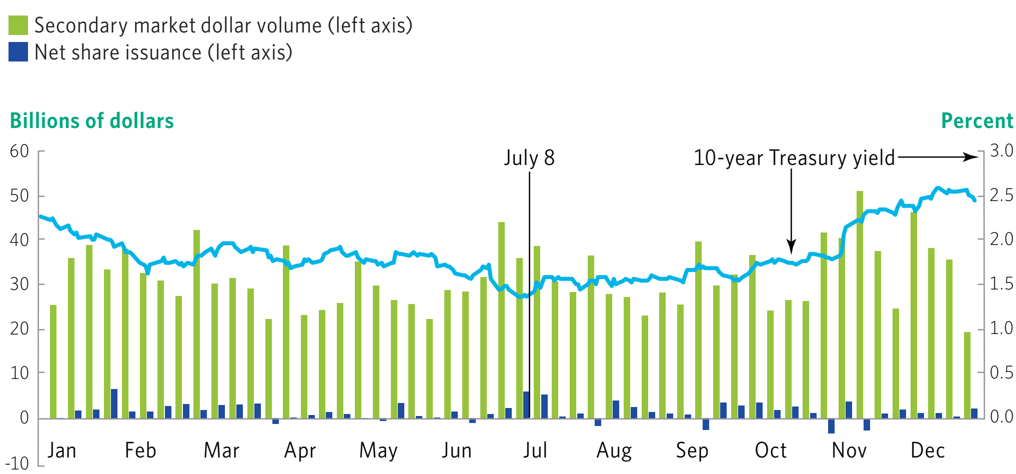
ETF secondary market trading also can act as a source of liquidity to the broader financial markets. Over the second half of 2016, long-term interest rates in the United States rose—slowly creeping up from July through October and then jumping after the presidential election. On July 8, 2016, the yield on the 10-year constant maturity Treasury bond hit a recent low of 1.37 percent (Figure 3.6). From July 8 to October 31, the 10-year yield rose to 1.84 percent. By the end of November, it had jumped further, to 2.37 percent. All told, the yield on the 10-year Treasury rose 108 basis points from July 8 to December 30. When bond yields increase, prices on existing bonds—such as those that funds hold in their portfolios—and bond ETFs fall.

FIGURE 3.6

Secondary Market Trading of Taxable Bond ETFs Increased When Interest Rates Rose in the Second Half of 2016

*December 31, 2015–December 30, 2016**



* Data for 10-year constant maturity Treasury yield are daily. Data for taxable bond ETFs' secondary market dollar volume and net share issuance are week-ended Wednesday.

Sources: Investment Company Institute, Federal Reserve Board, and Bloomberg

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High-Yield Bond ETFs: A Source of Liquidity
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Despite declining prices for bond ETFs since July 8, 2016, sellers of taxable bond ETFs were able to find willing buyers in the secondary market. Weekly dollar volume of taxable bond ETFs traded on the secondary markets (green bars, Figure 3.6) increased in the second half of 2016 (average of $32.0 billion per week) compared with the first half of the year (average of $30.1 billion per week). In addition, there was demand for new shares of taxable bond ETFs while interest rates were rising in the latter half of 2016—net share issuance was positive in 21 out of 25 weeks since July 8, 2016 (blue bars, Figure 3.6). Also noteworthy are the relative magnitudes of secondary market trading and net share issuance in taxable bond ETFs—secondary market trading activity is many multiples higher than primary market activity for these ETFs. As investors seek to shed or gain exposure, depending on their risk appetites and expectations of future returns, bond ETFs provide them with an efficient means of transferring risk amongst themselves while limiting the impact on the underlying bond market.

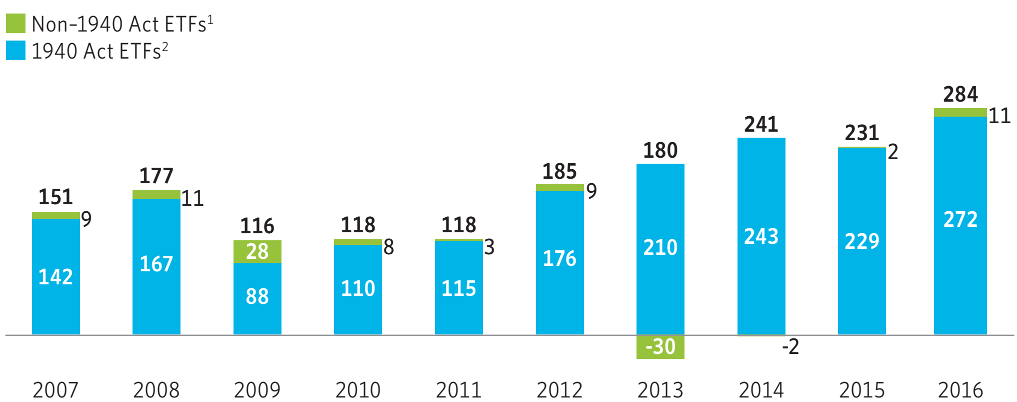
Demand for ETFs

In the past decade, demand for ETFs has increased as institutional investors have found ETFs to be a convenient vehicle for participating in, or hedging against, broad movements in the stock market. Increased awareness of these investment vehicles by retail investors and their financial advisers also has influenced demand for ETFs. Assets in ETFs accounted for about 13 percent of total net assets managed by investment companies at year-end 2016. For 2016 as a whole, net issuance of ETF shares (which includes reinvested dividends) hit a record $284 billion (Figure 3.7).

FIGURE 3.7

Net Issuance of ETF Shares

Billions of dollars; annual, 2007–2016



[1] The funds in this category are not registered under the Investment Company Act of 1940 and invest primarily in commodities, currencies, and futures.

[2] The funds in this category are registered under the Investment Company Act of 1940.

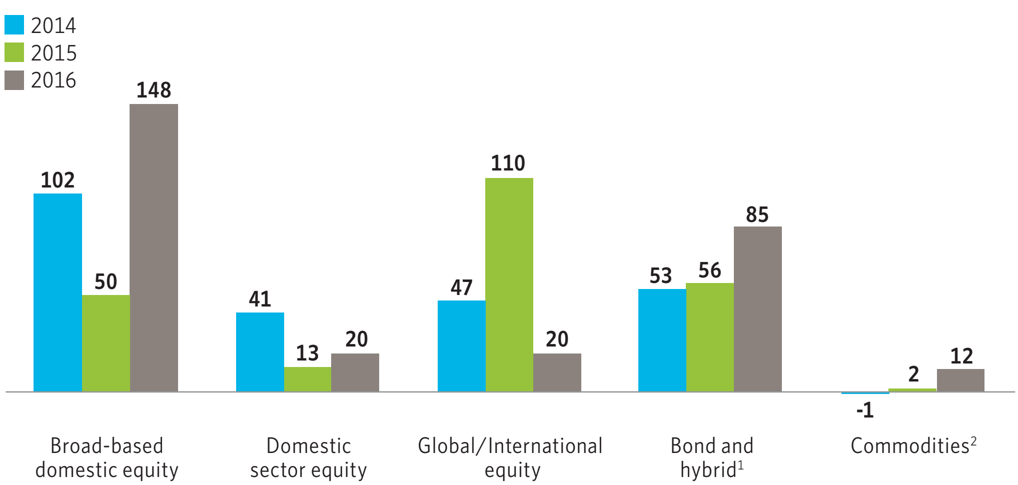
Note: Data for net issuance include reinvested dividends. Data for ETFs that invest primarily in other ETFs are excluded from the totals. Components may not add to the total because of rounding.

In 2016, net share issuance of domestic equity ETFs outpaced that of global and international equity ETFs, a reversal from 2015. Demand for broad-based domestic equity ETFs surged in 2016, with $148 billion in net new shares issued, up from $50 billion in 2015 (Figure 3.8). In contrast, demand for global and international equity ETFs waned with net share issuance falling from $110 billion in 2015 to $20 billion in 2016. This shift in demand in 2016 likely reflected, in part, the better total return performance of domestic stocks* (11 percent) versus international stocks† (5 percent). Demand for bond and hybrid ETFs strengthened further in 2016 with net new share issuance totaling $85 billion, up from $56 billion in 2015. As energy and gold prices moved off their year-end 2015 lows, net share issuance of domestic sector equity ETFs and commodity ETFs picked up somewhat in 2016.

FIGURE 3.8

Net Issuance of ETF Shares by Investment Classification

Billions of dollars; annual, 2014–2016



[1] Bond ETFs represented 99 percent of net issuance in the bond and hybrid category in 2016.

[2] This category includes funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.

Note: Data for net issuance include reinvested dividends. Data for ETFs that invest primarily in other ETFs are excluded from the totals.

* As measured by the Wilshire 5000 Total Return Index (float-adjusted).

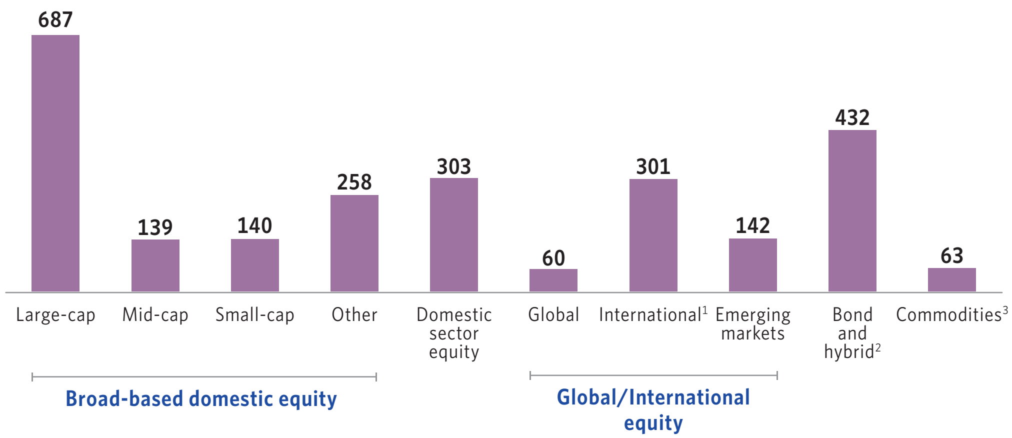
† As measured by the MSCI All Country World Daily ex-US Gross Total Return Index.

ETFs have been available for nearly 25 years, and in that time, large-cap domestic equity ETFs have accounted for the largest proportion of all ETF assets. At year-end 2016, large-cap domestic equity ETFs amounted to $687 billion—or 27 percent—of all ETF assets (Figure 3.9). The second-largest category, with 20 percent ($503 billion) of all ETF assets, was global and international equity ETFs. Fueled by strong investor demand over the past few years, bond and hybrid ETFs accounted for 17 percent, or $432 billion, of all ETF assets at year-end 2016.

FIGURE 3.9

Total Net Assets of ETFs Were Concentrated in Large-Cap Domestic Stocks

Billions of dollars, year-end 2016



[1] This category includes international, regional, and single country ETFs, but excludes emerging market ETFs.

[2] Bond ETFs represented 99 percent of the assets in the bond and hybrid category in 2016.

[3] This category includes funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.

Note: Data for ETFs that invest primarily in other ETFs are excluded from the totals.

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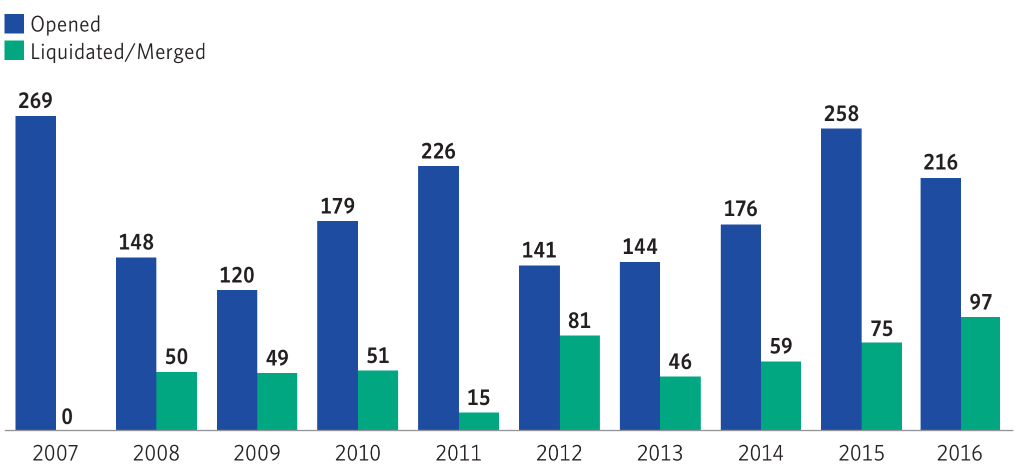
Plenty of Players Provide Liquidity for ETFs
www.ici.org/viewpoints/view_14_ft_etf_liquidity

Increased investor demand for ETFs has led to a rapid increase in the number of ETFs created by fund sponsors, with 1,877 new ETFs offered to investors in the past decade (Figure 3.10). In 2015 and 2016, international and global equity ETFs accounted for 42 percent of newly offered ETFs. Domestic equity ETFs—many of which were based on factors (commonly referred to as smart beta ETFs) accounted for 44 percent of new ETFs in 2015 and 2016. Few ETFs had been liquidated until 2008 when market pressures appeared to come into play and sponsors began liquidating ETFs that had failed to gather sufficient assets. In 2012, the number of liquidations jumped to 81 as two sponsors exited the index-based ETF market. Since 2013, the number of ETF liquidations has risen steadily—a natural result of a maturing industry. In 2016, ETF liquidations rose to 97, as sponsors eliminated some small international equity and commodity ETFs from their lineups.

FIGURE 3.10

Number of ETFs Entering and Exiting the Industry

2007-2016



Note: ETF data include ETFs not registered under the Investment Company Act of 1940 but exclude ETFs that invest primarily in other ETFs.

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ICI Seeks Market Improvements for ETFs and Their Investors

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Characteristics of ETF-Owning Households

An estimated 5.9 million, or about 5 percent of, US households held ETFs in mid-2016. Of households that owned mutual funds, an estimated 10 percent also owned ETFs. ETF-owning households tended to include affluent investors who owned a range of equity and fixed-income investments. In mid-2016, 96 percent of ETF-owning households also owned equity mutual funds, individual stocks, or variable annuities (Figure 3.11). Sixty-three percent of households that owned ETFs also held bond mutual funds, individual bonds, or fixed annuities. In addition, 41 percent of ETF-owning households owned investment real estate.

FIGURE 3.11

ETF-Owning Households Held a Broad Range of Investments

Percentage of ETF-owning households holding each type of investment, mid-2016

Equity mutual funds, individual stocks, or variable annuities (total)	**96**
Bond mutual funds, individual bonds, or fixed annuities (total)	**63**
Mutual funds (total)	**91**
Equity	85
Bond	49
Hybrid	45
Money market	60
Individual stocks	**77**
Individual bonds	**18**
Fixed or variable annuities	**36**
Investment real estate	**41**

Note: Multiple responses are included.

Some characteristics of ETF-owning households are similar to those of households that own mutual funds and those that own stocks directly. For instance, households that owned ETFs—like households owning mutual funds and those owning individual stocks—tended to have household incomes above the national median and to own at least one defined contribution (DC) retirement plan account (Figure 3.12). ETF-owning households, however, also exhibit some characteristics that distinguish them from other households. For example, ETF-owning households tended to have higher education levels and greater household financial assets; they were also more likely to own individual retirement accounts (IRAs) than households that own mutual funds and those that own individual stocks.

FIGURE 3.12

Characteristics of ETF-Owning Households

Mid-2016

	All US households	Households owning ETFs	Households owning mutual funds	Households owning individual stocks
Median				
Age of head of household[1]	51	51	51	53
Household income[2]	$55,000	$120,000	$94,300	$100,000
Household financial assets[3]	$85,000	$375,000	$200,000	$300,000
Percentage of households				
Household primary or co-decisionmaker for saving and investing				
Married or living with a partner	58	74	73	73
Widowed	9	5	6	7
College or postgraduate degree	33	67	50	55
Employed (full- or part-time)	62	78	76	74
Retired from lifetime occupation	28	22	24	26
Household owns				
IRA(s)	34	77	63	62
DC retirement plan account(s)	47	78	85	74

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

[2] Total reported is household income before taxes in 2015.

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

ETF-owning households also exhibit more willingness to take investment risk (Figure 3.13). Fifty-two percent of ETF-owning households were willing to take substantial or above-average investment risk for substantial or above-average gain in 2016, compared with 21 percent of all US households and 33 percent of mutual fund–owning households. This result may be explained by the predominance of equity ETFs, which make up 80 percent of ETF total net assets (Figure 3.9). Investors who are more willing to take investment risk may be more likely to invest in equities.

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Another Strong Year for Exchange-Traded Funds
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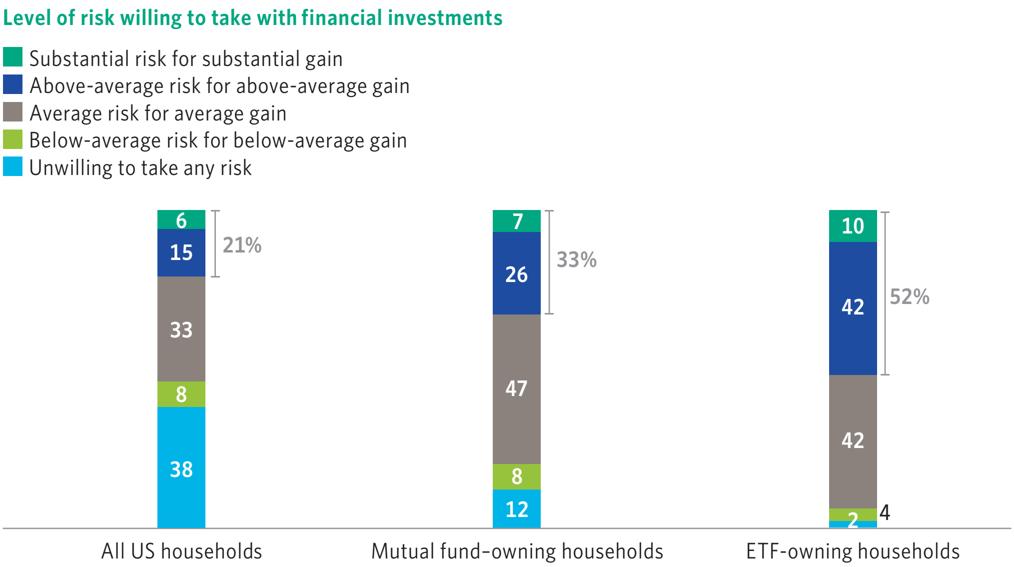
FIGURE 3.13

ETF-Owning Households Are Willing to Take More Investment Risk

Percentage of all US households, mutual fund-owning households, and ETF-owning households; mid-2016



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The Liquidity Provided by ETFs Is No Mirage
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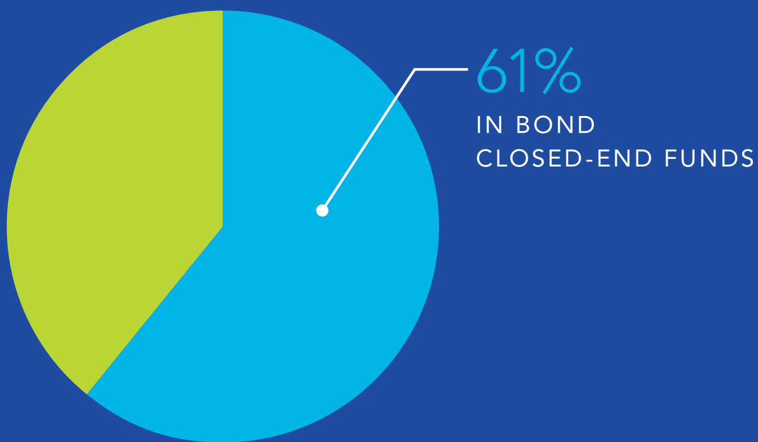
CHAPTER FOUR

Closed-End Funds

Closed-end funds are one of four types of investment companies, along with mutual (or open-end) funds, exchange-traded funds (ETFs), and unit investment trusts. 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.

More than half of closed-end fund total assets were in bond funds at year-end 2016



In this chapter:

What Is a Closed-End Fund?

A closed-end fund is a type of investment company whose shares 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 equities, bonds, and other securities. The market price of a closed-end fund share 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. Issuing preferred shares allows a closed-end fund to raise additional capital, which it can use to purchase more securities for its portfolio.

Once issued, shares of a closed-end fund generally are bought and sold by investors in the open market and are not purchased or redeemed directly by the fund, although some closed-end funds may adopt stock repurchase programs or periodically tender for shares. 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.

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Total Assets of Closed-End Funds

At year-end 2016, 530 closed-end funds had total assets of $262 billion (Figure 4.1). This total was little changed from year-end 2015, as losses from falling municipal bond prices were offset by rising domestic stock prices.

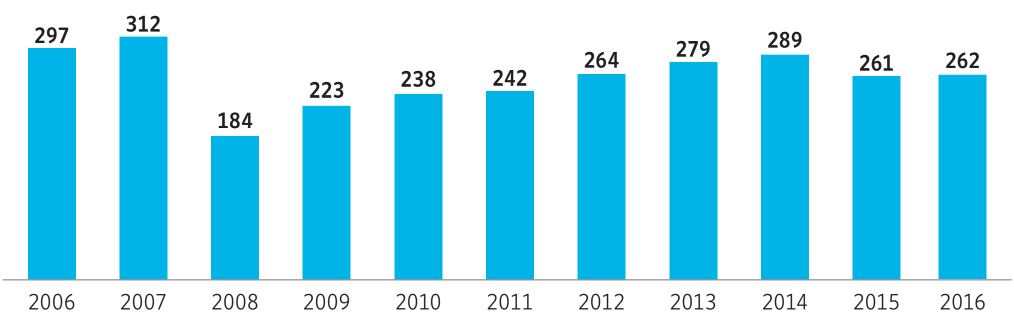
Historically, bond funds have accounted for a large share of assets in closed-end funds. At year-end 2006, 59 percent of all closed-end fund assets were held in bond funds with the remainder held in equity funds (Figure 4.2). At year-end 2016, assets in bond closed-end funds were $160 billion, or 61 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 US bonds,* which averaged 4.4 percent annually, were not much lower than total returns on US stocks,† which averaged 5.0 percent annually from 2007 through 2016.

The number of closed-end funds available to investors has declined steadily since 2011 (Figure 4.1). 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.

FIGURE 4.1

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

Billions of dollars; year-end, 2006–2016



Number of closed-end funds

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
645	662	642	627	624	632	602	599	568	558	530

Note: *Total assets* is the fair value of assets held in closed-end fund portfolios funded by common and preferred shares less any liabilities besides preferred shares.

Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

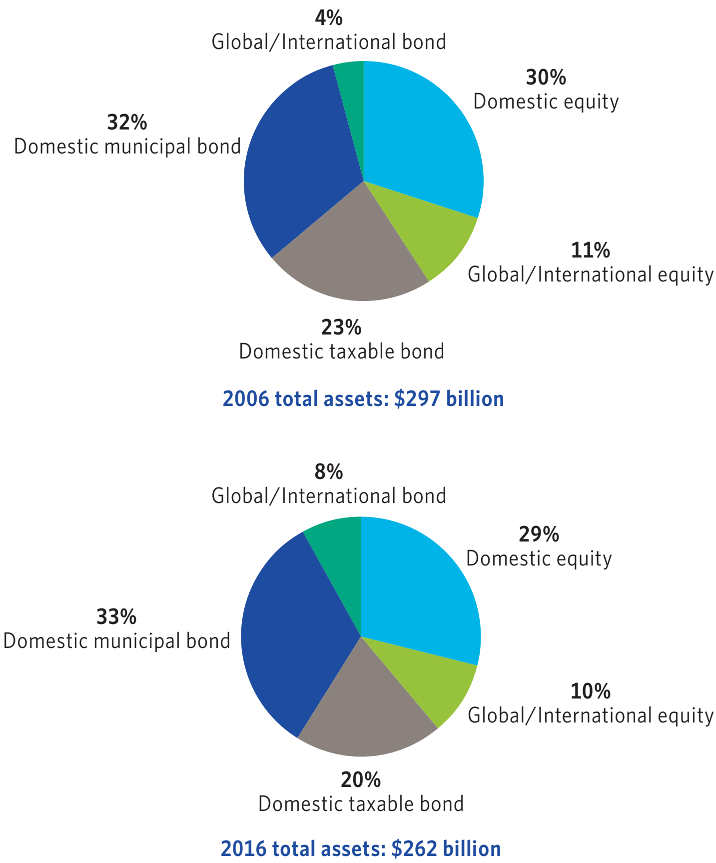
* As measured by the Citigroup Broad Investment Grade Bond Index.

† As measured by the Wilshire 5000 Total Return Index (float-adjusted).

FIGURE 4.2

Composition of the Closed-End Fund Market by Investment Objective

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



Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

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The Closed-End Fund Market, 2016
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Net Issuance of Closed-End Funds

Net issuance of closed-end fund shares decreased to $922 million in 2016 from $1.7 billion in 2015, as investor demand for equity closed-end funds waned (Figure 4.3). Equity closed-end funds had net redemptions—for the first time since 2009—of $254 million in 2016 compared with net issuance of $1.2 billion in 2015. Meanwhile, net issuance for bond closed-end funds increased to $1.2 billion from $486 million in 2015. Demand for new shares of taxable bond closed-end funds strengthened in the second half of 2016, despite a substantial rise in interest rates over this period.

FIGURE 4.3

Closed-End Fund Net Share Issuance

*Millions of dollars; annual, 2007–2016**

		Equity			Bond			
	Total	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 gross redemptions of shares (share repurchases and fund liquidations). A positive number indicates that gross issuance exceeded gross redemptions. A negative number indicates that gross redemptions exceeded gross issuance.

Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

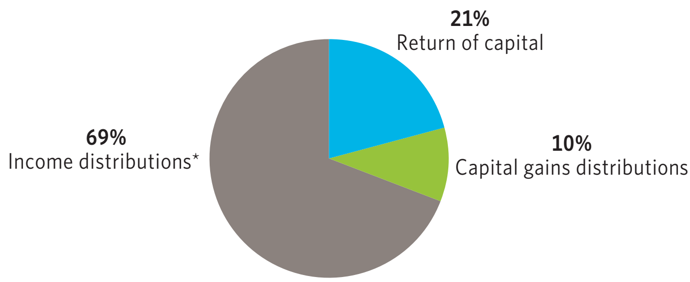
Closed-End Fund Distributions

In 2016, closed-end funds distributed $16.2 billion to shareholders (Figure 4.4). 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 distributions accounted for 10 percent.

FIGURE 4.4

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: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

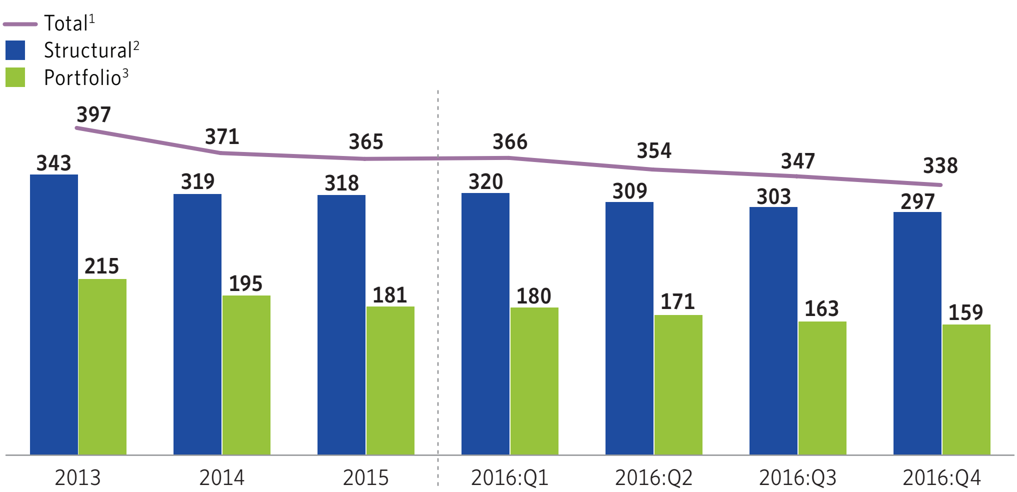
Closed-End Fund Leverage

Closed-end funds have the ability, subject to strict regulatory limits, to use leverage as part of their investment strategy. The use of leverage by a 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, certain types of portfolio leverage (tender option bonds or reverse repurchase agreements), or both as a part of their investment strategy (Figure 4.5).

FIGURE 4.5

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

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



[1] Components do not add to the total because funds may employ both structural and portfolio leverage.

[2] Structural leverage affects the closed-end fund's capital structure by increasing the fund's portfolio assets through borrowing and issuing debt and preferred stock.

[3] Portfolio leverage 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: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

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Frequently Asked Questions About Closed-End Funds and Their Use of Leverage

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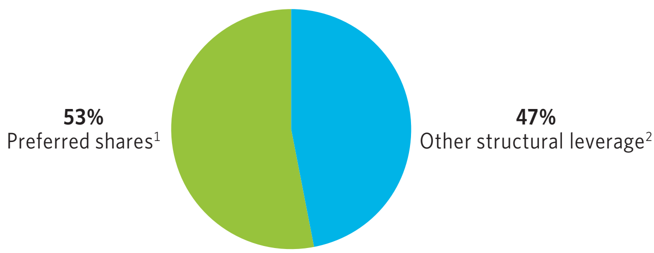
Structural leverage, the most common type of leverage, affects the closed-end fund's capital structure by increasing the fund's portfolio assets. Types of closed-end fund structural leverage include borrowing and issuing debt and preferred shares. At the end of 2016, 297 funds had a total of $49.8 billion in structural leverage, with slightly more than half (53 percent) from preferred shares (Figure 4.6). 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).

FIGURE 4.6

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

[1] A closed-end fund may issue preferred shares to raise additional capital, which can be used to purchase more securities for its portfolio. Preferred 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.

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

Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

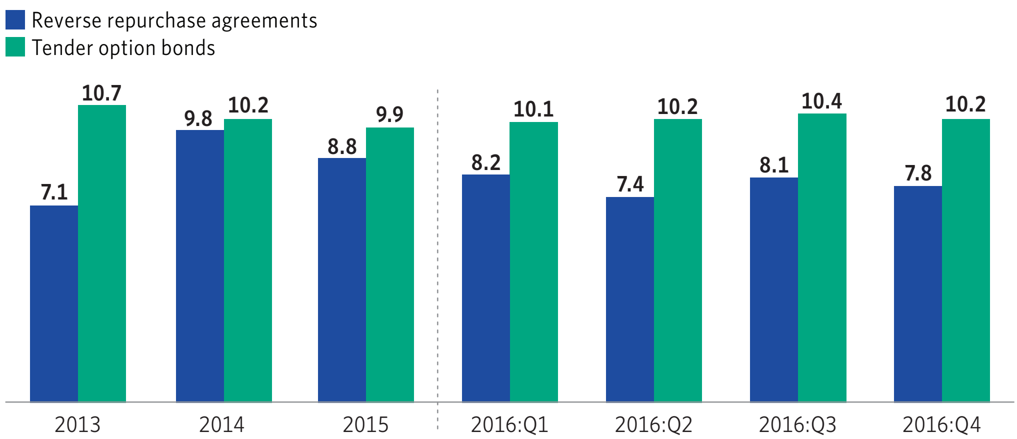
* The *leverage ratio* is the ratio of the amount of preferred shares and other structural leverage to the sum of the amount of common assets, preferred shares, and other structural leverage.

Portfolio leverage results from particular portfolio investments, such as certain types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2016, 159 closed-end funds had $18.0 billion outstanding in reverse repurchase agreements and tender option bonds (Figure 4.7).

FIGURE 4.7

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 from what is reflected above.

Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

Characteristics of Households Owning Closed-End Funds

An estimated 2.8 million US households owned closed-end funds in 2016. These households tended to include affluent investors who owned a range of equity and fixed-income investments. In 2016, 92 percent of households owning closed-end funds also owned equity mutual funds, individual stocks, or variable annuities (Figure 4.8). Seventy-four percent of households that owned closed-end funds also held bond mutual funds, individual bonds, or fixed annuities. In addition, 46 percent of these households owned investment real estate.

Because a large number of households that owned closed-end funds also owned stocks and mutual funds, the characteristics of closed-end fund owners were similar in many respects to those of stock and mutual fund owners. For instance, households that owned closed-end funds (like stock- and mutual fund–owning households) tended to be headed by college-educated individuals and tended to have household incomes above the national median (Figure 4.9).

Nonetheless, households that owned closed-end funds exhibited certain characteristics distinguishing them from mutual fund–owning households. For example, households with closed-end funds tended to have greater household financial assets (Figure 4.9). Also, 35 percent of households owning closed-end funds were retired from their lifetime occupations, compared with 24 percent of households owning mutual funds.

FIGURE 4.8

Closed-End Fund Investors Owned a Broad Range of Investments

Percentage of closed-end fund–owning households holding each type of investment, mid-2016

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

Note: Multiple responses are included.
Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

FIGURE 4.9

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 stocks
Median				
Age of head of household[1]	51	54	51	53
Household income[2]	$55,000	$125,000	$94,300	$100,000
Household financial assets[3]	$85,000	$450,000	$200,000	$300,000
Percentage of households				
Household primary or co-decisionmaker for saving and investing				
Married or living with a partner	58	69	73	73
Widowed	9	10	6	7
College or postgraduate degree	33	54	50	55
Employed (full- or part-time)	62	64	76	74
Retired from lifetime occupation	28	35	24	26
Household owns				
IRA(s)	34	78	63	62
DC retirement plan account(s)	47	73	85	74

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

[2] Total reported is household income before taxes in 2015.

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

Source: *ICI Research Perspective*, "The Closed-End Fund Market, 2016"

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A Guide to Closed-End Funds

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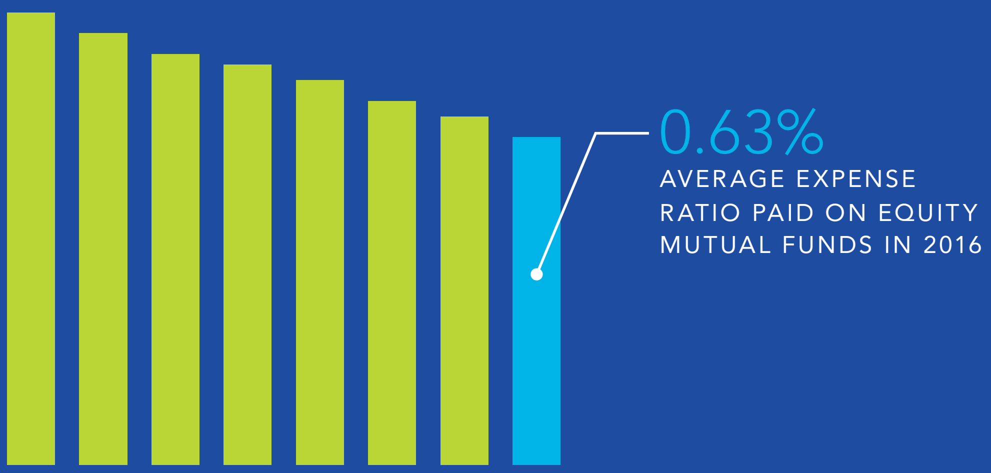
CHAPTER FIVE

Fund Expenses and Fees

Mutual funds provide investors with many investment-related services, and for those services investors incur two primary types of expenses and fees: ongoing expenses and sales loads. Average expenses paid by mutual fund investors have fallen substantially over time. For example, on an asset-weighted basis, average expense ratios for equity mutual funds fell from 0.99 percent in 2000 to 0.63 percent in 2016, a 36 percent decline.

Expense ratios paid by equity mutual fund investors have fallen for seven consecutive years



In this chapter:

Trends in Mutual Fund Expenses

Mutual fund investors incur two primary types of expenses and fees: ongoing expenses and sales loads. Ongoing expenses cover portfolio management, fund administration, daily fund accounting and pricing, shareholder services (such as call centers and websites), distribution charges (known as 12b-1 fees), and other operating costs. These expenses are included in a fund's expense ratio—the fund's annual expenses expressed as a percentage of its assets. Because expenses are paid from fund assets, investors pay these expenses indirectly. Sales loads are paid at the time of share purchase (front-end loads), when shares are redeemed (back-end loads), or over time (level loads).

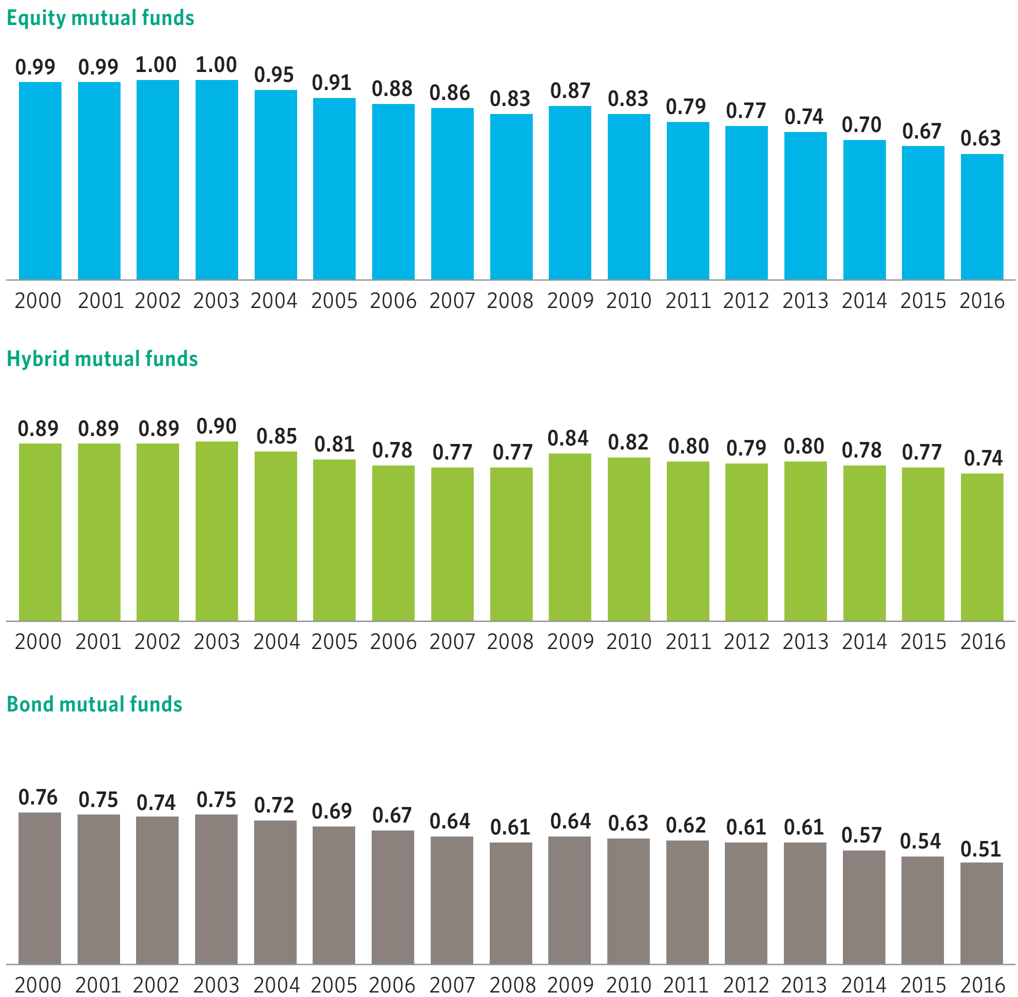
On an asset-weighted basis, average expense ratios* incurred by mutual fund investors have fallen substantially (Figure 5.1). In 2000, equity mutual fund investors incurred expense ratios of 0.99 percent, on average, or 99 cents for every $100 invested. By 2016, that average had fallen to 0.63 percent, a decline of 36 percent. Hybrid and bond mutual fund expense ratios also have declined. The average hybrid mutual fund expense ratio fell from 0.89 percent in 2000 to 0.74 percent in 2016, a reduction of 17 percent. In addition, the average bond mutual fund expense ratio fell from 0.76 percent in 2000 to 0.51 percent in 2016, a decline of 33 percent.

* In this chapter, unless otherwise noted, average expense ratios are calculated on an asset-weighted basis, which gives more weight to funds with greater assets. It reflects where investors are actually putting their assets, and thus, better reflects the actual expenses, fees, or performance experienced by investors than does a simple average (weighting each fund or share class equally). ICI's fee research uses asset-weighted averages to summarize the expenses and fees that shareholders pay through funds. In this context, asset-weighted averages are preferable to simple averages, which would overstate the expenses and fees of funds in which investors hold few dollars. ICI weights each fund's expense ratio by its year-end assets.

FIGURE 5.1

Expense Ratios Incurred by Mutual Fund Investors Have Declined Substantially Since 2000

Percent, 2000–2016



Note: Expense ratios are measured as asset-weighted averages. Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

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Trends in the Expenses and Fees of Funds, 2016

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Understanding the Decline in Mutual Fund Expense Ratios

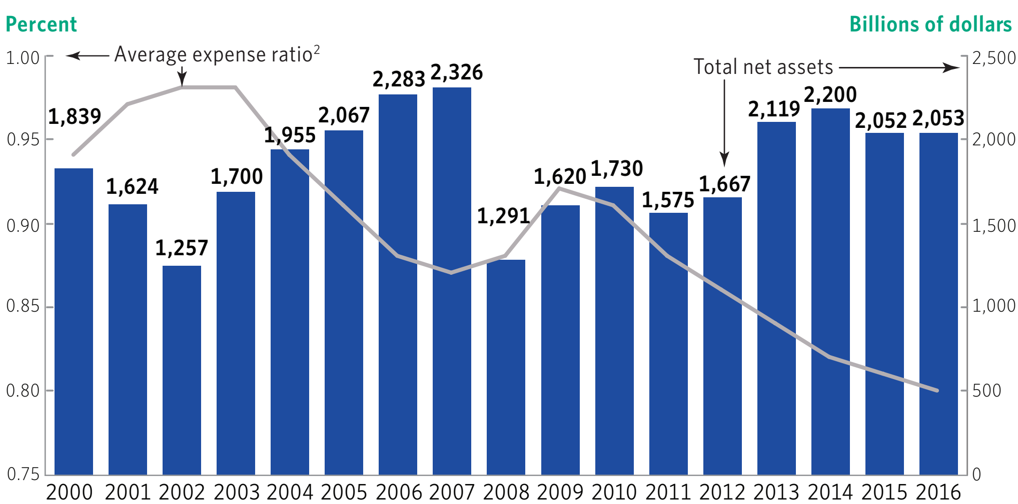
Several factors help account for the steep drop in mutual fund expense ratios. First, expense ratios often vary inversely with fund assets. Some fund costs included in expense ratios—such as transfer agency fees, accounting and audit fees, and directors' fees—are more or less fixed in dollar terms. That means that when a fund's assets rise, these costs contribute less to a fund's expense ratio. Thus, if the assets of a fixed sample of funds rise over time, the sample's average expense ratio tends to fall (Figure 5.2).

Another factor in the decline of the average expense ratios of long-term mutual funds is the shift toward no-load share classes,* particularly institutional no-load share classes, which tend to have below-average expense ratios. In part, this shift reflects a change in how investors pay for services from brokers and other financial professionals (see Mutual Fund Load Fees on page 102).

FIGURE 5.2

Mutual Fund Expense Ratios Tend to Fall as Fund Assets Rise

Share classes of actively managed domestic equity mutual funds continuously in existence since 2000[1]



[1] Calculations are based on a fixed sample of share classes. Data exclude mutual funds available as investment choices in variable annuities, index mutual funds, and mutual funds that invest primarily in other mutual funds.

[2] Expense ratios are measured as asset-weighted averages.

Sources: Investment Company Institute, Lipper, and Morningstar

* See page 101 for a description of no-load share classes.

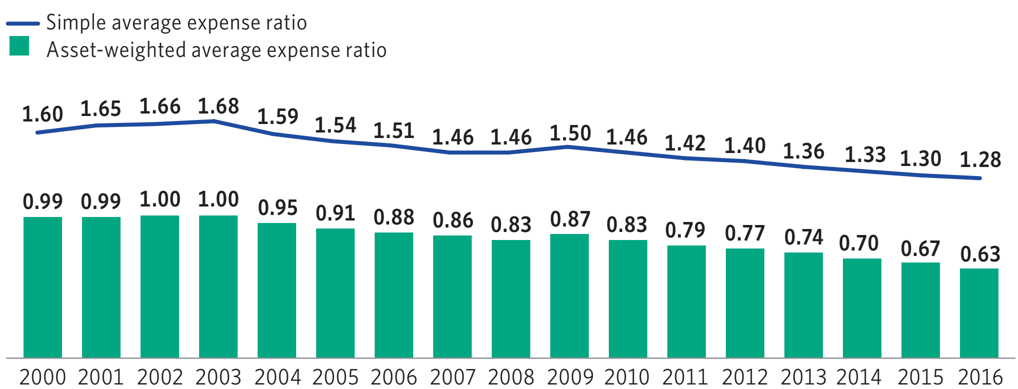
Mutual fund expense ratios also have fallen because of economies of scale and competition. Investor demand for mutual fund services has increased dramatically in recent years. From 1990 to 2016, the number of households owning mutual funds more than doubled—from 23.4 million to 54.9 million (Figure 6.1). All else equal, this sharp increase in demand would tend to boost mutual fund expense ratios. Any such tendency, however, was mitigated by downward pressure on expense ratios—from competition among existing mutual fund sponsors, new mutual fund sponsors entering the industry, competition from products such as exchange-traded funds (ETFs) (see chapter 3 and page 97 of this chapter), and economies of scale resulting from the growth in fund assets.

Finally, shareholders tend to invest in mutual funds with below-average expense ratios (Figure 5.3). The simple average expense ratio of equity mutual funds (the average for all equity mutual funds offered for sale) was 1.28 percent in 2016. The asset-weighted average expense ratio for equity mutual funds (the average shareholders actually paid) was far lower—just 0.63 percent.

FIGURE 5.3

Fund Shareholders Paid Below-Average Expense Ratios for Equity Mutual Funds

Percent, 2000–2016



Note: Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

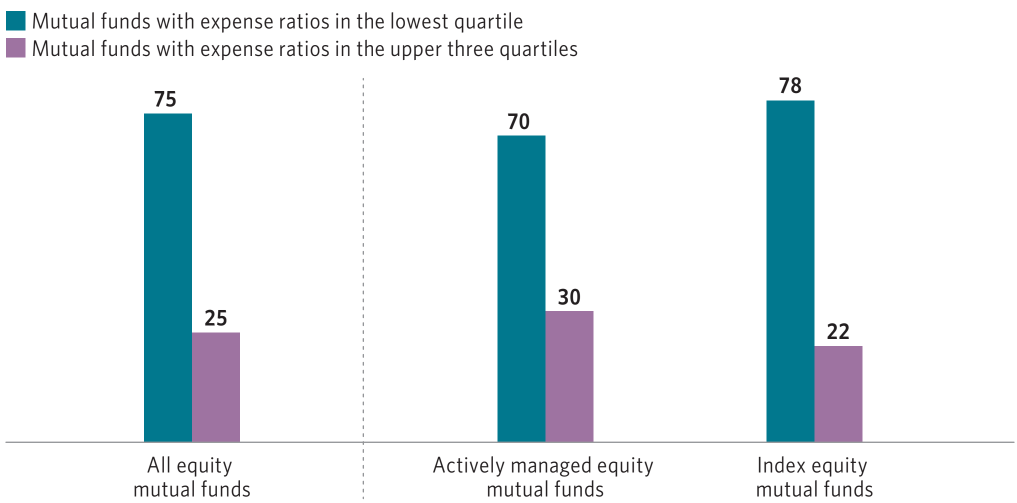
Sources: Investment Company Institute, Lipper, and Morningstar

Another way to illustrate this tendency is to examine how investors allocate their assets across funds. At year-end 2016, equity mutual funds with expense ratios in the lowest quartile held 75 percent of equity mutual funds' total net assets, while those with expense ratios in the upper three quartiles held only 25 percent (Figure 5.4). This pattern holds for both actively managed and index equity mutual funds. Index equity mutual funds with expense ratios in the lowest quartile held 78 percent of index equity mutual fund assets at year-end 2016.

FIGURE 5.4

Assets Are Concentrated in Lower-Cost Mutual Funds

Percentage of total net assets, 2016



Note: Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute and Morningstar

Understanding Differences in the Expense Ratios of Mutual Funds

Like the prices of most goods and services, the expense ratios of individual mutual funds differ considerably across the array of available products. The expense ratios of individual funds depend on many factors, including investment objective (see page 93), fund assets (see page 95), and payments to financial intermediaries (see page 102).

Mutual Fund Investment Objective

Mutual fund expense ratios vary by investment objective (Figure 5.5). For example, bond and money market mutual funds tend to have lower expense ratios than equity mutual funds. Among equity mutual funds, expense ratios tend to be higher for funds that specialize in a given sector—such as healthcare or real estate—or those that invest in equities around the world, because such funds tend to cost more to manage. Even within a particular investment objective, mutual fund expense ratios can vary considerably. For example, 10 percent of equity mutual funds that focus on growth stocks have expense ratios of 0.71 percent or less, while the top 10 percent have expense ratios of 1.97 percent or more. This variation reflects, among other things, the fact that some growth funds focus more on small- or mid-cap stocks and others focus more on large-cap stocks. This is important because portfolios of small- and mid-cap stocks tend to cost more to manage.

FIGURE 5.5

Expense Ratios for Selected Investment Objectives

Percent, 2016

Investment objective	10th percentile	Median	90th percentile	Asset-weighted average	Simple average
Equity mutual funds[1]	**0.68**	**1.21**	**2.04**	**0.63**	**1.28**
Growth	0.71	1.15	1.97	0.77	1.23
Sector	0.77	1.33	2.15	0.78	1.38
Value	0.70	1.13	1.92	0.74	1.20
Blend	0.41	1.01	1.83	0.39	1.06
World	0.83	1.33	2.15	0.78	1.41
Hybrid mutual funds[1]	**0.65**	**1.19**	**2.01**	**0.74**	**1.29**
Bond mutual funds[1]	**0.45**	**0.83**	**1.63**	**0.51**	**0.94**
Investment grade	0.35	0.70	1.51	0.37	0.79
World	0.62	1.01	1.84	0.65	1.11
Other taxable	0.49	0.90	1.75	0.65	1.01
Municipal	0.48	0.78	1.58	0.54	0.91
Money market funds[1]	**0.09**	**0.22**	**0.39**	**0.18**	**0.23**
Memo:					
Target date mutual funds[2]	**0.37**	**0.84**	**1.52**	**0.51**	**0.89**
Index equity mutual funds[1]	**0.06**	**0.35**	**1.51**	**0.09**	**0.63**

[1] Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

[2] Data include mutual funds that invest primarily in other mutual funds, but exclude mutual funds available as investment choices in variable annuities. Ninety-seven percent of these mutual funds invest primarily in other mutual funds.

Note: Each fund's share class is weighted equally for the median, 10th, and 90th percentiles. Data include index mutual funds but exclude exchange-traded funds (ETFs).

Sources: Investment Company Institute and Morningstar

Index Funds

An index fund generally seeks to replicate the return on a specified index. Under this approach, often referred to as passive management, portfolio managers buy and hold all, or a representative sample of, the securities in their target indexes. This approach to portfolio management is a primary reason that index funds—whether mutual funds or ETFs—tend to have below-average expense ratios. By contrast, under an active management approach, managers have more discretion to increase or reduce exposure to sectors or securities within their funds' investment mandates. Active managers may also undertake significant research about stocks or bonds, market sectors, or geographic regions. This approach offers investors the chance to earn superior returns, or to meet other investment objectives such as limit downside risk, manage volatility, under- or over-weight various sectors, and alter asset allocations in response to market conditions. Active management, however, also tends to be more costly than management of an index fund.

Understanding Index Mutual Fund Expense Ratios

Growth in index mutual funds has contributed to the decline in asset-weighted average expense ratios of equity and bond mutual funds. From 2004 to 2016, index mutual fund assets grew nearly fivefold, from $554 billion to $2.6 trillion (Figure 5.6). Consequently, over the same period, index mutual funds' share of long-term mutual fund assets more than doubled, from 9.0 percent in 2004 to 19.3 percent in 2016. Although assets in index bond and index hybrid mutual funds have grown in recent years, index equity mutual funds still accounted for the lion's share (81 percent) of index mutual fund assets in 2016.

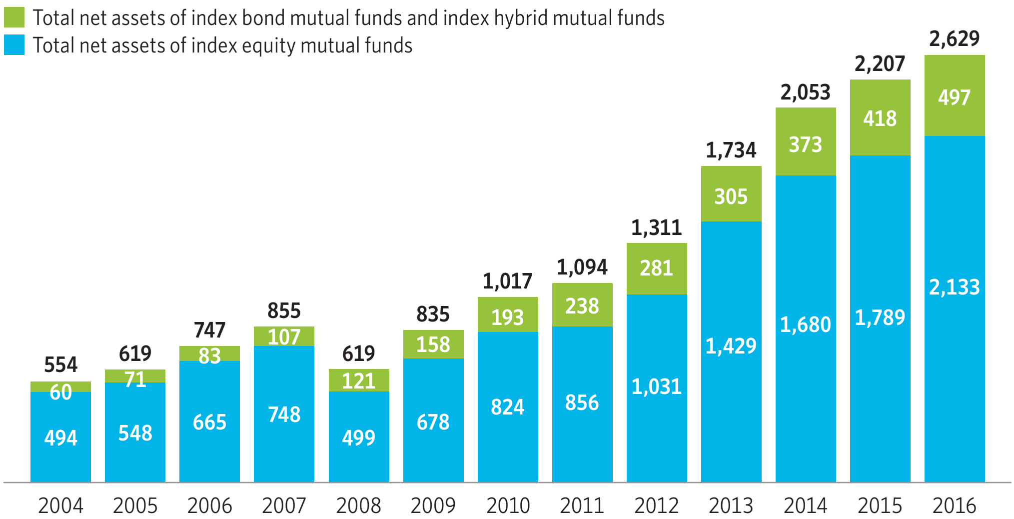
Index mutual funds tend to have below-average expense ratios for several reasons. First, the passive approach to portfolio management generally seeks to replicate the return on a specified index. In doing so, portfolio managers buy and hold all, or a representative sample of, the securities in their target indexes. This naturally lends itself to being less costly.

Second, index mutual funds tend to have below-average expense ratios because of their investment focus. Assets of index equity mutual funds are concentrated more heavily in large-cap blend funds that target US large-cap indexes, such as the S&P 500. Assets of actively managed equity mutual funds, on the other hand, are more widely distributed across stocks of varying capitalization, international regions, or specialized business sectors. Managing portfolios of mid- or small-cap, international, or sector stocks is generally acknowledged to be more expensive than managing portfolios of US large-cap stocks.

FIGURE 5.6

Total Net Assets and Number of Index Mutual Funds Have Increased in Recent Years

Billions of dollars; year-end, 2004–2016



Number of index mutual funds

328	322	343	354	360	357	365	382	372	371	382	403	421

Note: Data exclude mutual funds that invest primarily in other mutual funds. Components may not add to the total because of rounding.

Third, index mutual funds are larger on average than actively managed funds, which, through economies of scale, helps reduce fund expense ratios. In 2016, the average index equity mutual fund was nearly four times as large as the average actively managed equity mutual fund (with \$5.9 billion for index equity mutual funds and \$1.5 billion for actively managed equity mutual funds).

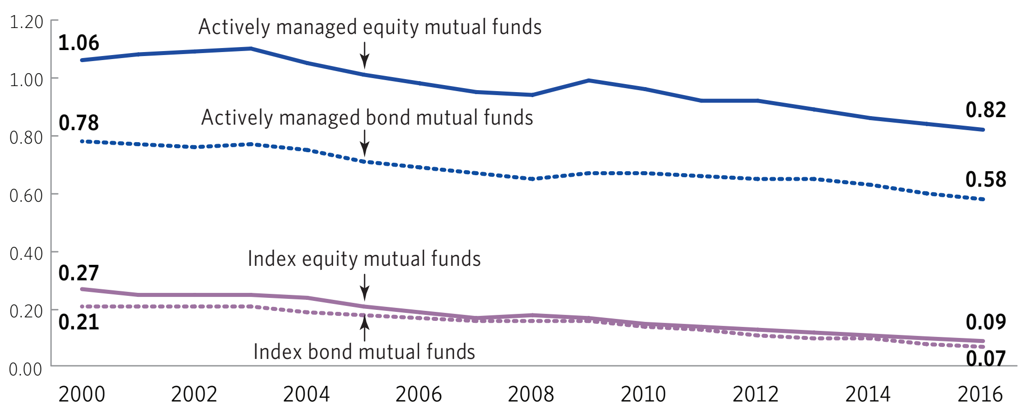
Finally, index mutual fund investors who hire financial professionals might pay for that service out of pocket, rather than through the fund's expense ratio (see Mutual Fund Load Fees on page 102). In contrast, actively managed mutual funds more commonly have share classes that bundle those costs into the expense ratio.

These reasons, among others, help explain why index mutual funds generally have lower expense ratios than actively managed mutual funds. Note, however, that both index and actively managed mutual funds have contributed to the decline in the average expense ratios of mutual funds (Figure 5.7). From 2000 to 2016, the average expense ratio of index equity mutual funds fell from 0.27 percent to 0.09 percent, while the average expense ratio for actively managed equity mutual funds fell from 1.06 percent to 0.82 percent. Over the same period, the average expense ratio of index bond mutual funds fell from 0.21 percent to 0.07 percent and the average expense ratio of actively managed bond mutual funds fell from 0.78 percent to 0.58 percent.

FIGURE 5.7

Expense Ratios of Actively Managed and Index Mutual Funds

Percent, 2000–2016



Note: Expense ratios are measured as asset-weighted averages. Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

The downward trend in the average expense ratios of both index and actively managed mutual funds reflects, in part, investors' increasing tendency to buy lower-cost funds. Investor demand for index mutual funds is disproportionately concentrated in funds with the lowest costs. This phenomenon is not unique to index funds, however; the proportion of assets in the lowest-cost actively managed funds is also high (Figure 5.4).

Understanding Index ETF Expense Ratios

The trends in ETFs over the past decade have influenced asset-weighted average expense ratios of index equity and index bond ETFs. ETF total net assets have grown rapidly in recent years, from $301 billion at year-end 2005 to $2.5 trillion at year-end 2016 (Figure 1.1). During this time, ETFs have become a significant market participant, with assets now accounting for about 13 percent of total net assets managed by investment companies at year-end 2016. ETFs are largely index-based and registered with the Securities and Exchange Commission (SEC) under the Investment Company Act of 1940. Actively managed ETFs and non–1940 Act ETFs represented only 3.6 percent of ETF total net assets at year-end 2016. As is true of index mutual funds, most of the assets in ETFs are in funds that focus on equities. Equity ETFs account for 80 percent of the total net assets of ETFs.

Part of the strong growth in ETFs is attributable to their compensation structure where investors compensate financial professionals by paying them an asset-based fee directly. Compensation to financial professionals for distribution or account servicing and maintenance will typically be paid by the investor directly.* Also, financial professionals often provide programs that offer investors a suite of ETFs suited to their investment goals. In such cases, investors would typically pay financial professionals an asset-based fee over and above the expense ratios of the ETFs in the suite of ETFs selected. Because ETFs are generally index funds, they typically have low expense ratios.

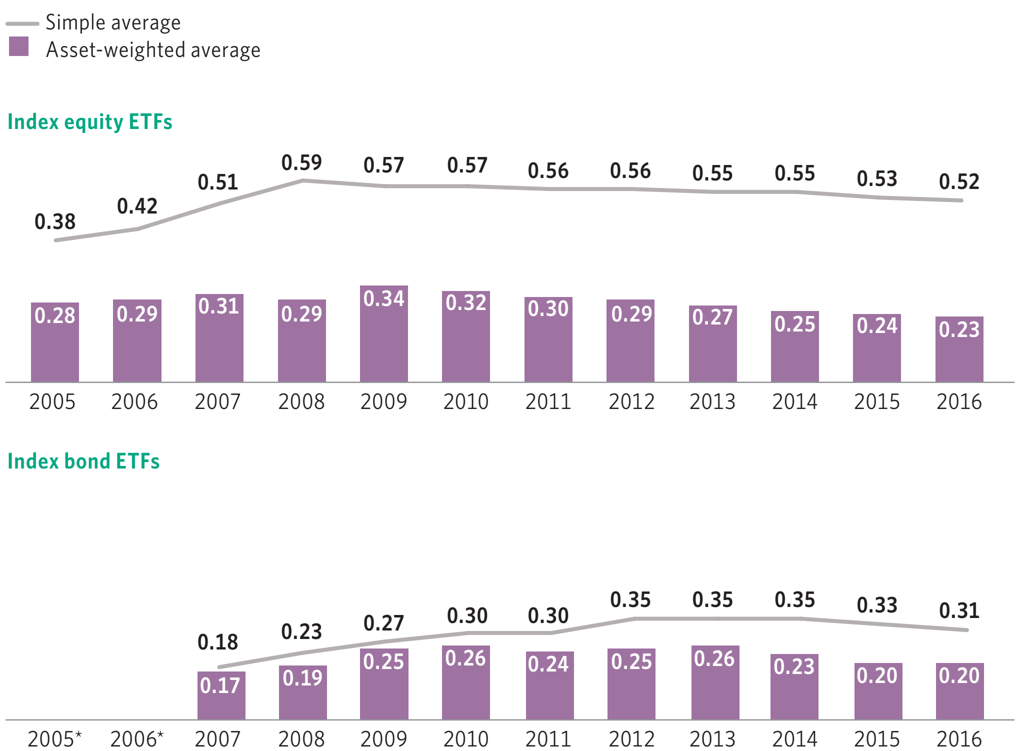
* Some ETFs bundle distribution fees in the expense ratio to cover marketing and distribution expenses. These fees are usually small, ranging between 0.01 and 0.05 percent.

Like mutual funds, shareholders tend to invest in ETFs with below-average expense ratios (Figure 5.8). The simple average expense ratio of index equity ETFs (the average for all index equity ETFs offered for sale) was 0.52 percent in 2016. The asset-weighted average expense ratio for index equity ETFs (the average shareholders actually paid) was less than half of that—just 0.23 percent. The same holds for index bond ETFs, with a simple average expense ratio of 0.31 percent in 2016 and an asset-weighted average expense ratio of 0.20 percent.

FIGURE 5.8

Expense Ratios Incurred by Index ETF Investors Have Declined in Recent Years

Percent, 2005–2016



* Data for index bond ETFs are excluded prior to 2007 because of a limited number of funds.

Note: Data exclude ETFs not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.

Sources: Investment Company Institute and Morningstar

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Additionally, index ETF expense ratios differ based on their investment objectives (Figure 5.9). Among index bond ETFs, for example, expense ratios tend to be higher for ETFs that invest in either foreign or high-yield bonds because such securities are typically more costly to manage than, for example, Treasury bonds. And even within specific investment objectives, expense ratios will vary among different index ETFs for a range of reasons. For example, not all index ETFs in a given investment objective rely on the same index and licensing fees ETFs pay to index providers, and so their expense ratios may differ.

FIGURE 5.9

Index ETF Expense Ratios for Selected Investment Objectives

Percent, 2016

Investment objective	10th percentile	Median	90th percentile	Asset-weighted average	Simple average
Index equity ETFs	**0.14**	**0.48**	**0.95**	**0.23**	**0.52**
Blend	0.10	0.39	0.95	0.14	0.49
Growth	0.08	0.25	0.65	0.20	0.34
Value	0.09	0.35	0.65	0.22	0.34
Sector	0.14	0.50	0.95	0.27	0.56
World	0.25	0.55	0.85	0.35	0.55
Index hybrid ETFs	**0.48**	**0.60**	**0.75**	**0.54**	**0.64**
Index bond ETFs	**0.09**	**0.24**	**0.63**	**0.20**	**0.31**
Corporate	0.07	0.13	0.25	0.11	0.17
World	0.32	0.49	0.50	0.37	0.47
Government	0.07	0.16	0.95	0.19	0.36
High-yield	0.40	0.43	0.64	0.48	0.49
Municipal	0.18	0.25	0.35	0.25	0.25
Memo:					
Active equity ETFs	**0.60**	**0.89**	**0.99**	**0.88**	**0.87**

Note: Each fund's share class is weighted equally for the median, 10th, and 90th percentiles. Data exclude ETFs not registered under the Investment Company Act of 1940 and ETFs that invest primarily in other ETFs.

Sources: Investment Company Institute and Morningstar

Mutual Fund Fee Structures

Mutual funds often are categorized by the class of shares that fund sponsors offer, primarily load or no-load classes. Load classes generally serve investors who buy shares through financial professionals; no-load classes usually serve investors who buy shares without the assistance of a financial professional or who choose to compensate their financial professionals separately. Funds sold through financial professionals typically offer more than one share class in order to provide investors with alternative ways to pay for financial services.

12b-1 Fees

Since 1980, when the US Securities and Exchange Commission adopted Rule 12b-1 under the Investment Company Act of 1940, mutual funds and their shareholders have had the flexibility to compensate financial professionals and other financial intermediaries through asset-based fees. These distribution fees, known as 12b-1 fees, enable investors to pay indirectly for some or all of the services they receive from financial professionals (such as their broker) and other financial intermediaries (such as retirement plan recordkeepers and discount brokerage firms). Funds also use 12b-1 fees to a very limited extent to help defray advertising and marketing costs.

Load Share Classes

Load share classes include a sales load, a 12b-1 fee, or both. Sales loads and 12b-1 fees are used to compensate brokers and other financial professionals for their services.

Front-end load shares, which are predominantly Class A shares, were the traditional way investors compensated financial professionals for assistance. These shares generally charge a sales load—a percentage of the sales price or offering price—at the time of purchase. They also generally have a 12b-1 fee, often 0.25 percent (25 basis points). Front-end load shares are sometimes used in employer-sponsored retirement plans, but fund sponsors typically waive the sales load for purchases made through such retirement plans. Additionally, front-end load fees often decline as the size of an investor's initial purchase rises (called *breakpoint discounts*), and many fund providers offer discounted load fees when an investor has total balances exceeding a given amount in that provider's funds.

Back-end load shares, often called Class B shares, typically do not have a front-end load. Investors using back-end load shares pay for services provided by financial professionals through a combination of an annual 12b-1 fee and a contingent deferred sales load (CDSL). The CDSL is paid if fund shares are redeemed before a given number of years of ownership. Back-end load shares usually convert after a specified number of years to a share class with a lower 12b-1 fee (for example, Class A shares). The assets in back-end load shares have declined substantially in recent years.

Level load shares, which include Class C shares, generally do not have front-end loads. Investors in this share class compensate financial professionals with an annual 12b-1 fee (typically 1 percent) and a CDSL (also typically 1 percent) that shareholders pay if they sell their shares within a year of purchase.

No-Load Share Classes

No-load share classes have neither a front-end load nor a CDSL, and have a 12b-1 fee of 0.25 percent (25 basis points) or less. Originally, no-load share classes were sold directly by mutual fund sponsors to investors. Now, investors can purchase no-load funds through employer-sponsored retirement plans, discount brokerage firms, and bank trust departments, as well as directly from mutual fund sponsors. Some financial professionals who charge investors separately for their services, rather than through a load or 12b-1 fee, help investors select a portfolio of no-load funds.

Mutual Fund Load Fees

Many mutual fund investors engage an investment professional, such as a broker, an investment adviser, or a financial planner. Among households owning mutual fund shares outside employer-sponsored retirement plans, 80 percent own mutual fund shares through investment professionals (Figure 6.10). These professionals can provide many benefits to investors, such as helping them identify financial goals, analyzing an existing financial portfolio, determining an appropriate asset allocation, and (depending on the type of financial professional) providing investment advice or recommendations to help investors achieve their financial goals. The investment professional also may provide ongoing services, such as responding to investors' inquiries or periodically reviewing and rebalancing their portfolios.

Over the past few decades, the way that fund shareholders compensate financial professionals has changed significantly, moving away from front-end loads toward asset-based fees. One important outcome of the changing distribution structure has been a marked decline in load fees paid by mutual fund investors. The maximum front-end load fee that shareholders might pay for investing in mutual funds has changed little since 1990 (Figure 5.10). But front-end load fees that investors actually paid have declined markedly, from nearly 4 percent in 1990 to around 1 percent in 2016. This in part reflects the increasing role of mutual funds in helping investors save for retirement. Funds that normally charge front-end load fees often waive load fees on purchases made through defined contribution (DC) plans, such as 401(k) plans. Also, front-end load funds offer volume discounts, waiving or reducing load fees for large initial or cumulative purchases (see Mutual Fund Fee Structures on page 100).

FIGURE 5.10

Front-End Sales Loads That Investors Pay Are Well Below the Maximum Front-End Sales Loads That Mutual Funds Charge

Percentage of purchase amount, selected years

	Maximum front-end sales load[1]			Average front-end sales load that investors actually paid[2]		
	Equity	Hybrid	Bond	Equity	Hybrid	Bond
1990	5.0	5.0	4.6	3.9	3.8	3.5
1995	4.8	4.7	4.1	2.5	2.4	2.1
2000	5.2	5.1	4.2	1.4	1.4	1.1
2005	5.3	5.3	4.0	1.3	1.3	1.0
2010	5.4	5.2	3.9	1.0	1.0	0.8
2015	5.4	5.2	3.8	1.1	1.0	0.7
2016	5.4	5.2	3.7	1.1	1.0	0.7

[1] The maximum front-end sales load is a simple average of the highest front-end load that funds may charge as set forth in their prospectuses.

[2] The simple average front-end sales load that investors actually paid is the total front-end sales loads that funds collected divided by the total maximum loads that the funds could have collected based on their new sales that year. This ratio is then multiplied by each fund's maximum sales load. The resulting value is then averaged across all funds.

Note: Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, Morningstar, and Strategic Insight Simfund

Another important element in the changing distribution structure of mutual funds has been a shift toward asset-based fees, which are assessed as a percentage of the assets that the financial professional helps an investor manage. Increasingly, these fees compensate brokers and other financial professionals who sell mutual funds. An investor may pay an asset-based fee indirectly through a fund's 12b-1 fee, which is included in the fund's expense ratio, or directly (out of pocket) to the financial professional, in which case it is not included in the fund's expense ratio.

In part because of the shift toward asset-based fees (either through the fund or out of pocket), the market shares of front-end and back-end load share classes have declined in recent years, while those in no-load share classes have increased substantially. For example, over the past 10 years, front-end and back-end load share classes had $1 trillion in net outflows (Figure 5.11), and gross sales of back-end load share classes have dwindled almost to zero (Figure 5.12). As a result, the market share of front-end and back-end load share classes fell from 27 percent of long-term mutual fund assets at year-end 2007 to 14 percent at year-end 2016 (Figure 5.13).

FIGURE 5.11

No-Load Institutional Share Classes Garnered Positive Net New Cash Flow in 2016

Billions of dollars, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All long-term mutual funds	**$224**	**-$211**	**$393**	**$244**	**$28**	**$200**	**$162**	**$98**	**-$123**	**-$199**
Load	**-2**	**-156**	**9**	**-62**	**-129**	**-77**	**-70**	**-173**	**-130**	**-232**
Front-end[1]	18	-105	2	-56	-100	-67	-56	-160	-101	-181
Back-end[2]	-42	-39	-24	-27	-23	-16	-11	-9	-7	-5
Level[3]	25	-13	31	21	-6	6	-2	-4	-22	-46
Other[4]	(*)	(*)	(*)	(*)	(*)	-1	(*)	(*)	(*)	(*)
Unclassified[5]	-2	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)
No-load[6]	**165**	**-66**	**322**	**265**	**168**	**299**	**270**	**338**	**76**	**113**
Retail	59	-96	137	55	-46	16	38	111	7	-39
Institutional	106	30	185	210	214	283	232	226	69	152
Variable annuities	**25**	**-26**	**29**	**8**	**-21**	**-26**	**-51**	**-65**	**-67**	**-79**
"R" share classes[7]	**37**	**37**	**33**	**33**	**10**	**4**	**13**	**-2**	**-2**	**-2**

[1] Front-end load > 1 percent. Primarily includes Class A shares; includes sales where front-end loads are waived.

[2] Front-end load = 0 percent and contingent deferred sales load (CDSL) > 2 percent. Primarily includes Class B shares.

[3] Front-end load ≤ 1 percent, CDSL ≤ 2 percent, and 12b-1 fee > 0.25 percent. Primarily includes Class C shares; excludes institutional share classes.

[4] This category contains all other load share classes not classified as front-end load, back-end load, or level load.

[5] This category contains load share classes with missing load fee data.

[6] Front-end load = 0 percent, CDSL = 0 percent, and 12b-1 fee ≤ 0.25 percent.

[7] "R" shares include assets in any share class that ICI designates as a "retirement share class." These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or IRAs.

(*) = inflow or outflow of less than $500 million

Note: Components may not add to the totals because of rounding. Data exclude mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE 5.12

Gross Sales of Long-Term Mutual Funds Are Concentrated in No-Load Share Classes

Billions of dollars, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All long-term mutual funds	**$2,529**	**$2,418**	**$2,375**	**$2,702**	**$2,861**	**$2,963**	**$3,510**	**$3,609**	**$3,503**	**$3,550**
Load	**650**	**604**	**559**	**566**	**543**	**510**	**599**	**545**	**490**	**430**
Front-end[1]	514	482	435	445	439	403	474	432	387	355
Back-end[2]	23	20	10	7	4	3	3	2	2	1
Level[3]	107	97	112	111	98	99	119	109	99	73
Other[4]	3	4	2	2	2	4	3	1	2	1
Unclassified[5]	2	1	(*)	1	(*)	(*)	(*)	(*)	(*)	1
No-load[6]	**1,471**	**1,414**	**1,446**	**1,706**	**1,897**	**2,049**	**2,498**	**2,689**	**2,614**	**2,727**
Retail	907	807	825	935	948	973	1,153	1,226	1,229	1,223
Institutional	564	607	621	771	949	1,076	1,345	1,463	1,384	1,504
Variable annuities	**320**	**308**	**270**	**318**	**309**	**295**	**287**	**236**	**248**	**245**
"R" share classes[7]	**87**	**91**	**100**	**112**	**111**	**109**	**126**	**139**	**152**	**148**

[1] Front-end load > 1 percent. Primarily includes Class A shares; includes sales where front-end loads are waived.

[2] Front-end load = 0 percent and contingent deferred sales load (CDSL) > 2 percent. Primarily includes Class B shares.

[3] Front-end load ≤ 1 percent, CDSL ≤ 2 percent, and 12b-1 fee > 0.25 percent. Primarily includes Class C shares; excludes institutional share classes.

[4] This category contains all other load share classes not classified as front-end load, back-end load, or level load.

[5] This category contains load share classes with missing load fee data.

[6] Front-end load = 0 percent, CDSL = 0 percent, and 12b-1 fee ≤ 0.25 percent.

[7] "R" shares include assets in any share class that ICI designates as a "retirement share class." These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or IRAs.

(*) = gross sales of less than $500 million

Note: Components may not add to the totals because of rounding. Data exclude mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

FIGURE 5.13

Total Net Assets of Long-Term Mutual Funds Are Concentrated in No-Load Share Classes

Billions of dollars, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
All long-term mutual funds	**$8,914**	**$5,788**	**$7,797**	**$9,030**	**$8,942**	**$10,361**	**$12,331**	**$13,149**	**$12,896**	**$13,616**
Load	**2,795**	**1,722**	**2,185**	**2,352**	**2,176**	**2,362**	**2,652**	**2,615**	**2,440**	**2,371**
Front-end[1]	2,190	1,374	1,750	1,882	1,751	1,893	2,148	2,116	1,989	1,948
Back-end[2]	204	102	98	78	50	39	32	24	15	9
Level[3]	379	237	328	381	367	417	459	468	429	408
Other[4]	10	7	8	8	7	11	10	7	6	6
Unclassified[5]	12	2	2	3	1	2	2	1	(*)	1
No-load[6]	**4,587**	**3,067**	**4,249**	**5,090**	**5,224**	**6,261**	**7,598**	**8,382**	**8,373**	**9,093**
Retail	3,091	1,951	2,659	3,068	2,991	3,464	4,142	4,639	4,598	4,886
Institutional	1,497	1,116	1,589	2,022	2,233	2,798	3,456	3,743	3,775	4,207
Variable annuities	**1,346**	**854**	**1,130**	**1,291**	**1,251**	**1,398**	**1,629**	**1,671**	**1,596**	**1,637**
"R" share classes[7]	**187**	**146**	**233**	**297**	**290**	**340**	**452**	**480**	**487**	**514**

[1] Front-end load > 1 percent. Primarily includes Class A shares; includes sales where front-end loads are waived.

[2] Front-end load = 0 percent and contingent deferred sales load (CDSL) > 2 percent. Primarily includes Class B shares.

[3] Front-end load ≤ 1 percent, CDSL ≤ 2 percent, and 12b-1 fee > 0.25 percent. Primarily includes Class C shares; excludes institutional share classes.

[4] This category contains all other load share classes not classified as front-end load, back-end load, or level load.

[5] This category contains load share classes with missing load fee data.

[6] Front-end load = 0 percent, CDSL = 0 percent, and 12b-1 fee ≤ 0.25 percent.

[7] "R" shares include assets in any share class that ICI designates as a "retirement share class." These share classes are sold predominantly to employer-sponsored retirement plans. However, other share classes—including retail and institutional share classes—also contain investments made through 401(k) plans or IRAs.

(*) = total net assets of less than $500 million

Note: Components may not add to the totals because of rounding. Data exclude mutual funds that invest primarily in other mutual funds.

Sources: Investment Company Institute, Lipper, and Morningstar

By contrast, no-load share classes have seen net inflows and rising assets over the past 10 years. No-load share classes—those with neither a front-end nor a back-end load fee and a 12b-1 fee of no more than 0.25 percent—have accumulated the bulk of the net inflows to long-term mutual funds over this period (Figure 5.11). At year-end 2007, no-load share classes accounted for 51 percent of long-term mutual fund assets, rising to 67 percent by year-end 2016 (Figure 5.13).

Some of the shift toward no-load share classes can be attributed to do-it-yourself investors. A larger factor, however, is the growth of sales through DC plans as well as sales of no-load share classes through sales channels that compensate financial professionals (for example, discount brokers, fee-based advisers, full-service brokerage platforms) with asset-based fees outside of funds.

Services and Expenses in 401(k) Plans

Over the past two and a half decades, mutual funds have become the primary vehicle for 401(k) plan investments, with the share of employer-sponsored 401(k) plan assets held by mutual funds rising from 9 percent at year-end 1990 to 63 percent at year-end 2016.

Two competing economic pressures confront employers: the need to attract and retain quality workers with competitive compensation packages and the need to keep their products and services competitively priced. In deciding whether to offer 401(k) plans to their workers, employers must decide if the benefits of offering a plan (in attracting and retaining quality workers) outweigh the costs of providing the plan and plan services. These costs are both the contributions the employer may make to an employee's 401(k) account and the costs associated with setting up and administering the 401(k) plan on an ongoing basis.

To provide and maintain 401(k) plans, regulations require employers to obtain a variety of administrative, participant-focused, regulatory, and compliance services. Employers offering 401(k) plans typically hire service providers to operate these plans, and these providers charge fees for their services.

As with any employee benefit, the employer generally determines how the costs of providing the benefit will be shared between the employer and employee. 401(k) plan fees can be paid directly by the plan sponsor (the employer), directly by the plan participant (the employee), indirectly by the participant through fees or other reductions in returns paid to the investment provider, or by some combination of these methods (Figure 5.14).

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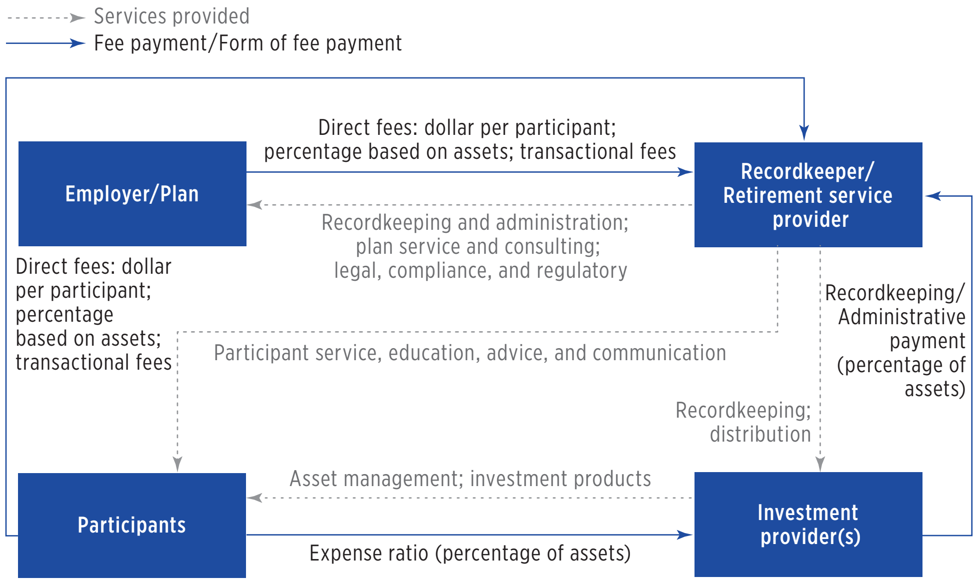
The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2015
www.ici.org/perspective

FIGURE 5.14

A Variety of Arrangements May Be Used to Compensate 401(k) Service Providers



Note: In selecting the service provider(s) and deciding the cost sharing for the 401(k) plan, the employer/plan sponsor will determine which combinations of these fee arrangements will be used in the plan.

Source: *ICI Research Perspective*, "The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2015"

One key driver of 401(k) plan fees is plan size. A Deloitte/ICI study of 361 DC plans in 2013 created and analyzed a comprehensive plan fee measure, the "all-in fee." The study found that plans with more participants and larger average account balances tended to have lower all-in fees than plans with fewer participants and smaller average account balances. This observed effect likely results in part from fixed costs required to start up and run the plan, much of which are driven by legal and regulatory requirements. It appears that economies of scale are gained as a plan grows because these fixed costs can be spread across more participants, a larger asset base, or both. Plans with a higher percentage of their assets in equity investments tended to have higher all-in fees, reflecting the higher expense ratios associated with equity investing compared with fixed-income investing. The study also examined types of service providers, automatic enrollment, the number of investment options, and variables relating to plans' relationships with their service providers—but found little impact on fees. In addition, a BrightScope/ICI study of 2014 data for nearly 29,000 large 401(k) plans also found that plans with more assets had lower total plan cost than those with less assets.

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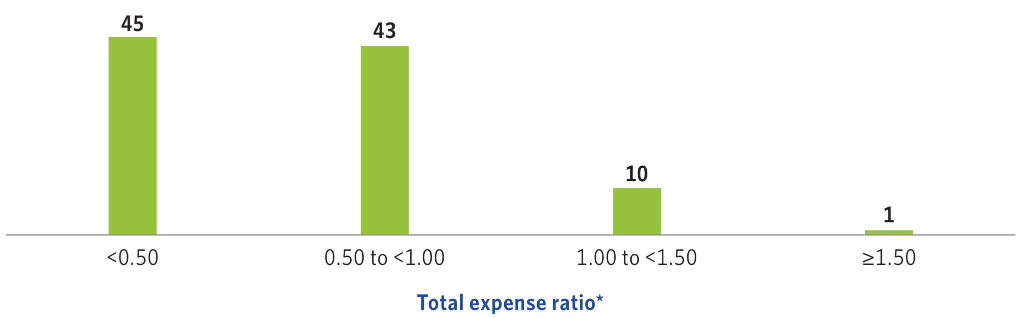
Inside the Structure of Defined Contribution/401(k) Plan Fees, 2013
www.ici.org/research/reports

Sixty-three percent of 401(k) assets at year-end 2016 were invested in mutual funds, mainly equity mutual funds (59 percent of 401(k) mutual fund assets or 37 percent of all 401(k) plan assets). 401(k) plan participants investing in mutual funds tend to invest in lower-cost funds and funds with below-average portfolio turnover. For example, at year-end 2015, 45 percent of 401(k) equity mutual fund assets were in funds that had average expense ratios of less than 0.50 percent, and another 43 percent had expense ratios between 0.50 and 1.00 percent (Figure 5.15). Also, in 2015, the simple average expense ratio for equity mutual funds offered in the United States was 1.30 percent (Figure 5.3). Taking into account, however, both the funds offered in 401(k) plans and the distribution of assets in those funds, 401(k) plan participants who invested in equity mutual funds paid less than half that amount, 0.53 percent on average, which is also less than the asset-weighted average expense ratio of 0.67 percent for equity mutual funds industrywide. Similarly, equity mutual funds held in 401(k) accounts tend to have lower portfolio turnover in their portfolios. The asset-weighted average turnover rate of equity funds held in 401(k) accounts was 32 percent in 2015, less than the industrywide asset-weighted average of 44 percent.

FIGURE 5.15

401(k) Equity Mutual Fund Assets Are Concentrated in Lower-Cost Funds

Percentage of 401(k) equity mutual fund assets, 2015



* The total expense ratio includes fund operating expenses and any 12b-1 fees.

Note: Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds. Components do not add to 100 percent because of rounding.

Sources: Investment Company Institute and Lipper. See *ICI Research Perspective*, "The Economics of Providing 401(k) Plans: Services, Fees, and Expenses, 2015."

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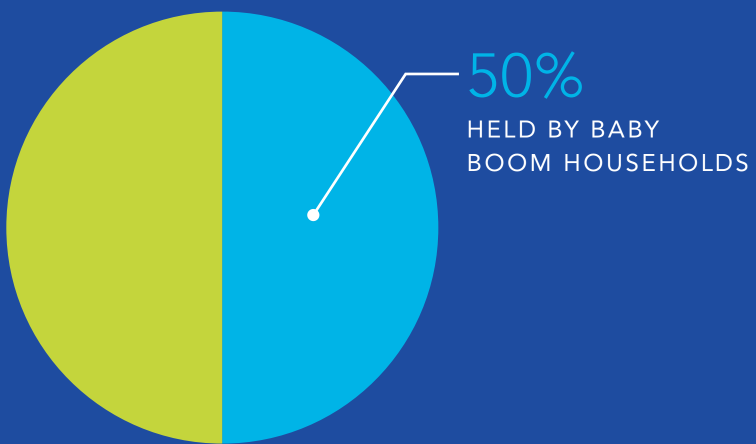
The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014
www.ici.org/research/reports

CHAPTER SIX

Characteristics of Mutual Fund Owners

The percentage of US households owning mutual funds grew eightfold in the 1980s and 1990s, and has held steady for the past 16 years, averaging about 45 percent since 2000. In mid-2016, nearly 44 percent of all US households owned mutual funds. The estimated 94 million people who owned mutual funds in mid-2016 belong to all age and income groups, have a variety of financial goals, and buy and sell mutual funds through three principal sources: investment professionals; employer-sponsored retirement plans; and fund companies directly, fund supermarkets, or discount brokers. Forty-eight percent of Baby Boom households owned mutual funds in mid-2016. They accounted for 38 percent of mutual fund–owning households and held 50 percent of households' mutual fund assets.

Half of household mutual fund assets were held by Baby Boomers in 2016



In this chapter:

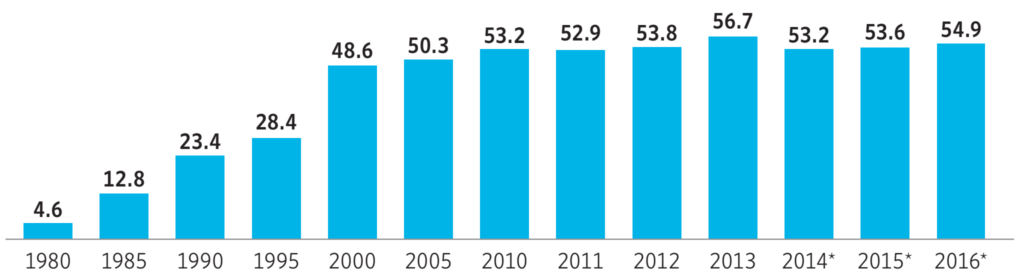
Individual and Household Ownership of Mutual Funds

In mid-2016, an estimated 94 million individual investors owned mutual funds—and at year-end, these investors held 89 percent of total mutual fund assets (Figure 2.3), directly or through retirement accounts. Household ownership of mutual funds has remained relatively steady since 2000. Altogether, 43.6 percent of US households—or about 54.9 million—owned mutual funds in mid-2016, slightly less than the 2000–2016 average of about 45 percent (Figure 6.1). Mutual funds were a major component of many US households' financial holdings in mid-2016. Among households owning mutual funds, the median amount invested in mutual funds was $125,000 (Figure 6.2). Seventy-three percent of individuals heading households that owned mutual funds were married or living with a partner, half were college graduates, and 76 percent worked full- or part-time.

FIGURE 6.1

43.6 Percent of US Households Owned Mutual Funds in 2016

Millions of US households owning mutual funds, selected years



Percentage of US households owning mutual funds

1980	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014*	2015*	2016*
5.7	14.7	25.1	28.7	45.7	44.4	45.3	44.1	44.4	46.3	43.3	43.0	43.6

* The survey methodology was changed to a dual frame sample of cell phones and landlines in 2014.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016."

FIGURE 6.2

Characteristics of Mutual Fund Investors

Mid-2016

How many people own mutual funds?

94.0 million individuals

54.9 million US households

Who are they?

51 is the median age of the head of household

73 percent are married or living with a partner

50 percent are college graduates

76 percent are employed (full- or part-time)

11 percent are Silent or GI Generation (born 1904 to 1945)

38 percent are Baby Boomers (born 1946 to 1964)

33 percent are Generation X (born 1965 to 1980)

18 percent are Millennial Generation (born 1981 to 2004)*

$94,300 is the median household income

What do they own?

$200,000 is the median household financial assets

$125,000 is the median mutual fund assets

64 percent hold more than half of their financial assets in mutual funds

63 percent own IRAs

85 percent own DC retirement plan accounts

4 mutual funds is the median number owned

86 percent own equity funds

When and how did they make their first mutual fund purchase?

54 percent bought their first mutual fund before 2000

67 percent purchased their first mutual fund through an employer-sponsored retirement plan

Why do they invest?

92 percent are saving for retirement

46 percent are saving for emergencies

46 percent hold mutual funds to reduce taxable income

22 percent are saving for education

* The Millennial Generation is aged 12 to 35 in 2016; survey respondents, however, must be 18 or older.

Sources: *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016"; *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"; and *ICI Research Report*, "Profile of Mutual Fund Shareholders, 2016"

Mutual Fund Ownership by Age and Income

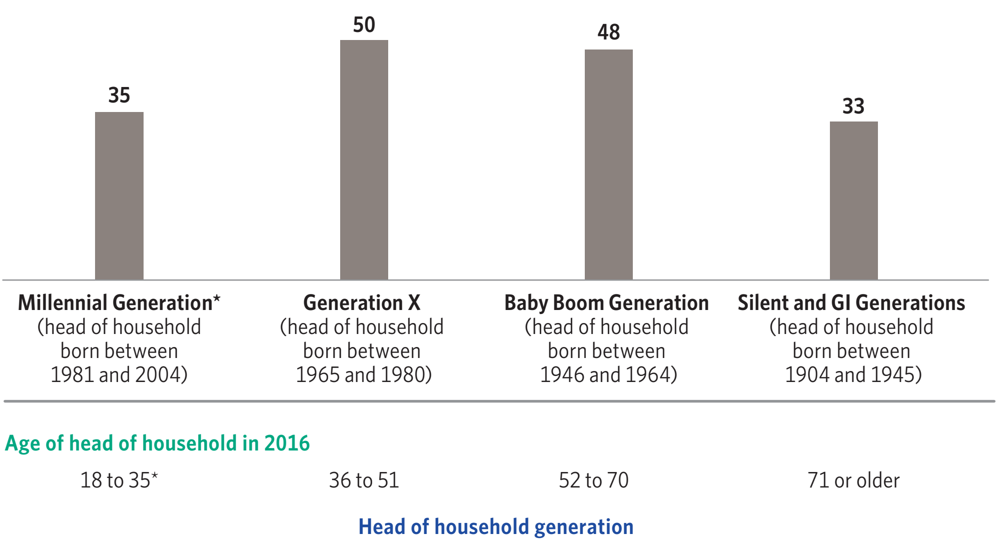
Mutual fund–owning households span all generations, but members of the Baby Boom Generation and Generation X had the highest mutual fund ownership rates in mid-2016. Forty-eight percent of households headed by a Baby Boomer (head of household born between 1946 and 1964) and half of households headed by a member of Generation X (born between 1965 and 1980) owned mutual funds in mid-2016 (Figure 6.3). Thirty-five percent of Millennial Generation households (born between 1981 and 2004) and 33 percent of Silent and GI Generation households (born between 1904 and 1945) owned mutual funds in mid-2016.

Among mutual fund–owning households in mid-2016, 38 percent were headed by members of the Baby Boom Generation, 33 percent were headed by members of Generation X, 18 percent were headed by members of the Millennial Generation, and 11 percent were headed by members of the Silent and GI Generations (Figure 6.4). Heads of mutual fund–owning households had a median age of 51 years (Figure 6.2).

FIGURE 6.3

Incidence of Mutual Fund Ownership Is Greatest Among the Baby Boom Generation and Generation X

Percentage of US households within each generation group, mid-2016



* The Millennial Generation is aged 12 to 35 in 2016; survey respondents, however, must be 18 or older.

Note: Generation is based on the age of the household sole or co-decisionmaker for saving and investing.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016."

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Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016

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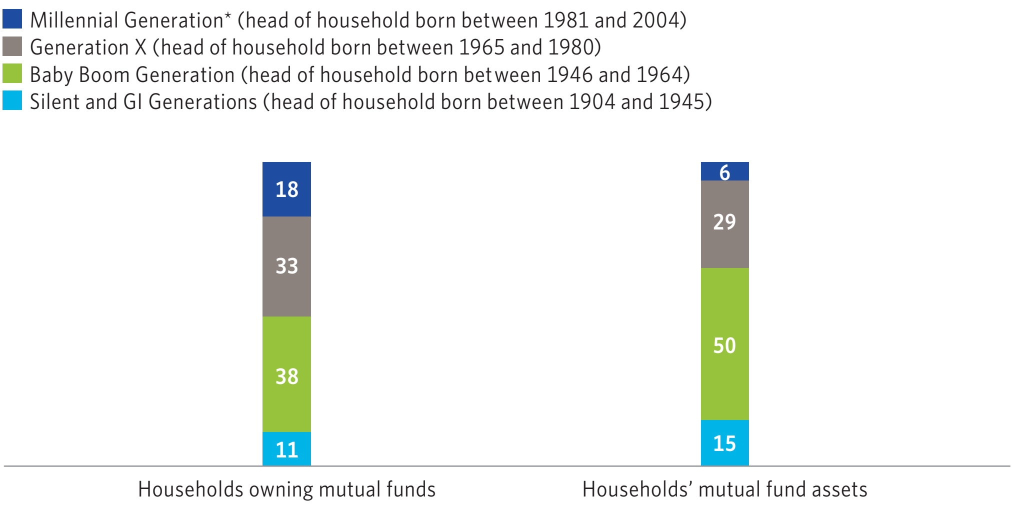
Not only were Baby Boomers the largest shareholder group in mid-2016, they also held the largest percentage of households' mutual fund assets, at 50 percent (Figure 6.4). Households headed by members of Generation X (29 percent), the Silent and GI Generations (15 percent), and the Millennial Generation (6 percent) held the rest. This pattern of asset ownership reflects the fact that Millennials are younger and have not had as much time to save as Baby Boom households that are in their peak earning and saving years.

FIGURE 6.4

The Baby Boom Generation Is the Largest Shareholder Group and Holds Half of Households' Mutual Fund Assets

Percentage of mutual fund-owning households and mutual fund assets by generation, mid-2016



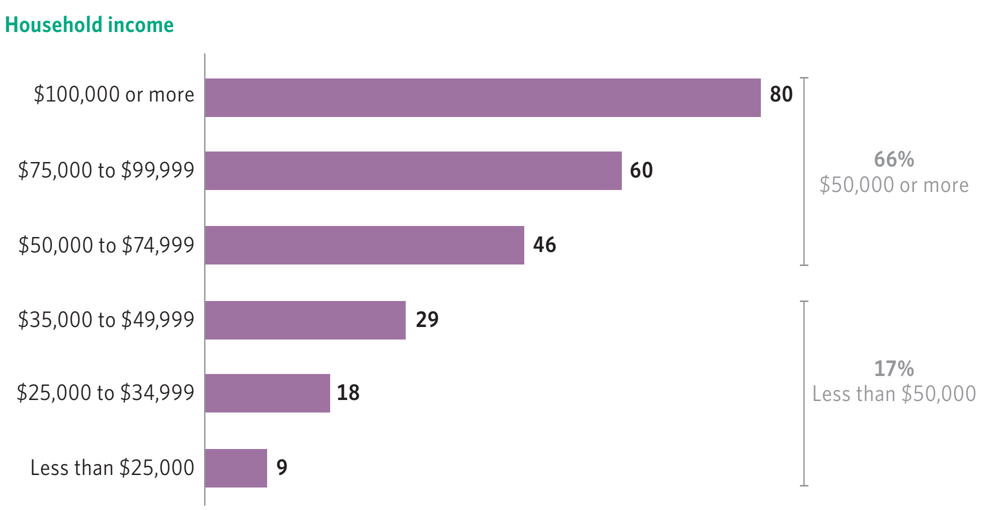
* The Millennial Generation is aged 12 to 35 in 2016; survey respondents, however, must be 18 or older.
Note: Generation is based on the age of the household sole or co-decisionmaker for saving and investing.
Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

Households with higher annual incomes are more likely to own mutual funds than those with lower annual incomes. In mid-2016, 66 percent of US households with annual income of $50,000 or more owned mutual funds, compared with 17 percent of households with annual income of less than $50,000 (Figure 6.5). In fact, lower-income households tend to have less savings of any kind than higher-income households. The typical household with less than $50,000 in annual income had only $15,000 in savings and investments, while the typical household with annual income of $50,000 or more held $200,000 in savings and investments.

FIGURE 6.5

Ownership of Mutual Funds Increases with Household Income

Percentage of US households within each income group, mid-2016



Note: Total reported is household income before taxes in 2015.

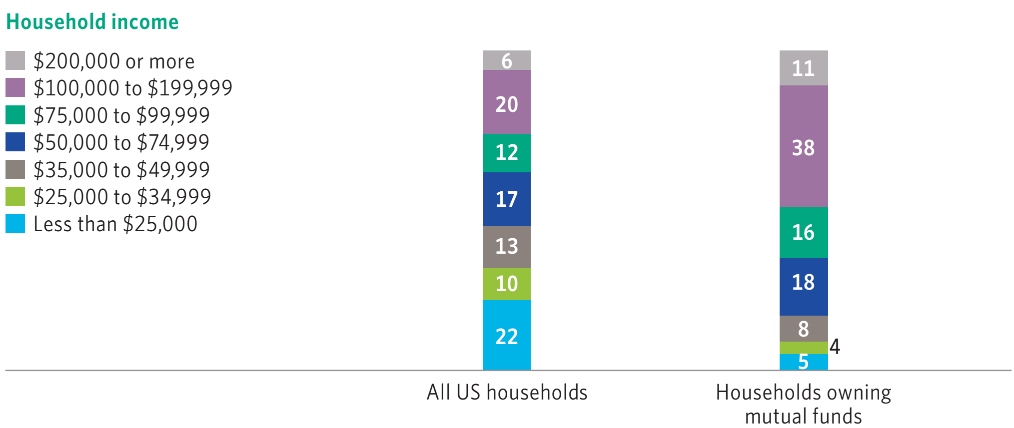
Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016."

US households owning mutual funds had a range of annual incomes in mid-2016: 17 percent had annual income of less than $50,000; 18 percent had between $50,000 and $74,999; 16 percent had between $75,000 and $99,999; and the remaining 49 percent had $100,000 or more (Figure 6.6). The median income of mutual fund–owning households in mid-2016 was $94,300 (Figure 6.2).

FIGURE 6.6

Many Households That Own Mutual Funds Have Moderate or Lower Incomes

Percent distribution of all US households and households owning mutual funds by household income, mid-2016



Note: Total reported is household income before taxes in 2015.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016."

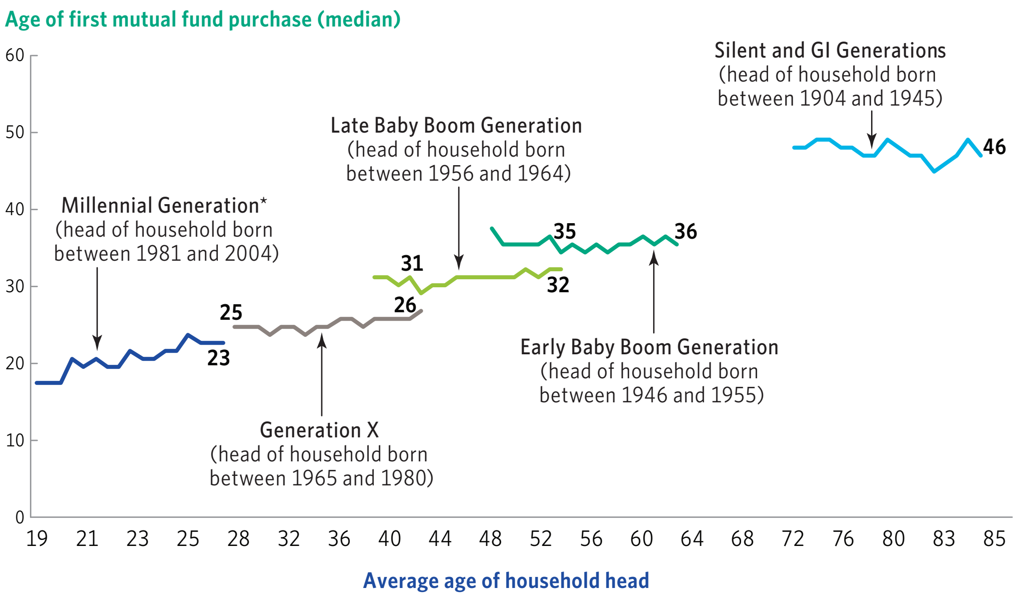
Households' First Mutual Fund Purchase

Younger generations tend to start investing in mutual funds earlier than older generations did. For example, in 2016, when they were aged 18 to 35, the median age of first mutual fund purchase was 23 for households in the Millennial Generation (Figure 6.7). By comparison, Generation X households made their first mutual fund purchase at age 25 when they were aged 20 to 35 in 2000. Similarly, in 2015, when Generation X households were aged 35 to 50, their median age of first mutual fund purchase was 26, while in 2003, when late Baby Boomers were aged 39 to 47, their median age of first mutual fund purchase was 31. Finally, in 2016, when they were aged 52 to 60, the median age of first mutual fund purchase was 32 for households in the late Baby Boom Generation, while in 2006, when households in the early Baby Boom Generation were aged 51 to 60, their median age of first mutual fund purchase was 35. This pattern reflects the expansion of mutual fund investing, especially as it occurs in employer-sponsored retirement plans.

FIGURE 6.7

Younger Generations Purchased First Mutual Fund Earlier Than Older Generations

Median age of household head when first mutual fund purchase was made by generation group, 2000–2016



* The Millennial Generation is aged 12 to 35 in 2016; however, survey respondents must be 18 or older.

Note: Generation is based on the age of the household sole or co-decisionmaker for saving and investing. Average age of the household head is the average age of the generation group at the time of the survey.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016."

As 401(k) and other employer-sponsored defined contribution (DC) retirement plans have grown more popular, the percentage of households that make their first foray into mutual fund investing inside these plans has increased. Among the households that bought their first mutual fund shares in 2010 or later, 71 percent did so inside an employer-sponsored retirement plan (Figure 6.8). Among those that bought their first mutual fund shares before 1990, 56 percent did so inside an employer-sponsored retirement plan.

FIGURE 6.8

Employer-Sponsored Retirement Plans Are Often the Source of First Mutual Fund Purchase

Percentage of US households owning mutual funds, mid-2016

	Year of household's first mutual fund purchase						Memo: all mutual fund-owning households
	Before 1990	1990 to 1994	1995 to 1999	2000 to 2004	2005 to 2009	2010 or later	
Source of first mutual fund purchase							
Inside employer-sponsored retirement plan	56	68	69	70	75	71	67
Outside employer-sponsored retirement plan	44	32	31	30	25	29	33

Note: Employer-sponsored retirement plans include DC plans (such as 401(k), 403(b), or 457 plans) and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

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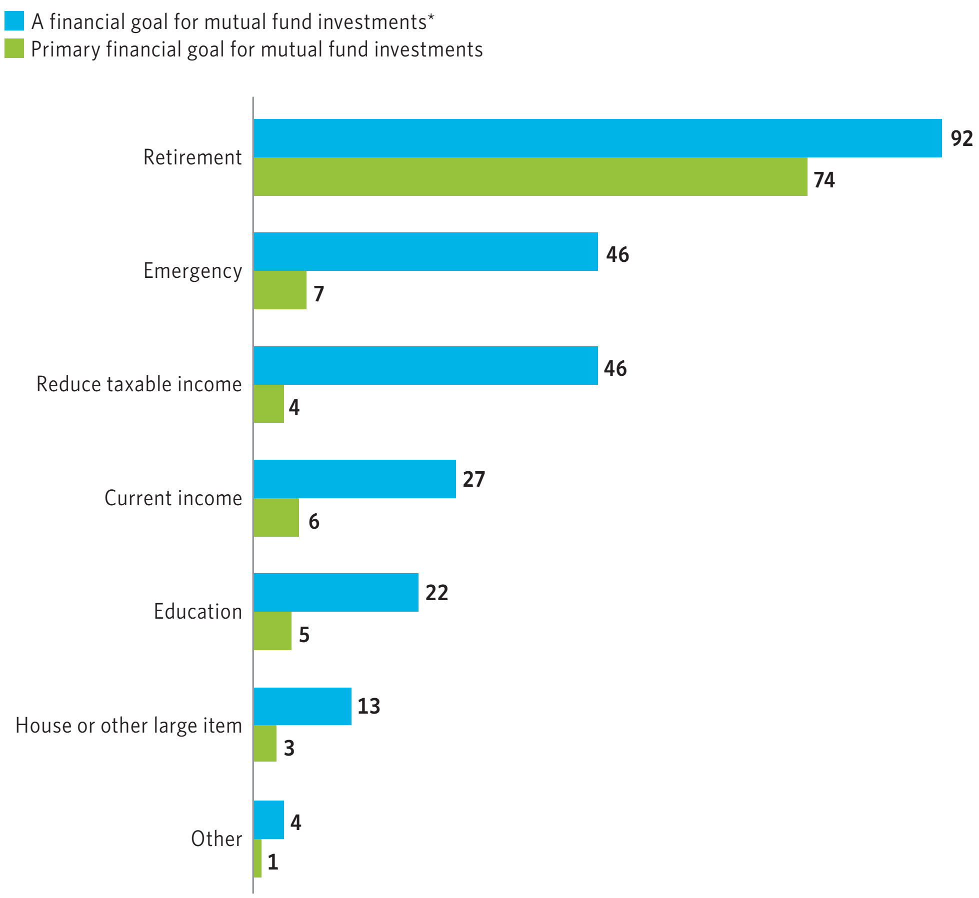
Savings Goals of Mutual Fund Investors

Mutual funds play a key role in the long- and short-term savings goals of US households. In mid-2016, 92 percent of mutual fund–owning households indicated that saving for retirement was one of their financial goals, and 74 percent said it was their primary financial goal (Figure 6.9). Retirement, however, is not the only financial goal for mutual fund–owning households—46 percent reported saving for emergencies as a goal; 46 percent reported reducing taxable income as a goal; and 22 percent reported saving for education as a goal.

FIGURE 6.9

Majority of Mutual Fund Investors Focus on Retirement

Percentage of US households owning mutual funds, mid-2016



* Multiple responses are included.
Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

Where Investors Own Mutual Funds

The importance that mutual fund–owning households place on retirement saving is reflected in where they own their funds—94 percent of these households held mutual fund shares inside employer-sponsored retirement plans, individual retirement accounts (IRAs), and other tax-advantaged accounts in mid-2016. It also is reflected in the type of funds they choose—households are more likely to invest their retirement assets in long-term mutual funds than in money market funds. Indeed, DC retirement plan and IRA assets held in equity, bond, and hybrid mutual funds totaled $7.2 trillion at year-end 2016, or 53 percent of those funds' total net assets industrywide. By contrast, DC retirement plan and IRA assets in money market funds totaled just $373 billion (Figure 7.23), or 14 percent of those funds' total net assets industrywide.

In mid-2016, 81 percent of mutual fund–owning households held funds inside employer-sponsored retirement plans, with 37 percent owning funds only inside such plans (Figure 6.10). Sixty-three percent of mutual fund–owning households held funds outside employer-sponsored retirement accounts, with 19 percent owning funds only outside such plans. For mutual fund–owning households without mutual funds in employer-sponsored retirement plans, 54 percent held funds in traditional or Roth IRAs. In many cases, these IRAs held assets rolled over from 401(k) plans or other employer-sponsored retirement plans (either defined benefit or DC plans).

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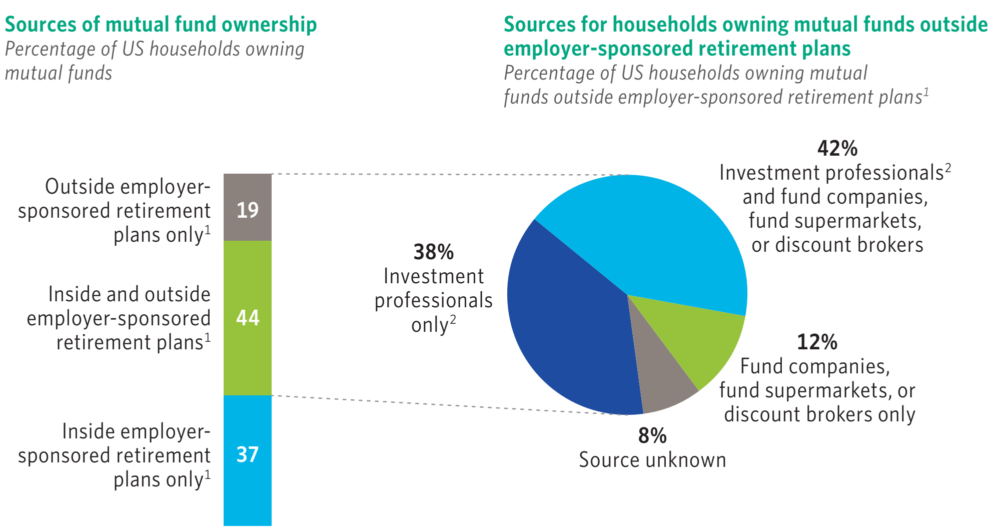
Households owning mutual funds outside employer-sponsored retirement plans buy their fund shares through a variety of sources. In mid-2016, 80 percent of these households owned funds purchased with the help of an investment professional, including registered investment advisers, full-service brokers, independent financial planners, bank and savings institution representatives, insurance agents, and accountants (Figure 6.10). Thirty-eight percent of these households owned funds purchased solely with the help of an investment professional, and another 42 percent owned funds purchased from investment professionals and from fund companies directly, fund supermarkets, or discount brokers. Twelve percent solely owned funds purchased from fund companies directly, fund supermarkets, or discount brokers.

FIGURE 6.10

81 Percent of Mutual Fund–Owning Households Held Shares Inside Employer-Sponsored Retirement Plans

Mid-2016



[1] Employer-sponsored retirement plans include DC plans (such as 401(k), 403(b), or 457 plans) and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[2] Investment professionals include registered investment advisers, full-service brokers, independent financial planners, bank and savings institution representatives, insurance agents, and accountants.

Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

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Characteristics of Mutual Fund Investors, 2016

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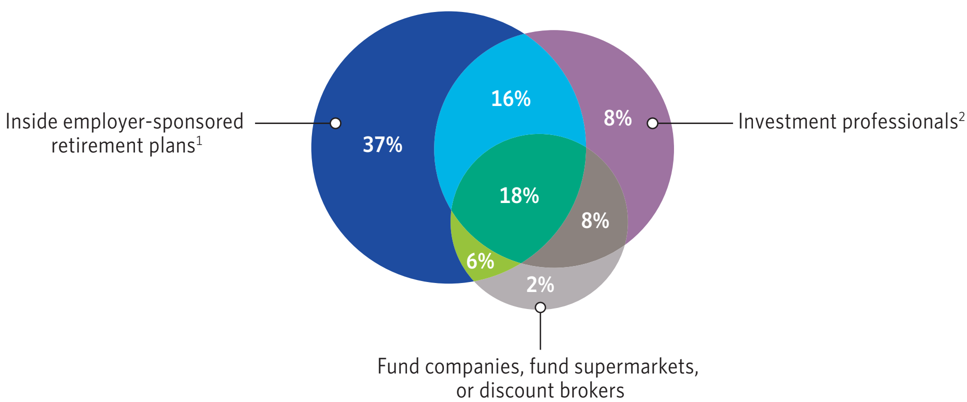
In mid-2016, about half of mutual fund–owning households held mutual funds through multiple sources: 16 percent held mutual funds both inside employer-sponsored retirement plans and through investment professionals; 6 percent held mutual funds both inside employer-sponsored retirement plans and from fund companies directly, fund supermarkets, or discount brokers; and 8 percent held mutual funds through investment professionals and from fund companies directly, fund supermarkets, or discount brokers (Figure 6.11). Eighteen percent owned mutual funds through all three source categories. Another 3 percent owned funds inside and outside employer-sponsored retirement plans, without specifying their outside purchase source. When owning funds through only one source category, the most common source was employer-sponsored retirement plans, at 37 percent.

FIGURE 6.11

About Half of Mutual Fund–Owning Households Held Shares Through Multiple Sources

Percentage of US households owning mutual funds, mid-2016



[1] Employer-sponsored retirement plans include DC plans (such as 401(k), 403(b), or 457 plans) and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[2] Investment professionals include registered investment advisers, full-service brokers, independent financial planners, bank and savings institution representatives, insurance agents, and accountants.

Note: Components do not add to 100 percent because 5 percent of households owning mutual funds outside of employer-sponsored retirement plans did not indicate which source was used to purchase funds. Of this 5 percent, 3 percent owned funds both inside and outside employer-sponsored retirement plans and 2 percent owned funds only outside of employer-sponsored retirement plans.

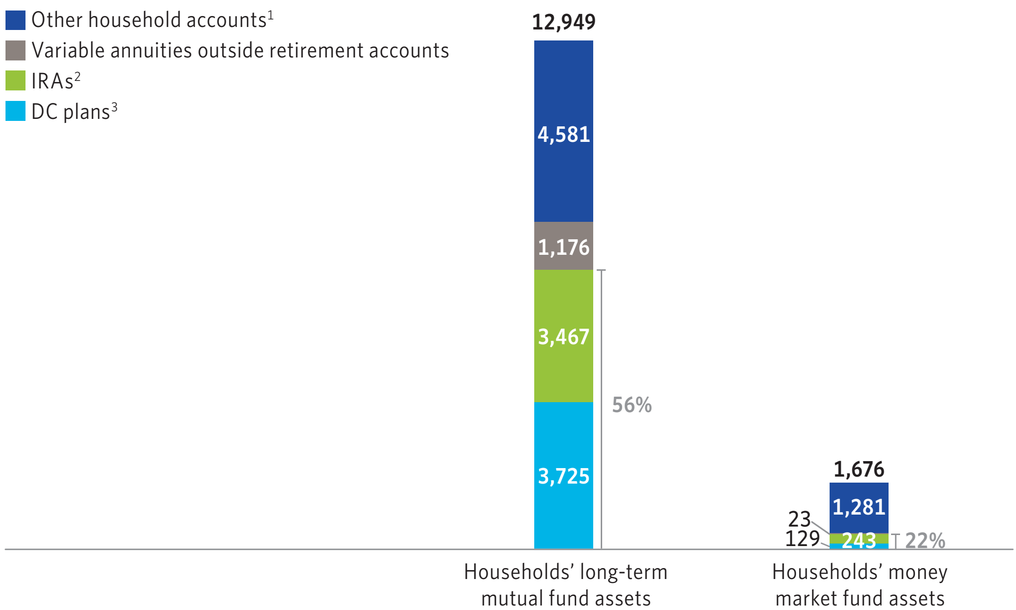
Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

At year-end 2016, mutual funds held in DC plans and IRAs accounted for $7.6 trillion, or 30 percent, of the $25.3 trillion US retirement market. The $7.6 trillion made up 46 percent of total mutual fund assets at year-end 2016. DC plans and IRAs held 53 percent of total net assets in long-term mutual funds, but a much smaller share of total net assets in money market funds (14 percent). Similarly, mutual funds held in DC plans and IRAs accounted for 56 percent of household long-term mutual funds but only 22 percent of household money market funds (Figure 6.12).

FIGURE 6.12

Households' Mutual Fund Assets by Type of Account

Billions of dollars, year-end 2016



[1] Mutual funds held as investments in 529 plans and Coverdell ESAs are counted in this category.

[2] IRAs include traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[3] DC plans include 401(k) plans, 403(b) plans, 457 plans, Keoghs, and other DC plans without 401(k) features.

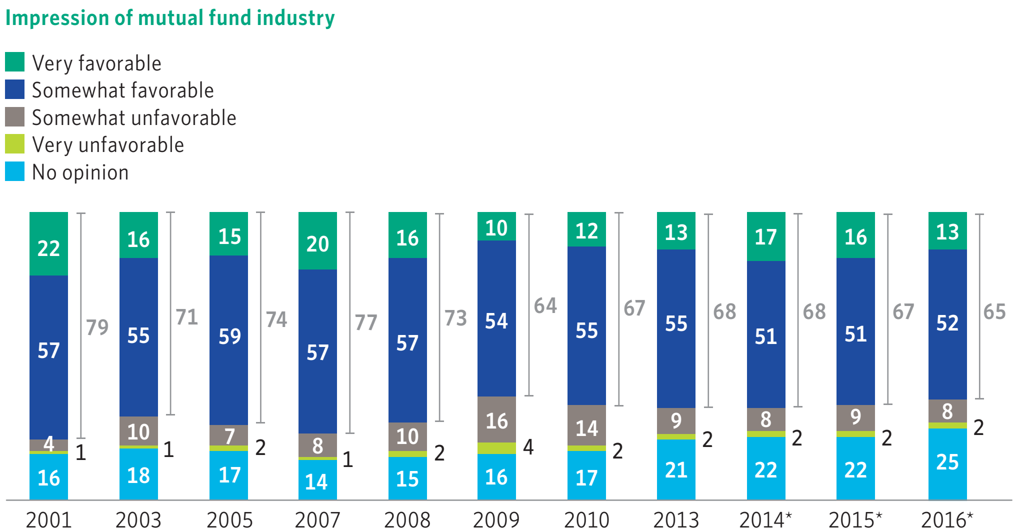
Shareholder Sentiment, Willingness to Take Investment Risk, and Confidence

Each year, ICI surveys US households about a variety of topics, including shareholder sentiment. In mid-2016, 65 percent of mutual fund–owning households familiar with mutual fund companies had "very" or "somewhat" favorable impressions of fund companies, slightly lower than in 2015 (Figure 6.13). The share of mutual fund–owning households with "very" favorable impressions of fund companies declined to 13 percent.

FIGURE 6.13

A Majority of Shareholders View the Mutual Fund Industry Favorably

Percentage of mutual fund shareholders familiar with mutual fund companies, selected years



* The survey methodology was changed to a dual frame sample of cell phones and landlines in 2014.
Source: *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016"

Among all US households, the percentage willing to take above-average or substantial investment risk tends to move with stock market performance. US households tend to become less tolerant of investment risk following periods of poor stock market performance. For example, willingness to take above-average or substantial investment risk fell from 23 percent in mid-2008, during the 2007–2009 financial crisis, to 19 percent in mid-2009 (Figure 6.14). Not until mid-2013, more than four years after the stock market bottomed out, did willingness to take investment risk begin to rebound.

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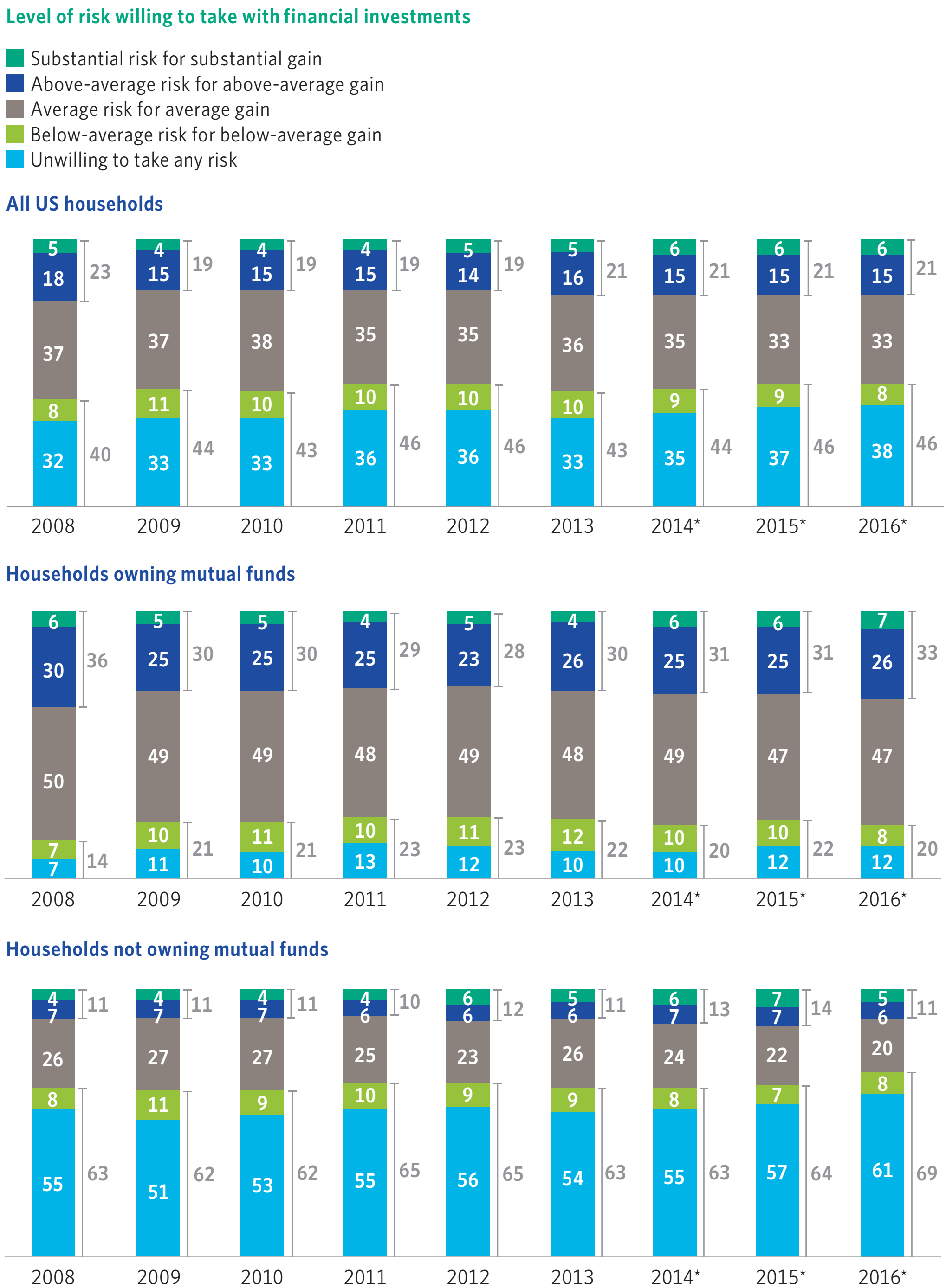
FIGURE 6.14

Households' Willingness to Take Investment Risk

Percentage of US households by mutual fund ownership status, 2008–2016



All US households	2008	2009	2010	2011	2012	2013	2014*	2015*	2016*
Substantial risk for substantial gain	5	4	4	4	5	5	6	6	6
Above-average risk for above-average gain	18	15	15	15	14	16	15	15	15
(Substantial + above-average)	23	19	19	19	19	21	21	21	21
Average risk for average gain	37	37	38	35	35	36	35	33	33
Below-average risk for below-average gain	8	11	10	10	10	10	9	9	8
Unwilling to take any risk	32	33	33	36	36	33	35	37	38
(Below-average + unwilling)	40	44	43	46	46	43	44	46	46

Households owning mutual funds	2008	2009	2010	2011	2012	2013	2014*	2015*	2016*
Substantial risk for substantial gain	6	5	5	4	5	4	6	6	7
Above-average risk for above-average gain	30	25	25	25	23	26	25	25	26
(Substantial + above-average)	36	30	30	29	28	30	31	31	33
Average risk for average gain	50	49	49	48	49	48	49	47	47
Below-average risk for below-average gain	7	10	11	10	11	12	10	10	8
Unwilling to take any risk	7	11	10	13	12	10	10	12	12
(Below-average + unwilling)	14	21	21	23	23	22	20	22	20

Households not owning mutual funds	2008	2009	2010	2011	2012	2013	2014*	2015*	2016*
Substantial risk for substantial gain	4	4	4	4	6	5	6	7	5
Above-average risk for above-average gain	7	7	7	6	6	6	7	7	6
(Substantial + above-average)	11	11	11	10	12	11	13	14	11
Average risk for average gain	26	27	27	25	23	26	24	22	20
Below-average risk for below-average gain	8	11	9	10	9	9	8	7	8
Unwilling to take any risk	55	51	53	55	56	54	55	57	61
(Below-average + unwilling)	63	62	62	65	65	63	63	64	69

* The survey methodology was changed to a dual frame sample of cell phones and landlines in 2014.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016."

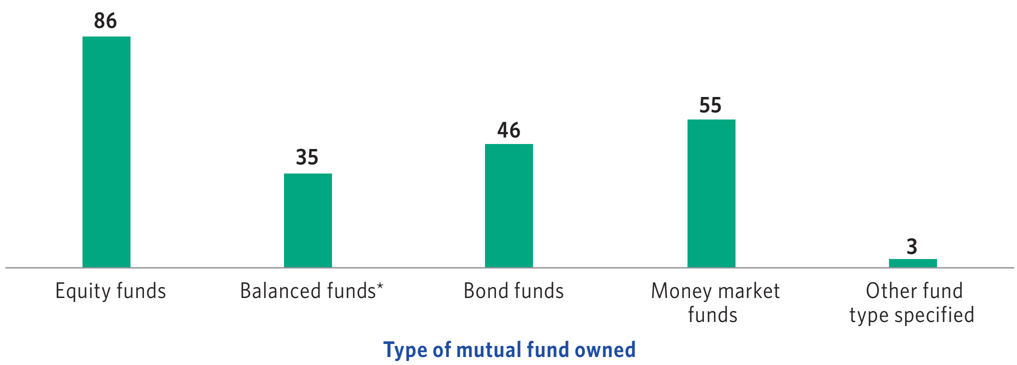
Households owning mutual funds are far more willing to take investment risk than other households. In mid-2016, 33 percent of households owning mutual funds were willing to take above-average or substantial investment risk, three times the 11 percent of households not owning mutual funds (Figure 6.14).

Mutual fund–owning households tend to have a larger appetite for investment risk, and this is reflected in the types of mutual funds they own. Equity funds were the most commonly owned type of mutual fund in mid-2016, held by 86 percent of mutual fund–owning households (Figure 6.15). In addition, 35 percent owned balanced funds, 46 percent owned bond funds, and 55 percent owned money market funds.

FIGURE 6.15

Equity Funds Are the Most Commonly Owned Type of Mutual Fund

Percentage of US households owning mutual funds, mid-2016



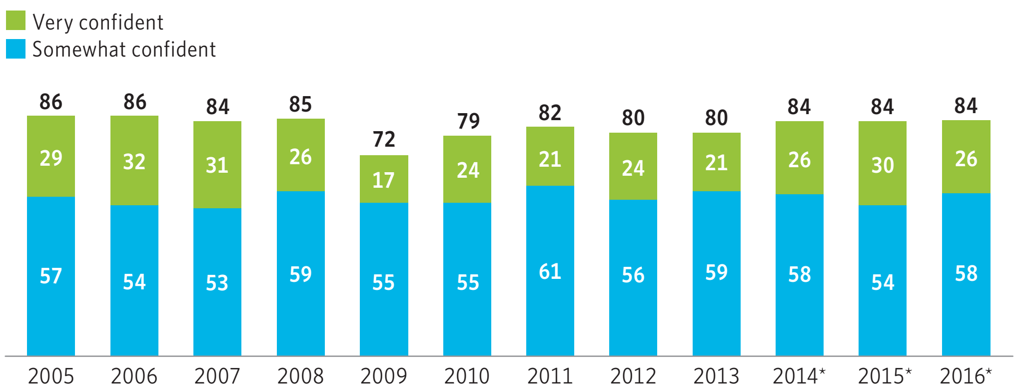
* The Investment Company Institute classifies this fund category as *hybrid* in its data.
Note: Multiple responses are included.
Source: *ICI Research Perspective*, "Characteristics of Mutual Fund Investors, 2016"

Mutual fund–owning households' confidence that mutual funds are helping them reach their financial goals declined in the wake of the financial crisis. In mid-2009, 72 percent of mutual fund–owning households said they were confident in mutual funds' ability to help them achieve their financial goals, down from 85 percent the year before (Figure 6.16). From mid-2010 through mid-2013, about eight in 10 mutual fund–owning households said they were confident in mutual funds' ability to help them achieve their financial goals, with more than 20 percent saying they were "very" confident. In mid-2014, confidence increased to 84 percent of mutual fund–owning households and remained there through mid-2016, when 26 percent said they were "very" confident that mutual funds could help them meet their financial goals.

FIGURE 6.16

More Than Eight in 10 Mutual Fund–Owning Households Have Confidence in Mutual Funds

Percentage of US households owning mutual funds by level of confidence that mutual funds can help them meet their investment goals, 2005–2016



* The survey methodology was changed to a dual frame sample of cell phones and landlines in 2014.

Note: This question was not included in the survey prior to 2005. The question has four choices; the other two possible responses are "not very confident" and "not at all confident."

Source: *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016"

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Shareholder Use of the Internet

An overwhelming majority of mutual fund–owning households have Internet access. In mid-2016, 92 percent of US households owning mutual funds had Internet access (Figure 6.17), up from 68 percent in 2000 (the first year for which ICI collected data on shareholder access to the Internet). Internet access traditionally has been greatest among younger people, in both mutual fund–owning households and the general population. Increasing access among older households, however, has narrowed the gap considerably.

FIGURE 6.17

Internet Access Is Nearly Universal Among Mutual Fund–Owning Households

Percentage of US households with Internet access, mid-2016

	All US households	Mutual fund–owning households	Households with DC plans[1]
Age of head of household[2]			
Younger than 35	89	96	94
35 to 49	85	97	94
50 to 64	78	92	90
65 or older	61	83	80
Education level			
High school diploma or less	60	84	78
Some college or associate's degree	85	93	92
College or postgraduate degree	91	95	95
Household income[3]			
Less than $50,000	62	80	78
$50,000 to $99,999	87	91	90
$100,000 to $149,999	94	98	96
$150,000 or more	95	97	96
Total	**78**	**92**	**90**

[1] DC plans include 401(k), 403(b), 457, and other DC plans.

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

[3] Total reported is household income before taxes in 2015.

Note: Internet access includes access to the Internet at home, work, or some other location.

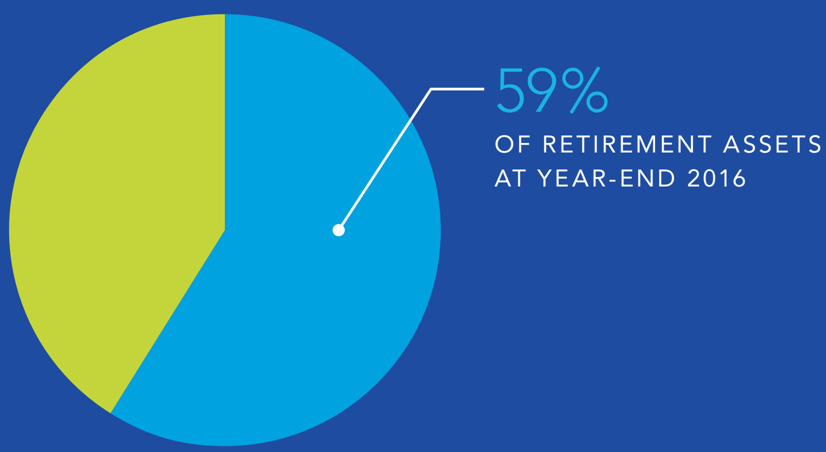
Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "Ownership of Mutual Funds, Shareholder Sentiment, and Use of the Internet, 2016."

CHAPTER SEVEN

Retirement and Education Savings

National policies that have created or enhanced tax-advantaged savings accounts have proven integral to helping Americans prepare for retirement and other long-term savings goals. Because many Americans use mutual funds in tax-advantaged accounts to reach these goals, ICI studies the US retirement market; the investors who use IRAs, 401(k) plans, 529 plans, and other tax-advantaged savings vehicles; and the role of mutual funds in the retirement and education savings markets.

DC plans and IRAs comprised 59 percent of retirement assets at year-end 2016



In this chapter:

The US Retirement System

American households rely on a combination of resources in retirement, and the role each type of resource plays has changed over time and varies across households. The traditional analogy compares retirement resources to a three-legged stool, with resources divided equally among the legs—Social Security, employer-sponsored pension plans, and private savings. But Americans' retirement resources are best thought of as a five-layer pyramid.

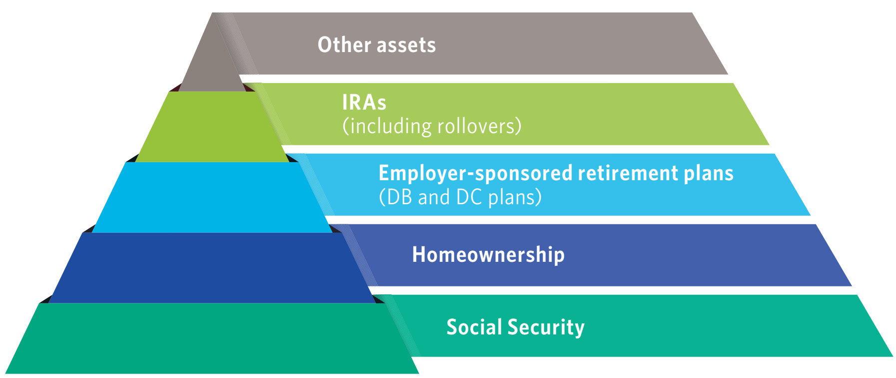
Retirement Resource Pyramid

The retirement resource pyramid has five layers, which draw from government programs, compensation deferred until retirement, and other savings (Figure 7.1):

- Social Security
- homeownership
- employer-sponsored retirement plans (private-sector and government employer plans, including both defined benefit [DB] and defined contribution [DC] plans)
- individual retirement accounts (IRAs), including rollovers
- other assets

FIGURE 7.1

Retirement Resource Pyramid



Source: Investment Company Institute, *The Success of the US Retirement System*

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www.ici.org/whobenefits

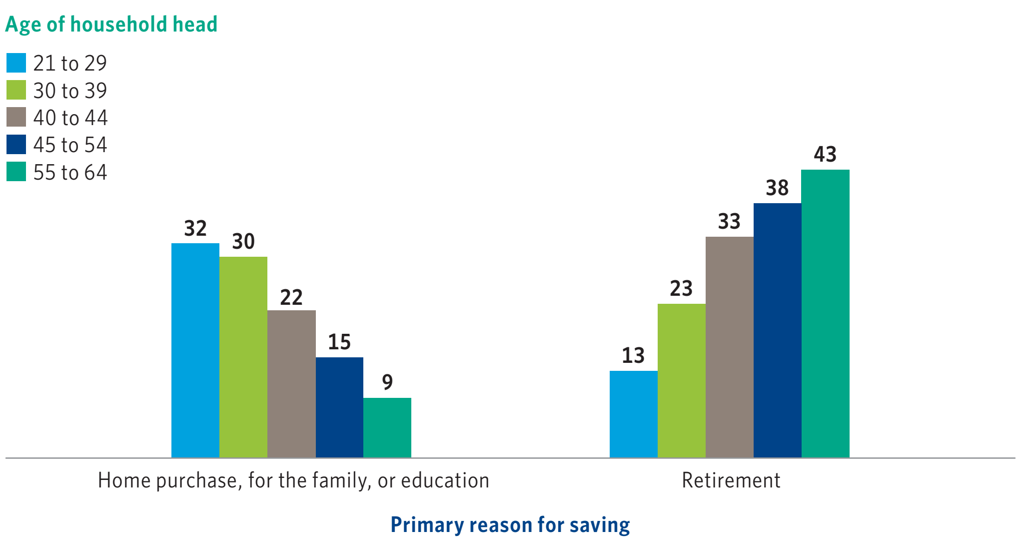
Though the importance of each layer differs by household, together they have enabled recent generations of retirees, on average, to maintain their standard of living in retirement.

The construction of each household's pyramid varies with age and income. Younger households are more likely to save primarily for reasons other than retirement, such as a home purchase, family needs, or education (Figure 7.2). By contrast, older households are more likely to save primarily for retirement, as many already have reached their other savings goals. The tendency of younger workers to focus less on saving for retirement is consistent with economic models of life-cycle consumption predicting that most workers delay saving for retirement until later in their careers. Lower-income households also focus less on saving for retirement, reflecting the fact that Social Security benefits replace a higher share of pre-retirement earnings for workers with lower lifetime earnings.

FIGURE 7.2

Primary Reason for Household Saving Changes with Age

Percentage of households by age of household head, 2013



Source: Investment Company Institute tabulations of the 2013 Federal Reserve Board Survey of Consumer Finances. See *ICI Research Perspective*, "Supplemental Tables: Who Gets Retirement Plans and Why, 2013."

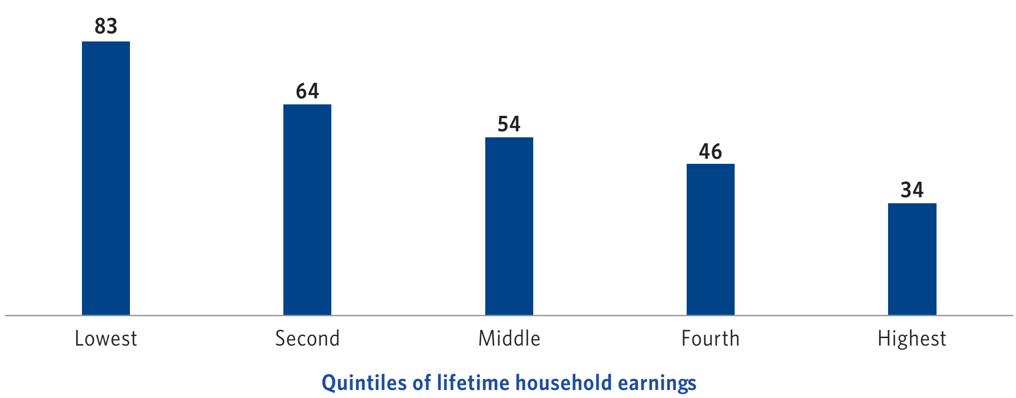
Social Security, the base of the US retirement resource pyramid, is the largest component of retiree income and the primary source of income for lower-income retirees. Social Security benefits are funded through a payroll tax equal to 12.4 percent of earnings of covered workers (6.2 percent paid by employees and 6.2 percent paid by employers) up to a maximum taxable earnings amount ($118,500 in 2016). The benefit formula is highly progressive, with benefits representing a much higher percentage of earnings for workers with lower lifetime earnings. By design, Social Security is the primary means of support for retirees with low lifetime earnings and a substantial source of income for all retired workers. For individuals born in the 1960s who claim benefits at age 65, the Congressional Budget Office (CBO) projects that mean first-year Social Security benefits will replace 83 percent of average inflation-indexed lifetime earnings for retired workers in the lowest 20 percent of households ranked by lifetime household earnings (Figure 7.3). The mean replacement rate drops to 64 percent for workers in the second quintile of households, and then declines more slowly as lifetime household earnings increase. Even for workers in the top 20 percent of lifetime earners, Social Security benefits are projected to replace a considerable portion (34 percent) of earnings.

For many near-retiree households, homeownership is the second most important retirement resource after Social Security. Older households are more likely to own their homes; more likely to own their homes without mortgage debt; and, if they still have mortgages, more likely to have small mortgages relative to the value of their homes. Retired households typically access this resource simply by living in their homes rent-free.

FIGURE 7.3

Social Security Benefit Formula Is Highly Progressive

Average projected Social Security replacement rates for workers in the 1960s birth cohort by quintile of lifetime household earnings, percent



Note: For each worker, the replacement rate is the ratio of Social Security benefits net of income tax to average inflation-indexed lifetime earnings. Replacement rates are for workers claiming benefits at age 65. For workers born in the 1960s, the Social Security full benefit retirement age is 67. If these workers claimed benefits at age 67, benefits would increase by about 15 percent.

Source: Congressional Budget Office, *The 2016 Long-Term Projections for Social Security: Additional Information*

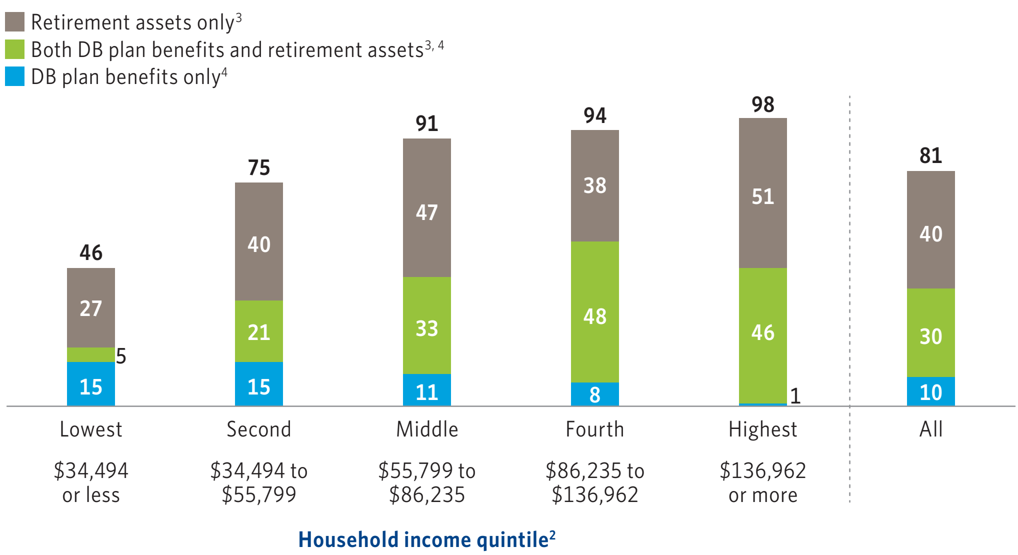
Employer-sponsored retirement plans and IRAs, which complement Social Security benefits and are important resources for households regardless of income or wealth, increase in importance for households for whom Social Security replaces a smaller share of earnings. In 2013, about eight out of 10 near-retiree households had accrued benefits in employer-sponsored retirement plans—DB and DC plans sponsored by private-sector and government employers—or IRAs (Figure 7.4).

Although less important on average, retirees also rely on other assets in retirement. These assets can be financial—including bank deposits, stocks, bonds, and mutual funds owned outside employer-sponsored retirement plans and IRAs. They also can be nonfinancial—including business equity, investment real estate, second homes, vehicles, and consumer durables (long-lived goods such as household appliances and furniture). Higher-income households are more likely to have large holdings of assets in this category.

FIGURE 7.4

Near-Retiree Households Across All Income Groups Have Retirement Assets, DB Plan Benefits, or Both

Percentage of near-retiree households[1] by income quintile,[2] 2013



[1] *Near-retiree households* are those with a head of household aged 55 to 64, and a working head of household or working spouse.

[2] Income is household income before taxes in 2012.

[3] Retirement assets include DC plan assets (401(k), 403(b), 457, thrift, and other DC plans) and IRAs (traditional, Roth, SEP, SAR-SEP, and SIMPLE), whether from private-sector or government employers.

[4] Households currently receiving DB plan benefits and households with the promise of future DB plan benefits, whether from private-sector or government employers, are counted in this category.

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

Source: Investment Company Institute tabulations of the 2013 Federal Reserve Board Survey of Consumer Finances

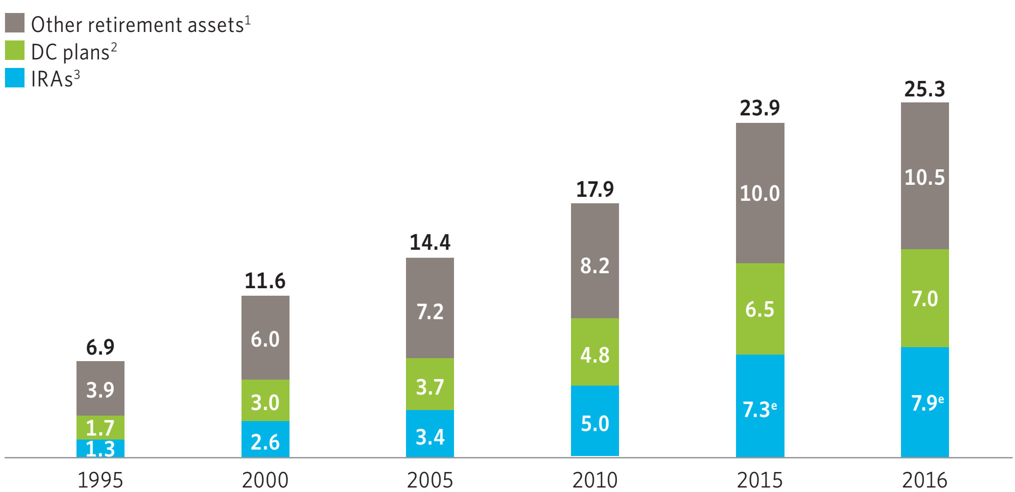
Snapshot of US Retirement Market Assets

Employer-sponsored retirement plans (DB and DC plans sponsored by private-sector and government employers), IRAs (including rollovers), and annuities play an important role in the US retirement system, with assets totaling $25.3 trillion at year-end 2016, up 6.1 percent from $23.9 trillion at year-end 2015 (Figure 7.5). The largest components of retirement assets were IRAs and employer-sponsored DC plans, holding $7.9 trillion and $7.0 trillion, respectively, at year-end 2016. Other employer-sponsored plans include private-sector DB pension funds ($2.9 trillion), state and local government DB retirement plans ($3.9 trillion), and federal government DB plans ($1.6 trillion). In addition, annuity reserves outside of retirement plans were $2.0 trillion at year-end 2016.

FIGURE 7.5

Total US Retirement Assets

Trillions of dollars; year-end, selected years



[1] *Other retirement assets* includes private-sector DB plans; federal, state, and local DB plans; and all fixed and variable annuity reserves at life insurance companies less annuities held by IRAs, 403(b) plans, 457 plans, and private pension funds. Because ICI estimates of annuities held in IRAs, 457 plans, and 403(b) plans are netted from the Federal Reserve Board's financial accounts' annuities (life insurance pension fund reserves) figure and reported in their respective categories by ICI, ICI reports a lower annuities total than in the financial accounts of the United States. Federal pension plans include US Treasury security holdings of the civil service retirement and disability fund, the military retirement fund, the judicial retirement funds, the Railroad Retirement Board, and the foreign service retirement and disability fund. These plans also include securities held in the National Railroad Retirement Investment Trust.

[2] DC plans include private employer-sponsored DC plans (including 401(k) plans), 403(b) plans, 457 plans, and the Federal Employees Retirement System (FERS) Thrift Savings Plan (TSP).

[3] IRAs include traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[e] Data are estimated.

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

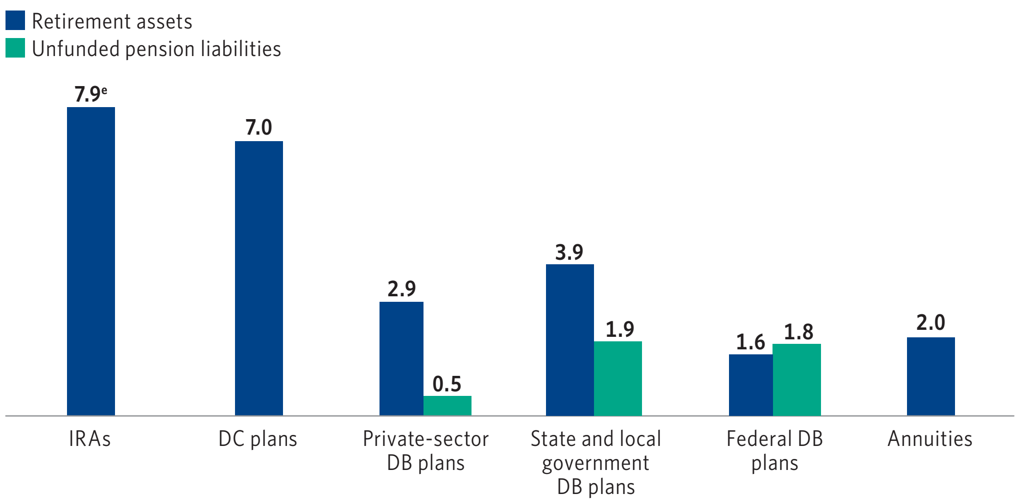
Sources: Investment Company Institute, Federal Reserve Board, Department of Labor, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service Statistics of Income Division. See Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016."

Retirement assets include individual account-based savings (e.g., IRAs and DC plans) and assets held in DB plans. Traditional DB plans promise to pay benefits in retirement typically based on salary and years of service, and assets held in those plans represent funding for those promised benefits. Some DB plans do not have sufficient funding to cover promised benefits that households have a legal right to expect; the total unfunded liabilities of DB plans were $4.2 trillion at year-end 2016 (Figure 7.6). Underfunding is more pronounced in government-sector pension plans. As of year-end 2016, private-sector DB plans had $2.9 trillion in assets and $0.5 trillion in unfunded liabilities. On the other hand, state and local government DB plans had $3.9 trillion in assets and $1.9 trillion in unfunded liabilities, and federal DB plans had $1.6 trillion in assets and $1.8 trillion in unfunded liabilities.

FIGURE 7.6

Total US Retirement Assets and Unfunded Pension Liabilities

Trillions of dollars, year-end 2016



[e] Data are estimated.

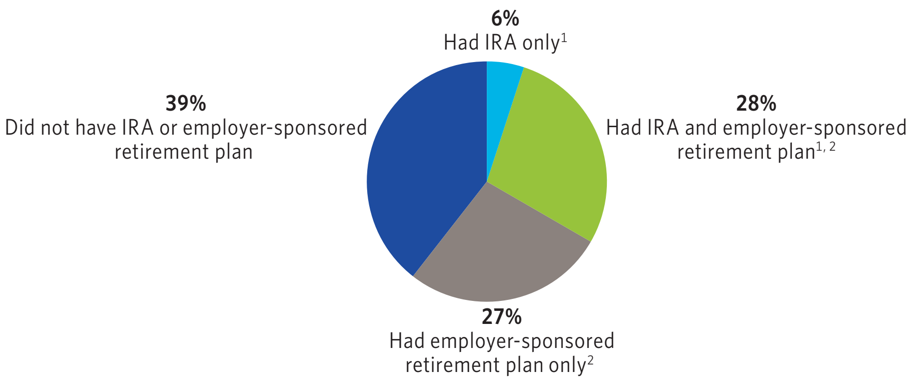
Sources: Investment Company Institute and Federal Reserve Board. See Investment Company Institute, “The US Retirement Market, Fourth Quarter 2016.”

Ownership of retirement accumulations is widespread; 61 percent of US households (or 77 million) reported that they had employer-sponsored retirement plans, IRAs, or both in mid-2016 (Figure 7.7). Fifty-five percent of US households reported that they had employer-sponsored retirement plans—that is, they had assets in DC plan accounts, were receiving or expecting to receive benefits from DB plans, or both. Thirty-four percent reported having assets in IRAs, and 28 percent had both IRAs and employer-sponsored retirement plans. The households in this snapshot represent a wide range of ages and so, they are at different points in the life cycle of saving. Focus on retirement savings tends to increase with age (Figure 7.2), and older households are more likely to have retirement resources; for example, about eight out of 10 near-retiree households have retirement accumulations (Figure 7.4).

FIGURE 7.7

Many US Households Have Tax-Advantaged Retirement Savings

Percentage of US households, mid-2016



Total number of US households: 125.8 million

[1] IRAs include traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[2] Employer-sponsored retirement plans include DC and DB retirement plans.

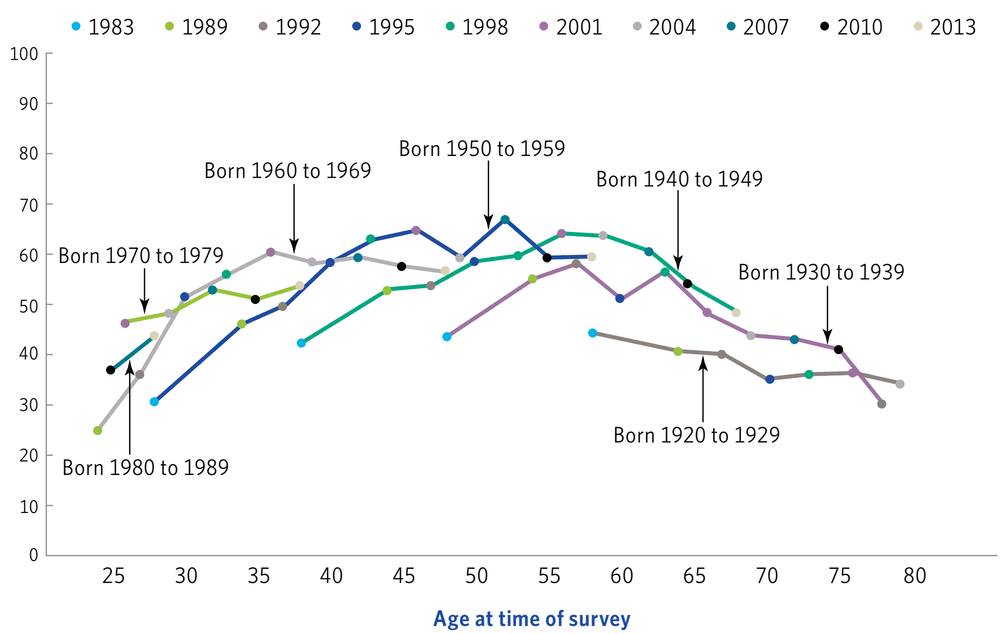
Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "The Role of IRAs in US Households' Saving for Retirement, 2016."

Ownership of IRA and DC plan assets has tended to increase with each successive generation of workers, although recent data suggest that ownership rates may have stabilized. For example, in 1983, when they were 44 to 53 years of age, 44 percent of households born in the 1930s owned IRAs or DC plan accounts (Figure 7.8). By comparison, households born a decade later had a 54 percent ownership rate when they were 43 to 52 years old in 1992; and, among households born in the 1950s, 60 percent had IRAs or DC plan accounts when they were 45 to 54 years old in 2004. Earlier in their careers, the 1960s birth cohort appeared to be continuing the trend of increased ownership. In 2013, however, when they were 44 to 53 years old, 57 percent of households born in the 1960s owned IRAs or DC plan accounts—slightly lower than the percentage for the 1950s birth cohort at similar ages and slightly higher than the 1940s birth cohort. Recent experience could indicate that long-term growth in ownership has stabilized, or it could reflect a temporary pause in the long-term trend caused by the weak economy.

FIGURE 7.8

Rates of IRA or Defined Contribution Plan Ownership

Percentage of US households owning IRAs or DC plans by decade in which household heads were born, 1983–2013



Note: Age is the average age of the 10-year birth cohort at the time of the survey. The 10-year birth cohorts are defined using the age of the head of household.

Source: Investment Company Institute tabulations of the Federal Reserve Board Survey of Consumer Finances

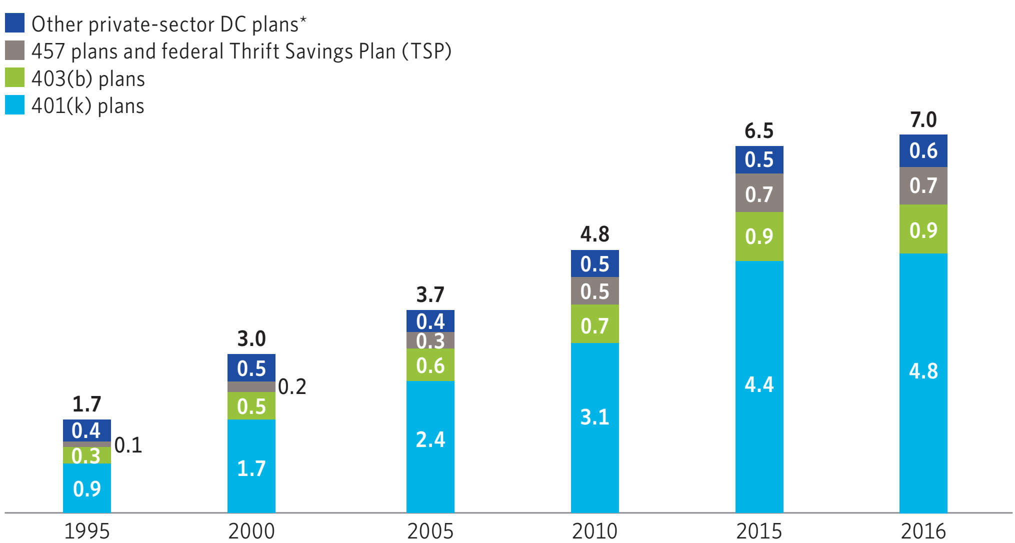
Defined Contribution Retirement Plans

DC plans provide employees with a retirement account funded with employer contributions, employee contributions, or both, plus investment earnings or losses on those contributions, less withdrawals. Assets in employer-sponsored DC plans have grown faster than assets in other types of employer-sponsored retirement plans over the past three decades, increasing from 26 percent of employer plan assets in 1986 to 46 percent at year-end 2016. At the end of 2016, employer-sponsored DC plans—which include 401(k) plans, 403(b) plans, 457 plans, the federal Thrift Savings Plan (TSP), Keoghs, and other private-sector DC plans—held an estimated $7.0 trillion in assets (Figure 7.9). With $4.8 trillion in assets at year-end 2016, 401(k) plans held the largest share of employer-sponsored DC plan assets. 403(b) plans, which are similar to 401(k) plans, and which allow employees of educational institutions and certain nonprofit organizations to receive deferred compensation, held another $0.9 trillion in assets. In addition, 457 plans—which allow employees of state and local governments and certain tax-exempt organizations to receive deferred compensation—and the Federal Employees Retirement System (FERS) TSP held a total of $0.7 trillion. Other private-sector DC plans without 401(k) features held the remaining $0.6 trillion.

FIGURE 7.9

Defined Contribution Plan Assets by Type of Plan

Trillions of dollars; year-end, selected years



* *Other private-sector DC plans* includes Keoghs and other private-sector DC plans (profit-sharing, stock bonus, and money purchase) without 401(k) features.

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

Sources: Investment Company Institute, Federal Reserve Board, Department of Labor, National Association of Government Defined Contribution Administrators, and American Council of Life Insurers. See Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016."

401(k) and 403(b) Plan Design and Investment Lineup

Plan Design

Employers who sponsor a 401(k) plan have the option to include features in the plan, such as employer contributions, access to plan assets through participant loans, and automatic enrollment of employees into the plan to encourage participation. The most common of these plan features is employer contributions. In 401(k) plans, employers can make contributions without regard to employee contributions or by using a matching structure that gives employees an incentive to contribute to the plan. Analysis of large 401(k) plans found that nearly nine in 10 (87 percent) made employer contributions of some type in plan year 2014 (Figure 7.10). More than three-quarters of large 401(k) plans had loans outstanding* and more than one-quarter included automatic enrollment in 2014. An analysis of large 403(b) plans found that they are similarly likely to have employer contributions but less likely to have loans outstanding or automatic enrollment.

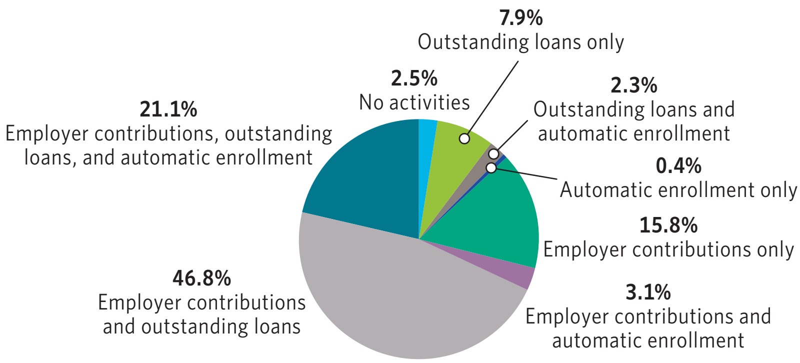
When designing 401(k) plans, employers tend to select a combination of features that their employees are likely to value. In 2014, 47 percent of large 401(k) plans had both employer contributions and participant loans outstanding but no automatic enrollment, making this the most common combination of plan features (Figure 7.10). The next most common plan design combined all three features—employer contributions, automatic enrollment, and outstanding loans—and was offered by 21 percent of plans, followed by 16 percent having employer contributions only. Less than 3 percent of large plans did not offer any of the three features—that is, they did not provide employer contributions, did not have participant loans outstanding, and did not automatically enroll participants.

* Although the availability of a loan feature is not reported on Form 5500, it is possible to determine whether participants have loans by capturing loan use rather than loan offering. See *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*, available at www.ici.org/pdf/ppr_16_dcplan_profile_401k.pdf.

FIGURE 7.10

401(k) Sponsors Use a Variety of Plan Designs

Percentage of plans with selected plan activity combinations, 2014



Note: The sample is 50,115 plans with $3.7 trillion in assets. The results exclude 403(b) plans with a 401(k) feature and plans with fewer than 100 participants or less than $1 million in plan assets. A plan was determined to allow participant loans if any participant had a loan outstanding at the end of plan year 2014. Components do not add to 100 percent because of rounding.

Source: BrightScope Defined Contribution Plan Database. See BrightScope and Investment Company Institute, *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*.

Investment Lineup

In addition to choosing how to structure contributions to the 401(k) plan, employers also select the investment options to make available to plan participants. In 2014, domestic equity funds, international equity funds, and domestic bond funds were offered in nearly all large 401(k) plans (Figure 7.11). Although these three fund types are equally likely to be offered, when these funds are available in the plan, employers tend to offer more domestic equity funds (10 funds on average) than domestic bond funds (four funds) or international equity funds (three funds). Target date funds also are common investment choices, with about three-quarters of large 401(k) plans offering nine of these funds on average. In addition, about half of large 401(k) plans offered one money fund on average and seven in 10 offered one guaranteed investment contract (GIC). In total, the average large 401(k) plan offered 28 funds to participants in 2014. Large private-sector 403(b) plans also offer participants a diverse array of investment options to choose from.

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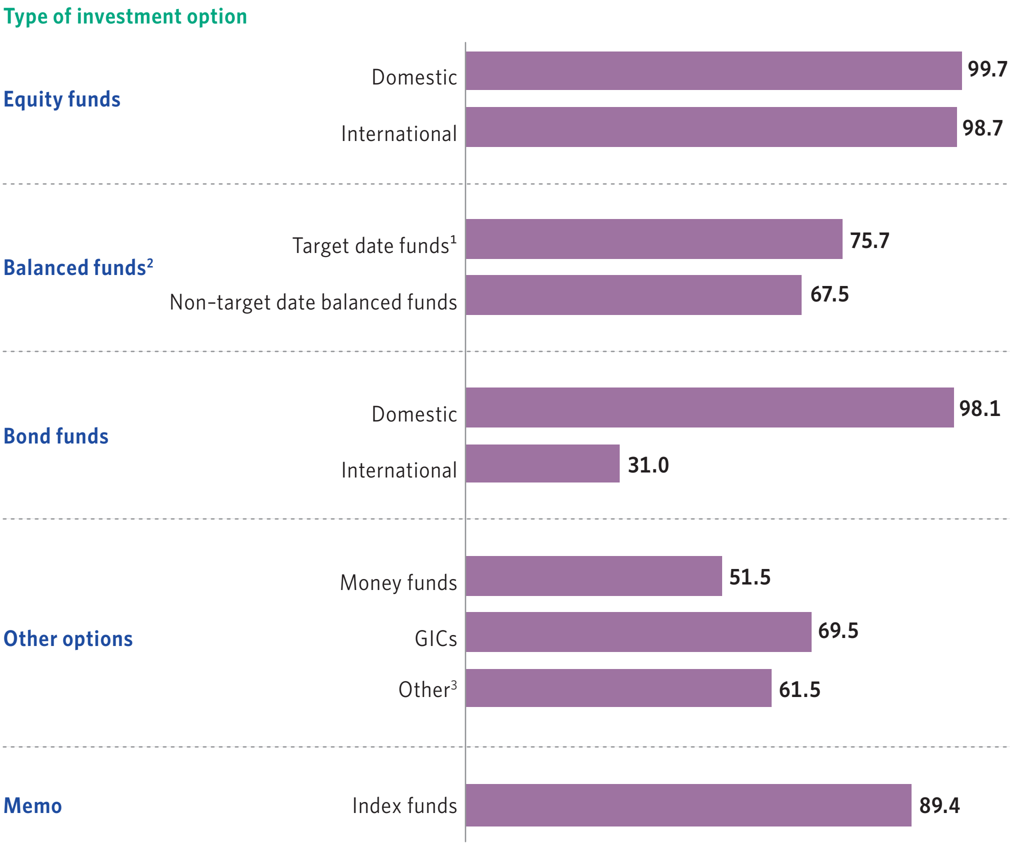
FIGURE 7.11

Incidence of Investment Options Offered in 401(k) Plans by Type of Investment

Percentage of plans with audited 401(k) filings in the BrightScope database, 2014



[1] A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

[2] The Investment Company Institute classifies balanced funds as *hybrid* in its data.

[3] *Other* includes commodity funds, real estate funds, and individual stocks (including company stock) and bonds.

Note: The sample is 29,958 plans with $3.4 trillion in assets. Participant loans are excluded. Funds include mutual funds, collective investment trusts, separate accounts, and other pooled investment products. BrightScope audited 401(k) filings generally include plans with 100 participants or more. Plans with fewer than four investment options, more than 100 investment options, or less than $1 million in plan assets are excluded from this analysis.

Source: BrightScope Defined Contribution Plan Database. See BrightScope and Investment Company Institute, *The BrightScope/ICI Defined Contribution Plan Profile: A Close Look at 401(k) Plans, 2014*.

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Focus on Funds: The 35th Anniversary of the 401(k)
www.ici.org/fof_401k_35th

401(k) Participants: Asset Allocation, Account Balances, and Loan Activity

Asset Allocation

The income that 401(k) plan accounts provide in retirement depends, in part, on the asset allocation decisions of plan participants.

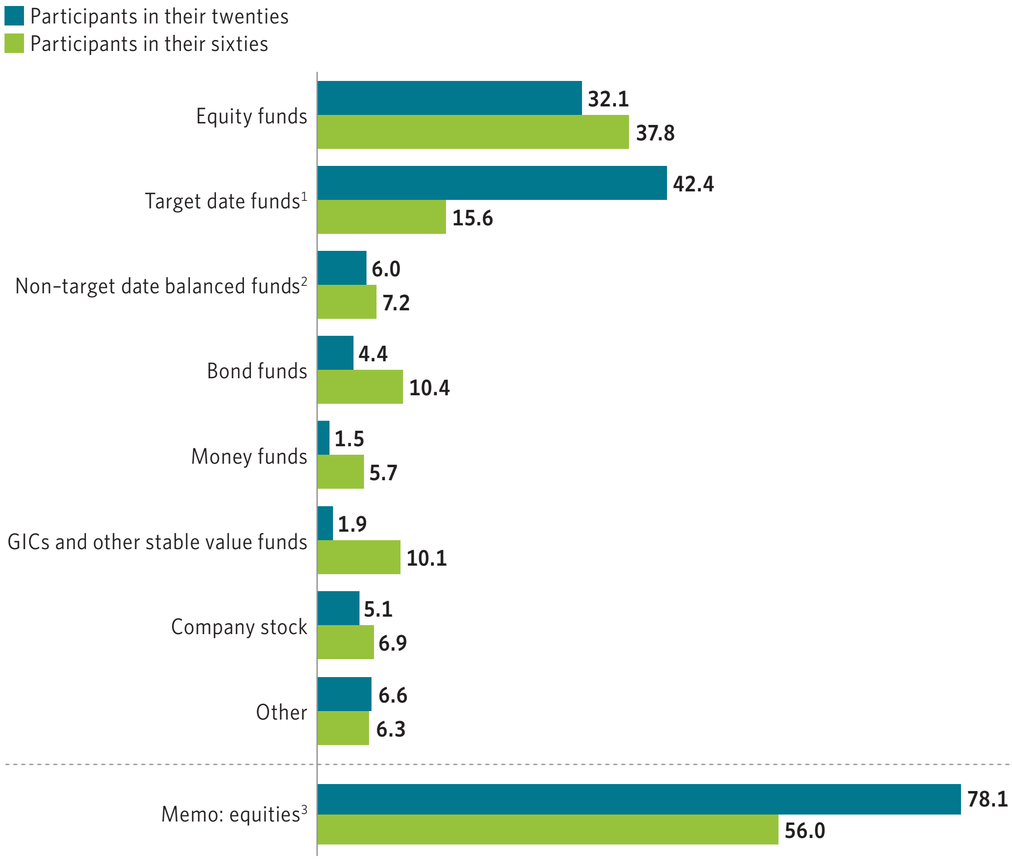
On average, younger participants allocate more of their portfolios to equities (which include equity mutual funds and other pooled equity investments; the equity portion of balanced funds,* including target date funds; and company stock of their employers). According to research conducted by ICI and the Employee Benefit Research Institute (EBRI), at year-end 2014, individuals in their twenties had 37 percent of their 401(k) assets in equity funds and company stock; 48 percent in target date funds and non–target date balanced funds; and only 8 percent in GICs and other stable value funds, money funds, and bond funds (Figure 7.12). All told, participants in their twenties had 78 percent of their 401(k) assets in equities. By comparison, at year-end 2014, participants in their sixties had 26 percent of their 401(k) account assets in GICs and other stable value funds, money funds, and bond funds; only 23 percent in target date funds and non–target date balanced funds; and 45 percent in equity funds and company stock. All told, participants in their sixties had 56 percent of their 401(k) assets in equities.

* The Investment Company Institute classifies balanced funds as *hybrid* in its data.

FIGURE 7.12

401(k) Asset Allocation Varied with Participant Age

Average asset allocation of 401(k) account balances, percentage of account balances, year-end 2014



[1] A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

[2] The Investment Company Institute classifies balanced funds as *hybrid* in its data.

[3] Equities include equity funds, company stock, and the equity portion of balanced funds.

Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product primarily invested in the security indicated. Percentages are dollar-weighted averages.

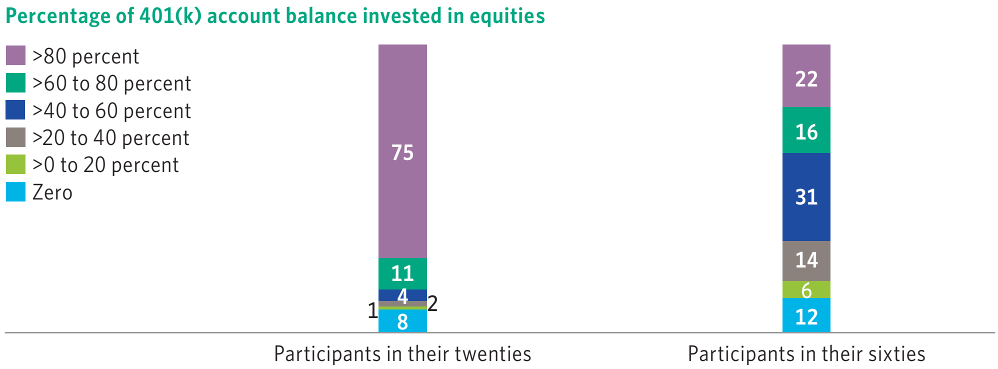
Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See *ICI Research Perspective*, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014."

Portfolio allocation also varies widely within age groups. At year-end 2014, 75 percent of 401(k) participants in their twenties held more than 80 percent of their account in equities, and 9 percent of these participants held 20 percent or less (Figure 7.13). Of 401(k) participants in their sixties, 22 percent held more than 80 percent of their account in equities, and 18 percent held 20 percent or less.

FIGURE 7.13

Asset Allocation to Equities Varied Widely Among 401(k) Plan Participants

Asset allocation distribution of 401(k) participant account balance to equities, percentage of participants, year-end 2014



Note: Equities include equity funds, company stock, and the equity portion of balanced funds. Funds include mutual funds, bank collective trusts, life insurance separate accounts, and any pooled investment product invested primarily in the security indicated. Components do not add to 100 percent because of rounding. The Investment Company Institute classifies balanced funds as *hybrid* in its data.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See *ICI Research Perspective*, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014."

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Target Retirement Date Funds Resource Center

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Target Date Funds

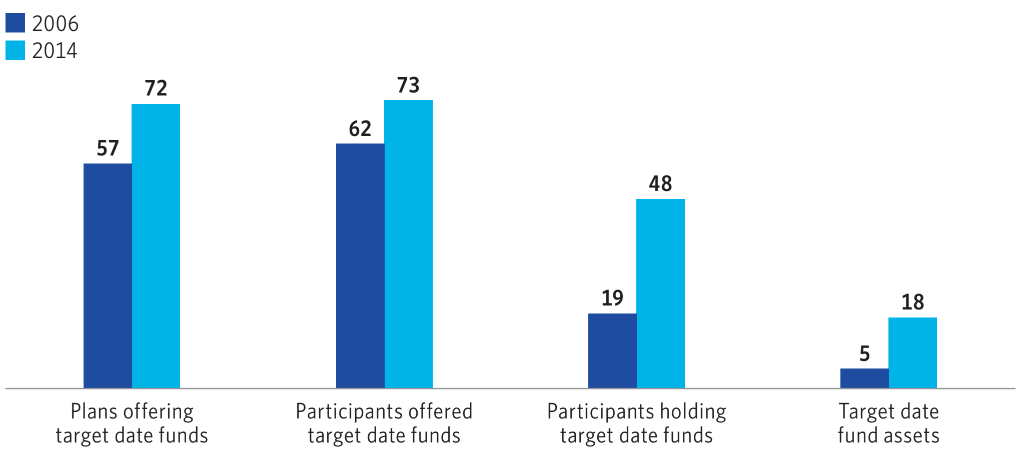
Target date funds, introduced in the mid-1990s, have grown rapidly in recent years. A target date fund (including both target date mutual funds and other pooled target date investments) follows a predetermined reallocation of assets over time based on a specified target retirement date. Typically the fund rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date, which is usually indicated in the fund's name.

The share of 401(k) plans that offer target date funds, the share of 401(k) plan participants offered target date funds, and the share of 401(k) participants holding target date funds all have increased. At year-end 2014, target date funds accounted for 18 percent of 401(k) assets, up from 5 percent at year-end 2006 (Figure 7.14). Seventy-two percent of 401(k) plans offered target date funds and 73 percent of 401(k) plan participants were offered target date funds in 2014. The percentage of 401(k) participants with target date fund assets (48 percent) was lower than the percentage of participants who were offered the option because not all plan participants choose to allocate assets to these funds. Similarly, the share of 401(k) assets in target date funds (18 percent) was lower than the share of participants invested in these funds because not all participants with assets in target date funds allocated 100 percent of their holdings to these funds, and because participants with assets in these funds were more likely to be younger or recently hired and have lower account balances.

FIGURE 7.14

Target Date Funds' 401(k) Market Share

Percentage of total 401(k) market; year-end, 2006 and 2014



Note: Funds include mutual funds, bank collective trusts, life insurance separate accounts, and other pooled investment products.

Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See *ICI Research Perspective*, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014."

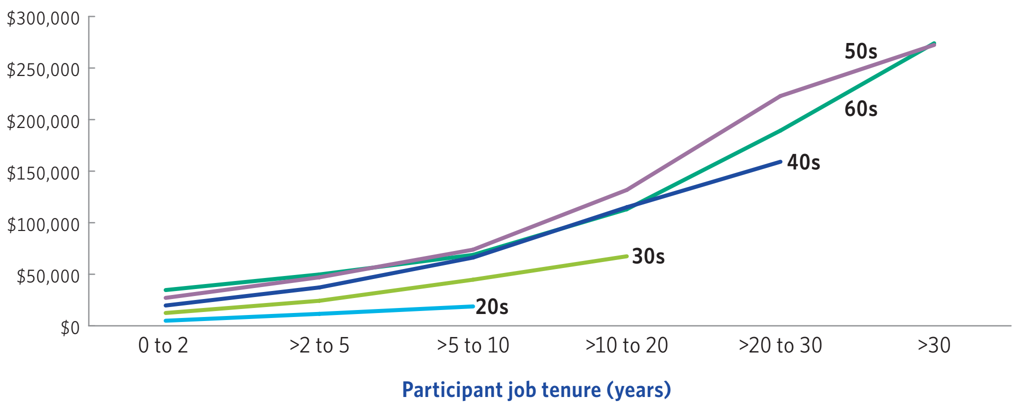
Account Balances

Account balances tended to be higher the longer 401(k) plan participants had been working for their current employers and the older the participant. Participants in their sixties with more than 30 years of tenure at their current employer had an average 401(k) account balance of $274,043 at year-end 2014 (Figure 7.15). Participants in their forties with five to 10 years of tenure at their current employer had an average 401(k) balance of $66,173. The median 401(k) plan participant was 46 years old at year-end 2014, and the median job tenure was eight years.

FIGURE 7.15

401(k) Balances Tend to Increase with Participant Age and Job Tenure

Average 401(k) account balance by participant age and tenure, 2014



Source: Tabulations from EBRI/ICI Participant-Directed Retirement Plan Data Collection Project. See *ICI Research Perspective*, "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2014."

Loan Activity

Most 401(k) participants do not borrow from their plans, although the majority have access to loans. At year-end 2014, 20 percent of participants eligible for loans had loans outstanding, down slightly from year-end 2013. Not all participants, however, have access to 401(k) plan loans—factoring in all 401(k) participants with and without loan access in the EBRI/ICI 401(k) database, only 17 percent had loans outstanding at year-end 2014. The average unpaid loan balances among participants with loans represented about 11 percent of their 401(k) account balances (net of the unpaid loan balances). In aggregate, US Department of Labor data indicate that outstanding loan amounts were less than 2 percent of 401(k) plan assets in 2014.

Individual Retirement Accounts

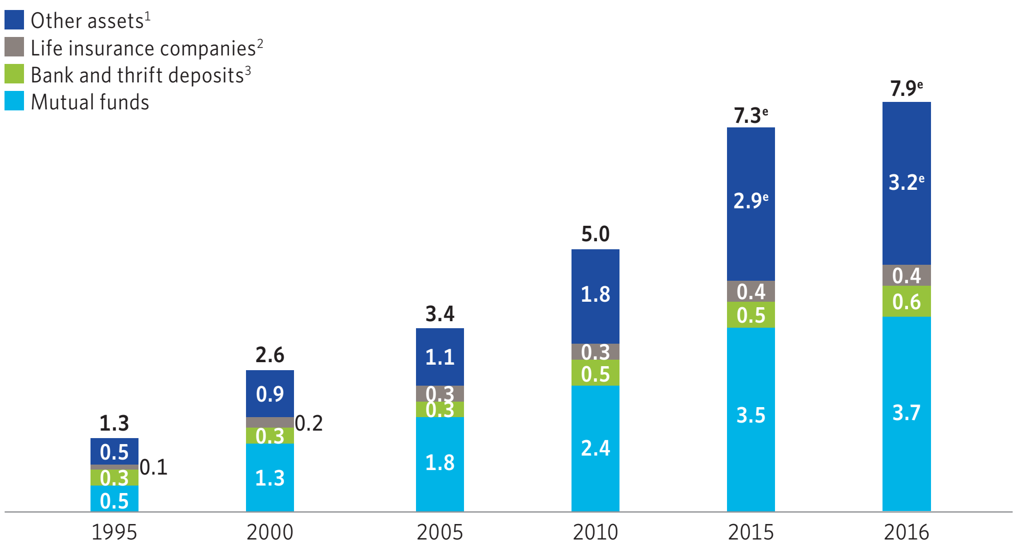
The first type of IRA—known as a traditional IRA—was created under the Employee Retirement Income Security Act of 1974 (ERISA). IRAs provide all workers with a contributory retirement savings vehicle and, through rollovers, give workers leaving jobs a means to preserve the tax benefits and growth opportunities that employer-sponsored retirement plans provide. Roth IRAs, first available in 1998, were created to provide a contributory retirement savings vehicle on an after-tax basis with qualified withdrawals distributed tax-free. In addition, policymakers have added employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs) to encourage small employers to provide retirement plans by simplifying the rules applicable to tax-qualified plans.

Total IRA assets, $7.9 trillion at year-end 2016, accounted for 31 percent of US retirement assets. Mutual funds accounted for $3.7 trillion of IRA assets at year-end 2016, up from $3.5 trillion at year-end 2015 (Figure 7.16). Assets managed by mutual funds were the largest component of IRA assets (representing 47 percent), followed by the *other assets* category, which includes ETFs, closed-end funds, individual stocks and bonds, and other non-mutual fund securities held through brokerage accounts ($3.2 trillion at year-end 2016).

FIGURE 7.16

IRA Assets

Trillions of dollars; year-end, selected years



[1] *Other assets* includes individual stocks, individual bonds, closed-end funds, ETFs, and other assets held through brokerage or trust accounts.

[2] Life insurance company IRA assets are annuities held by IRAs, excluding variable annuity mutual fund IRA assets, which are included in mutual funds.

[3] Bank and thrift deposits include Keogh deposits.

[e] Data are estimated.

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

Sources: Investment Company Institute, Federal Reserve Board, American Council of Life Insurers, and Internal Revenue Service Statistics of Income Division. See Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016."

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Individual Retirement Account Resource Center

www.ici.org/iraresource

IRA Investors

Approximately one-third of US households, or nearly 43 million, owned at least one type of IRA as of mid-2016 (Figure 7.17). Traditional IRAs—those introduced under ERISA—were the most common type, owned by 32 million US households. Roth IRAs, first available in 1998 under the Taxpayer Relief Act of 1997, were owned by 22 million US households. More than 7 million US households owned employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, or SIMPLE IRAs).

Investment returns and rollovers from employer-sponsored retirement plans, rather than new contributions, have fueled the growth of IRAs. For example, the Internal Revenue Service Statistics of Income division reports $435 billion was rolled over to IRAs in tax year 2014, compared with $63 billion that was contributed. Although most US households are eligible to make contributions to IRAs, few do so. Indeed, only 11 percent of US households contributed to traditional or Roth IRAs in tax year 2015 and very few eligible households made "catch-up" contributions.

FIGURE 7.17

Nearly 43 Million US Households Owned IRAs

	Year created	Number of US households with type of IRA *Mid-2016*	Percentage of US households with type of IRA *Mid-2016*	Assets in IRAs *Billions of dollars, year-end 2016*
Traditional IRA	1974 (Employee Retirement Income Security Act)	32.1 million	25.5%	$6,695[e]
SEP IRA	1978 (Revenue Act)	7.2 million	5.7%	$495[e]
SAR-SEP IRA	1986 (Tax Reform Act)			
SIMPLE IRA	1996 (Small Business Job Protection Act)			
Roth IRA	1997 (Taxpayer Relief Act)	21.9 million	17.4%	$660[e]
Any IRA		42.5 million	33.8%	$7,850[e]

[e] Data are estimated.

Note: Households may own more than one type of IRA. SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs are employer-sponsored IRAs.

Sources: Investment Company Institute and US Census Bureau. See *ICI Research Perspective*, "The Role of IRAs in US Households' Saving for Retirement, 2016" and "The US Retirement Market, Fourth Quarter 2016."

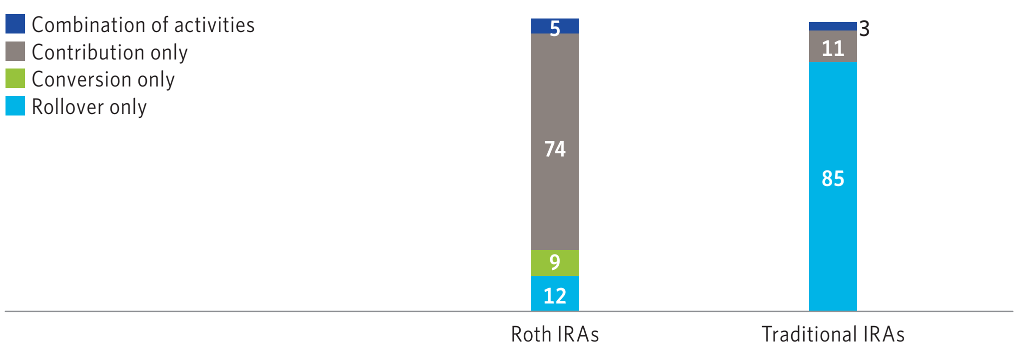
Instead, investment returns and rollovers from employer-sponsored retirement plans have fueled the growth of IRAs. In any given year, a small portion of traditional IRA investors make rollovers, but analysis of The IRA Investor Database—which contains information on more than 16 million IRA investors—finds that, for the most part, the people who make rollovers differ from year to year. Rollovers play an important role in opening traditional IRAs. With the availability of retirement accumulations that can be rolled over when a worker separates from an employer, whether from DC accounts or as lump-sum distributions from DB plans, most (85 percent) new traditional IRAs in 2014 were opened only with rollovers (Figure 7.18). By contrast, in 2014, 12 percent of Roth IRAs were opened only with rollovers; the majority (74 percent) were opened only with contributions.

A substantial share of traditional IRA investors has rolled over assets from an employer plan. In any given year, only a small portion of traditional IRA investors have a rollover, but, for the most part, the people who make rollovers differ from year to year. For example, each year from 2007 through 2014 about one in 10 traditional IRA investors in The IRA Investor Database had a rollover, but nearly half of investors with traditional IRAs at year-end 2014 had a rollover at some point during the eight-year span.

FIGURE 7.18

New Roth IRAs Often Are Opened with Contributions; New Traditional IRAs Often Are Opened with Rollovers

Percentage of new IRAs opened in 2014 by type of IRA



Note: New IRAs are accounts that did not exist in The IRA Investor Database in 2013 and were opened in 2014 by one of the paths indicated. The calculation excludes IRAs that changed financial services firms. The samples are 0.3 million new Roth IRA investors aged 18 or older at year-end 2014 and 0.8 million new traditional IRA investors aged 25 to 74 at year-end 2014. Components may not add to 100 percent because of rounding.

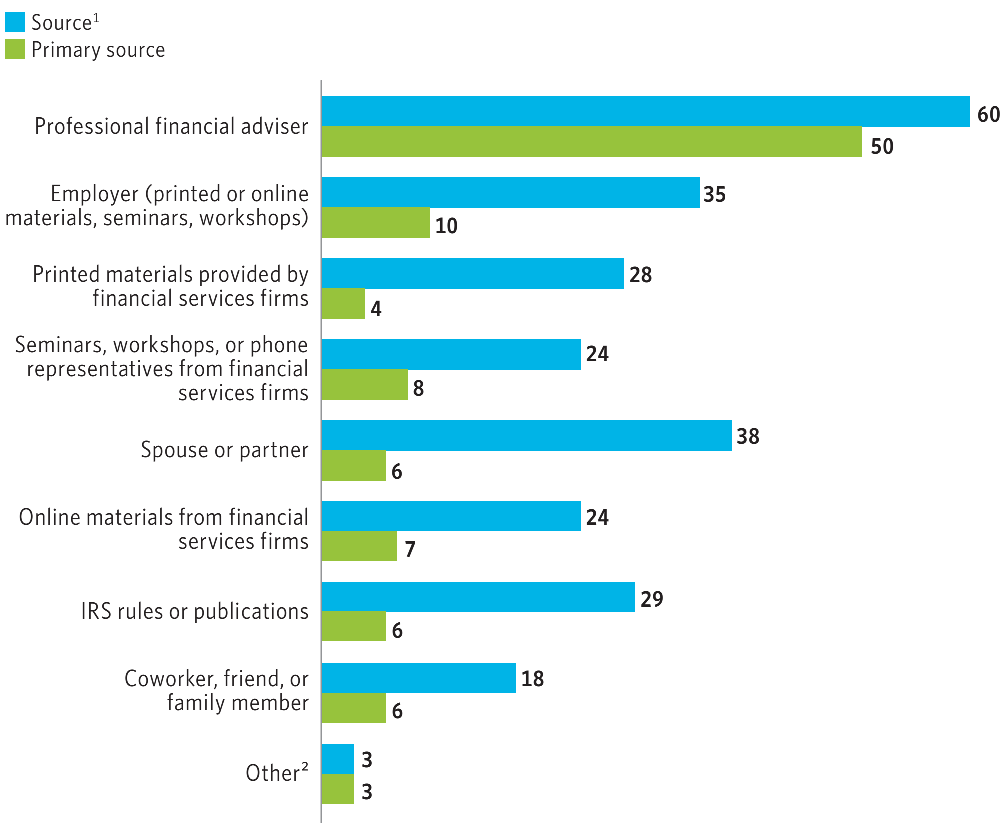
Source: The IRA Investor Database™. See *ICI Research Report*, "The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014."

Traditional IRA-owning households generally researched the decision to roll over money from their former employer's retirement plan into a traditional IRA. The most common source of information was professional financial advisers. Advisers were consulted by 60 percent of traditional IRA-owning households with rollovers, with half indicating they primarily relied on financial professionals (Figure 7.19). Older households were more likely to consult professional financial advisers than younger households. Seven percent of traditional IRA-owning households with rollovers indicated their primary source of information was online materials from financial services firms, with younger households more likely to rely on online resources as their primary source of information than were older households. Ten percent of rollover households primarily relied on information from their employers.

FIGURE 7.19

Multiple Sources of Information Are Consulted for the Rollover Decision

Percentage of traditional IRA-owning households with rollovers, mid-2016



[1] Multiple responses are included; 67 percent of traditional IRA-owning households with rollovers consulted multiple sources of information.

[2] Other responses given included: myself, other online information, bank, and books and magazines.

Source: Investment Company Institute IRA Owners Survey. See *ICI Research Perspective*, "The Role of IRAs in US Households' Saving for Retirement, 2016."

Households owning IRAs generally are headed by middle-aged individuals (median age of 54 years) with moderate household incomes (median income of $90,000). These households held a median of $70,000 in traditional or Roth IRAs. In addition, many households held multiple types of IRAs. For example, 43 percent of households with traditional IRAs also owned Roth IRAs, and 12 percent also owned employer-sponsored IRAs.

IRA Portfolios

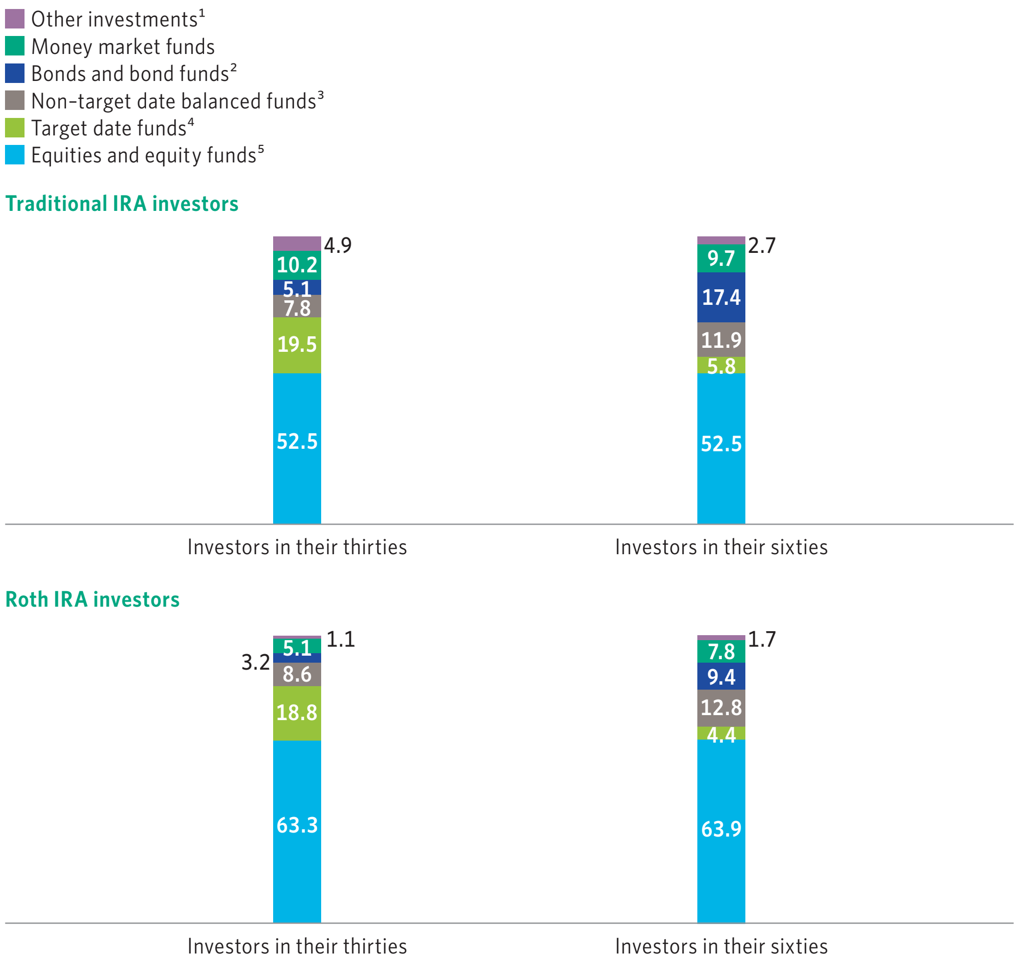
At year-end 2014, younger IRA investors tended to have more invested in equities, equity funds, and target date funds, on average, than older investors, according to The IRA Investor Database. Older investors were invested more heavily in non–target date balanced funds and fixed-income investments. For example, traditional IRA investors in their thirties had, on average, 53 percent of their assets in equities and equity funds and another 20 percent in target date funds (Figure 7.20). Traditional IRA investors in their sixties held 53 percent and 6 percent of their traditional IRA assets, respectively, in these two asset categories. Traditional IRA investors in their sixties had 39 percent of their assets in money market funds (10 percent), bonds and bond funds (17 percent), and non–target date balanced funds (12 percent). By contrast, traditional IRA investors in their thirties held 23 percent of their assets in these three asset categories.

Roth IRA investors display a similar pattern of investing by age, although Roth IRA investors of all ages tended to have higher allocations to equities and equity funds compared with traditional IRA investors—for example, Roth IRA investors in their thirties and sixties held about the same portion of their assets (63 and 64 percent, respectively) in equities and equity funds (Figure 7.20). Roth IRA investors in their thirties had, on average, 19 percent of their assets in target date funds, while Roth IRA investors in their sixties had 4 percent. By contrast, Roth IRA investors in their sixties had 30 percent of their assets in money market funds (8 percent), bonds and bond funds (9 percent), and non–target date balanced funds (13 percent). Roth IRA investors in their thirties held 17 percent of their assets in these three asset categories.

FIGURE 7.20

IRA Asset Allocation Varied with Investor Age

Average asset allocation of IRA balances, percentage of assets, year-end 2014



[1] *Other investments* includes certificates of deposit and unidentifiable assets.

[2] Bond funds include bond mutual funds, bond closed-end funds, and bond ETFs.

[3] Balanced funds invest in a mix of equities and fixed-income securities. The Investment Company Institute classifies balanced funds as *hybrid* in its data.

[4] A target date fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

[5] Equity funds include equity mutual funds, equity closed-end funds, and equity ETFs.

Note: Percentages are dollar-weighted averages. Components may not add to 100 percent because of rounding.

Source: The IRA Investor Database™. See *ICI Research Report*, "The IRA Investor Profile: Traditional IRA Investors' Activity, 2007–2014" and *ICI Research Report*, "The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014."

Distributions from IRAs

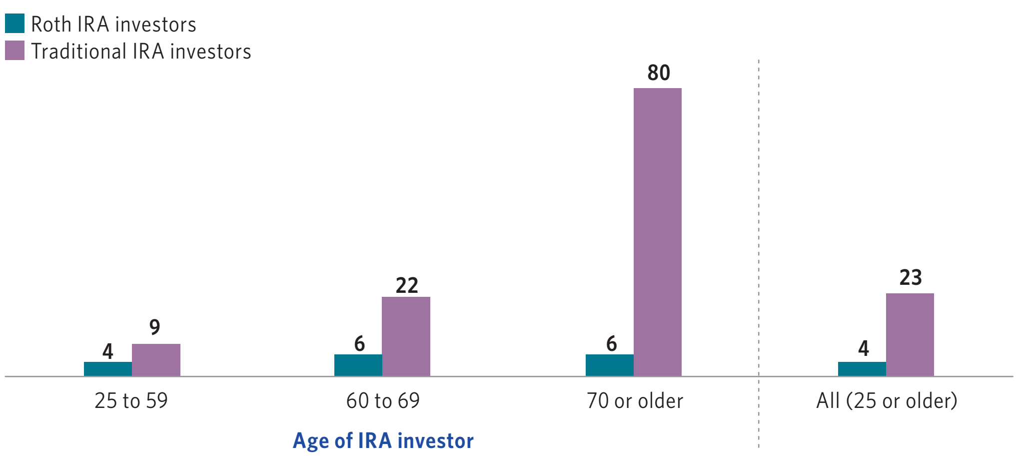
Withdrawals from IRAs tend to occur later in life, often to fulfill required minimum distributions (RMDs). An RMD is equal to a percentage of the IRA balance, based on remaining life expectancy. Traditional IRA owners aged 70½ or older generally must withdraw at least the minimum amount each year or pay a penalty. In tax year 2015, 71 percent of households that took traditional IRA withdrawals stated they calculated the withdrawal amount based on RMD rules.

In contrast to traditional IRAs, Roth IRAs have no RMDs (unless they are inherited). As a result, withdrawal activity is much lower among Roth IRA investors. In 2014, only 4 percent of Roth IRA investors aged 25 or older made withdrawals, compared with 23 percent of traditional IRA investors (Figure 7.21). Early withdrawal penalties can apply to both Roth and traditional IRA investors younger than 59½, and withdrawal activity is lower among investors younger than 60 compared with investors aged 60 or older.

FIGURE 7.21

Roth IRA Investors Rarely Take Withdrawals; Traditional IRA Investors Are Heavily Affected by RMDs

Percentage of IRA investors with withdrawals by type of IRA and investor age, 2014



Note: The samples are 5.2 million Roth IRA investors aged 25 or older at year-end 2014 and 11.0 million traditional IRA investors aged 25 or older at year-end 2014.

Source: The IRA Investor Database™. See *ICI Research Report*, "The IRA Investor Profile: Roth IRA Investors' Activity, 2007–2014."

Withdrawals from IRAs tend to be retirement related. Of the 25 percent of traditional IRA-owning households who reported taking withdrawals in 2015, 88 percent reported that the head of household, the spouse, or both were retired. Of retired households that took traditional IRA withdrawals in 2015, 45 percent reported using some or all of the withdrawal amount to pay for living expenses (Figure 7.22). Among retired households, other uses included reinvesting or saving in another account (42 percent), buying, repairing, or remodeling a home (16 percent), and paying for a healthcare expense (9 percent).

Traditional IRA-owning households that reported taking withdrawals in 2015 and were not retired indicated a slightly different pattern for the withdrawals. The nonretired households with withdrawals were less likely to indicate using some or all of the money for living expenses (30 percent) or to reinvest or save it in another account (29 percent) than the retired households (Figure 7.22).

FIGURE 7.22

Traditional IRA Withdrawals Among Retirees Often Are Used to Pay for Living Expenses

Percentage of traditional IRA-owning households by retirement status,[1] mid-2016

Purpose of traditional IRA withdrawal	Retired[1, 2]	Not retired[3]
Took withdrawals to pay for living expenses	45	30
Spent it on a car, boat, or big-ticket item other than a home	6	10
Spent it on a healthcare expense	9	9
Used it for an emergency	6	9
Used it for home purchase, repair, or remodeling	16	14
Reinvested or saved it in another account	42	29
Paid for education	1	4
Some other purpose	10	15

[1] The household was considered retired if either the head of household or spouse responded affirmatively to the question: "Are you retired from your lifetime occupation?"

[2] The base of respondents includes the 22 percent of traditional IRA-owning households that were retired in mid-2016 and took withdrawals in tax year 2015.

[3] The base of respondents includes the 3 percent of traditional IRA-owning households that were not retired in mid-2016 and took withdrawals in tax year 2015.

Note: Multiple responses are included.

Source: Investment Company Institute IRA Owners Survey. See *ICI Research Perspective*, "The Role of IRAs in US Households' Saving for Retirement, 2016."

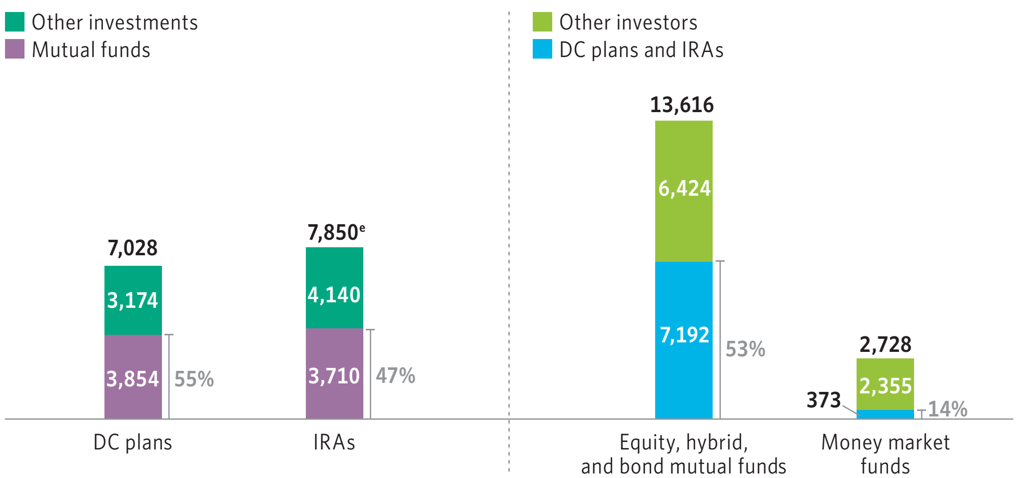
The Role of Mutual Funds in Retirement Savings

Mutual funds play a major role in employer-sponsored DC plans, such as 401(k) plans, and IRAs. At year-end 2016, mutual funds accounted for 55 percent of DC plan assets and 47 percent of IRA assets (Figure 7.23). Investors held slightly more mutual fund assets in DC plans ($3.9 trillion) than in IRAs ($3.7 trillion). Among DC plans, 401(k) plans held the most assets in mutual funds, with $3.0 trillion, followed by 403(b) plans ($435 billion), other private-sector DC plans ($301 billion), and 457 plans ($102 billion) (Figure 7.24). Combined, the $7.6 trillion of mutual fund assets held in DC plans and IRAs at the end of 2016 accounted for 30 percent of the $25.3 trillion US retirement market.

FIGURE 7.23

Substantial Amount of Retirement Assets Are Invested in Mutual Funds

Assets, billions of dollars, year-end 2016



[e] Data are estimated.

Source: Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016"

Assets in DC plans and IRAs represent a large share of mutual fund assets overall, and long-term mutual fund assets in particular (Figure 7.23). The $7.6 trillion in mutual fund retirement assets made up 46 percent of all mutual fund assets at year-end 2016. DC plans and IRAs held 53 percent of equity, hybrid, and bond mutual fund assets, but only 14 percent of money market fund assets.

Types of Mutual Funds Used by Retirement Plan Investors

Retirement investors tend to hold equity investments. At year-end 2016, 57 percent of the $7.6 trillion in mutual fund retirement assets held in DC plans and IRAs were invested in domestic or world equity funds (Figure 7.24). By comparison, 52 percent of overall fund industry assets—retirement and nonretirement accounts—were invested in domestic or world equity funds. Domestic equity funds alone constituted about $3.3 trillion, or 44 percent, of mutual fund assets held in DC plans and IRAs.

FIGURE 7.24

Majority of Mutual Fund Retirement Account Assets Were Invested in Equities

Billions of dollars, year-end 2016

	Equity					
	Domestic	World	Hybrid[1]	Bond	Money market	Total
IRAs[2]	**$1,547**	**$466**	**$831**	**$622**	**$243**	**$3,710**
DC plans	**1,776**	**519**	**988**	**443**	**129**	**3,854**
401(k) plans	1,346	432	835	316	86	3,016
403(b) plans	264	34	81	36	19	435
457 plans	55	14	21	11	1	102
Other private-sector DC plans[3]	109	40	51	79	22	301
Total	**3,323**	**985**	**1,819**	**1,065**	**373**	**7,565**

[1] Hybrid funds invest in a mix of equities and fixed-income securities. Most target date and lifestyle funds are counted in this category.

[2] IRAs include traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[3] *Other private-sector DC plans* includes Keoghs and other private-sector DC plans without 401(k) features.

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

Source: Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016"

Retirement investors also gain exposure to equities and fixed-income securities through hybrid funds. At year-end 2016, 24 percent of mutual fund assets held in DC plans and IRAs were held in hybrid funds, which invest in a mix of equity, bond, and money market securities (Figure 7.24).

The remaining 19 percent of mutual fund assets held in DC plans and IRAs at the end of 2016 were invested in bond funds and money market funds. Bond funds held $1.1 trillion, or 14 percent, of mutual fund assets held in DC plans or IRAs, and money market funds accounted for $373 billion, or 5 percent (Figure 7.24).

Target Date and Lifestyle Mutual Funds

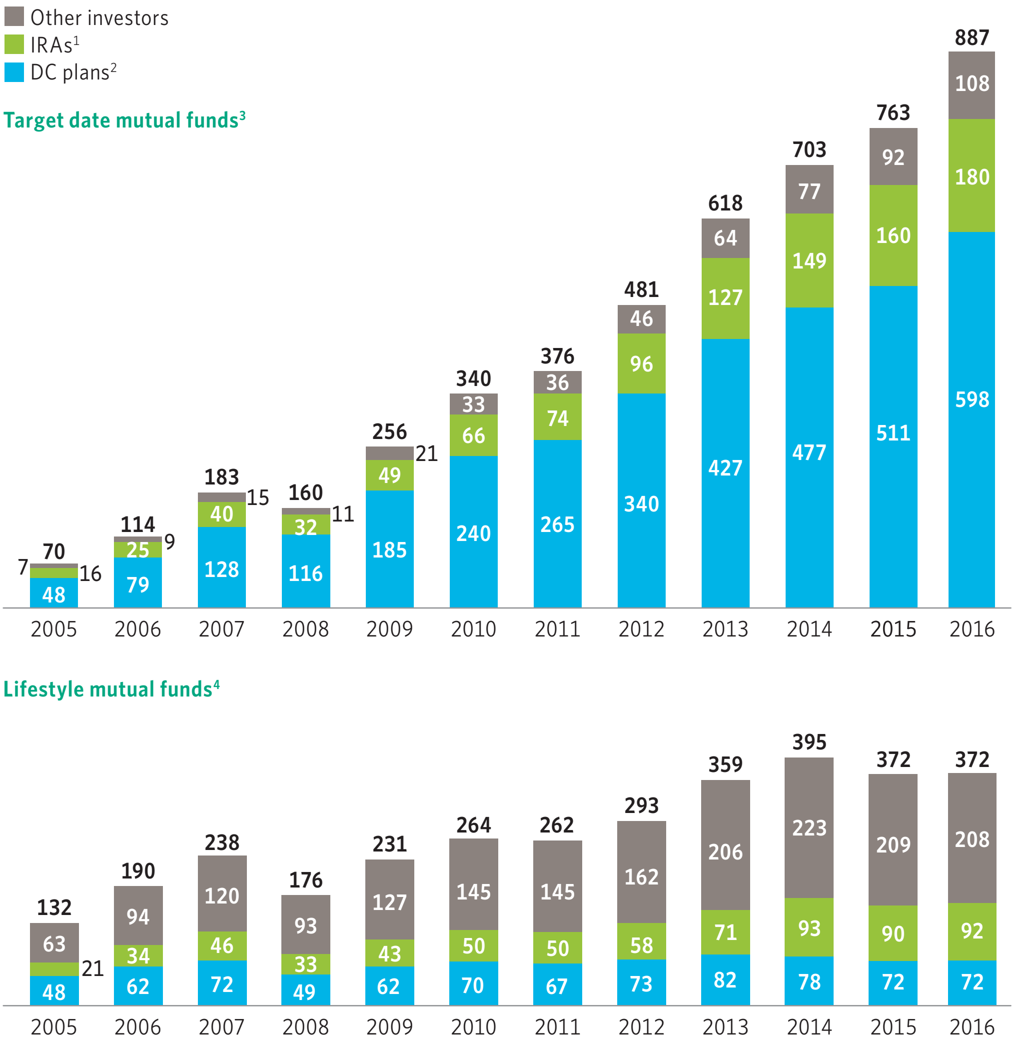
Target date and lifestyle mutual funds, generally included in the hybrid fund category, have grown more popular among investors and retirement plan sponsors over the past decade. A target date fund follows a predetermined reallocation of assets over time based on a specified target retirement date. Typically the fund rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date, which is usually indicated in the fund's name. A lifestyle fund maintains a predetermined risk level and generally uses words such as "conservative," "moderate," or "aggressive" in its name to indicate the fund's risk level.

Assets in target date and lifestyle mutual funds totaled $1.3 trillion at year-end 2016, up from $1.1 trillion at year-end 2015 (Figure 7.25). Target date mutual funds' assets were up 16 percent in 2016, increasing from $763 billion to $887 billion. Assets in lifestyle mutual funds were $372 billion at year-end 2016, unchanged for the year. Most (88 percent) target date mutual fund assets were held in retirement accounts, compared with 44 percent of lifestyle mutual fund assets.

FIGURE 7.25

Target Date and Lifestyle Mutual Fund Assets by Account Type

Billions of dollars; year-end, 2005–2016



Target date mutual funds	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	70	114	183	160	256	340	376	481	618	703	763	887
Other investors	7	9	15	11	21	33	36	46	64	77	92	108
IRAs	16	25	40	32	49	66	74	96	127	149	160	180
DC plans	48	79	128	116	185	240	265	340	427	477	511	598

Lifestyle mutual funds	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	132	190	238	176	231	264	262	293	359	395	372	372
Other investors	63	94	120	93	127	145	145	162	206	223	209	208
IRAs	21	34	46	33	43	50	50	58	71	93	90	92
DC plans	48	62	72	49	62	70	67	73	82	78	72	72

[1] IRAs include traditional IRAs, Roth IRAs, and employer-sponsored IRAs (SEP IRAs, SAR-SEP IRAs, and SIMPLE IRAs).

[2] DC plans include 401(k) plans, 403(b) plans, 457 plans, Keoghs, and other DC plans without 401(k) features.

[3] A target date mutual fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in the fund's name.

[4] A lifestyle mutual fund maintains a predetermined risk level and generally contains "conservative," "moderate," or "aggressive" in its name.

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

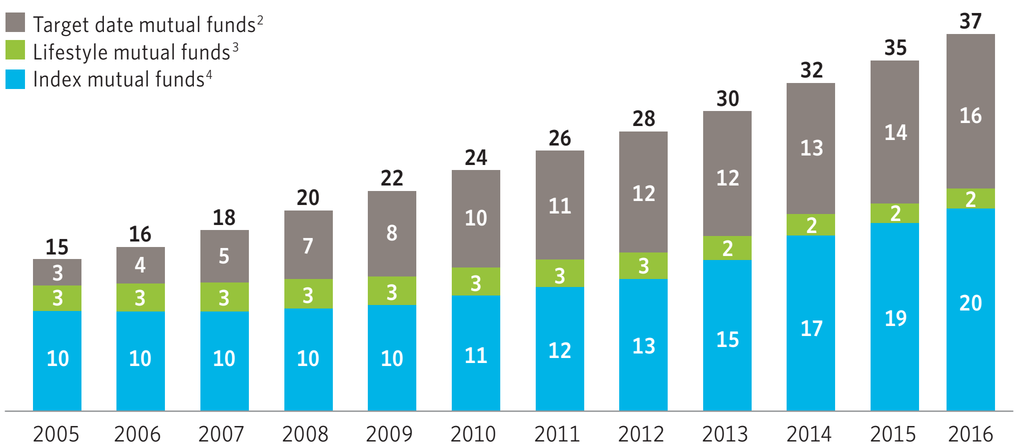
Source: Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016"

Target date, lifestyle, and index mutual funds have grown as a share of mutual fund assets in DC plans. Target date mutual funds increased 13 percentage points as a share of DC plans' mutual fund assets from year-end 2005 to year-end 2016, increasing from 3 percent to 16 percent (Figure 7.26). At year-end 2016, target date, lifestyle, and index mutual funds made up 37 percent of mutual fund assets in DC plans compared with only 15 percent in 2005.

FIGURE 7.26

Target Date, Lifestyle, and Index Funds Have Risen as a Share of DC Plans' Mutual Fund Assets

Percentage of mutual fund assets held in DC plans;[1] year-end, 2005–2016



[1] DC plans include 401(k) plans, 403(b) plans, 457 plans, Keoghs, and other private-sector DC plans without 401(k) features.

[2] A target date mutual fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund, which is usually included in its name.

[3] A lifestyle mutual fund maintains a predetermined risk level and generally contains "conservative," "moderate," or "aggressive" in the fund's name.

[4] Index mutual funds are equity, bond, and hybrid funds that target specific market indexes with the general objective of meeting the performance of that index. Equity index funds are the most common type of index fund.

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

Source: Investment Company Institute, "The US Retirement Market, Fourth Quarter 2016"

The Role of Mutual Funds in Education Savings

Twenty-two percent of households that owned mutual funds in 2016 cited education as a financial goal for their fund investments (Figure 6.9). Nevertheless, the demand for education savings vehicles has been historically modest since their introduction in the 1990s, partly because of their limited availability and investors' lack of familiarity with them. The Economic Growth and Tax Relief Reconciliation Act (EGTRRA), enacted in 2001, enhanced the attractiveness of Section 529 plans and Coverdell Education Savings Accounts (ESAs)—two education savings vehicles—by making them more flexible and allowing larger contributions. The Pension Protection Act (PPA), enacted in 2006, made the EGTRRA enhancements to Section 529 plans permanent. The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 extended the EGTRRA enhancements to Coverdell ESAs for two years; the American Taxpayer Relief Act of 2012 made these enhancements permanent.

Assets in Section 529 savings plans increased 9 percent in 2016, with $251 billion at year-end 2016, up from $230 billion at year-end 2015 (Figure 7.27). As of year-end 2016, there were 11.7 million 529 savings plan accounts, with an average account size of approximately $21,400.

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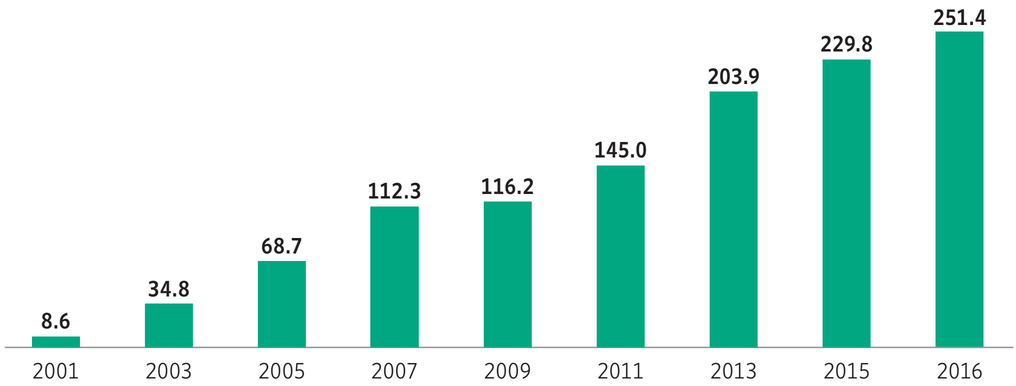
529 Plan Program Statistics
www.ici.org/research/stats/529s

FIGURE 7.27

Section 529 Savings Plan Assets

Billions of dollars; year-end, selected years



Note: Data were estimated for a few individual state observations in order to construct a continuous time series.

Sources: Investment Company Institute and College Savings Plans Network. See Investment Company Institute, "529 Plan Program Statistics, December 2016."

In mid-2016, as a group, households saving for college through 529 plans, Coverdell ESAs, or mutual funds held outside these accounts tended to be headed by younger individuals, with 48 percent younger than 45 (Figure 7.28). Heads of households saving for college had a range of education attainment: 42 percent had less than a college degree and 58 percent had a college degree or more. These households also had a range of incomes: 30 percent earned less than $75,000; 15 percent earned between $75,000 and $99,999; and 55 percent earned $100,000 or more. About six in 10 of these households had children (younger than 18) in the home, and 37 percent had more than one child in the home.

FIGURE 7.28

Characteristics of Households Saving for College

Percentage of US households saving for college,[1] mid-2016

Age of head of household[2]	
Younger than 35	21
35 to 44	27
45 to 54	26
55 to 64	14
65 or older	12
Education level	
High school diploma or less	16
Associate's degree or some college	26
Completed college	24
Some graduate school or completed graduate school	34
Household income[3]	
Less than $25,000	6
$25,000 to $34,999	3
$35,000 to $49,999	7
$50,000 to $74,999	14
$75,000 to $99,999	15
$100,000 or more	55
Number of children in home[4]	
None	39
One	24
Two	24
Three or more	13

[1] Households saving for college are households that own education savings plans (Coverdell ESAs or 529 plans) or that said paying for education was one of their financial goals for their mutual funds.

[2] Age is based on the sole or co-decisionmaker for saving and investing.

[3] Total reported is household income before taxes in 2015.

[4] The number of children reported is children younger than 18 living in the home.

PART TWO

Data Tables

DATA TABLES

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MUTUAL FUND TOTALS

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CLOSED-END FUNDS, EXCHANGE-TRADED FUNDS, AND UNIT INVESTMENT TRUSTS

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LONG-TERM MUTUAL FUNDS

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Section 5
ADDITIONAL CATEGORIES OF MUTUAL FUNDS

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Section 7
RETIREMENT ACCOUNT INVESTING IN MUTUAL FUNDS

Section 8
WORLDWIDE REGULATED OPEN-END FUND TOTALS

TABLE 1

Mutual Funds: Total Net Assets, Number of Funds, and Number of Share Classes

Year-end

Year	Total net assets *Billions of dollars*	Number of funds	Number of share classes
1940	$0.45	68	–
1945	1.28	73	–
1950	2.53	98	–
1955	7.84	125	–
1960	17.03	161	–
1965	35.22	170	–
1970	47.62	361	–
1975	45.87	426	–
1976	51.28	452	–
1977	48.94	477	–
1978	55.84	505	–
1979	94.51	526	–
1980	134.76	564	–
1981	241.37	665	–
1982	296.68	857	–
1983	292.99	1,026	–
1984	370.68	1,243	1,243
1985	495.39	1,528	1,528
1986	715.67	1,835	1,835
1987	769.17	2,312	2,312
1988	809.37	2,737	2,737
1989	980.67	2,935	2,935
1990	1,065.19	3,079	3,177
1991	1,393.19	3,403	3,587
1992	1,642.54	3,824	4,208
1993	2,069.96	4,534	5,562
1994	2,155.32	5,325	7,697
1995	2,811.29	5,725	9,007
1996	3,525.80	6,248	10,352
1997	4,468.20	6,684	12,002
1998	5,525.21	7,314	13,720
1999	6,846.34	7,791	15,262
2000	6,964.63	8,155	16,738
2001	6,974.91	8,305	18,022
2002	6,383.16	8,243	18,982
2003	7,402.12	8,127	19,320
2004	8,095.80	8,045	20,041
2005	8,891.38	7,977	20,554
2006	10,398.16	8,123	21,264
2007	12,000.17	8,041	21,638
2008	9,620.64	8,040	22,263
2009	11,112.62	7,666	21,651
2010	11,833.52	7,556	21,916
2011	11,632.59	7,590	22,294
2012	13,054.49	7,590	22,646
2013	15,048.98	7,715	23,399
2014	15,873.40	7,927	24,236
2015	15,650.45	8,115	25,049
2016	16,343.72	8,066	25,109

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 2

Mutual Funds: Total Sales, New Sales, Exchange Sales, Redemptions, and Exchange Redemptions

Billions of dollars, annual

Year	Total sales[1]	New sales	Exchange sales[2]	Redemptions	Exchange redemptions[3]
1945	$0.29	–	–	$0.11	–
1950	0.52	–	–	0.28	–
1955	1.21	–	–	0.44	–
1960	2.10	–	–	0.84	–
1965	4.36	$3.93	–	1.96	–
1970	4.63	3.84	–	2.99	–
1975	10.06	8.94	–	9.57	–
1980	247.42	238.96	$10.10	216.08	$9.94
1981	472.13	452.42	14.44	362.44	14.59
1982	626.94	604.09	28.25	588.35	27.86
1983	547.77	532.04	35.67	565.83	36.03
1984	680.12	661.74	36.66	607.02	37.11
1985	953.85	933.37	46.55	864.88	46.84
1986	1,204.90	1,179.40	107.75	1,015.64	107.96
1987	1,251.19	1,220.27	205.68	1,178.75	207.35
1988	1,176.81	1,143.62	134.28	1,166.67	134.24
1989	1,444.84	1,401.21	130.66	1,327.05	131.95
1990	1,564.81	1,517.41	138.79	1,470.83	140.98
1991	2,037.64	1,990.53	155.75	1,879.69	154.31
1992	2,749.68	2,704.69	197.43	2,548.28	198.15
1993	3,187.49	3,137.76	248.79	2,904.44	253.95
1994	3,075.63	3,019.76	317.55	2,928.62	325.00
1995	3,600.62	3,526.00	351.53	3,314.86	351.08
1996	4,671.44	4,586.71	504.73	4,266.20	503.94
1997	5,801.23	5,704.83	613.44	5,324.29	618.49
1998	7,230.40	7,126.92	742.97	6,649.27	743.37
1999	9,043.58	8,922.96	949.96	8,562.10	947.36
2000	11,109.54	10,970.50	1,149.75	10,586.59	1,145.42
2001	12,866.21	12,747.53	797.34	12,242.32	798.08
2002	13,168.76	13,084.32	747.34	13,011.36	745.65
2003	12,393.59	12,315.40	572.50	12,361.66	573.76
2004	12,191.21	12,101.07	409.00	12,038.96	417.95
2005	13,939.28	13,812.45	420.84	13,546.77	432.42
2006	17,409.26	17,228.70	487.72	16,751.98	492.20
2007	23,470.65	23,236.42	606.47	22,352.20	611.96
2008	26,349.29	26,135.06	735.12	25,714.11	730.11
2009	20,680.22	20,528.82	530.25	20,676.85	528.35
2010	18,210.25	18,053.47	420.18	18,320.28	434.88
2011	17,837.74	17,661.95	448.07	17,739.30	466.52
2012	17,023.29	16,832.54	422.03	16,620.95	434.03
2013	18,158.38	17,969.26	517.70	17,778.55	530.97
2014	18,716.36	18,499.64	425.48	18,387.62	433.30
2015	20,933.61	20,709.83	452.12	20,808.92	454.37
2016	21,879.26	21,652.30	594.28	21,884.04	591.75

[1] Total sales are the dollar value of new sales plus sales made through reinvestment of income dividends from existing accounts, but exclude reinvestment of capital gains distributions.
[2] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[3] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 3

Mutual Funds: Total Net Assets

Billions of dollars, year-end

Year	Total	Long-term funds: Equity	Long-term funds: Bond and income	Money market funds
1960	$17.03	$16.00	$1.02	-
1965	35.22	32.76	2.46	-
1970	47.62	45.13	2.49	-
1975	45.87	37.49	4.68	$3.70
1976	51.28	39.19	8.39	3.69
1977	48.94	34.07	10.98	3.89
1978	55.84	32.67	12.31	10.86
1979	94.51	35.88	13.10	45.53
1980	134.76	44.42	13.98	76.36
1981	241.37	41.19	14.01	186.16
1982	296.68	53.63	23.21	219.84
1983	292.99	76.97	36.63	179.39

		Long-term funds					Money market funds	
		Equity			Bond			
Year	Total	Domestic	World	Hybrid	Taxable	Municipal	Taxable	Tax-exempt
1984	$370.68	$74.55	$5.19	$11.15	$25.45	$20.79	$209.75	$23.80
1985	495.39	103.39	7.94	17.61	83.20	39.44	207.55	36.25
1986	715.67	138.98	15.47	25.76	167.63	75.67	228.35	63.81
1987	769.17	158.02	17.43	29.25	171.40	76.97	254.68	61.42
1988	809.37	171.40	17.98	26.35	168.96	86.73	272.20	65.76
1989	980.67	221.45	23.59	35.64	166.25	105.66	358.62	69.47
1990	1,065.19	211.18	28.30	35.98	171.14	120.25	414.56	83.78
1991	1,393.19	365.21	39.52	52.04	239.77	154.20	452.46	89.98
1992	1,642.54	468.41	45.68	77.63	308.37	196.26	451.35	94.84
1993	2,069.96	626.54	114.13	142.33	367.05	254.60	461.88	103.44
1994	2,155.32	691.57	161.19	161.40	302.84	227.31	501.11	109.89
1995	2,811.29	1,052.57	196.51	206.70	349.21	253.29	631.32	121.69
1996	3,525.80	1,440.81	285.20	248.36	396.56	253.07	763.94	137.87
1997	4,468.20	2,021.66	346.37	311.90	457.50	271.89	901.23	157.66
1998	5,525.21	2,586.31	391.64	360.04	536.96	298.59	1,166.97	184.71
1999	6,846.34	3,456.64	585.25	374.64	545.18	271.48	1,413.25	199.90
2000	6,964.63	3,369.73	564.75	360.92	545.58	278.41	1,611.38	233.87
2001	6,974.91	2,947.93	444.47	358.03	642.96	296.22	2,026.23	259.08
2002	6,383.16	2,273.05	369.37	335.28	810.26	330.13	1,988.78	276.30
2003	7,402.12	3,118.32	535.05	447.57	924.85	336.31	1,749.73	290.29
2004	8,095.80	3,626.37	716.20	552.25	971.03	328.24	1,589.70	312.00
2005	8,891.38	3,929.72	955.73	621.48	1,018.68	338.95	1,690.45	336.37
2006	10,398.16	4,472.13	1,360.45	731.50	1,130.52	365.09	1,969.42	369.03
2007	12,000.17	4,694.65	1,718.57	821.52	1,305.51	374.15	2,617.67	468.09
2008	9,620.64	2,738.82	916.34	562.26	1,233.18	337.79	3,338.56	493.68
2009	11,112.62	3,564.56	1,307.98	717.58	1,748.11	458.50	2,916.96	398.94
2010	11,833.52	4,053.93	1,542.70	842.20	2,117.22	473.95	2,473.51	330.01
2011	11,632.59	3,855.28	1,357.72	883.98	2,347.13	497.53	2,399.25	291.70
2012	13,054.49	4,324.37	1,614.39	1,031.58	2,810.81	580.17	2,405.74	287.43
2013	15,048.98	5,726.44	2,036.11	1,282.57	2,786.76	499.29	2,447.20	270.61
2014	15,873.40	6,232.58	2,081.41	1,374.14	2,894.15	566.48	2,463.85	260.79
2015	15,650.45	6,045.59	2,102.41	1,334.26	2,820.04	593.41	2,499.81	254.93
2016	16,343.72	6,414.86	2,162.53	1,388.66	3,035.83	613.70	2,597.87	130.27

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. The data contain a series break beginning in 1984. All funds were reclassified in 1984, and a separate category was created for hybrid funds. Components may not add to the total because of rounding.

TABLE 4

Mutual Funds: Total Net Assets by Composite Investment Objective

Billions of dollars, year-end

	Equity funds				Bond funds							Money market funds	
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni	Taxable	Tax-exempt
2000	$1,433.95	$564.75	$1,935.78	$360.92	$245.69	$109.94	$32.98	$124.87	$32.10	$131.92	$146.49	$1,611.38	$233.87
2001	1,105.24	444.47	1,842.69	358.03	311.29	109.20	31.75	154.14	36.57	139.78	156.44	2,026.23	259.08
2002	765.54	369.37	1,507.51	335.28	410.36	108.11	34.12	218.98	38.68	152.72	177.41	1,988.78	276.30
2003	1,041.14	535.05	2,077.18	447.57	476.22	158.99	43.97	197.99	47.68	149.26	187.05	1,749.73	290.29
2004	1,148.56	716.20	2,477.81	552.25	520.50	167.89	52.63	176.61	53.41	144.09	184.15	1,589.70	312.00
2005	1,232.82	955.73	2,696.90	621.48	572.30	159.36	59.95	167.34	59.73	147.46	191.50	1,690.45	336.37
2006	1,320.45	1,360.45	3,151.68	731.50	642.81	175.73	80.90	153.15	77.93	154.42	210.67	1,969.42	369.03
2007	1,420.78	1,718.57	3,273.87	821.52	762.81	175.96	110.01	158.19	98.53	155.94	218.21	2,617.67	468.09
2008	809.33	916.34	1,929.49	562.26	737.41	118.23	105.65	188.04	83.85	135.09	202.70	3,338.56	493.68
2009	1,086.48	1,307.98	2,478.09	717.58	1,050.87	198.06	158.73	210.31	130.15	159.26	299.24	2,916.96	398.94
2010	1,247.08	1,542.70	2,806.86	842.20	1,241.71	243.63	246.41	225.43	160.04	156.16	317.80	2,473.51	330.01
2011	1,177.48	1,357.72	2,677.79	883.98	1,365.14	271.41	294.42	242.09	174.07	158.89	338.64	2,399.25	291.70
2012	1,317.67	1,614.39	3,006.70	1,031.58	1,569.96	342.20	369.02	298.28	231.35	177.53	402.64	2,405.74	287.43
2013	1,723.64	2,036.11	4,002.81	1,282.57	1,448.78	419.29	431.37	239.42	247.89	144.82	354.47	2,447.20	270.61
2014	1,854.68	2,081.41	4,377.90	1,374.14	1,521.96	378.19	466.87	253.88	273.24	156.16	410.32	2,463.85	260.79
2015	1,843.32	2,102.41	4,202.27	1,334.26	1,512.37	326.79	431.51	265.85	283.53	159.84	433.57	2,499.81	254.93
2016	1,779.39	2,162.53	4,635.47	1,388.66	1,641.24	373.19	420.41	280.96	320.03	160.86	452.84	2,597.87	130.27

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 5

Mutual Funds: Number of Funds

Year-end

Year	Total	Long-term funds: Equity	Long-term funds: Bond and income	Money market funds
1970	361	323	38	-
1971	392	350	42	-
1972	410	364	46	-
1973	421	366	55	-
1974	431	343	73	15
1975	426	314	76	36
1976	452	302	102	48
1977	477	296	131	50
1978	505	294	150	61
1979	526	289	159	78
1980	564	288	170	106
1981	665	306	180	179
1982	857	340	199	318
1983	1,026	396	257	373

		Long-term funds					Money market funds	
		Equity			Bond			
Year	Total	Domestic	World	Hybrid	Taxable	Municipal	Taxable	Tax-exempt
1984	1,243	430	29	89	159	111	331	94
1985	1,528	519	43	103	229	174	350	110
1986	1,835	621	57	121	302	247	360	127
1987	2,312	743	81	164	415	366	389	154
1988	2,737	897	109	179	522	420	433	177
1989	2,935	941	128	189	561	443	470	203
1990	3,079	944	155	192	584	463	505	236
1991	3,403	985	206	211	658	523	552	268
1992	3,824	1,086	239	234	773	628	585	279
1993	4,534	1,280	306	281	951	796	627	293
1994	5,325	1,463	423	360	1,104	1,012	649	314
1995	5,725	1,611	528	411	1,167	1,011	676	321
1996	6,248	1,902	668	465	1,244	981	669	319
1997	6,684	2,183	768	500	1,287	933	685	328
1998	7,314	2,622	890	525	1,351	900	687	339
1999	7,791	3,004	949	531	1,375	887	704	341
2000	8,155	3,315	1,055	508	1,367	871	704	335
2001	8,305	3,610	1,085	473	1,308	814	690	325
2002	8,243	3,714	1,018	458	1,295	770	677	311
2003	8,127	3,659	929	474	1,313	779	660	313
2004	8,045	3,651	887	472	1,324	767	639	305
2005	7,977	3,659	912	481	1,315	740	593	277
2006	8,123	3,748	995	500	1,320	713	573	274
2007	8,041	3,678	1,060	496	1,326	676	545	260
2008	8,040	3,655	1,140	511	1,311	640	534	249
2009	7,666	3,419	1,172	481	1,291	599	476	228
2010	7,556	3,321	1,194	495	1,311	583	442	210
2011	7,590	3,259	1,267	520	1,349	563	431	201
2012	7,590	3,217	1,280	562	1,394	557	400	180
2013	7,715	3,192	1,346	605	1,457	560	382	173
2014	7,927	3,236	1,411	665	1,531	557	364	163
2015	8,115	3,274	1,488	717	1,582	573	336	145
2016	8,066	3,234	1,518	717	1,601	575	319	102

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. The data contain a series break beginning in 1984. All funds were reclassified in 1984, and a separate category was created for hybrid funds.

TABLE 6

Mutual Funds: Number of Funds by Composite Investment Objective

Year-end

	Equity funds				Bond funds							Money market funds	
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni	Taxable	Tax-exempt
2000	1,555	1,055	1,760	508	575	219	155	323	95	589	282	704	335
2001	1,723	1,085	1,887	473	557	224	140	296	91	550	264	690	325
2002	1,729	1,018	1,985	458	576	212	126	284	97	515	255	677	311
2003	1,680	929	1,979	474	602	212	121	281	97	523	256	660	313
2004	1,650	887	2,001	472	615	217	122	275	95	513	254	639	305
2005	1,631	912	2,028	481	610	228	123	262	92	498	242	593	277
2006	1,670	995	2,078	500	595	221	139	256	109	478	235	573	274
2007	1,578	1,060	2,100	496	606	223	151	243	103	448	228	545	260
2008	1,556	1,140	2,099	511	596	216	161	236	102	415	225	534	249
2009	1,442	1,172	1,977	481	572	207	170	237	105	377	222	476	228
2010	1,392	1,194	1,929	495	584	211	183	229	104	361	222	442	210
2011	1,356	1,267	1,903	520	579	212	217	223	118	346	217	431	201
2012	1,341	1,280	1,876	562	580	219	255	216	124	336	221	400	180
2013	1,325	1,346	1,867	605	593	231	290	214	129	331	229	382	173
2014	1,328	1,411	1,908	665	604	242	347	199	139	322	235	364	163
2015	1,344	1,488	1,930	717	621	242	370	192	157	319	254	336	145
2016	1,315	1,518	1,919	717	625	245	370	190	171	319	256	319	102

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 7

Mutual Funds: Number of Share Classes

Year-end

		Long-term funds					Money market funds	
		Equity			Bond			
Year	Total	Domestic	World	Hybrid	Taxable	Municipal	Taxable	Tax-exempt
1984	1,243	430	29	89	159	111	331	94
1985	1,528	519	43	103	229	174	350	110
1986	1,835	621	57	121	302	247	360	127
1987	2,312	743	81	164	415	366	389	154
1988	2,737	897	109	179	522	420	433	177
1989	2,935	941	128	189	561	443	470	203
1990	3,177	962	166	199	598	490	522	240
1991	3,587	1,021	227	223	687	558	591	280
1992	4,208	1,189	263	257	877	708	616	298
1993	5,562	1,560	385	347	1,207	1,054	672	337
1994	7,697	2,026	630	515	1,605	1,660	858	403
1995	9,007	2,442	845	634	1,844	1,862	953	427
1996	10,352	3,056	1,155	749	2,050	1,889	1,005	448
1997	12,002	3,860	1,449	873	2,293	1,978	1,075	474
1998	13,720	4,872	1,770	964	2,532	1,955	1,137	490
1999	15,262	5,818	1,968	1,026	2,722	1,998	1,230	500
2000	16,738	6,725	2,299	1,007	2,821	2,031	1,331	524
2001	18,022	7,738	2,511	994	2,874	1,957	1,405	543
2002	18,982	8,427	2,515	1,030	3,065	1,939	1,463	543
2003	19,320	8,546	2,369	1,112	3,222	2,040	1,462	569
2004	20,041	9,002	2,357	1,202	3,377	2,050	1,477	576
2005	20,554	9,259	2,501	1,344	3,427	1,992	1,464	567
2006	21,264	9,641	2,775	1,355	3,542	1,938	1,454	559
2007	21,638	9,706	3,030	1,354	3,640	1,893	1,447	568
2008	22,263	9,881	3,386	1,424	3,753	1,829	1,443	547
2009	21,651	9,342	3,550	1,374	3,782	1,757	1,330	516
2010	21,916	9,201	3,715	1,450	3,995	1,774	1,281	500
2011	22,294	9,175	3,953	1,562	4,155	1,719	1,255	475
2012	22,646	9,145	4,046	1,691	4,443	1,698	1,174	449
2013	23,399	9,220	4,266	1,868	4,726	1,748	1,141	430
2014	24,236	9,421	4,536	2,028	5,002	1,743	1,100	406
2015	25,049	9,628	4,788	2,205	5,228	1,773	1,056	371
2016	25,109	9,635	4,898	2,151	5,347	1,796	1,009	273

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 8

Mutual Funds: Number of Share Classes by Composite Investment Objective

Year-end

	Equity funds				Bond funds							Money market funds	
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni	Taxable	Tax-exempt
2000	3,232	2,299	3,493	1,007	1,141	490	311	679	200	1,393	638	1,331	524
2001	3,770	2,511	3,968	994	1,190	524	292	661	207	1,325	632	1,405	543
2002	3,974	2,515	4,453	1,030	1,342	528	291	676	228	1,286	653	1,463	543
2003	3,950	2,369	4,596	1,112	1,463	538	291	703	227	1,333	707	1,462	569
2004	4,068	2,357	4,934	1,202	1,553	571	302	716	235	1,333	717	1,477	576
2005	4,092	2,501	5,167	1,344	1,576	612	315	687	237	1,306	686	1,464	567
2006	4,248	2,775	5,393	1,355	1,606	623	367	666	280	1,258	680	1,454	559
2007	4,161	3,030	5,545	1,354	1,657	661	413	630	279	1,220	673	1,447	568
2008	4,179	3,386	5,702	1,424	1,662	680	491	624	296	1,151	678	1,443	547
2009	3,929	3,550	5,413	1,374	1,631	660	544	633	314	1,069	688	1,330	516
2010	3,836	3,715	5,365	1,450	1,709	695	615	652	324	1,065	709	1,281	500
2011	3,779	3,953	5,396	1,562	1,721	709	744	620	361	1,029	690	1,255	475
2012	3,764	4,046	5,381	1,691	1,797	749	892	626	379	1,002	696	1,174	449
2013	3,763	4,266	5,457	1,868	1,845	802	1,044	631	404	1,010	738	1,141	430
2014	3,789	4,536	5,632	2,028	1,875	841	1,250	601	435	990	753	1,100	406
2015	3,865	4,788	5,763	2,205	1,951	858	1,332	592	495	976	797	1,056	371
2016	3,817	4,898	5,818	2,151	1,992	867	1,348	591	549	998	798	1,009	273

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 9

Closed-End Funds: Total Assets and Number of Funds by Type of Fund

	Total assets Millions of dollars, year-end						Number of funds Year-end					
		Equity funds		Bond funds				Equity funds		Bond funds		
Year	Total	Domestic	Global/ International	Domestic taxable	Domestic municipal	Global/ International	Total	Domestic	Global/ International	Domestic taxable	Domestic municipal	Global/ International
1990	$59,014	$10,791	$5,751	$16,820	$16,482	$9,170	248	41	51	85	53	18
1991	76,092	13,109	6,115	19,403	29,519	7,947	280	40	52	86	87	15
1992	100,581	14,581	7,100	24,632	45,593	8,674	372	43	61	99	149	20
1993	131,438	15,462	12,466	30,909	60,100	12,501	494	48	70	120	227	29
1994	130,586	16,018	21,505	26,604	56,035	10,425	510	50	86	123	219	32
1995	142,540	18,078	23,769	28,678	60,318	11,698	499	49	91	119	207	33
1996	146,908	19,830	27,074	28,418	59,540	12,046	496	50	91	118	205	32
1997	151,767	20,536	29,011	28,315	61,992	11,912	486	45	89	115	205	32
1998	155,749	22,529	25,011	34,127	63,628	10,454	491	44	83	123	211	30
1999	146,940	24,696	16,494	30,888	64,513	10,348	511	49	74	117	241	30
2000	143,066	24,557	11,986	28,581	68,266	9,676	481	53	69	109	220	30
2001	141,185	22,309	8,748	26,559	74,467	9,102	489	52	64	108	238	27
2002	158,664	26,596	6,988	25,643	90,024	9,414	543	63	59	105	291	25
2003	213,756	42,987	9,743	55,428	94,060	11,539	581	75	55	127	297	27
2004	253,382	63,732	18,072	63,890	94,841	12,847	618	95	61	137	295	30
2005	275,932	77,090	27,784	63,935	94,563	12,559	634	120	71	132	280	31
2006	297,236	88,013	33,657	67,962	94,526	13,079	645	128	74	134	276	33
2007	312,371	87,869	57,329	62,571	88,920	15,682	662	136	92	131	269	34
2008	184,175	45,753	26,525	33,673	67,334	10,891	642	128	93	128	260	33
2009	222,894	52,940	34,489	44,126	77,677	13,660	627	117	91	127	260	32
2010	237,790	60,461	36,239	48,985	77,140	14,965	624	117	87	130	258	32
2011	242,387	62,414	33,441	48,009	84,100	14,422	632	125	87	132	256	32
2012	263,618	68,461	32,179	53,638	90,594	18,746	602	125	86	131	223	37
2013	279,323	81,757	32,429	58,489	82,876	23,773	599	131	85	132	210	41
2014	289,270	88,962	30,370	56,820	90,207	22,910	568	126	84	124	194	40
2015	260,852	72,134	27,542	51,720	89,545	19,912	558	121	84	126	188	39
2016	261,870	75,382	26,043	53,339	86,853	20,254	530	116	82	126	172	34

Note: Components may not add to the total because of rounding. Totals are inclusive of preferred share classes.

TABLE 10

Closed-End Funds: Gross Issuance, Gross Redemptions, and Net Issuance by Type of Fund

Millions of dollars, annual

		Equity funds		Bond funds		
Year	Total	Domestic	Global/ International	Domestic taxable	Domestic municipal	Global/ International
Gross issuance[1]						
2002	$24,895	$9,191	$3	$2,309	$13,392	$0
2003	40,810	11,187	50	25,587	2,954	1,032
2004	27,991	15,424	5,714	5,820	5	1,028
2005	21,388	12,559	6,628	2,046	31	124
2006	12,745	7,992	2,505	1,718	196	334
2007	31,086	5,973	19,764	2,221	433	2,695
2008	275	8	145	121	0	0
2009	3,615	549	485	876	1,389	317
2010	14,017	3,719	114	2,374	7,454	358
2011	14,990	3,850	1,469	1,000	8,669	2
2012	16,844	3,815	533	4,088	6,328	2,081
2013	17,048	4,311	106	4,525	1,643	6,464
2014	8,456	4,263	619	677	2,897	1
2015	4,140	496	1,461	1,403	728	51
2016	2,863	64	126	1,667	1,002	4
Gross redemptions[2]						
2007	$2,717	$1,024	$105	$254	$1,313	$20
2008	22,573	7,060	1,832	6,891	6,089	701
2009	6,875	2,916	639	1,664	1,627	30
2010	8,587	1,724	55	474	6,335	0
2011	8,972	644	209	276	7,843	0
2012	5,459	974	420	838	3,226	0
2013	3,335	214	649	604	1,864	5
2014	3,522	444	124	411	2,330	213
2015	2,463	348	419	725	816	156
2016	1,941	104	340	438	556	502
Net issuance[3]						
2007	$28,369	$4,949	$19,659	$1,966	-$880	$2,675
2008	-22,298	-7,052	-1,687	-6,770	-6,089	-700
2009	-3,259	-2,366	-154	-788	-238	287
2010	5,430	1,995	59	1,900	1,119	357
2011	6,018	3,206	1,260	724	825	2
2012	11,385	2,840	113	3,249	3,102	2,081
2013	13,713	4,097	-543	3,921	-220	6,459
2014	4,935	3,819	494	266	567	-212
2015	1,676	148	1,043	678	-87	-104
2016	922	-40	-214	1,228	446	-498

[1] Gross issuance of shares is the value of net proceeds from underwritings, additional offerings, and other issuance. Data are not available prior to 2002.

[2] Gross redemptions of shares is the value of share repurchases and fund liquidations. Data are not available prior to 2007.

[3] Net issuance of shares is the dollar value of gross issuance minus gross redemptions. A positive number indicates that gross issuance exceeded gross redemptions. A negative number indicates that gross redemptions exceeded gross issuance. Data are not available prior to 2007.

Note: Components may not add to the total because of rounding. Totals are inclusive of preferred share classes.

TABLE 11

Exchange-Traded Funds: Total Net Assets by Type of Fund

Millions of dollars, year-end

		Investment objective							Legal status			Memo
		Equity							1940 Act ETFs			
		Domestic equity										
Year	Total	Broad-based	Sector[1]	Global/ International	Commodities[2]	Hybrid	Bond		Index	Actively managed	Non-1940 Act ETFs[3]	Funds of funds[4]
1996	$2,411	$2,159	-	$252	-	-	-		$2,411	-	-	-
1997	6,707	6,200	-	506	-	-	-		6,707	-	-	-
1998	15,568	14,058	$484	1,026	-	-	-		15,568	-	-	-
1999	33,873	29,374	2,507	1,992	-	-	-		33,873	-	-	-
2000	65,585	60,529	3,015	2,041	-	-	-		65,585	-	-	-
2001	82,993	74,752	5,224	3,016	-	-	-		82,993	-	-	-
2002	102,143	86,985	5,919	5,324	-	-	$3,915		102,143	-	-	-
2003	150,983	120,430	11,901	13,984	-	-	4,667		150,983	-	-	-
2004	227,540	163,730	20,315	33,644	$1,335	-	8,516		226,205	-	$1,335	-
2005	300,820	186,832	28,975	65,210	4,798	-	15,004		296,022	-	4,798	-
2006	422,550	232,487	43,655	111,194	14,699	-	20,514		407,850	-	14,699	-
2007	608,422	300,930	64,117	179,702	28,906	$119	34,648		579,517	-	28,906	-
2008	531,288	266,161	58,374	113,684	35,728	132	57,209		495,314	$245	35,728	$97
2009	777,128	304,044	82,053	209,315	74,528	169	107,018		701,586	1,014	74,528	824
2010	991,989	372,377	103,807	276,622	101,081	322	137,781		888,198	2,736	101,055	1,294
2011	1,048,139	400,702	108,548	245,114	109,176	377	184,222		934,216	5,054	108,868	1,575
2012	1,337,123	509,350	135,378	328,521	120,016	656	243,203		1,206,974	10,268	119,881	2,215
2013	1,674,713	761,798	202,706	398,834	64,042	1,469	245,862		1,596,691	14,152	63,869	2,561
2014	1,974,550	935,825	267,523	414,805	56,974	3,047	296,376		1,901,331	16,682	56,538	5,030
2015	2,100,658	965,338	267,356	474,640	49,317	3,738	340,270		2,024,438	27,749	48,471	10,476
2016	2,524,388	1,224,079	302,746	502,702	62,777	4,951	427,133		2,433,967	28,791	61,630	9,701

[1] This category includes funds both registered and not registered under the Investment Company Act of 1940.
[2] This category includes funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.
[3] The funds in this category are not registered under the Investment Company Act of 1940.
[4] Data for ETFs that invest primarily in other ETFs are excluded from the totals.
Note: Components may not add to the total because of rounding.
Sources: Investment Company Institute and Strategic Insight Simfund

TABLE 12

Exchange-Traded Funds: Number of Funds by Type of Fund

Year-end

		Investment objective						Legal status			Memo
		Equity						1940 Act ETFs			
		Domestic equity									
Year	Total	Broad-based	Sector[1]	Global/ International	Commodities[2]	Hybrid	Bond	Index	Actively managed	Non-1940 Act ETFs[3]	Funds of funds[4]
1996	19	2	-	17	-	-	-	19	-	-	-
1997	19	2	-	17	-	-	-	19	-	-	-
1998	29	3	9	17	-	-	-	29	-	-	-
1999	30	4	9	17	-	-	-	30	-	-	-
2000	80	29	26	25	-	-	-	80	-	-	-
2001	102	34	34	34	-	-	-	102	-	-	-
2002	113	34	32	39	-	-	8	113	-	-	-
2003	119	39	33	41	-	-	6	119	-	-	-
2004	152	60	42	43	1	-	6	151	-	1	-
2005	204	81	65	49	3	-	6	201	-	3	-
2006	359	133	119	85	16	-	6	343	-	16	-
2007	629	197	191	159	28	5	49	601	-	28	-
2008	728	204	186	225	45	6	62	670	13	45	15
2009	797	222	179	244	49	5	98	727	21	49	23
2010	923	243	193	298	55	6	128	844	25	54	27
2011	1,135	288	229	368	75	7	168	1,028	34	73	31
2012	1,195	275	222	404	79	13	202	1,070	45	80	44
2013	1,295	293	235	438	76	15	238	1,158	62	75	37
2014	1,412	317	236	494	82	19	264	1,228	112	72	39
2015	1,595	361	266	592	81	21	274	1,387	135	73	49
2016	1,716	396	304	629	80	22	285	1,501	148	67	58

[1] This category includes funds both registered and not registered under the Investment Company Act of 1940.
[2] This category includes funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.
[3] The funds in this category are not registered under the Investment Company Act of 1940.
[4] Data for ETFs that invest primarily in other ETFs are excluded from the totals.
Note: Components may not add to the total because of rounding.
Sources: Investment Company Institute and Strategic Insight Simfund

TABLE 13

Exchange-Traded Funds: Net Issuance by Type of Fund

Millions of dollars, annual

		Investment objective						Legal status			Memo
		Equity						1940 Act ETFs			
		Domestic equity									
Year	Total	Broad-based	Sector[1]	Global/ International	Commodities[2]	Hybrid	Bond	Index	Actively managed	Non-1940 Act ETFs[3]	Funds of funds[4]
1996	$1,108	$842	-	$266	-	-	-	$1,108	-	-	-
1997	3,466	3,160	-	306	-	-	-	3,466	-	-	-
1998	6,195	5,158	$484	553	-	-	-	6,195	-	-	-
1999	11,929	10,221	1,596	112	-	-	-	11,929	-	-	-
2000	42,508	40,591	1,033	884	-	-	-	42,508	-	-	-
2001	31,012	26,911	2,735	1,366	-	-	-	31,012	-	-	-
2002	45,302	35,477	2,304	3,792	-	-	$3,729	45,302	-	-	-
2003	15,810	5,737	3,587	5,764	-	-	721	15,810	-	-	-
2004	56,375	29,084	6,514	15,645	$1,353	-	3,778	55,021	-	$1,353	-
2005	56,729	16,941	6,719	23,455	2,859	-	6,756	53,871	-	2,859	-
2006	73,995	21,589	9,780	28,423	8,475	-	5,729	65,520	-	8,475	-
2007	150,617	61,152	18,122	48,842	9,062	$122	13,318	141,555	-	9,062	-
2008	177,220	88,105	30,296	25,243	10,567	58	22,952	166,372	$281	10,567	$107
2009	116,469	-11,842	14,329	39,599	28,410	15	45,958	87,336	724	28,410	237
2010	117,982	28,317	10,187	41,527	8,155	144	29,652	108,141	1,711	8,129	433
2011	117,646	34,657	9,682	24,250	2,940	72	46,045	112,437	2,571	2,639	385
2012	185,399	57,744	14,307	51,896	8,889	246	52,318	171,329	5,030	9,041	505
2013	179,959	99,545	34,434	62,807	-29,870	849	12,195	205,323	4,542	-29,906	1,106
2014	240,844	102,394	40,593	46,642	-1,420	1,629	51,007	240,011	2,597	-1,764	2,365
2015	230,971	49,756	13,371	109,668	2,118	1,110	54,949	216,463	12,978	1,530	5,726
2016	283,914	147,701	19,809	20,195	11,679	1,088	83,442	266,042	6,426	11,445	-638

[1] This category includes funds both registered and not registered under the Investment Company Act of 1940.
[2] This category includes funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.
[3] The funds in this category are not registered under the Investment Company Act of 1940.
[4] Data for ETFs that invest primarily in other ETFs are excluded from the totals.

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

Sources: Investment Company Institute and Strategic Insight Simfund

TABLE 14

Unit Investment Trusts: Total Net Assets, Number of Trusts, and New Deposits by Type of Trust

	Total net assets Millions of dollars, year-end				Number of trusts Year-end				New deposits Millions of dollars, annual			
Year	Total	Equity	Taxable debt	Tax-free debt	Total	Equity	Taxable debt	Tax-free debt	Total	Equity	Taxable debt	Tax-free debt
1990	$105,390	$4,192	$9,456	$91,742	12,131	171	722	11,238	$7,489	$495	$1,349	$5,644
1991	102,828	4,940	9,721	88,167	12,388	168	678	11,542	8,195	900	1,687	5,609
1992	97,925	6,484	9,976	81,465	13,598	230	745	12,623	8,909	1,771	2,385	4,752
1993	87,574	8,494	8,567	70,513	13,740	258	679	12,803	9,359	3,206	1,598	4,555
1994	73,682	9,285	7,252	57,144	13,310	306	568	12,436	8,915	3,265	1,709	3,941
1995	73,125	14,019	8,094	51,013	12,979	301	578	12,100	11,264	6,743	1,154	3,367
1996	72,204	22,922	8,485	40,796	11,764	378	591	10,795	21,662	18,316	800	2,546
1997	84,761	40,747	6,480	37,533	11,593	563	513	10,517	38,546	35,855	771	1,919
1998	93,943	56,413	5,380	32,151	10,966	872	414	9,680	47,675	45,947	562	1,166
1999	91,970	62,128	4,283	25,559	10,414	1,081	409	8,924	52,046	50,629	343	1,074
2000	74,161	48,060	3,502	22,599	10,072	1,554	369	8,149	43,649	42,570	196	883
2001	49,249	26,467	3,784	18,999	9,295	1,500	324	7,471	19,049	16,927	572	1,550
2002	36,016	14,651	4,020	17,345	8,303	1,247	366	6,690	11,600	9,131	862	1,607
2003	35,826	19,024	3,311	13,491	7,233	1,206	320	5,707	12,731	10,071	931	1,729
2004	37,267	23,201	2,635	11,432	6,499	1,166	295	5,038	17,125	14,559	981	1,585
2005	40,894	28,634	2,280	9,980	6,019	1,251	304	4,464	22,598	21,526	289	782
2006	49,662	38,809	2,142	8,711	5,907	1,566	319	4,022	29,057	28,185	294	578
2007	53,040	43,295	2,066	7,680	6,030	1,964	327	3,739	35,836	35,101	298	438
2008	28,543	20,080	2,007	6,456	5,984	2,175	343	3,466	23,590	22,335	557	698
2009	38,336	24,774	3,668	9,894	6,049	2,145	438	3,466	22,293	16,159	2,201	3,933
2010	50,567	34,112	3,780	12,675	5,971	2,212	491	3,268	30,936	25,003	928	5,006
2011	59,931	40,638	3,602	15,691	6,043	2,395	512	3,136	36,026	31,900	765	3,361
2012	71,725	51,905	4,063	15,757	5,787	2,426	553	2,808	43,404	40,012	1,236	2,157
2013	86,504	70,850	3,560	12,094	5,552	2,428	580	2,544	55,628	53,719	916	993
2014	101,136	85,887	3,135	12,114	5,381	2,501	593	2,287	65,529	63,991	624	915
2015	94,127	80,417	2,597	11,113	5,188	2,609	587	1,992	65,949	64,582	492	875
2016	84,553	71,515	2,676	10,362	5,103	2,589	635	1,879	49,346	47,582	613	1,151

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

TABLE 15

Long-Term Mutual Funds: Liquid Assets and Liquidity Ratios

Year-end

	Liquid assets *Millions of dollars*				Liquidity ratios* *Percent*			
Year	Total	Equity funds	Hybrid funds	Bond funds	Total	Equity funds	Hybrid funds	Bond funds
1984	$12,181	$7,295	$878	$4,007	8.9%	9.1%	7.9%	8.7%
1985	20,593	10,452	1,413	8,728	8.2	9.4	8.0	7.1
1986	30,611	14,612	2,514	13,485	7.2	9.5	9.8	5.5
1987	37,930	16,319	2,730	18,881	8.4	9.3	9.3	7.6
1988	44,980	17,742	2,986	24,252	9.5	9.4	11.3	9.5
1989	44,603	25,602	5,747	13,253	8.1	10.4	16.1	4.9
1990	48,440	27,344	4,198	16,899	8.5	11.4	11.7	5.8
1991	60,385	30,657	3,309	26,419	7.1	7.6	6.4	6.7
1992	73,984	42,417	6,560	25,007	6.7	8.3	8.5	5.0
1993	99,436	57,539	16,613	25,284	6.6	7.8	11.7	4.1
1994	120,430	70,885	19,929	29,616	7.8	8.3	12.3	5.6
1995	141,755	97,743	19,271	24,741	6.9	7.8	9.3	4.1
1996	151,988	107,667	17,954	26,367	5.8	6.2	7.2	4.1
1997	198,826	145,565	24,645	28,616	5.8	6.1	7.9	3.9
1998	191,393	143,516	25,289	22,588	4.6	4.8	7.0	2.7
1999	219,098	174,692	20,979	23,427	4.2	4.3	5.6	2.9
2000	277,164	225,023	26,798	25,343	5.4	5.7	7.4	3.1
2001	222,475	170,361	26,911	25,203	4.7	5.0	7.5	2.7
2002	208,939	120,500	25,423	63,016	5.1	4.6	7.6	5.5
2003	259,641	154,877	30,654	74,110	4.8	4.2	6.8	5.9
2004	307,111	184,140	36,419	86,552	5.0	4.2	6.6	6.7
2005	303,189	190,906	43,133	69,150	4.4	3.9	6.9	5.1
2006	346,768	218,670	57,461	70,637	4.3	3.7	7.9	4.7
2007	381,679	266,285	56,813	58,581	4.3	4.2	6.9	3.5
2008	314,286	203,282	52,712	58,291	5.4	5.6	9.4	3.7
2009	365,787	169,799	52,845	143,143	4.7	3.5	7.4	6.5
2010	330,355	192,757	61,073	76,525	3.7	3.4	7.3	3.0
2011	461,852	182,548	70,744	208,559	5.2	3.5	8.0	7.3
2012	516,252	200,436	100,424	215,392	5.0	3.4	9.7	6.4
2013	659,016	272,504	149,455	237,057	5.3	3.5	11.7	7.2
2014	742,206	291,688	165,287	285,231	5.6	3.5	12.0	8.2
2015	670,931	258,379	179,477	233,075	5.2	3.2	13.5	6.8
2016	664,038	257,878	169,521	236,639	4.9	3.0	12.2	6.5

* The liquidity ratio is the ratio of liquid assets divided by total net assets at year-end.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 16

Long-Term Mutual Funds: Liquidity Ratios by Composite Investment Objective

Percent, year-end

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	6.1%	7.7%	4.9%	7.4%	4.5%	9.1%	-2.2%	-2.8%	-2.2%	3.1%	3.5%
2001	4.9	6.2	4.8	7.5	3.3	7.7	-3.7	-0.5	0.6	2.3	3.2
2002	4.9	5.7	4.1	7.6	9.8	7.9	-2.5	0.5	7.0	2.6	4.2
2003	3.7	5.8	4.1	6.8	9.5	6.1	3.3	1.7	8.7	2.2	3.7
2004	3.6	5.5	4.2	6.6	8.8	6.1	6.1	3.8	8.3	2.9	6.5
2005	3.3	5.2	3.7	6.9	6.4	5.2	6.1	1.2	6.7	2.5	5.7
2006	3.4	4.3	3.7	7.9	6.8	4.9	12.5	-4.1	2.6	2.0	4.5
2007	4.3	5.2	3.6	6.9	2.1	4.6	17.0	-0.8	4.5	1.8	4.6
2008	6.1	7.9	4.2	9.4	1.1	10.7	13.0	4.4	3.6	1.7	4.9
2009	4.5	3.9	2.8	7.4	6.8	5.4	13.6	4.0	6.6	2.8	6.0
2010	3.5	4.4	2.9	7.3	0.3	5.8	16.5	-2.5	2.7	2.1	5.2
2011	3.8	4.5	2.8	8.0	7.2	7.2	17.5	0.9	5.2	3.1	6.6
2012	3.6	4.0	2.9	9.7	5.4	5.6	15.1	2.8	6.9	3.4	6.2
2013	3.6	4.5	3.0	11.7	6.9	4.3	17.2	1.0	7.0	2.0	6.5
2014	3.3	4.9	2.9	12.0	7.5	4.4	19.3	2.5	8.0	3.6	7.6
2015	3.3	4.3	2.6	13.5	4.7	5.8	15.0	3.2	9.4	4.4	8.2
2016	3.1	4.1	2.4	12.2	6.0	5.6	13.7	1.3	6.4	2.7	6.7

Note: The liquidity ratio is the ratio of liquid assets divided by total net assets at year-end. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 17

Long-Term Mutual Funds: Net New Cash Flow

Millions of dollars, annual

Year	Total	Equity funds	Hybrid funds	Bond funds
1984	$19,194	$4,336	$1,801	$13,058
1985	73,490	6,643	3,720	63,127
1986	129,991	20,386	6,988	102,618
1987	29,776	19,231	3,748	6,797
1988	-23,119	-14,948	-3,684	-4,488
1989	8,731	6,774	3,183	-1,226
1990	21,211	12,915	1,463	6,833
1991	106,213	39,888	7,067	59,258
1992	171,696	78,983	21,725	70,989
1993	242,049	127,260	42,619	72,169
1994	75,160	114,525	21,998	-61,362
1995	122,208	124,392	3,738	-5,922
1996	231,874	216,937	11,795	3,141
1997	272,030	227,106	15,757	29,166
1998	241,796	156,875	10,265	74,656
1999	169,780	187,565	-13,018	-4,767
2000	228,874	315,711	-36,722	-50,115
2001	129,188	33,439	7,285	88,463
2002	120,583	-29,326	8,043	141,865
2003	215,884	144,055	39,079	32,750
2004	209,890	171,937	53,055	-15,102
2005	192,017	123,967	42,754	25,295
2006	227,078	147,773	19,857	59,448
2007	224,321	73,328	40,384	110,609
2008	-211,196	-215,710	-25,525	30,039
2009	393,030	2,000	19,792	371,238
2010	243,549	-24,414	35,612	232,351
2011	28,264	-129,240	39,771	117,734
2012	199,761	-152,678	46,183	306,256
2013	162,406	159,481	73,696	-70,771
2014	97,964	25,458	28,905	43,600
2015	-122,794	-76,699	-20,825	-25,270
2016	-198,930	-259,756	-45,820	106,645

Note: Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges. Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 18

Equity Mutual Funds: Net New Cash Flow and Components of Net New Cash Flow

Millions of dollars, annual

		Sales			Redemptions		
Year	Net new cash flow[1]	New + exchange	New[2]	Exchange[3]	Regular + exchange	Regular[4]	Exchange[5]
1984	$4,336	$28,705	$16,586	$12,119	$24,369	$10,669	$13,700
1985	6,643	40,608	25,046	15,562	33,965	17,558	16,406
1986	20,386	87,997	50,774	37,224	67,612	26,051	41,561
1987	19,231	139,596	65,093	74,502	120,365	38,601	81,764
1988	-14,948	68,827	25,641	43,186	83,774	33,247	50,528
1989	6,774	89,345	46,817	42,527	82,571	37,229	45,342
1990	12,915	104,334	62,872	41,462	91,419	44,487	46,931
1991	39,888	146,618	90,192	56,427	106,730	53,394	53,336
1992	78,983	201,720	134,309	67,411	122,738	61,465	61,272
1993	127,260	307,356	213,639	93,717	180,095	91,944	88,151
1994	114,525	366,659	252,887	113,772	252,134	141,097	111,037
1995	124,392	433,853	282,937	150,915	309,461	170,402	139,059
1996	216,937	674,323	442,372	231,951	457,385	240,531	216,854
1997	227,106	880,286	579,064	301,222	653,180	362,022	291,158
1998	156,875	1,065,197	699,554	365,643	908,322	534,256	374,065
1999	187,565	1,410,846	918,600	492,245	1,223,281	744,145	479,136
2000	315,711	1,972,208	1,320,049	652,159	1,656,497	1,032,153	624,345
2001	33,439	1,329,827	953,619	376,208	1,296,387	891,802	404,586
2002	-29,326	1,214,146	894,047	320,099	1,243,471	875,677	367,794
2003	144,055	1,074,175	837,496	236,679	930,120	707,565	222,555
2004	171,937	1,096,540	926,961	169,579	924,603	758,902	165,701
2005	123,967	1,192,654	1,017,225	175,428	1,068,686	878,158	190,528
2006	147,773	1,417,077	1,214,420	202,658	1,269,304	1,047,381	221,923
2007	73,328	1,729,376	1,506,720	222,656	1,656,048	1,389,144	266,905
2008	-215,710	1,526,770	1,331,755	195,014	1,742,480	1,467,491	274,989
2009	2,000	1,194,430	1,032,587	161,843	1,192,430	1,012,070	180,360
2010	-24,414	1,406,727	1,236,968	169,759	1,431,140	1,239,214	191,926
2011	-129,240	1,493,211	1,323,076	170,135	1,622,451	1,418,038	204,413
2012	-152,678	1,449,655	1,260,225	189,430	1,602,333	1,382,129	220,203
2013	159,481	1,864,206	1,641,084	223,122	1,704,725	1,496,823	207,902
2014	25,458	2,009,016	1,797,760	211,256	1,983,558	1,773,309	210,249
2015	-76,699	2,009,664	1,792,658	217,007	2,086,363	1,874,253	212,110
2016	-259,756	1,937,039	1,717,468	219,571	2,196,794	1,951,492	245,302

[1] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[2] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[3] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[4] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[5] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 19

Hybrid Mutual Funds: Net New Cash Flow and Components of Net New Cash Flow

Millions of dollars, annual

		Sales			Redemptions		
Year	Net new cash flow[1]	New + exchange	New[2]	Exchange[3]	Regular + exchange	Regular[4]	Exchange[5]
1984	$1,801	$4,118	$3,842	$276	$2,318	$2,017	$301
1985	3,720	7,502	6,976	526	3,782	3,161	621
1986	6,988	13,535	12,342	1,194	6,548	5,162	1,386
1987	3,748	14,948	12,419	2,528	11,200	7,848	3,353
1988	-3,684	6,259	4,601	1,658	9,943	7,521	2,422
1989	3,183	11,139	9,334	1,805	7,956	5,780	2,176
1990	1,463	9,671	7,989	1,682	8,208	5,600	2,608
1991	7,067	16,860	13,754	3,106	9,793	7,011	2,782
1992	21,725	32,772	26,463	6,309	11,047	7,209	3,838
1993	42,619	60,610	49,526	11,083	17,990	11,735	6,256
1994	21,998	58,541	49,043	9,498	36,544	25,298	11,245
1995	3,738	43,024	35,385	7,640	39,286	27,807	11,479
1996	11,795	56,783	47,436	9,347	44,988	31,413	13,575
1997	15,757	68,347	55,264	13,084	52,590	38,265	14,325
1998	10,265	82,691	67,294	15,397	72,426	53,353	19,073
1999	-13,018	81,917	67,617	14,300	94,934	69,790	25,145
2000	-36,722	70,445	56,973	13,473	107,167	77,219	29,948
2001	7,285	83,546	65,634	17,912	76,260	58,850	17,410
2002	8,043	93,685	75,664	18,021	85,642	67,407	18,234
2003	39,079	115,929	96,811	19,117	76,849	63,329	13,520
2004	53,055	143,463	125,438	18,025	90,407	77,520	12,887
2005	42,754	144,267	126,616	17,651	101,513	86,199	15,314
2006	19,857	146,088	127,532	18,555	126,231	106,066	20,165
2007	40,384	206,415	183,482	22,933	166,031	144,066	21,965
2008	-25,525	181,437	155,076	26,361	206,962	165,396	41,566
2009	19,792	174,217	150,048	24,169	154,425	127,179	27,246
2010	35,612	205,830	181,871	23,959	170,218	146,546	23,672
2011	39,771	264,068	234,480	29,589	224,298	191,199	33,099
2012	46,183	266,463	239,810	26,653	220,280	195,767	24,513
2013	73,696	337,699	300,924	36,775	264,003	233,080	30,923
2014	28,905	320,933	289,456	31,476	292,027	264,871	27,156
2015	-20,825	296,654	265,534	31,120	317,479	282,783	34,696
2016	-45,820	296,680	258,092	38,589	342,500	302,157	40,343

[1] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[2] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[3] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[4] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[5] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 20

Bond Mutual Funds: Net New Cash Flow and Components of Net New Cash Flow

Millions of dollars, annual

Year	Net new cash flow[1]	Sales: New + exchange	Sales: New[2]	Sales: Exchange[3]	Redemptions: Regular + exchange	Redemptions: Regular[4]	Redemptions: Exchange[5]
1984	$13,058	$25,554	$20,774	$4,780	$12,497	$7,344	$5,152
1985	63,127	83,359	74,485	8,874	20,232	13,094	7,137
1986	102,618	158,874	138,240	20,634	56,256	35,776	20,480
1987	6,797	123,528	93,725	29,803	116,731	69,627	47,104
1988	-4,488	72,174	47,378	24,796	76,662	51,558	25,103
1989	-1,226	71,770	48,602	23,168	72,996	48,517	24,480
1990	6,833	80,659	57,106	23,552	73,826	47,978	25,848
1991	59,258	141,674	108,095	33,580	82,416	56,177	26,239
1992	70,989	217,863	171,991	45,872	146,874	96,628	50,246
1993	72,169	262,300	208,605	53,696	190,131	127,294	62,838
1994	-61,362	186,908	131,351	55,556	248,270	162,823	85,448
1995	-5,922	166,437	110,451	55,986	172,359	114,686	57,673
1996	3,141	203,343	137,886	65,457	200,201	125,486	74,715
1997	29,166	242,309	176,275	66,034	213,143	140,906	72,237
1998	74,656	314,429	230,934	83,495	239,773	160,071	79,702
1999	-4,767	299,198	217,431	81,767	303,965	207,254	96,711
2000	-50,115	250,918	187,188	63,730	301,033	220,868	80,165
2001	88,463	394,211	301,477	92,733	305,748	226,197	79,551
2002	141,865	515,028	402,020	113,009	373,163	285,070	88,093
2003	32,750	520,683	428,553	92,130	487,934	376,840	111,094
2004	-15,102	395,451	340,549	54,902	410,554	341,466	69,088
2005	25,295	402,734	351,116	51,617	377,438	321,639	55,799
2006	59,448	446,377	391,126	55,251	386,929	329,462	57,467
2007	110,609	592,760	506,964	85,796	482,151	410,366	71,785
2008	30,039	709,541	580,855	128,686	679,503	582,615	96,888
2009	371,238	1,006,675	856,834	149,841	635,438	525,214	110,224
2010	232,351	1,089,708	964,467	125,241	857,357	742,629	114,728
2011	117,734	1,103,833	976,235	127,599	986,099	870,191	115,908
2012	306,256	1,246,826	1,121,300	125,526	940,570	838,280	102,289
2013	-70,771	1,308,455	1,159,285	149,170	1,379,225	1,190,855	188,371
2014	43,600	1,278,590	1,174,510	104,080	1,234,990	1,138,147	96,843
2015	-25,270	1,197,117	1,090,671	106,446	1,222,387	1,119,993	102,395
2016	106,645	1,316,036	1,188,173	127,863	1,209,391	1,102,601	106,790

[1] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

[2] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.

[3] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.

[4] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.

[5] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

DATA SECTION 3

TABLE 21

Long-Term Mutual Funds: Net New Cash Flow by Composite Investment Objective

Millions of dollars, annual

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	$262,090	$58,195	-$4,574	-$36,722	$5,460	-$15,376	-$4,631	-$16,663	-$4,439	-$5,456	-$9,010
2001	-22,779	-23,206	79,425	7,285	49,253	880	-1,151	24,769	2,436	6,293	5,983
2002	-52,387	-4,451	27,513	8,043	64,554	2,953	-71	53,048	4,496	5,337	11,549
2003	27,126	24,361	92,569	39,079	30,168	21,945	4,029	-22,124	5,570	-8,309	1,471
2004	-11,497	71,583	111,851	53,055	22,033	-3,045	4,310	-26,259	3,207	-7,939	-7,410
2005	-25,359	106,918	42,408	42,754	36,578	-13,529	6,404	-14,211	5,342	1,232	3,480
2006	-26,823	150,935	23,661	19,857	37,205	3,044	10,936	-17,834	10,992	3,876	11,229
2007	-43,112	141,788	-25,348	40,384	75,914	-4,822	21,132	-2,242	9,647	3,358	7,621
2008	-47,984	-66,686	-101,040	-25,525	8,526	-6,360	6,087	20,600	-6,632	-2,302	10,119
2009	-7,263	29,633	-20,371	19,792	202,078	22,384	32,668	18,950	24,778	6,084	64,295
2010	-26,724	56,679	-54,369	35,612	110,895	19,345	70,076	4,059	16,316	-2,838	14,499
2011	-44,385	4,124	-88,980	39,771	51,100	21,654	44,468	3,393	8,736	-9,890	-1,726
2012	-39,022	6,563	-120,218	46,183	104,800	34,287	42,969	33,743	40,285	8,539	41,633
2013	-2,981	141,377	21,085	73,696	-97,547	56,034	66,239	-51,214	14,210	-22,420	-36,074
2014	-41,233	85,387	-18,696	28,905	9,317	-44,125	24,402	5,752	20,266	-1,064	29,051
2015	-54,625	93,666	-115,740	-20,825	-1,092	-36,741	-23,568	12,431	8,907	682	14,109
2016	-138,386	-24,602	-96,768	-45,820	83,669	6,791	-39,561	11,328	21,416	2,454	20,548

Note: Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 22

Long-Term Mutual Funds: New Sales by Composite Investment Objective

Millions of dollars, annual

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	$574,322	$342,511	$403,217	$56,973	$79,200	$27,405	$8,267	$24,359	$6,787	$16,989	$24,180
2001	306,550	251,663	395,407	65,634	127,711	36,277	8,948	58,987	12,245	25,028	32,282
2002	250,056	245,152	398,839	75,664	173,476	39,665	10,920	93,874	14,557	26,360	43,168
2003	250,597	205,236	381,662	96,811	187,533	65,577	18,946	71,167	20,096	20,546	44,688
2004	268,027	184,371	474,563	125,438	166,204	48,346	18,132	38,512	17,988	16,820	34,548
2005	263,542	239,620	514,063	126,616	172,002	42,175	23,786	32,063	20,800	21,959	38,331
2006	302,048	354,878	557,494	127,532	184,592	45,724	29,025	29,690	29,545	25,566	46,985
2007	368,541	479,180	658,998	183,482	248,086	55,721	45,546	34,593	38,846	29,590	54,582
2008	340,290	374,604	616,861	155,076	277,361	47,425	53,469	64,527	37,528	30,562	69,983
2009	273,511	284,663	474,413	150,048	426,898	70,370	69,340	90,702	57,875	28,386	113,264
2010	309,445	379,531	547,993	181,871	450,221	96,171	129,602	79,464	71,230	28,530	109,250
2011	340,379	398,432	584,264	234,480	448,976	129,052	138,829	72,240	76,840	19,797	90,501
2012	335,524	362,982	561,719	239,810	489,072	124,216	132,763	109,826	106,453	30,912	128,058
2013	395,529	511,267	734,288	300,924	466,425	173,017	193,007	74,507	116,834	23,833	111,661
2014	425,118	543,065	829,577	289,456	492,808	147,894	194,845	70,546	128,570	22,423	117,425
2015	422,654	583,270	786,734	265,534	466,981	124,920	154,000	80,030	126,703	24,301	113,737
2016	384,215	496,278	836,975	258,092	530,735	130,649	114,882	90,988	132,045	34,344	154,531

Note: New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 23

Long-Term Mutual Funds: Exchange Sales by Composite Investment Objective

Millions of dollars, annual

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	$343,618	$169,388	$139,153	$13,473	$16,756	$10,298	$3,011	$15,829	$1,662	$5,304	$10,870
2001	176,020	85,824	114,364	17,912	32,627	11,378	2,057	24,779	2,860	5,348	13,686
2002	144,274	71,084	104,741	18,021	39,463	11,201	2,373	37,280	3,465	5,625	13,602
2003	94,572	41,777	100,330	19,117	33,942	17,110	3,528	18,355	4,689	4,288	10,218
2004	57,575	27,630	84,373	18,025	23,681	8,944	2,056	7,023	4,314	2,750	6,135
2005	55,786	38,396	81,246	17,651	20,833	7,270	2,780	6,575	4,742	2,983	6,435
2006	64,339	56,926	81,393	18,555	21,900	7,295	2,740	5,972	7,024	3,450	6,869
2007	60,892	68,791	92,974	22,933	41,588	7,931	4,630	10,226	5,035	5,706	10,680
2008	58,651	49,364	87,000	26,361	50,417	7,414	8,506	27,495	10,048	7,039	17,767
2009	44,896	47,478	69,469	24,169	76,507	13,182	7,976	18,336	8,641	5,161	20,037
2010	41,943	55,916	71,900	23,959	58,253	13,071	9,482	14,512	10,791	3,852	15,280
2011	48,425	40,006	81,705	29,589	59,218	14,820	10,801	14,323	10,756	3,736	13,944
2012	45,113	47,473	96,843	26,653	54,575	13,419	9,807	14,912	12,957	3,685	16,171
2013	68,219	44,075	110,827	36,775	52,690	19,000	26,824	13,320	10,305	4,900	22,131
2014	61,403	48,136	101,717	31,476	46,085	12,179	10,140	7,231	9,738	3,600	15,107
2015	64,289	55,766	96,951	31,120	41,338	14,502	13,955	9,151	9,379	3,899	14,222
2016	54,178	49,033	116,360	38,589	52,811	14,310	15,466	10,613	9,684	4,106	20,874

Note: Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 24

Long-Term Mutual Funds: Redemptions by Composite Investment Objective

Millions of dollars, annual

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	$367,939	$288,253	$375,961	$77,219	$71,781	$37,560	$11,447	$35,865	$10,431	$21,877	$31,908
2001	307,031	264,414	320,356	58,850	87,986	34,381	9,538	37,939	10,367	18,584	27,401
2002	276,869	243,479	355,328	67,407	118,156	36,207	11,383	53,918	11,084	20,889	33,434
2003	222,877	183,743	300,945	63,329	152,543	47,355	15,501	79,437	14,861	25,700	41,443
2004	269,656	122,228	367,018	77,520	142,684	49,051	13,819	58,824	14,645	22,817	39,625
2005	274,036	148,065	456,057	86,199	136,659	52,217	18,358	43,913	15,547	20,457	34,488
2006	313,778	223,271	510,332	106,066	147,213	42,462	18,602	43,975	19,314	21,692	36,205
2007	394,164	347,697	647,282	144,066	187,113	57,163	26,374	38,850	28,078	25,838	46,949
2008	375,920	413,224	678,348	165,396	282,539	51,012	49,488	59,781	44,526	32,200	63,070
2009	273,993	254,635	483,443	127,179	248,828	51,338	40,278	69,920	35,666	22,762	56,421
2010	329,575	317,496	592,143	146,546	347,845	79,907	62,812	74,239	55,327	29,101	93,398
2011	377,058	383,010	657,970	191,199	407,090	108,351	95,480	69,572	69,157	28,412	92,128
2012	367,394	354,582	660,153	195,767	393,758	92,202	92,006	77,394	70,307	22,815	89,798
2013	401,196	374,285	721,341	233,080	529,468	121,790	141,365	117,158	101,509	40,542	139,022
2014	464,838	459,219	849,251	264,871	490,363	186,795	170,248	63,799	110,856	23,917	92,168
2015	480,304	500,232	893,718	282,783	467,031	157,117	181,379	68,938	118,959	23,870	102,699
2016	508,759	510,517	932,215	302,157	459,425	126,404	155,376	81,462	113,895	31,051	134,988

Note: Redemptions are the dollar value of shareholder liquidation of mutual fund shares. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 25

Long-Term Mutual Funds: Exchange Redemptions by Composite Investment Objective

Millions of dollars, annual

	Equity funds				Bond funds						
Year	Capital appreciation	World	Total return	Hybrid funds	Investment grade	High yield	World	Government	Multisector	State muni	National muni
2000	$287,910	$165,451	$170,983	$29,948	$18,715	$15,519	$4,463	$20,986	$2,457	$5,872	$12,153
2001	198,317	96,279	109,990	17,410	23,098	12,393	2,618	21,058	2,301	5,499	12,583
2002	169,848	77,208	120,738	18,234	30,229	11,706	1,981	24,188	2,443	5,758	11,787
2003	95,166	38,910	88,479	13,520	38,763	13,387	2,945	32,209	4,354	7,443	11,992
2004	67,443	18,190	80,067	12,887	25,168	11,284	2,059	12,969	4,450	4,692	8,467
2005	70,651	23,033	96,844	15,314	19,597	10,757	1,804	8,936	4,653	3,253	6,798
2006	79,432	37,597	104,894	20,165	22,074	7,513	2,227	9,521	6,263	3,449	6,420
2007	78,381	58,486	130,038	21,965	26,647	11,311	2,670	8,210	6,155	6,099	10,692
2008	71,005	77,430	126,554	41,566	36,712	10,187	6,401	11,642	9,682	7,703	14,562
2009	51,677	47,874	80,809	27,246	52,499	9,830	4,371	20,168	6,071	4,702	12,584
2010	48,536	61,271	82,119	23,672	49,734	9,990	6,195	15,678	10,379	6,119	16,632
2011	56,130	51,303	96,980	33,099	50,005	13,867	9,681	13,597	9,703	5,011	14,043
2012	52,265	49,311	118,628	24,513	45,090	11,147	7,594	13,601	8,817	3,243	12,797
2013	65,533	39,680	102,689	30,923	87,193	14,193	12,228	21,882	11,420	10,611	30,844
2014	62,916	46,595	100,738	27,156	39,212	17,402	10,335	8,225	7,186	3,170	11,313
2015	61,264	45,138	105,708	34,696	42,380	19,046	10,144	7,812	8,215	3,648	11,150
2016	68,020	59,395	117,887	40,343	40,452	11,763	14,532	8,811	6,418	4,945	19,869

Note: Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 26

Long-Term Mutual Funds: Annual Redemption Rates

Year-end

	Narrow redemption rates[1]				Broad redemption rates[2]			
Year	Total	Equity funds	Hybrid funds	Bond funds	Total	Equity funds	Hybrid funds	Bond funds
1985	17.4%	18.4%	22.0%	15.5%	29.8%	35.6%	26.3%	24.0%
1986	19.8	19.6	23.8	19.6	38.6	50.9	30.2	30.7
1987	26.5	23.4	28.5	28.3	56.7	73.0	40.7	47.5
1988	20.0	18.2	27.1	20.5	36.9	45.9	35.8	30.4
1989	17.9	17.1	18.7	18.4	31.9	38.0	25.7	27.7
1990	17.5	18.4	15.6	17.0	31.0	37.7	22.9	26.2
1991	16.4	16.6	15.9	16.4	28.1	33.1	22.2	24.1
1992	17.0	13.4	11.1	21.5	28.8	26.7	17.0	32.7
1993	17.8	14.7	10.7	22.6	29.9	28.7	16.4	33.8
1994	21.6	17.7	16.7	28.3	35.2	31.6	24.1	43.1
1995	17.4	16.2	15.1	20.3	28.9	29.4	21.3	30.4
1996	17.0	16.2	13.8	20.0	30.0	30.7	19.8	32.0
1997	17.9	17.7	13.7	20.4	30.5	31.9	18.8	30.9
1998	19.7	20.0	15.9	20.5	32.2	34.0	21.6	30.6
1999	21.7	21.2	19.0	25.1	34.5	34.9	25.8	36.8
2000	25.7	25.9	21.0	26.9	39.9	41.5	29.1	36.7
2001	24.0	24.3	16.4	25.7	34.2	35.4	21.2	34.7
2002	27.9	29.0	19.4	27.4	38.7	41.2	24.7	35.9
2003	24.2	22.5	16.2	31.4	31.5	29.5	19.6	40.6
2004	20.4	19.0	15.5	26.7	24.7	23.1	18.1	32.1
2005	19.7	19.0	14.7	24.2	23.7	23.2	17.3	28.4
2006	19.9	19.5	15.7	23.1	23.9	23.7	18.7	27.1
2007	22.9	22.7	18.6	25.8	27.1	27.0	21.4	30.4
2008	30.1	29.2	23.9	35.8	35.8	34.6	29.9	41.8
2009	24.5	23.7	19.9	27.8	29.2	28.0	24.1	33.6
2010	25.3	23.7	18.8	31.0	29.2	27.3	21.8	35.7
2011	27.6	26.2	22.2	32.0	31.5	30.0	26.0	36.3
2012	25.0	24.8	20.4	26.9	28.6	28.7	23.0	30.2
2013	25.7	21.8	20.1	35.7	29.5	24.9	22.8	41.3
2014	24.9	22.1	19.9	33.7	27.6	24.7	22.0	36.6
2015	25.2	22.8	20.9	32.6	27.8	25.3	23.4	35.6
2016	25.3	23.3	22.2	31.2	28.3	26.3	25.2	34.2

[1] The narrow redemption rate is calculated by taking the sum of regular redemptions for the year as a percentage of average net assets at the beginning and end of the period.

[2] The broad redemption rate is calculated by taking the sum of regular redemptions and exchange redemptions for the year as a percentage of average net assets at the beginning and end of the period.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 27

Long-Term Mutual Funds: Portfolio Holdings: Value and Percentage of Total Net Assets

Year-end

Year	Total net assets	Common and preferred stocks	Long-term US government bonds	Corporate bonds	Municipal bonds	Liquid assets	Other
Millions of dollars							
1995	$2,058,275	$1,215,218	$259,107	$190,837	$245,331	$141,755	$6,026
1996	2,623,994	1,718,203	264,972	238,003	245,183	151,988	5,645
1997	3,409,315	2,358,258	282,272	292,770	266,324	198,826	10,866
1998	4,173,531	3,004,185	286,592	389,213	292,395	191,393	9,753
1999	5,233,193	4,059,429	293,565	388,472	267,426	219,098	5,204
2000	5,119,386	3,910,200	309,752	348,928	269,334	277,164	4,008
2001	4,689,603	3,424,547	379,735	371,428	289,651	222,475	1,768
2002	4,118,082	2,687,955	481,476	417,326	320,477	208,939	1,910
2003	5,362,097	3,761,031	504,545	501,862	331,981	259,641	3,038
2004	6,194,101	4,489,607	537,297	533,252	318,354	307,111	8,482
2005	6,864,553	5,055,105	612,803	549,973	330,945	303,189	12,539
2006	8,059,704	6,024,800	644,745	668,271	359,163	346,768	15,956
2007	8,914,408	6,609,155	749,432	784,010	369,055	381,679	21,077
2008	5,788,401	3,733,992	705,027	676,688	336,878	314,286	21,532
2009	7,796,729	5,090,647	849,809	1,021,925	451,151	365,787	17,411
2010	9,030,002	5,869,614	1,084,896	1,258,508	479,667	330,355	6,963
2011	8,941,635	5,507,505	1,186,177	1,318,996	506,843	461,852	-39,737
2012	10,361,322	6,294,126	1,379,353	1,604,941	592,847	516,252	-26,197
2013	12,331,172	8,222,968	1,208,980	1,730,764	512,640	659,016	-3,196
2014	13,148,758	8,795,567	1,213,148	1,841,337	568,192	742,206	-11,694
2015	12,895,709	8,621,887	1,252,983	1,794,323	582,724	670,931	-27,140
2016	13,615,579	9,068,080	1,363,461	1,935,327	607,947	664,038	-23,274
Percent							
1995	100.0%	59.0%	12.6%	9.3%	11.9%	6.9%	0.3%
1996	100.0	65.5	10.1	9.1	9.3	5.8	0.2
1997	100.0	69.2	8.3	8.6	7.8	5.8	0.3
1998	100.0	72.0	6.9	9.3	7.0	4.6	0.2
1999	100.0	77.6	5.6	7.4	5.1	4.2	0.1
2000	100.0	76.4	6.1	6.8	5.3	5.4	0.1
2001	100.0	73.0	8.1	7.9	6.2	4.7	0.0
2002	100.0	65.3	11.7	10.1	7.8	5.1	0.0
2003	100.0	70.1	9.4	9.4	6.2	4.8	0.1
2004	100.0	72.5	8.7	8.6	5.1	5.0	0.1
2005	100.0	73.6	8.9	8.0	4.8	4.4	0.2
2006	100.0	74.8	8.0	8.3	4.5	4.3	0.2
2007	100.0	74.1	8.4	8.8	4.1	4.3	0.2
2008	100.0	64.5	12.2	11.7	5.8	5.4	0.4
2009	100.0	65.3	10.9	13.1	5.8	4.7	0.2
2010	100.0	65.0	12.0	13.9	5.3	3.7	0.1
2011	100.0	61.6	13.3	14.8	5.7	5.2	-0.4
2012	100.0	60.7	13.3	15.5	5.7	5.0	-0.3
2013	100.0	66.7	9.8	14.0	4.2	5.3	0.0
2014	100.0	66.9	9.2	14.0	4.3	5.6	-0.1
2015	100.0	66.9	9.7	13.9	4.5	5.2	-0.2
2016	100.0	66.6	10.0	14.2	4.5	4.9	-0.2

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 28

Long-Term Mutual Funds: Portfolio Holdings as a Percentage of Total Net Assets by Type of Fund

Year-end

Year	Total net assets	Common and preferred stocks	Long-term US government bonds	Corporate bonds	Municipal bonds	Liquid assets	Other	Total net assets *Millions of dollars*
Equity funds								
2002	100.0%	94.2%	0.4%	0.8%	0.0%	4.6%	0.0%	$2,642,420
2003	100.0	95.0	0.2	0.5	0.0	4.2	0.0	3,653,370
2004	100.0	95.2	0.1	0.4	0.0	4.2	0.1	4,342,577
2005	100.0	95.5	0.1	0.4	0.0	3.9	0.1	4,885,444
2006	100.0	95.6	0.1	0.4	0.0	3.8	0.1	5,832,582
2007	100.0	95.2	0.1	0.4	0.0	4.2	0.2	6,413,222
2008	100.0	93.5	0.2	0.5	0.0	5.6	0.3	3,655,162
2009	100.0	95.8	0.1	0.5	0.0	3.5	0.1	4,872,541
2010	100.0	95.7	0.2	0.5	0.0	3.4	0.1	5,596,629
2011	100.0	95.6	0.3	0.6	0.0	3.5	0.0	5,212,995
2012	100.0	95.6	0.3	0.6	0.0	3.4	0.0	5,938,757
2013	100.0	95.6	0.2	0.6	0.0	3.5	0.0	7,762,556
2014	100.0	95.7	0.2	0.6	0.0	3.5	0.1	8,313,989
2015	100.0	96.1	0.2	0.5	0.0	3.2	0.1	8,147,999
2016	100.0	96.2	0.2	0.5	0.0	3.0	0.1	8,577,394
Hybrid funds								
2002	100.0%	57.4%	12.4%	22.3%	0.2%	7.5%	0.1%	$335,276
2003	100.0	62.5	10.6	19.7	0.3	6.9	0.0	447,570
2004	100.0	63.5	11.0	18.4	0.4	6.6	0.1	552,250
2005	100.0	62.6	10.5	19.5	0.4	6.9	0.0	621,479
2006	100.0	61.2	10.0	19.5	0.3	8.9	0.1	731,503
2007	100.0	60.5	10.3	20.8	0.3	8.0	0.1	821,522
2008	100.0	55.4	9.8	24.3	0.4	9.6	0.4	562,262
2009	100.0	58.3	9.8	23.4	0.4	7.7	0.5	717,580
2010	100.0	60.7	8.9	22.3	0.5	7.3	0.4	842,198
2011	100.0	59.3	9.4	22.1	0.5	7.9	0.8	883,981
2012	100.0	59.5	8.8	21.1	0.5	9.4	0.8	1,031,581
2013	100.0	61.3	7.8	18.6	0.4	11.2	0.6	1,282,571
2014	100.0	59.5	8.2	19.6	0.5	11.7	0.4	1,374,143
2015	100.0	57.7	8.8	19.6	0.6	13.3	-0.1	1,334,258
2016	100.0	57.6	9.1	20.7	0.6	11.9	0.0	1,388,659
Bond funds								
2002	100.0%	0.6%	37.6%	28.1%	28.0%	5.5%	0.0%	$1,140,387
2003	100.0	0.8	35.8	31.3	26.2	5.8	0.1	1,261,157
2004	100.0	0.8	36.2	31.7	24.2	6.6	0.4	1,299,274
2005	100.0	0.8	39.6	30.0	23.9	5.1	0.6	1,357,630
2006	100.0	0.8	37.4	33.5	23.6	4.3	0.5	1,495,619
2007	100.0	1.0	38.9	35.0	21.6	3.0	0.6	1,679,664
2008	100.0	0.6	40.8	33.2	21.2	3.6	0.5	1,570,978
2009	100.0	0.8	34.8	37.4	20.1	6.5	0.4	2,206,609
2010	100.0	0.9	38.2	40.0	18.1	3.0	-0.1	2,591,175
2011	100.0	0.8	37.8	38.2	17.4	7.4	-1.7	2,844,659
2012	100.0	0.9	37.0	39.5	17.1	6.5	-1.0	3,390,984
2013	100.0	1.1	32.9	43.7	15.2	7.4	-0.4	3,286,045
2014	100.0	1.1	31.3	43.9	16.1	8.4	-0.7	3,460,626
2015	100.0	0.9	32.7	43.7	16.7	6.9	-0.9	3,413,449
2016	100.0	0.7	33.3	43.8	16.3	6.6	-0.8	3,649,527

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 29

Long-Term Mutual Funds: Paid and Reinvested Dividends by Type of Fund

Millions of dollars, annual

	Paid dividends				Reinvested dividends			
Year	Total	Equity funds	Hybrid funds	Bond funds	Total	Equity funds	Hybrid funds	Bond funds
1984[e]	$7,238	$2,613	$583	$4,042	$4,655	$1,881	$432	$2,342
1985	12,719	3,229	1,098	8,392	7,731	2,321	768	4,642
1986	22,689	6,328	1,499	14,862	13,991	3,706	1,087	9,197
1987	31,708	7,246	1,934	22,528	18,976	4,841	1,476	12,659
1988	31,966	6,554	1,873	23,539	17,494	4,476	1,217	11,801
1989	34,102	10,235	2,165	21,702	20,584	7,119	1,383	12,082
1990	33,156	8,787	2,350	22,018	21,124	6,721	1,717	12,686
1991	35,145	9,007	2,337	23,801	24,300	7,255	1,898	15,147
1992	58,608	17,023	4,483	37,102	30,393	8,845	2,923	18,625
1993	73,178	20,230	6,810	46,137	38,116	12,174	4,239	21,703
1994	61,261	17,279	6,662	37,320	39,136	12,971	4,907	21,258
1995	67,229	22,567	8,856	35,806	46,635	18,286	6,792	21,558
1996	73,282	25,061	9,580	38,642	53,213	21,345	8,031	23,837
1997	79,522	27,597	11,319	40,606	58,423	23,100	9,413	25,910
1998	81,011	25,495	11,104	44,413	60,041	22,377	9,328	28,336
1999	95,443	32,543	12,441	50,458	69,973	27,332	10,544	32,096
2000	88,215	27,042	10,848	50,325	66,277	23,786	9,537	32,954
2001	82,967	21,390	10,361	51,216	62,306	19,251	9,270	33,786
2002	82,065	20,472	9,740	51,853	62,413	18,560	8,778	35,076
2003	85,926	24,359	9,920	51,648	66,870	22,127	8,840	35,903
2004	98,131	34,708	12,186	51,237	78,253	31,427	10,668	36,158
2005	115,502	42,413	16,691	56,397	94,024	38,435	14,579	41,011
2006	143,500	60,112	19,134	64,254	119,074	54,210	16,989	47,875
2007	181,014	77,563	25,058	78,393	151,777	69,596	22,092	60,090
2008	182,120	70,598	26,032	85,490	153,100	63,634	23,045	66,421
2009	168,019	58,877	22,213	86,930	140,359	53,098	19,388	67,873
2010	180,990	62,196	23,277	95,517	152,331	56,385	20,671	75,275
2011	202,455	68,706	29,026	104,724	172,535	62,436	25,630	84,469
2012	215,308	83,226	24,937	107,145	186,540	76,125	22,678	87,738
2013	209,509	84,509	24,209	100,791	183,916	77,978	22,146	83,793
2014	237,067	101,050	29,951	106,065	211,720	93,770	27,700	90,250
2015	242,387	108,258	31,360	102,769	218,451	100,841	29,140	88,469
2016	244,401	115,464	30,253	98,683	221,591	107,715	28,309	85,567

[e] Portions of the paid dividend totals for equity, hybrid, and bond funds are estimated; the total is not estimated.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 30

Long-Term Mutual Funds: Paid and Reinvested Capital Gains by Type of Fund

Millions of dollars, annual

	Paid capital gains				Reinvested capital gains			
Year	Total	Equity funds	Hybrid funds	Bond funds	Total	Equity funds	Hybrid funds	Bond funds
1984[e]	$6,019	$5,247	$553	$219	$5,122	$4,655	$338	$129
1985	4,895	3,699	739	457	3,751	3,091	398	261
1986	17,661	13,942	1,240	2,478	14,275	11,851	778	1,646
1987	22,926	18,603	1,605	2,718	17,816	15,449	1,056	1,312
1988	6,354	4,785	620	948	4,769	3,883	364	522
1989	14,766	12,665	540	1,562	9,710	8,744	348	617
1990	8,017	6,833	443	742	5,515	4,975	255	285
1991	13,917	11,961	861	1,095	9,303	8,242	484	577
1992	22,089	17,294	1,488	3,306	14,906	12,233	1,130	1,542
1993	35,905	27,705	3,496	4,704	25,514	19,954	2,687	2,872
1994	29,744	26,351	2,399	993	24,864	22,038	2,086	740
1995	54,271	50,204	3,322	745	46,866	43,550	2,832	484
1996	100,489	88,212	10,826	1,451	87,416	76,638	9,769	1,009
1997	182,764	160,744	19,080	2,941	164,916	145,358	17,360	2,198
1998	164,989	138,681	21,572	4,737	151,105	127,473	19,698	3,935
1999	237,624	219,484	16,841	1,299	206,508	190,300	15,229	979
2000	325,841	305,994	18,645	1,202	298,429	279,891	17,506	1,032
2001	68,626	60,088	6,105	2,433	64,820	56,965	5,790	2,065
2002	16,097	10,538	907	4,651	14,749	9,838	887	4,024
2003	14,397	7,782	758	5,857	12,956	7,188	703	5,065
2004	54,741	41,581	6,600	6,560	49,896	38,074	6,167	5,655
2005	129,058	113,167	11,895	3,995	117,566	103,208	10,955	3,403
2006	256,915	235,853	18,720	2,342	236,465	217,010	17,509	1,946
2007	413,641	377,682	32,163	3,795	380,921	347,633	30,011	3,277
2008	132,404	110,883	9,786	11,735	123,272	103,801	9,064	10,407
2009	15,300	5,740	771	8,789	13,994	5,418	702	7,874
2010	42,950	15,739	1,290	25,921	38,961	14,785	1,199	22,977
2011	73,285	51,455	5,503	16,327	67,438	48,120	5,275	14,043
2012	100,185	66,771	5,563	27,851	93,350	62,866	5,328	25,157
2013	239,185	201,807	22,834	14,544	227,572	191,963	22,138	13,471
2014	399,581	345,744	40,526	13,312	382,164	330,047	39,564	12,554
2015	379,419	331,234	35,248	12,937	363,839	316,955	34,580	12,304
2016	220,403	197,820	14,504	8,079	213,382	191,403	14,277	7,701

[e] Portions of the paid capital gains totals for equity, hybrid, and bond funds are estimated; the total is not estimated.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding. Capital gains distributions include long-term and short-term capital gains.

DATA SECTION 3

TABLE 31

Long-Term Mutual Funds: Portfolio Purchases, Sales, and Net Purchases by Type of Security

Millions of dollars, annual

	Total portfolio			Common stock			Other securities		
Year	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases
1990	$554,720	$505,780	$48,940	$166,398	$146,580	$19,817	$388,322	$359,199	$29,123
1991	735,698	608,129	127,569	250,289	209,276	41,013	485,409	398,853	86,556
1992	949,404	758,476	190,928	327,518	261,857	65,661	621,886	496,619	125,268
1993	1,335,514	1,060,359	275,155	506,713	380,855	125,858	828,801	679,504	149,298
1994	1,433,739	1,329,329	104,409	628,668	512,346	116,321	805,071	816,983	-11,912
1995	1,550,510	1,400,702	149,809	790,017	686,756	103,260	760,494	713,946	46,548
1996	2,018,253	1,736,884	281,370	1,151,262	927,266	223,996	866,991	809,618	57,373
1997	2,384,639	2,108,981	275,659	1,457,384	1,268,983	188,401	927,255	839,997	87,258
1998	2,861,562	2,560,074	301,487	1,762,565	1,597,311	165,255	1,098,997	962,764	136,233
1999	3,437,180	3,224,301	212,878	2,262,505	2,088,544	173,962	1,174,674	1,135,757	38,917
2000	4,922,927	4,698,192	224,734	3,560,671	3,330,417	230,254	1,362,255	1,367,775	-5,519
2001	4,688,530	4,393,114	295,416	2,736,933	2,609,657	127,275	1,951,597	1,783,456	168,141
2002	4,018,969	3,807,392	211,578	2,176,363	2,141,754	34,609	1,842,606	1,665,638	176,968
2003	4,281,605	3,998,766	282,840	2,054,379	1,884,711	169,667	2,227,227	2,114,054	113,173
2004	4,310,180	4,019,273	290,907	2,390,924	2,198,578	192,346	1,919,256	1,820,695	98,561
2005	4,834,374	4,532,166	302,208	2,765,100	2,610,805	154,296	2,069,274	1,921,362	147,912
2006	5,737,363	5,398,108	339,255	3,330,057	3,172,222	157,835	2,407,306	2,225,886	181,420
2007	7,098,611	6,721,251	377,360	3,835,574	3,733,130	102,444	3,263,037	2,988,121	274,916
2008	7,353,050	7,294,533	58,518	3,655,854	3,715,557	-59,703	3,697,197	3,578,976	118,221
2009	6,933,548	6,453,779	479,769	2,644,973	2,543,511	101,462	4,288,575	3,910,268	378,306
2010	7,336,284	6,866,563	469,721	2,811,558	2,752,269	59,289	4,524,726	4,114,294	410,432
2011	8,533,690	8,127,552	406,138	3,033,615	3,034,115	-500	5,500,075	5,093,437	406,638
2012	8,193,661	7,606,403	587,258	2,772,459	2,827,106	-54,647	5,421,202	4,779,297	641,906
2013	9,252,780	8,732,546	520,234	3,408,690	3,225,193	183,497	5,844,090	5,507,353	336,737
2014	8,525,847	7,967,168	558,679	3,521,592	3,445,821	75,772	5,004,254	4,521,348	482,907
2015	8,878,601	8,424,209	454,393	3,594,314	3,557,763	36,552	5,284,287	4,866,446	417,841
2016	8,563,632	8,170,524	393,109	3,410,575	3,536,330	-125,755	5,153,057	4,634,194	518,864

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 32

Equity Mutual Funds: Portfolio Purchases, Sales, and Net Purchases by Type of Security

Millions of dollars, annual

	Total portfolio			Common stock			Other securities		
Year	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases
1990	$187,592	$169,373	$18,219	$151,907	$133,630	$18,277	$35,685	$35,743	-$59
1991	251,773	207,947	43,827	224,117	186,785	37,333	27,656	21,162	6,494
1992	339,003	268,868	70,135	300,712	242,319	58,393	38,291	26,549	11,742
1993	500,206	382,433	117,773	451,485	345,357	106,128	48,720	37,076	11,644
1994	618,004	508,394	109,610	564,380	456,708	107,672	53,623	51,686	1,937
1995	785,867	678,060	107,807	718,298	621,699	96,599	67,569	56,361	11,208
1996	1,116,906	896,644	220,262	1,050,884	832,486	218,397	66,022	64,157	1,865
1997	1,421,211	1,223,463	197,748	1,352,085	1,166,649	185,436	69,126	56,814	12,312
1998	1,723,752	1,557,212	166,540	1,635,842	1,475,384	160,458	87,909	81,827	6,082
1999	2,232,828	2,049,540	183,288	2,126,860	1,941,505	185,355	105,968	108,035	-2,067
2000	3,515,572	3,258,635	256,937	3,393,017	3,144,116	248,902	122,554	114,519	8,035
2001	2,707,359	2,593,454	113,905	2,571,182	2,464,587	106,595	136,177	128,867	7,310
2002	2,140,797	2,112,759	28,039	2,017,847	1,999,827	18,020	122,950	112,931	10,019
2003	1,965,419	1,822,753	142,666	1,902,718	1,758,142	144,576	62,701	64,611	-1,910
2004	2,278,755	2,110,605	168,150	2,216,948	2,053,652	163,296	61,807	56,953	4,854
2005	2,671,170	2,524,339	146,831	2,592,059	2,452,257	139,803	79,110	72,083	7,028
2006	3,231,135	3,063,822	167,313	3,129,822	2,966,143	163,679	101,313	97,679	3,634
2007	3,760,234	3,658,395	101,838	3,582,758	3,490,174	92,584	177,476	168,221	9,255
2008	3,628,276	3,698,255	-69,979	3,361,901	3,426,442	-64,540	266,375	271,813	-5,439
2009	2,749,913	2,676,641	73,273	2,433,267	2,339,181	94,086	316,646	337,459	-20,813
2010	2,828,781	2,828,824	-44	2,568,443	2,532,634	35,809	260,338	296,191	-35,853
2011	2,914,962	2,943,158	-28,197	2,756,090	2,785,496	-29,406	158,871	157,662	1,209
2012	2,639,817	2,696,135	-56,319	2,499,411	2,571,685	-72,274	140,405	124,450	15,956
2013	3,178,861	2,993,404	185,457	3,043,658	2,877,064	166,595	135,203	116,340	18,863
2014	3,301,189	3,190,975	110,214	3,120,746	3,033,031	87,715	180,443	157,945	22,499
2015	3,384,445	3,308,472	75,974	3,187,233	3,121,371	65,862	197,212	187,101	10,111
2016	3,234,396	3,327,431	-93,035	3,024,431	3,128,105	-103,674	209,964	199,325	10,639

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 33

Hybrid Mutual Funds: Portfolio Purchases, Sales, and Net Purchases by Type of Security

Millions of dollars, annual

	Total portfolio			Common stock			Other securities		
Year	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases
1990	$30,606	$26,671	$3,935	$13,327	$11,832	$1,494	$17,279	$14,839	$2,440
1991	41,999	33,747	8,252	18,657	15,435	3,222	23,342	18,313	5,029
1992	63,564	43,131	20,433	23,965	17,200	6,765	39,599	25,931	13,667
1993	113,314	72,150	41,164	49,686	30,485	19,201	63,628	41,665	21,963
1994	134,972	110,305	24,667	54,808	46,429	8,380	80,163	63,876	16,287
1995	180,638	170,864	9,774	67,616	60,602	7,015	113,021	110,262	2,759
1996	223,905	201,872	22,033	92,485	88,464	4,021	131,420	113,408	18,011
1997	255,207	234,820	20,387	98,109	94,976	3,132	157,099	139,844	17,255
1998	282,651	257,096	25,555	115,703	111,401	4,301	166,948	145,694	21,254
1999	296,235	296,850	-615	128,303	138,923	-10,620	167,932	157,927	10,005
2000	308,821	335,531	-26,711	158,039	174,998	-16,960	150,782	160,533	-9,751
2001	357,557	334,161	23,396	155,235	134,368	20,868	202,322	199,794	2,528
2002	340,650	320,591	20,059	145,370	129,204	16,166	195,280	191,387	3,893
2003	360,653	312,111	48,542	137,490	113,785	23,706	223,163	198,326	24,837
2004	404,955	337,219	67,736	163,795	132,966	30,829	241,160	204,253	36,907
2005	397,695	346,260	51,435	165,487	150,166	15,321	232,208	196,094	36,114
2006	408,861	381,376	27,485	191,740	197,120	-5,380	217,122	184,256	32,865
2007	529,061	465,049	64,011	241,633	230,855	10,778	287,428	234,194	53,233
2008	594,156	577,635	16,521	281,814	273,655	8,159	312,342	303,980	8,363
2009	477,006	443,131	33,876	200,907	194,826	6,081	276,099	248,305	27,794
2010	512,564	463,315	49,250	225,191	204,365	20,826	287,374	258,950	28,424
2011	660,464	596,747	63,716	254,665	229,513	25,152	405,799	367,235	38,564
2012	721,472	659,580	61,892	252,692	236,492	16,200	468,780	423,087	45,692
2013	909,495	828,636	80,859	344,090	326,715	17,375	565,406	501,921	63,485
2014	930,649	863,411	67,238	370,372	385,024	-14,652	560,277	478,387	81,890
2015	942,813	910,005	32,809	377,769	403,131	-25,362	565,044	506,873	58,171
2016	874,807	839,463	35,345	348,690	373,358	-24,668	526,117	466,104	60,013

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 34

Bond Mutual Funds: Portfolio Purchases, Sales, and Net Purchases by Type of Security

Millions of dollars, annual

	Total portfolio			Common stock			Other securities		
Year	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases	Purchases	Sales	Net purchases
1990	$336,522	$309,735	$26,787	$1,164	$1,118	$46	$335,358	$308,617	$26,741
1991	441,926	366,435	75,490	7,514	7,056	458	434,411	359,379	75,033
1992	546,837	446,476	100,360	2,840	2,338	502	543,997	444,138	99,858
1993	721,995	605,777	116,218	5,542	5,013	528	716,453	600,763	115,690
1994	680,764	710,631	-29,867	9,479	9,210	269	671,285	701,421	-30,136
1995	584,006	551,779	32,227	4,103	4,456	-353	579,903	547,323	32,580
1996	677,442	638,368	39,075	7,893	6,316	1,578	669,549	632,052	37,497
1997	708,221	650,698	57,523	7,190	7,358	-167	701,031	643,340	57,691
1998	855,159	745,767	109,392	11,020	10,525	496	844,139	735,242	108,897
1999	908,117	877,911	30,205	7,342	8,115	-773	900,774	869,796	30,978
2000	1,098,534	1,104,026	-5,491	9,615	11,303	-1,688	1,088,919	1,092,722	-3,803
2001	1,623,614	1,465,499	158,115	10,515	10,703	-188	1,613,099	1,454,796	158,303
2002	1,537,522	1,374,042	163,480	13,146	12,723	423	1,524,376	1,361,320	163,057
2003	1,955,533	1,863,902	91,632	14,171	12,785	1,386	1,941,363	1,851,117	90,246
2004	1,626,470	1,571,448	55,022	10,181	11,959	-1,779	1,616,290	1,559,489	56,801
2005	1,765,509	1,661,567	103,942	7,554	8,382	-828	1,757,955	1,653,185	104,770
2006	2,097,367	1,952,910	144,456	8,496	8,960	-464	2,088,871	1,943,950	144,921
2007	2,809,317	2,597,806	211,511	11,183	12,100	-917	2,798,134	2,585,706	212,428
2008	3,130,618	3,018,643	111,975	12,138	15,460	-3,321	3,118,480	3,003,183	115,297
2009	3,706,628	3,334,008	372,621	10,798	9,503	1,295	3,695,830	3,324,504	371,326
2010	3,994,939	3,574,424	420,515	17,925	15,271	2,654	3,977,014	3,559,153	417,861
2011	4,958,264	4,587,646	370,618	22,859	19,105	3,754	4,935,405	4,568,541	366,864
2012	4,832,373	4,250,688	581,685	20,356	18,929	1,427	4,812,017	4,231,760	580,258
2013	5,164,424	4,910,506	253,918	20,942	21,415	-473	5,143,481	4,889,091	254,390
2014	4,294,009	3,912,782	381,226	30,475	27,766	2,709	4,263,534	3,885,016	378,518
2015	4,551,343	4,205,732	345,610	29,312	33,261	-3,949	4,522,030	4,172,471	349,559
2016	4,454,430	4,003,631	450,799	37,454	34,866	2,587	4,416,976	3,968,764	448,211

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

DATA SECTION 3

TABLE 35

Money Market Funds: Total Net Assets, Number of Funds, and Number of Share Classes by Type of Fund

Year-end

	Total net assets (Millions of dollars)				Number of funds				Number of share classes			
		Taxable				Taxable				Taxable		
Year	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt
1990	$498,341	$109,376	$305,189	$83,777	741	176	329	236	762	183	339	240
1991	542,442	138,111	314,346	89,984	820	211	341	268	871	228	363	280
1992	546,194	151,043	300,310	94,841	864	235	350	279	914	248	368	298
1993	565,319	149,180	312,701	103,439	920	265	362	293	1,009	286	386	337
1994	611,005	148,139	352,972	109,894	963	276	373	314	1,261	368	490	403
1995	753,018	181,494	449,829	121,695	997	284	392	321	1,380	404	549	427
1996	901,807	223,790	540,146	137,871	988	277	392	319	1,453	413	592	448
1997	1,058,886	254,223	647,005	157,658	1,013	279	406	328	1,549	442	633	474
1998	1,351,678	312,907	854,061	184,711	1,026	277	410	339	1,627	462	675	490
1999	1,613,146	333,726	1,079,523	199,897	1,045	281	423	341	1,730	488	742	500
2000	1,845,248	367,780	1,243,598	233,869	1,039	275	429	335	1,855	534	797	524
2001	2,285,310	461,631	1,564,598	259,081	1,015	269	421	325	1,948	573	832	543
2002	2,265,075	453,157	1,535,621	276,297	988	259	418	311	2,006	581	882	543
2003	2,040,022	410,041	1,339,689	290,291	973	251	409	313	2,031	572	890	569
2004	1,901,700	379,706	1,209,995	311,999	944	240	399	305	2,053	577	900	576
2005	2,026,822	399,330	1,291,119	336,373	870	221	372	277	2,031	570	894	567
2006	2,338,451	426,838	1,542,584	369,029	847	215	358	274	2,013	579	875	559
2007	3,085,760	760,389	1,857,280	468,092	805	203	342	260	2,015	574	873	568
2008	3,832,236	1,490,208	1,848,349	493,680	783	200	334	249	1,990	584	859	547
2009	3,315,893	1,107,035	1,809,923	398,935	704	180	296	228	1,846	561	769	516
2010	2,803,514	855,021	1,618,488	330,006	652	165	277	210	1,781	544	737	500
2011	2,690,950	970,075	1,429,178	291,697	632	166	265	201	1,730	544	711	475
2012	2,693,169	928,749	1,476,993	287,426	580	158	242	180	1,623	519	655	449
2013	2,717,808	962,009	1,485,187	270,612	555	152	230	173	1,571	508	633	430
2014	2,724,641	1,010,783	1,453,071	260,787	527	148	216	163	1,506	512	588	406
2015	2,754,743	1,226,735	1,273,077	254,931	481	146	190	145	1,427	523	533	371
2016	2,728,137	2,221,873	375,999	130,266	421	230	89	102	1,282	718	291	273

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 36

Money Market Funds: Total Net Assets by Type of Fund

Millions of dollars, year-end

	All money market funds				Retail money market funds				Institutional money market funds			
		Taxable				Taxable				Taxable		
Year	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt
1996	$901,807	$223,790	$540,146	$137,871	$592,743	$94,786	$387,844	$110,113	$309,064	$129,003	$152,302	$27,758
1997	1,058,886	254,223	647,005	157,658	663,683	100,991	439,946	122,747	395,202	153,232	207,059	34,911
1998	1,351,678	312,907	854,061	184,711	835,624	121,664	571,834	142,126	516,054	191,243	282,227	42,585
1999	1,613,146	333,726	1,079,523	199,897	965,289	132,915	676,590	155,785	647,856	200,812	402,933	44,111
2000	1,845,248	367,780	1,243,598	233,869	1,062,252	151,837	731,699	178,716	782,996	215,943	511,900	55,154
2001	2,285,310	461,631	1,564,598	259,081	1,135,500	169,883	776,132	189,484	1,149,810	291,748	788,466	69,597
2002	2,265,075	453,157	1,535,621	276,297	1,065,333	157,011	716,297	192,025	1,199,743	296,146	819,324	84,272
2003	2,040,022	410,041	1,339,689	290,291	939,224	141,248	607,364	190,612	1,100,798	268,793	732,326	99,679
2004	1,901,700	379,706	1,209,995	311,999	853,187	126,473	534,920	191,794	1,048,514	253,233	675,076	120,205
2005	2,026,822	399,330	1,291,119	336,373	876,493	126,244	546,843	203,406	1,150,328	273,085	744,276	132,968
2006	2,338,451	426,838	1,542,584	369,029	1,008,656	140,483	644,129	224,043	1,329,796	286,354	898,455	144,986
2007	3,085,760	760,389	1,857,280	468,092	1,226,440	185,526	755,324	285,590	1,859,321	574,863	1,101,955	182,503
2008	3,832,236	1,490,208	1,848,349	493,680	1,370,803	289,731	777,860	303,212	2,461,433	1,200,476	1,070,489	190,467
2009	3,315,893	1,107,035	1,809,923	398,935	1,080,913	214,478	631,052	235,383	2,234,981	892,556	1,178,872	163,553
2010	2,803,514	855,021	1,618,488	330,006	958,674	189,694	563,005	205,975	1,844,840	665,327	1,055,482	124,031
2011	2,690,950	970,075	1,429,178	291,697	950,652	203,677	550,525	196,451	1,740,298	766,398	878,654	95,247
2012	2,693,169	928,749	1,476,993	287,426	949,287	205,513	540,799	202,975	1,743,881	723,236	936,194	84,451
2013	2,717,808	962,009	1,485,187	270,612	936,830	205,056	535,512	196,262	1,780,978	756,954	949,674	74,350
2014	2,724,641	1,010,783	1,453,071	260,787	906,906	199,533	517,370	190,003	1,817,735	811,250	935,701	70,784
2015	2,754,743	1,226,735	1,273,077	254,931	941,089	346,765	409,582	184,743	1,813,654	879,970	863,496	70,188
2016	2,728,137	2,221,873	375,999	130,266	986,231	607,323	252,880	126,028	1,741,906	1,614,549	123,119	4,238

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 37

Money Market Funds: Net New Cash Flow* by Type of Fund

Millions of dollars, annual

	All money market funds				Retail money market funds				Institutional money market funds			
		Taxable				Taxable				Taxable		
Year	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt	Total	Government	Prime	Tax-exempt
1996	$89,422	$20,572	$58,935	$9,915	$52,940	$6,181	$39,559	$7,200	$36,481	$14,391	$19,376	$2,715
1997	103,466	20,129	69,107	14,231	46,745	4,781	32,206	9,758	56,721	15,347	36,901	4,473
1998	235,457	45,178	167,909	22,370	131,072	15,835	100,508	14,728	104,386	29,343	67,401	7,642
1999	193,681	8,486	174,957	10,238	82,215	-757	73,145	9,827	111,466	9,243	101,812	411
2000	159,365	14,412	118,354	26,599	43,576	504	24,417	18,655	115,789	13,908	93,937	7,944
2001	375,291	86,621	267,329	21,340	36,449	13,579	12,827	10,043	338,842	73,043	254,502	11,297
2002	-45,937	-11,131	-51,060	16,254	-80,065	-10,174	-71,219	1,328	34,128	-957	20,159	14,925
2003	-263,403	-50,998	-222,179	9,774	-151,260	-20,609	-125,743	-4,908	-112,143	-30,389	-96,436	14,682
2004	-156,744	-36,125	-139,213	18,593	-88,769	-15,871	-75,331	2,433	-67,975	-20,254	-63,882	16,160
2005	62,085	13,182	28,009	20,895	2,358	-3,652	-4,781	10,791	59,728	16,834	32,790	10,103
2006	245,162	19,615	200,115	25,432	96,543	9,317	71,069	16,157	148,619	10,297	129,046	9,276
2007	654,412	319,240	251,219	83,953	172,657	38,769	83,264	50,624	481,755	280,471	167,955	33,329
2008	637,155	697,443	-73,523	13,235	114,128	98,267	2,099	13,763	523,027	599,176	-75,621	-528
2009	-539,150	-414,948	-28,571	-95,631	-308,406	-104,057	-136,444	-67,906	-230,744	-310,891	107,873	-27,725
2010	-525,064	-253,927	-201,765	-69,372	-124,197	-25,964	-69,829	-28,404	-400,867	-227,962	-131,937	-40,968
2011	-124,073	107,294	-192,713	-38,654	-1,348	20,461	-12,544	-9,265	-122,725	86,833	-180,169	-29,389
2012	-178	-43,343	47,096	-3,930	-1,195	-781	-7,602	7,187	1,017	-42,563	54,697	-11,117
2013	15,037	29,348	2,473	-16,784	-12,210	-1,143	-4,275	-6,792	27,247	30,491	6,748	-9,993
2014	6,235	48,232	-31,890	-10,107	-30,663	-5,843	-18,335	-6,486	36,898	54,075	-13,556	-3,621
2015	21,462	40,682	-13,719	-5,501	5,270	20,579	-11,153	-4,156	16,192	20,103	-2,566	-1,345
2016	-30,277	850,698	-764,887	-116,088	-70,375	169,635	-161,171	-78,839	40,097	681,063	-603,716	-37,249

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 38

Money Market Funds: Net New Cash Flow and Components of Net New Cash Flow

Millions of dollars, annual

		Sales			Redemptions		
Year	Net new cash flow[1]	New + exchange	New[2]	Exchange[3]	Regular + exchange	Regular[4]	Exchange[5]
1984	$35,077	$640,021	$620,536	$19,485	$604,944	$586,990	$17,953
1985	-5,293	848,451	826,858	21,592	853,743	831,067	22,676
1986	33,552	1,026,745	978,041	48,704	993,193	948,656	44,537
1987	10,072	1,147,877	1,049,034	98,843	1,137,805	1,062,671	75,133
1988	106	1,130,639	1,066,003	64,636	1,130,534	1,074,346	56,188
1989	64,132	1,359,616	1,296,458	63,158	1,295,484	1,235,527	59,957
1990	23,179	1,461,537	1,389,439	72,098	1,438,358	1,372,764	65,594
1991	6,068	1,841,131	1,778,491	62,640	1,835,063	1,763,106	71,957
1992	-16,006	2,449,766	2,371,925	77,841	2,465,772	2,382,976	82,796
1993	-13,890	2,756,282	2,665,987	90,295	2,770,172	2,673,464	96,707
1994	8,525	2,725,201	2,586,478	138,722	2,716,675	2,599,400	117,275
1995	89,381	3,234,216	3,097,225	136,990	3,144,834	3,001,968	142,866
1996	89,422	4,156,985	3,959,014	197,971	4,067,563	3,868,772	198,791
1997	103,466	5,127,328	4,894,226	233,102	5,023,863	4,783,096	240,767
1998	235,457	6,407,574	6,129,140	278,434	6,172,116	5,901,590	270,526
1999	193,681	8,080,959	7,719,310	361,649	7,887,278	7,540,912	346,367
2000	159,365	9,826,677	9,406,287	420,391	9,667,312	9,256,350	410,962
2001	375,291	11,737,291	11,426,804	310,487	11,362,000	11,065,468	296,533
2002	-45,937	12,008,801	11,712,587	296,215	12,054,738	11,783,209	271,530
2003	-263,403	11,177,118	10,952,544	224,574	11,440,521	11,213,929	226,592
2004	-156,744	10,874,608	10,708,117	166,492	11,031,353	10,861,076	170,277
2005	62,085	12,493,636	12,317,491	176,145	12,431,551	12,260,771	170,779
2006	245,162	15,706,879	15,495,624	211,255	15,461,717	15,269,074	192,643
2007	654,412	21,314,339	21,039,253	275,086	20,659,927	20,408,620	251,307
2008	637,155	24,452,430	24,067,371	385,059	23,815,275	23,498,612	316,663
2009	-539,150	18,683,752	18,489,354	194,399	19,222,902	19,012,386	210,516
2010	-525,064	15,771,387	15,670,167	101,220	16,296,451	16,191,894	104,558
2011	-124,073	15,248,902	15,128,158	120,744	15,372,976	15,259,873	113,102
2012	-178	14,291,619	14,211,202	80,417	14,291,797	14,204,776	87,021
2013	15,037	14,976,597	14,867,969	108,629	14,961,561	14,857,792	103,769
2014	6,235	15,316,582	15,237,910	78,672	15,310,347	15,211,292	99,055
2015	21,462	17,658,517	17,560,966	97,551	17,637,056	17,531,891	105,164
2016	-30,277	18,696,829	18,488,569	208,260	18,727,106	18,527,795	199,311

[1] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[2] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[3] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[4] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[5] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 39

Money Market Funds: Paid and Reinvested Dividends by Type of Fund

Millions of dollars, annual

	Paid dividends			Reinvested dividends		
Year	Total	Taxable money market funds	Tax-exempt money market funds	Total	Taxable money market funds	Tax-exempt money market funds
1984	$16,435	$15,435	$1,000	$13,730	$13,061	$669
1985	15,708	14,108	1,600	12,758	11,760	998
1986	14,832	12,432	2,400	11,514	9,981	1,533
1987	15,654	12,833	2,821	11,946	10,136	1,810
1988	21,618	17,976	3,642	15,692	13,355	2,337
1989	28,619	24,683	3,936	23,050	20,294	2,756
1990	30,258	26,448	3,810	26,282	23,226	3,056
1991	28,604	25,121	3,483	22,809	19,998	2,811
1992	20,280	17,197	3,083	14,596	12,567	2,029
1993	18,991	15,690	3,302	11,615	10,007	1,607
1994	23,737	20,504	3,233	16,739	14,626	2,113
1995	37,038	32,855	4,183	27,985	24,873	3,111
1996	42,555	38,446	4,108	31,516	28,448	3,068
1997	48,843	44,185	4,658	37,979	34,425	3,554
1998	57,375	52,164	5,211	43,443	39,580	3,863
1999	69,004	63,229	5,775	50,648	46,602	4,046
2000	98,219	90,158	8,061	72,771	66,890	5,881
2001	79,307	73,361	5,946	56,367	51,949	4,418
2002	32,251	29,397	2,854	22,033	19,940	2,093
2003	17,041	15,124	1,917	11,314	9,916	1,398
2004	18,390	15,899	2,491	11,889	10,080	1,809
2005	50,186	43,547	6,638	32,803	27,951	4,852
2006	96,423	85,018	11,405	61,488	53,268	8,220
2007	127,907	113,177	14,730	82,457	71,938	10,519
2008	93,857	82,727	11,130	61,134	53,455	7,680
2009	18,619	16,590	2,030	11,035	9,999	1,037
2010	7,161	6,708	453	4,447	4,196	252
2011	5,237	4,888	349	3,261	3,074	187
2012	6,618	6,345	273	4,212	4,068	144
2013	8,020	7,794	226	5,206	5,089	117
2014	7,565	7,323	242	5,000	4,876	124
2015	7,907	7,703	204	5,328	5,223	105
2016	8,618	8,262	356	5,367	5,170	198

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 40

Taxable Government Money Market Funds: Asset Composition as a Percentage of Total Net Assets

Year-end

Year	Total net assets *Millions of dollars*	US Treasury bills	Other Treasury securities	US government agency issues	Repurchase agreements	Certificates of deposit	Eurodollar CDs	Commercial paper	Bank notes[1]	Corporate notes[2]	Other assets[3]	Average maturity *Days*
1990	$109,376	11.1%	12.2%	20.6%	45.7%	0.0%	0.0%	0.3%	-	-	9.9%	46
1991	138,111	21.5	16.5	20.3	40.9	0.0	0.0	0.4	-	-	0.3	58
1992	151,043	26.0	16.5	21.6	34.7	0.0	0.0	0.5	-	-	0.6	55
1993	149,180	30.3	14.1	20.7	32.8	0.0	0.0	0.3	-	-	1.8	61
1994	148,139	24.4	12.6	26.3	34.0	0.0	0.0	0.4	0.0%	-	2.2	37
1995	181,494	19.8	13.9	28.5	34.1	0.0	0.0	0.5	0.0	-	3.1	48
1996	223,790	17.7	18.5	25.4	35.2	0.0	0.1	0.7	0.0	-	2.4	49
1997	254,223	15.2	17.6	25.1	37.8	0.1	0.0	1.2	0.1	-	2.9	50
1998	312,907	14.3	17.7	30.4	33.4	0.3	0.0	1.7	0.1	0.2%	2.0	52
1999	333,726	17.1	13.0	37.1	28.2	0.1	0.0	1.4	0.1	1.1	1.9	48
2000	367,780	14.2	10.1	32.0	37.9	0.0	0.0	1.6	0.1	1.2	2.9	45
2001	461,631	19.2	9.2	34.5	31.7	0.2	0.0	0.5	0.0	1.5	3.3	55
2002	453,157	20.5	6.4	33.2	35.5	0.1	0.0	0.5	0.0	1.7	2.1	52
2003	410,041	20.0	7.2	33.8	36.3	0.3	0.0	0.9	0.0	1.8	-0.3	52
2004	379,706	21.4	4.9	34.5	35.9	0.2	0.0	0.9	0.1	0.8	1.2	36
2005	399,330	15.8	4.4	28.1	50.0	0.0	0.0	0.2	0.1	0.8	0.5	27
2006	426,838	14.9	4.1	21.5	58.6	0.1	0.0	0.5	0.0	0.1	0.3	32
2007	760,389	16.3	5.1	24.1	53.7	0.3	0.0	0.2	0.0	0.0	0.2	31
2008	1,490,208	30.5	6.2	36.2	26.8	0.0	0.0	0.1	0.1	0.2	-0.1	48
2009	1,107,035	25.6	6.0	35.4	30.6	0.0	0.0	1.0	0.2	0.3	0.7	47
2010	855,021	22.9	8.5	33.3	33.0	0.0	0.0	0.9	0.1	0.4	0.9	47
2011	970,075	23.2	13.2	28.9	31.6	0.0	0.0	1.0	0.1	0.4	1.5	45
2012	928,749	25.6	12.6	26.7	33.0	0.0	0.0	0.7	0.0	0.1	1.4	46
2013	962,009	27.1	14.3	29.4	27.9	0.0	0.0	0.3	0.0	0.1	0.8	48
2014	1,010,783	21.2	13.5	31.3	34.7	0.1	0.0	0.5	0.0	0.1	-1.2	44
2015	1,226,735	17.2	17.2	32.8	32.2	0.0	0.0	0.0	0.0	0.1	0.4	40
2016	2,221,873	17.8	16.8	30.5	33.0	0.0	0.0	0.1	0.0	0.0	1.7	46

[1] Prior to 1994, bank notes are included in other assets.
[2] Prior to 1998, corporate notes are included in other assets.
[3] Other assets include banker's acceptances, municipal securities, and cash reserves.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to 100 percent because of rounding.

TABLE 41

Taxable Prime Money Market Funds: Asset Composition as a Percentage of Total Net Assets

Year-end

Year	Total net assets *Millions of dollars*	US Treasury bills	Other Treasury securities	US government agency issues	Repurchase agreements	Certificates of deposit	Eurodollar CDs	Commercial paper	Bank notes[1]	Corporate notes[2]	Other assets[3]	Average maturity *Days*
1990	$305,189	4.4%	2.2%	4.7%	2.9%	6.9%	8.9%	65.5%	-	-	4.7%	48
1991	314,346	5.7	2.9	4.2	3.7	10.6	6.9	60.1	-	-	5.8	56
1992	300,310	2.7	2.5	7.5	4.9	10.4	6.9	57.7	-	-	7.4	59
1993	312,701	2.6	2.4	11.9	5.9	8.0	3.2	52.6	-	-	13.3	58
1994	352,972	2.4	1.3	11.4	5.6	6.4	4.5	53.4	2.4%	-	12.7	38
1995	449,829	1.4	0.9	9.2	6.2	8.9	4.5	52.5	3.7	-	12.7	60
1996	540,146	0.5	1.6	9.0	5.1	12.8	4.3	51.0	2.3	-	13.5	56
1997	647,005	0.4	0.5	5.4	5.3	14.7	3.7	52.0	3.2	-	14.8	57
1998	854,061	0.4	0.8	9.6	4.6	13.0	3.6	48.7	3.9	5.8%	9.6	58
1999	1,079,523	0.3	0.3	6.8	4.8	12.8	3.9	49.2	3.1	8.4	10.4	49
2000	1,243,598	0.3	0.1	5.9	3.9	11.7	6.6	50.9	3.6	10.5	6.5	53
2001	1,564,598	0.4	0.3	12.3	6.0	14.9	7.3	41.7	1.5	11.1	4.5	58
2002	1,535,621	1.3	0.3	11.8	8.1	13.8	7.0	40.1	1.4	12.0	4.2	54
2003	1,339,689	1.4	0.3	14.9	8.1	11.6	5.1	35.6	2.0	16.2	4.6	59
2004	1,209,995	0.3	0.1	12.0	8.5	14.1	5.7	33.9	2.6	17.9	4.9	41
2005	1,291,119	0.6	0.1	4.1	11.8	14.5	6.0	38.5	2.3	17.9	4.0	38
2006	1,542,584	0.1	0.2	2.9	9.9	13.9	4.4	39.6	2.2	21.6	5.2	49
2007	1,857,280	0.8	0.2	3.1	11.3	15.2	5.5	36.9	4.0	16.7	6.3	44
2008	1,848,349	1.9	0.5	12.7	8.4	21.5	4.7	34.1	3.1	9.3	3.8	47
2009	1,809,923	2.3	1.3	8.9	8.3	31.6	5.5	28.1	2.9	6.4	4.8	50
2010	1,618,488	2.7	1.9	7.8	12.8	28.6	6.7	24.3	3.2	6.2	5.8	44
2011	1,429,178	3.1	3.8	9.2	13.5	28.4	3.1	24.6	2.7	4.5	7.1	40
2012	1,476,993	3.4	4.2	6.9	16.8	29.5	3.0	23.1	3.5	3.5	6.1	45
2013	1,485,187	2.2	4.3	5.7	15.7	33.3	2.3	23.9	2.7	4.2	5.7	46
2014	1,453,071	2.1	2.6	5.1	20.9	35.7	1.7	23.0	1.6	3.9	3.5	44
2015	1,273,077	1.9	2.8	5.1	23.9	34.7	0.9	23.4	2.0	3.0	2.3	31
2016	375,999	5.1	2.0	0.2	18.0	38.6	0.5	26.8	0.3	1.1	7.4	34

[1] Prior to 1994, bank notes are included in other assets.
[2] Prior to 1998, corporate notes are included in other assets.
[3] Other assets include banker's acceptances, municipal securities, and cash reserves.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to 100 percent because of rounding.

TABLE 42

Active and Index Mutual Funds: Total Net Assets

Millions of dollars, year-end

	Active funds				Index funds				
		Equity				Equity			
						Domestic			
Year	Total	Domestic	World	Hybrid and bond	Total	S&P 500	Other	World	Hybrid and bond
1993	$1,476,839	$603,409	$112,849	$760,581	$27,805	$19,790	$3,338	$1,281	$3,396
1994	1,511,747	664,955	159,099	687,693	32,573	22,752	3,863	2,095	3,863
1995	2,001,233	1,004,386	193,659	803,189	57,042	41,744	6,442	2,846	6,009
1996	2,526,235	1,355,715	281,075	889,446	97,759	73,856	11,241	4,124	8,538
1997	3,239,013	1,870,578	341,039	1,027,396	170,302	129,857	21,221	5,329	13,894
1998	3,908,533	2,349,464	383,675	1,175,394	264,998	201,791	35,051	7,962	20,193
1999	4,845,783	3,108,666	572,123	1,164,993	387,411	284,588	63,386	13,130	26,307
2000	4,735,348	3,025,257	552,107	1,157,983	384,039	272,462	72,009	12,644	26,923
2001	4,319,043	2,624,879	433,341	1,260,823	370,560	249,452	73,598	11,128	36,381
2002	3,790,665	2,002,636	358,319	1,429,710	327,417	200,989	69,426	11,050	45,952
2003	4,906,804	2,732,152	516,828	1,657,824	455,293	273,691	112,480	18,218	50,903
2004	5,640,057	3,160,730	687,966	1,791,361	554,044	317,826	147,819	28,236	60,163
2005	6,245,855	3,424,330	912,934	1,908,591	618,699	334,012	171,377	42,792	70,518
2006	7,312,213	3,874,203	1,293,801	2,144,209	747,491	379,765	218,166	66,647	82,913
2007	8,059,693	4,042,211	1,622,873	2,394,609	854,715	394,593	257,850	95,695	106,577
2008	5,168,927	2,307,889	848,471	2,012,567	619,474	252,956	177,975	67,871	120,672
2009	6,961,308	2,979,551	1,215,471	2,766,286	835,422	328,647	256,365	92,507	157,903
2010	8,013,289	3,352,709	1,419,944	3,240,636	1,016,713	375,949	325,276	122,751	192,736
2011	7,847,886	3,121,069	1,236,275	3,490,542	1,093,749	376,582	357,624	121,445	238,098
2012	9,050,245	3,455,039	1,453,175	4,142,031	1,311,077	429,698	439,633	161,212	280,534
2013	10,597,543	4,513,196	1,820,566	4,263,781	1,733,629	574,380	638,869	215,545	304,835
2014	11,095,527	4,795,231	1,838,487	4,461,809	2,053,230	669,057	768,289	242,924	372,959
2015	10,689,152	4,559,626	1,799,519	4,330,006	2,206,554	690,528	795,436	302,890	417,701
2016	10,986,353	4,645,978	1,798,810	4,541,566	2,629,226	806,070	962,815	363,721	496,619

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 43

Active and Index Mutual Funds: Net New Cash Flow

Millions of dollars, annual

	Active funds				Index funds				
		Equity				Equity			
						Domestic			
Year	Total	Domestic	World	Hybrid and bond	Total	S&P 500	Other	World	Hybrid and bond
1993	$235,621	$83,873	$37,940	$113,808	$6,428	$3,994	$953	$501	$980
1994	71,812	67,891	43,812	-39,890	3,348	1,871	515	436	525
1995	110,393	103,022	11,000	-3,630	11,815	8,820	1,038	512	1,446
1996	207,094	147,782	46,483	12,829	24,780	18,447	3,192	1,033	2,108
1997	237,183	158,823	37,028	41,332	34,847	25,208	5,230	818	3,591
1998	195,653	109,872	5,959	79,822	46,143	30,977	8,499	1,568	5,099
1999	108,177	122,176	8,983	-22,982	61,603	38,063	16,102	2,241	5,197
2000	203,283	236,065	56,531	-89,313	25,592	10,783	10,668	1,664	2,477
2001	102,453	38,673	-24,387	88,166	26,735	9,113	8,859	1,181	7,582
2002	95,327	-41,845	-6,120	143,292	25,255	4,818	12,152	1,669	6,616
2003	180,650	88,925	22,162	69,563	35,234	14,231	16,538	2,199	2,266
2004	169,760	72,536	65,922	31,302	40,130	11,739	16,078	5,661	6,651
2005	164,140	5,635	98,462	60,042	27,877	-317	11,731	8,456	8,007
2006	194,104	-17,388	140,261	71,231	32,974	-5,908	20,134	10,674	8,074
2007	163,182	-96,212	124,874	134,520	61,139	-1,440	29,192	16,915	16,473
2008	-259,821	-180,027	-74,383	-5,411	48,624	7,666	23,337	7,697	9,924
2009	333,102	-52,474	21,682	363,895	59,928	8,195	16,646	7,951	27,135
2010	185,989	-95,309	37,603	243,695	57,560	-808	15,024	19,076	24,268
2011	-26,564	-151,096	-13,078	137,610	54,828	-6,868	24,600	17,202	19,895
2012	140,719	-174,236	-8,960	323,914	59,043	-7,139	22,134	15,523	28,525
2013	48,030	-33,978	113,068	-31,059	114,376	5,541	46,541	28,309	33,984
2014	-51,098	-121,496	46,983	23,414	149,062	12,559	49,009	38,403	49,091
2015	-288,518	-217,353	18,734	-89,899	165,724	14,678	32,311	74,932	43,804
2016	-396,160	-320,434	-69,587	-6,139	197,230	30,410	54,870	44,985	66,964

Note: Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges. Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 44

Active and Index Mutual Funds: Number of Funds

Year-end

	Active funds				Index funds				
		Equity				Equity			
						Domestic			
Year	Total	Domestic	World	Hybrid and bond	Total	S&P 500	Other	World	Hybrid and bond
1993	3,544	1,226	300	2,018	70	39	15	6	10
1994	4,280	1,403	416	2,461	82	43	17	7	15
1995	4,641	1,545	521	2,575	87	48	18	7	14
1996	5,155	1,820	661	2,674	105	60	22	7	16
1997	5,539	2,084	756	2,699	132	72	27	12	21
1998	6,132	2,499	875	2,758	156	86	37	15	18
1999	6,549	2,848	929	2,772	197	97	59	20	21
2000	6,845	3,096	1,029	2,720	271	120	99	26	26
2001	7,004	3,374	1,061	2,569	286	126	110	24	26
2002	6,942	3,458	990	2,494	313	132	124	28	29
2003	6,833	3,397	899	2,537	321	128	134	30	29
2004	6,773	3,378	859	2,536	328	127	146	28	27
2005	6,785	3,393	883	2,509	322	119	147	29	27
2006	6,933	3,466	962	2,505	343	125	157	33	28
2007	6,882	3,394	1,023	2,465	354	125	159	37	33
2008	6,897	3,370	1,098	2,429	360	122	163	42	33
2009	6,605	3,155	1,123	2,327	357	113	151	49	44
2010	6,539	3,049	1,144	2,346	365	111	161	50	43
2011	6,576	2,979	1,210	2,387	382	111	169	57	45
2012	6,638	2,948	1,222	2,468	372	103	166	58	45
2013	6,789	2,925	1,288	2,576	371	96	171	58	46
2014	7,018	2,959	1,353	2,706	382	94	183	58	47
2015	7,231	2,986	1,425	2,820	403	94	194	63	52
2016	7,224	2,943	1,445	2,836	421	94	197	73	57

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

DATA SECTION 5

TABLE 45

Active and Index Mutual Funds: Number of Share Classes

Year-end

	Active funds				Index funds				
		Equity				Equity			
						Domestic			
Year	Total	Domestic	World	Hybrid and bond	Total	S&P 500	Other	World	Hybrid and bond
1993	4,479	1,502	379	2,598	74	43	15	6	10
1994	6,340	1,955	620	3,765	96	54	17	10	15
1995	7,517	2,360	834	4,323	110	63	19	11	17
1996	8,756	2,945	1,144	4,667	143	86	25	11	21
1997	10,248	3,707	1,428	5,113	205	115	38	21	31
1998	11,841	4,672	1,745	5,424	252	148	52	25	27
1999	13,209	5,557	1,937	5,715	323	166	95	31	31
2000	14,418	6,341	2,256	5,821	465	221	163	43	38
2001	15,556	7,303	2,468	5,785	518	238	197	43	40
2002	16,398	7,951	2,462	5,985	578	255	221	53	49
2003	16,688	8,050	2,313	6,325	601	253	243	56	49
2004	17,355	8,471	2,302	6,582	633	262	269	55	47
2005	17,876	8,722	2,439	6,715	647	258	279	62	48
2006	18,552	9,066	2,705	6,781	699	272	303	70	54
2007	18,888	9,118	2,947	6,823	735	276	312	83	64
2008	19,518	9,287	3,290	6,941	755	278	316	96	65
2009	19,049	8,792	3,443	6,814	756	259	291	107	99
2010	19,359	8,647	3,594	7,118	776	253	301	121	101
2011	19,708	8,578	3,809	7,321	856	260	337	144	115
2012	20,152	8,549	3,893	7,710	871	247	349	153	122
2013	20,947	8,622	4,110	8,215	881	234	364	156	127
2014	21,822	8,787	4,388	8,647	908	231	403	148	126
2015	22,658	8,962	4,627	9,069	964	233	433	161	137
2016	22,828	8,963	4,718	9,147	999	234	438	180	147

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 46

Alternative Strategy Mutual Funds: Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

		Equity funds			Bond funds			Equity funds			Bond funds	
Year	Total	Domestic	World	Hybrid funds	Multisector	World	Total	Domestic	World	Hybrid funds	Multisector	World
	Total net assets Millions of dollars, year-end						Net new cash flow* Millions of dollars, annual					
2007	$41,504	$20,343	$1,149	$18,619	$1,392	-	-$780	$445	-$47	-$632	-$546	-
2008	31,276	17,097	431	12,574	1,174	-	-1,239	-1,013	-446	208	12	-
2009	58,317	24,432	3,355	28,892	1,638	-	21,025	7,241	2,572	10,789	424	-
2010	112,951	32,620	1,776	55,078	1,796	$21,680	36,448	7,295	726	14,930	241	$13,256
2011	129,167	33,729	3,987	64,171	2,136	25,143	15,838	-3,747	954	14,798	420	3,412
2012	148,873	41,045	3,897	80,421	2,145	21,366	12,026	6,088	822	4,358	-46	803
2013	220,211	50,193	6,666	110,367	1,862	51,124	64,028	9,804	2,054	23,493	116	28,560
2014	239,457	58,766	7,920	102,491	2,288	67,993	22,443	6,959	1,298	-1,093	123	15,156
2015	227,426	51,931	10,907	110,393	2,337	51,857	-15,162	-5,646	2,618	3,030	-186	-14,978
2016	213,164	49,201	10,349	116,126	1,968	35,520	-23,366	-4,446	-742	198	-445	-17,930
	Number of funds Year-end						Number of share classes Year-end					
2007	181	126	16	21	18	-	426	296	35	54	41	-
2008	204	138	22	27	17	-	499	320	58	80	41	-
2009	208	132	24	34	18	-	507	300	65	98	44	-
2010	243	139	24	52	20	8	649	330	72	157	52	38
2011	301	149	39	79	23	11	800	350	103	238	52	57
2012	337	154	35	111	23	14	903	361	85	340	52	65
2013	364	153	42	130	23	16	1,012	366	104	412	48	82
2014	437	167	52	159	26	33	1,243	408	145	502	64	124
2015	490	177	57	189	29	38	1,358	422	157	577	66	136
2016	478	179	61	176	30	32	1,319	423	172	536	70	118

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

Note: Alternative strategy mutual funds in this table are funds that employ alternative investment approaches like long/short, market neutral, leveraged, inverse, or commodity strategies to meet their investment objective. Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 47

Emerging Market Debt Mutual Funds: Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

Year	Total net assets *Millions of dollars, year-end*	Net new cash flow* *Millions of dollars, annual*	Number of funds *Year-end*	Number of share classes *Year-end*
2000	$2,442	-$288	23	48
2001	2,129	-412	24	50
2002	2,585	311	22	46
2003	4,297	691	19	43
2004	5,543	635	19	43
2005	7,590	1,245	18	42
2006	12,962	2,193	23	60
2007	16,966	2,275	28	79
2008	13,589	257	31	98
2009	19,739	2,016	33	104
2010	37,888	14,902	36	126
2011	45,009	12,568	48	165
2012	75,322	19,891	66	217
2013	64,668	-4,701	88	291
2014	58,881	-5,627	103	351
2015	44,812	-10,721	97	355
2016	51,046	502	108	408

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

Note: Emerging market debt funds in this table are funds that invest primarily in debt from underdeveloped regions of the world. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 48
Floating-Rate High-Yield Bond Mutual Funds: Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

Year	Total net assets *Millions of dollars, year-end*	Net new cash flow* *Millions of dollars, annual*	Number of funds *Year-end*	Number of share classes *Year-end*
2000	$23,791	-$2,626	16	30
2001	19,718	-5,114	23	56
2002	13,392	-5,792	22	52
2003	14,968	-310	20	49
2004	24,032	7,449	23	62
2005	27,485	2,195	25	73
2006	33,619	5,445	23	84
2007	33,667	-2,448	29	103
2008	17,128	-8,169	31	126
2009	28,330	4,362	31	122
2010	47,262	15,050	33	132
2011	60,108	10,225	39	161
2012	76,899	10,655	42	174
2013	141,661	59,974	52	205
2014	119,159	-22,097	53	209
2015	94,484	-22,382	57	231
2016	106,364	3,406	62	242

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
Note: Floating-rate high-yield funds in this table are funds that invest in income-producing senior loans, floating-rate loans, and other floating-rate debt securities, which typically are of below investment grade quality. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 49

Funds of Funds:[1] Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

	Total net assets Millions of dollars, year-end			Net new cash flow[2] Millions of dollars, annual			Number of funds Year-end			Number of share classes Year-end		
Year	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond
1995	$9,063	$2,288	$6,774	$1,135	$633	$502	36	19	17	37	19	18
1996	13,404	4,596	8,808	2,457	1,572	885	45	24	21	56	28	28
1997	21,480	7,305	14,175	3,380	1,552	1,828	94	38	56	148	55	93
1998	35,368	11,862	23,506	6,376	1,951	4,426	175	72	103	305	109	196
1999	48,310	18,250	30,060	6,572	3,400	3,171	212	80	132	394	134	260
2000	56,911	11,919	44,992	10,401	3,146	7,255	215	58	157	414	95	319
2001	63,385	11,159	52,226	8,929	1,313	7,617	213	58	155	450	94	356
2002	68,960	10,311	58,649	11,593	1,532	10,061	268	68	200	625	118	507
2003	123,029	19,367	103,662	29,859	3,006	26,853	299	70	229	716	118	598
2004	199,197	27,729	171,468	50,481	5,260	45,222	372	69	303	957	126	831
2005	305,749	41,279	264,470	79,550	5,885	73,665	472	90	382	1,292	185	1,107
2006	469,377	70,897	398,480	101,347	13,782	87,565	598	119	479	1,849	258	1,591
2007	638,073	96,660	541,413	126,407	17,276	109,131	704	124	580	2,331	295	2,036
2008	469,333	42,860	426,473	60,480	5,712	54,768	839	123	716	2,782	312	2,470
2009	680,121	55,266	624,856	70,169	4,146	66,022	945	131	814	3,051	325	2,726
2010	914,591	80,580	834,011	118,365	4,964	113,401	979	147	832	3,135	348	2,787
2011	1,035,613	80,693	954,920	119,673	3,010	116,663	1,083	157	926	3,396	356	3,040
2012	1,271,565	93,065	1,178,500	93,817	-2,653	96,471	1,154	163	991	3,728	404	3,324
2013	1,560,334	128,757	1,431,577	109,436	12,612	96,823	1,257	173	1,084	3,993	411	3,582
2014	1,694,800	127,886	1,566,914	68,291	11,458	56,832	1,331	174	1,157	4,229	414	3,815
2015	1,722,386	136,723	1,585,663	57,586	8,849	48,737	1,402	178	1,224	4,549	438	4,111
2016	1,870,364	149,865	1,720,500	18,749	-2,669	21,418	1,445	173	1,272	4,670	432	4,238

[1] Funds of funds are mutual funds that invest primarily in other mutual funds.

[2] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

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

TABLE 50

Funds of Funds:[1] Components of Net New Cash Flow[2]

Millions of dollars, annual

	Sales									Redemptions								
	New + exchange			New[3]			Exchange[4]			Regular + exchange			Regular[5]			Exchange[6]		
Year	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond	Total	Equity	Hybrid and bond
1995	$2,362	$987	$1,376	$1,750	$692	$1,059	$612	$295	$317	$1,227	$354	$873	$768	$233	$535	$459	$121	$338
1996	4,522	2,321	2,201	3,621	1,847	1,774	901	474	428	2,066	749	1,317	1,290	519	771	776	230	546
1997	6,317	2,765	3,553	4,753	1,957	2,796	1,565	808	757	2,937	1,213	1,725	1,749	768	981	1,189	445	744
1998	12,931	4,247	8,684	9,938	3,446	6,492	2,993	801	2,192	6,554	2,296	4,258	3,766	1,490	2,277	2,788	807	1,981
1999	16,749	6,722	10,028	12,759	5,458	7,301	3,990	1,263	2,727	10,178	3,321	6,856	6,638	2,465	4,173	3,540	856	2,684
2000	24,092	5,493	18,599	18,607	4,493	14,114	5,485	1,000	4,485	13,690	2,347	11,344	9,250	1,925	7,325	4,440	422	4,019
2001	22,577	3,914	18,663	17,606	3,255	14,351	4,971	659	4,312	13,647	2,601	11,046	9,546	2,018	7,528	4,101	583	3,518
2002	28,194	4,937	23,256	23,063	4,149	18,914	5,131	789	4,342	16,600	3,405	13,195	12,209	2,875	9,335	4,391	530	3,861
2003	46,920	5,914	41,006	38,406	4,824	33,582	8,515	1,090	7,425	17,062	2,909	14,153	12,785	2,452	10,333	4,277	456	3,820
2004	76,677	9,285	67,392	63,004	7,409	55,595	13,674	1,876	11,798	26,196	4,026	22,171	19,742	3,459	16,283	6,455	567	5,888
2005	122,744	11,395	111,349	105,973	9,035	96,938	16,771	2,360	14,411	43,194	5,510	37,685	35,168	4,747	30,421	8,027	763	7,264
2006	163,033	22,354	140,679	138,808	17,618	121,190	24,225	4,736	19,489	61,686	8,572	53,114	48,972	7,182	41,790	12,714	1,390	11,324
2007	226,977	33,410	193,567	193,640	26,126	167,515	33,336	7,285	26,052	100,569	16,134	84,435	81,898	13,073	68,825	18,671	3,061	15,610
2008	210,801	25,028	185,773	181,189	20,752	160,437	29,613	4,276	25,337	150,321	19,316	131,006	119,872	16,056	103,816	30,449	3,260	27,190
2009	190,511	19,788	170,723	171,433	18,309	153,123	19,079	1,479	17,600	120,343	15,642	104,701	102,091	14,236	87,855	18,252	1,406	16,845
2010	290,424	21,531	268,893	265,190	20,330	244,860	25,235	1,201	24,034	172,059	16,567	155,493	150,064	15,167	134,897	21,995	1,400	20,596
2011	350,469	20,729	329,740	322,737	19,618	303,119	27,732	1,111	26,621	230,795	17,718	213,077	202,694	16,236	186,458	28,101	1,482	26,619
2012	330,691	18,461	312,230	304,688	17,097	287,591	26,003	1,364	24,639	236,874	21,115	215,759	211,577	19,614	191,963	25,297	1,501	23,797
2013	402,570	33,303	369,266	362,512	30,706	331,806	40,058	2,597	37,461	293,134	20,691	272,443	259,959	19,196	240,763	33,175	1,495	31,680
2014	408,882	34,501	374,381	368,294	32,584	335,709	40,588	1,916	38,672	340,591	23,042	317,549	289,411	21,665	267,746	51,180	1,377	49,803
2015	455,442	38,962	416,479	403,227	37,004	366,222	52,215	1,958	50,257	397,856	30,113	367,742	338,704	28,087	310,617	59,152	2,026	57,126
2016	410,301	32,372	377,929	372,692	30,677	342,015	37,609	1,695	35,914	391,552	35,041	356,511	345,024	32,909	312,115	46,528	2,132	44,396

[1] Funds of funds are mutual funds that invest primarily in other mutual funds.
[2] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[3] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[4] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[5] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[6] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Components may not add to the total because of rounding.

TABLE 51

Inflation-Protected and TIPS Mutual Funds: Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

Year	Total	Inflation-protected[1]	TIPS[2]	Total	Inflation-protected[1]	TIPS[2]
		Total net assets *Millions of dollars, year-end*			Net new cash flow[3] *Millions of dollars, annual*	
2010	$108,438	$98,326	$10,112	$9,181	$7,346	$1,835
2011	133,330	120,065	13,266	11,425	9,900	1,525
2012	150,342	137,116	13,226	7,338	8,289	-951
2013	108,160	95,942	12,218	-31,504	-31,383	-120
2014	107,328	92,360	14,968	-3,089	-5,869	2,780
2015	105,776	86,206	19,570	-976	-5,821	4,845
2016	112,455	90,706	21,749	2,184	814	1,370
		Number of funds *Year-end*			Number of share classes *Year-end*	
2010	59	50	9	200	170	30
2011	63	52	11	217	183	34
2012	68	56	12	234	197	37
2013	69	57	12	242	205	37
2014	65	56	9	232	205	27
2015	68	59	9	258	230	28
2016	67	58	9	252	226	26

[1] Inflation-protected funds are funds that invest in inflation-protected or inflation-indexed securities other than TIPS (Treasury inflation-protected securities).

[2] TIPS funds invest in Treasury inflation-protected securities, which are backed by the US government and provide protection against inflation, as measured by the Consumer Price Index, while the interest rate remains fixed.

[3] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 52

Mutual Funds by Market Capitalization: Total Net Assets and Net New Cash Flow by Type of Fund

Millions of dollars

Total net assets
Year-end

	Growth funds				Value funds				Blend funds			
Year	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap
2006	$114,522	$157,827	$379,207	$414,190	$130,100	$155,866	$570,240	$197,391	$123,102	$192,557	$974,531	$807,898
2007	119,593	178,978	393,968	480,751	122,045	158,450	577,987	203,448	119,792	201,214	1,017,004	873,932
2008	67,787	92,473	225,666	275,749	78,536	88,564	339,613	111,339	71,867	108,904	637,320	493,352
2009	94,830	128,430	295,647	364,987	104,214	121,027	416,722	140,989	96,987	148,326	817,289	632,531
2010	116,796	159,945	328,488	397,758	130,444	146,334	456,880	159,686	120,735	181,664	923,238	687,874
2011	107,182	146,471	327,898	354,799	120,523	135,540	435,524	156,211	116,873	171,699	911,626	629,798
2012	115,862	161,472	386,185	377,063	133,265	152,990	471,659	175,270	144,896	191,544	1,038,038	699,040
2013	165,727	213,551	508,149	490,856	175,869	209,693	591,338	243,129	207,615	265,240	1,401,939	907,985
2014	158,834	212,405	554,827	507,151	170,461	222,068	630,297	273,179	208,371	286,797	1,621,360	965,363
2015	153,514	200,529	563,046	508,483	145,762	200,505	563,658	258,110	196,653	278,493	1,633,260	925,826
2016	158,867	186,763	521,029	503,947	171,304	224,280	615,901	285,395	234,820	303,518	1,849,344	950,906

Net new cash flow*
Annual

	Growth funds				Value funds				Blend funds			
Year	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap
2006	-$3,781	-$8,452	-$18,896	$4,041	$3,653	-$1,544	$21,344	$6,181	$885	$1,133	-$14,435	$6,444
2007	-4,434	-755	-27,204	9,005	-4,619	-1,511	-4,610	5,730	-5,886	-4,562	-4,973	-4,918
2008	-3,970	-9,687	-13,915	-11,300	-1,936	-8,764	-18,892	-15,187	-7,609	-14,033	-3,444	-31,176
2009	1,860	-1,028	-9,396	-9,317	1,124	2,486	-7,584	-3,438	1,383	-985	3,485	-16,841
2010	-1,783	-1,264	-12,751	-19,341	1,313	375	-13,519	-2,275	150	-503	-10,097	-29,813
2011	-5,467	-6,854	6,618	-33,671	-4,981	-4,838	-18,593	-130	-472	-5,515	-12,230	-42,219
2012	-6,430	-5,520	1,626	-38,499	-8,699	-7,282	-29,485	-10,684	-6,223	-5,649	-10,905	-41,291
2013	3,136	-2,982	-12,382	-16,666	-3,930	2,880	-25,918	14,452	7,768	8,020	29,290	-11,477
2014	-10,104	-15,204	-16,676	-28,491	-10,199	-3,928	-20,669	9,049	-7,551	-2,046	40,276	-23,626
2015	-3,204	-11,665	-17,554	-21,692	-13,983	-7,427	-43,271	-5,690	-4,113	-1,565	4,244	-43,937
2016	-10,351	-21,712	-50,282	-30,908	-7,329	-7,536	-23,733	-6,383	-490	-10,507	22,037	-62,828

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

DATA SECTION 5

TABLE 53

Mutual Funds by Market Capitalization: Number of Funds and Number of Share Classes by Type of Fund

Year-end

	Number of funds											
	Growth funds				Value funds				Blend funds			
Year	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap
2006	267	257	390	232	214	185	398	199	187	141	497	257
2007	246	246	351	209	219	196	400	200	196	145	490	254
2008	237	245	348	208	221	202	395	203	186	148	491	253
2009	213	220	331	190	202	191	369	190	177	139	464	245
2010	207	207	317	181	197	186	358	192	171	133	458	234
2011	204	198	310	169	203	182	339	201	173	139	440	226
2012	198	189	300	164	209	180	328	211	167	135	420	226
2013	191	180	288	165	205	177	321	213	179	130	413	229
2014	188	179	289	160	213	187	324	218	188	128	416	234
2015	183	179	287	160	214	189	323	213	199	134	423	235
2016	182	173	267	158	213	188	322	206	201	134	416	239

	Number of share classes											
	Growth funds				Value funds				Blend funds			
Year	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap	Small cap	Mid cap	Large cap	Multi cap
2006	688	701	1,023	592	558	502	1,075	512	451	350	1,266	679
2007	653	702	960	544	582	533	1,106	532	480	371	1,257	684
2008	652	695	1,004	548	595	563	1,109	551	471	402	1,303	708
2009	606	635	957	530	560	530	1,024	503	450	379	1,249	718
2010	580	611	918	519	561	540	1,025	516	431	356	1,236	700
2011	591	594	906	492	582	543	994	545	436	377	1,224	695
2012	581	570	893	473	598	549	954	570	438	373	1,184	715
2013	560	557	875	485	593	554	947	599	478	361	1,184	741
2014	560	558	888	465	610	592	979	621	521	350	1,213	746
2015	549	564	904	466	626	599	998	603	568	350	1,242	777
2016	574	559	845	467	645	605	1,009	582	596	373	1,224	784

Note: Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 54

Sector Mutual Funds: Total Net Assets and Net New Cash Flow by Type of Fund

Millions of dollars

	Total net assets *Year-end*								
Year	Consumer	Financial	Health	Natural resources	Precious metals	Real estate	Technology/ Telecom	Utilities	Other sectors
2000	$1,042	$16,087	$45,921	$2,920	$1,143	$11,675	$103,853	$22,908	$3,917
2001	1,290	13,901	40,545	2,390	1,314	13,509	62,339	17,744	2,940
2002	1,096	10,885	30,087	2,175	2,486	17,745	31,308	11,275	2,082
2003	1,436	13,138	36,803	3,237	4,227	31,653	46,929	13,481	2,412
2004	1,631	12,917	40,147	5,789	4,270	49,927	42,403	19,201	2,974
2005	1,405	11,837	45,398	11,972	7,003	59,158	34,366	28,390	3,189
2006	1,928	12,269	44,744	14,588	9,875	81,329	32,891	34,589	3,950
2007	2,147	8,518	43,967	22,050	12,066	53,738	34,169	45,669	4,826
2008	1,776	4,857	31,337	9,907	7,836	33,503	16,331	23,240	1,766
2009	2,439	5,941	32,440	17,380	14,901	44,126	27,610	30,327	2,986
2010	3,113	6,286	32,507	22,714	23,065	55,120	30,738	33,332	4,597
2011	3,546	4,548	35,884	20,797	17,102	60,155	26,680	34,785	3,906
2012	4,675	5,901	44,105	21,712	15,338	75,340	28,570	35,400	5,001
2013	6,431	9,285	74,767	30,696	6,811	77,363	41,486	40,149	8,173
2014	7,017	9,415	103,447	36,630	6,019	104,288	45,358	41,556	8,969
2015	9,514	10,222	124,538	28,988	4,487	101,459	47,088	32,516	7,006
2016	8,962	12,025	93,121	39,256	6,882	105,701	46,956	38,543	8,141

	Net new cash flow* *Annual*								
Year	Consumer	Financial	Health	Natural resources	Precious metals	Real estate	Technology/ Telecom	Utilities	Other sectors
2000	-$122	-$534	$9,256	$246	-$214	$339	$43,837	$1,015	-$187
2001	254	-962	236	-182	-29	430	-4,458	-953	-198
2002	11	-1,603	-2,895	-73	484	3,612	-6,211	-2,076	-288
2003	9	-940	-767	336	447	5,177	73	-292	-145
2004	3	-1,535	-387	1,435	398	7,050	-6,165	1,571	148
2005	-209	-1,586	836	3,471	1,027	3,000	-8,541	3,311	121
2006	29	-1,017	-4,137	769	736	4,395	-4,456	556	-49
2007	94	-2,617	-3,378	1,662	-152	-15,282	-2,745	1,992	257
2008	209	96	-3,025	-206	769	1,791	-3,847	-3,397	-488
2009	82	-457	-3,163	1,764	2,253	492	1,768	254	386
2010	101	-626	-2,407	1,493	2,330	1,746	-1,391	-848	724
2011	262	-885	478	1,152	-1,359	1,018	-2,346	701	-286
2012	544	56	1,385	460	112	4,490	-1,515	-1,994	173
2013	794	859	8,582	5,451	-1,433	315	1,972	-1,409	977
2014	47	-256	7,645	5,776	-166	5,279	85	3,783	91
2015	2,235	978	11,007	-688	-37	-4,552	288	-2,585	-1,510
2016	-913	49	-17,602	3,053	325	-771	-3,953	-1,155	279

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
Note: Sector funds are funds that invest solely in companies that operate in related fields or specific industries. Data for funds that invest primarily in other mutual funds were excluded from the series.

DATA SECTION 5

TABLE 55

Sector Mutual Funds: Number of Funds and Number of Share Classes by Type of Fund

Year-end

Year	Consumer	Financial	Health	Natural resources	Precious metals	Real estate	Technology/ Telecom	Utilities	Other sectors
				Number of funds					
2000	7	34	38	18	12	74	132	34	16
2001	9	41	57	17	11	75	155	40	17
2002	12	42	63	14	12	79	145	35	19
2003	11	38	58	15	12	91	124	33	19
2004	14	40	59	16	12	94	115	34	20
2005	14	41	53	17	12	93	103	32	19
2006	18	40	57	19	13	97	108	38	23
2007	19	40	52	19	12	96	98	39	25
2008	19	38	48	20	12	92	88	41	22
2009	19	36	41	19	12	90	79	37	23
2010	19	35	38	20	12	87	74	35	21
2011	19	32	34	24	11	83	69	33	21
2012	20	33	35	26	12	84	66	36	24
2013	19	32	35	30	12	87	68	41	24
2014	19	31	34	34	12	87	67	37	24
2015	19	31	34	42	12	90	67	39	24
2016	19	30	34	42	12	89	67	39	24
				Number of share classes					
2000	12	73	91	32	20	151	283	75	23
2001	17	88	145	31	22	156	350	89	25
2002	22	92	171	25	25	172	348	91	28
2003	19	85	155	32	27	214	290	88	28
2004	27	92	159	33	28	238	279	91	29
2005	26	95	137	37	28	240	260	94	27
2006	33	93	147	40	31	246	267	107	37
2007	41	95	133	46	35	252	249	113	42
2008	42	91	124	51	38	246	218	117	33
2009	42	80	101	49	38	246	199	105	41
2010	42	79	97	53	39	246	190	96	36
2011	43	72	80	70	34	238	184	89	36
2012	47	73	83	80	37	241	182	100	43
2013	41	72	83	92	35	256	188	109	44
2014	41	70	80	101	35	266	181	96	40
2015	39	70	80	135	35	281	180	101	39
2016	37	72	79	136	33	275	178	101	38

Note: Sector funds invest solely in companies that operate in related fields or specific industries. Data for funds that invest primarily in other mutual funds were excluded from the series.

TABLE 56

Target Date and Lifestyle Mutual Funds:[1] Total Net Assets, Net New Cash Flow, Number of Funds, and Number of Share Classes

	Total net assets Millions of dollars, year-end			Net new cash flow[2] Millions of dollars, annual			Number of funds Year-end			Number of share classes Year-end		
Year	Total	Target date	Lifestyle	Total	Target date	Lifestyle	Total	Target date	Lifestyle	Total	Target date	Lifestyle
1997	$14,314	$1,133	$13,181	$4,138	$128	$4,010	77	9	68	141	14	127
1998	25,413	4,158	21,255	6,015	1,097	4,918	110	14	96	199	20	179
1999	34,849	6,588	28,261	4,928	1,319	3,609	130	16	114	240	27	213
2000	39,716	8,215	31,501	7,581	3,551	4,030	146	21	125	279	36	243
2001	45,467	11,761	33,706	7,696	3,884	3,812	147	22	125	351	67	284
2002	49,425	14,433	34,992	8,095	3,768	4,327	171	22	149	432	67	365
2003	81,733	25,374	56,359	19,040	7,252	11,788	192	42	150	499	105	394
2004	129,170	43,135	86,035	28,336	12,851	15,485	241	81	160	740	248	492
2005	202,062	70,476	131,585	57,182	22,122	35,059	325	124	201	1,131	449	682
2006	303,656	113,807	189,849	66,805	33,101	33,704	423	181	242	1,562	770	792
2007	420,931	182,973	237,958	91,922	56,211	35,711	495	246	249	1,840	1,038	802
2008	335,491	159,900	175,591	54,444	41,917	12,527	614	339	275	2,217	1,369	848
2009	486,605	255,655	230,950	52,116	43,441	8,674	644	380	264	2,353	1,516	837
2010	603,991	339,836	264,155	48,609	44,425	4,184	639	378	261	2,330	1,494	836
2011	637,927	375,881	262,046	40,468	41,552	-1,084	677	413	264	2,491	1,623	868
2012	773,388	480,800	292,588	50,272	52,932	-2,660	683	429	254	2,601	1,753	848
2013	976,850	618,061	358,789	55,255	52,941	2,314	763	492	271	2,934	2,034	900
2014	1,097,446	702,702	394,744	41,681	44,588	-2,908	813	542	271	3,074	2,176	898
2015	1,134,790	762,789	372,001	52,807	66,349	-13,541	866	599	267	3,254	2,353	901
2016	1,258,273	886,686	371,587	41,224	64,909	-23,685	910	641	269	3,381	2,469	912

[1] Categories include data for funds that invest primarily in other funds.
[2] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
Note: Components may not add to the total because of rounding.

DATA SECTION 5

TABLE 57

Target Date and Lifestyle Mutual Funds:[1] Components of Net New Cash Flow[2]

Millions of dollars, annual

	Sales						Redemptions					
	New[3]			Exchange[4]			Regular[5]			Exchange[6]		
Year	Total	Target date	Lifestyle	Total	Target date	Lifestyle	Total	Target date	Lifestyle	Total	Target date	Lifestyle
1997	$5,580	$453	$5,127	$1,067	$0	$1,067	$1,763	$325	$1,438	$746	$0	$746
1998	8,856	1,175	7,681	2,782	1,335	1,448	3,557	589	2,968	2,066	823	1,243
1999	10,663	1,715	8,948	3,144	1,684	1,460	6,102	912	5,190	2,776	1,167	1,609
2000	15,034	3,798	11,236	4,621	2,532	2,089	8,302	1,312	6,990	3,772	1,467	2,305
2001	15,408	4,624	10,784	4,179	2,519	1,660	8,510	1,601	6,909	3,381	1,658	1,723
2002	18,235	5,171	13,065	3,691	2,288	1,403	10,901	2,180	8,721	2,930	1,511	1,419
2003	27,581	7,984	19,597	5,321	3,368	1,953	11,038	2,383	8,655	2,824	1,717	1,107
2004	41,670	16,261	25,409	8,713	5,398	3,315	17,571	6,113	11,458	4,477	2,696	1,781
2005	77,129	26,503	50,625	11,647	7,618	4,029	25,921	8,467	17,454	5,673	3,532	2,141
2006	89,517	39,781	49,736	17,113	11,123	5,990	31,240	12,448	18,792	8,586	5,356	3,230
2007	137,682	76,013	61,668	23,456	17,011	6,445	56,646	28,346	28,301	12,570	8,468	4,102
2008	127,548	78,570	48,978	22,099	16,120	5,979	73,889	38,397	35,492	21,314	14,376	6,938
2009	118,488	80,350	38,138	15,172	11,554	3,618	68,215	39,410	28,805	13,329	9,053	4,277
2010	149,987	107,631	42,356	20,606	16,623	3,983	104,959	67,392	37,567	17,025	12,437	4,588
2011	172,552	131,665	40,887	22,271	17,914	4,356	132,011	90,813	41,198	22,343	17,215	5,129
2012	182,816	143,661	39,155	19,667	15,988	3,680	133,104	92,090	41,014	19,107	14,626	4,481
2013	217,811	171,396	46,415	30,989	25,301	5,687	167,030	121,606	45,424	26,514	22,150	4,364
2014	240,280	186,214	54,067	33,593	28,093	5,500	187,314	129,061	58,253	44,879	40,658	4,221
2015	279,449	239,289	40,160	45,530	40,479	5,051	220,838	166,823	54,015	51,333	46,596	4,737
2016	279,295	241,324	37,971	35,215	30,895	4,320	230,305	169,500	60,805	42,982	37,810	5,172

[1] Categories include data for funds that invest primarily in other funds.
[2] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[3] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[4] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[5] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[6] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: Components may not add to the total because of rounding.

TABLE 58

Variable Annuity Mutual Funds: Total Net Assets, Net New Cash Flow, and Number of Funds

	Total net assets *Millions of dollars, year-end*				Net new cash flow* *Millions of dollars, annual*				Number of funds *Year-end*			
Year	Total	Equity	Hybrid and bond	Money market	Total	Equity	Hybrid and bond	Money market	Total	Equity	Hybrid and bond	Money market
1995	$259,813	$187,702	$60,042	$12,069	$20,824	$18,604	$2,214	$5	665	344	250	71
1996	349,341	260,959	73,189	15,193	40,133	32,699	5,063	2,371	800	435	290	75
1997	473,331	364,286	92,571	16,474	40,470	33,743	6,316	411	937	535	323	79
1998	615,152	474,961	116,337	23,853	44,259	27,857	10,362	6,040	1,162	703	377	82
1999	818,958	656,877	128,349	33,732	38,543	30,736	-460	8,267	1,353	868	404	81
2000	816,800	652,421	131,342	33,037	48,461	58,314	-7,790	-2,063	1,562	1,051	431	80
2001	742,259	558,654	138,848	44,756	21,583	4,861	8,035	8,687	1,750	1,248	413	89
2002	638,949	438,603	152,276	48,070	-1,286	-12,763	11,151	327	1,903	1,389	422	92
2003	837,443	619,018	182,773	35,652	29,827	34,969	6,929	-12,071	1,889	1,364	437	88
2004	973,911	738,444	202,106	33,361	33,505	33,592	2,595	-2,683	1,881	1,351	443	87
2005	1,072,894	822,105	217,090	33,699	16,404	13,254	4,450	-1,299	1,882	1,356	443	83
2006	1,266,934	975,532	249,210	42,192	29,712	17,018	7,192	5,501	1,926	1,391	454	81
2007	1,398,318	1,052,868	292,727	52,723	31,780	1,581	22,948	7,251	1,900	1,367	455	78
2008	928,694	598,524	255,199	74,971	-6,059	-30,615	5,018	19,538	1,897	1,369	449	79
2009	1,187,610	792,083	338,231	57,296	10,033	-3,644	32,483	-18,806	1,830	1,307	450	73
2010	1,339,959	886,358	405,048	48,554	-1,996	-25,375	33,090	-9,711	1,773	1,256	447	70
2011	1,299,386	800,129	450,383	48,873	-21,121	-48,213	26,956	136	1,738	1,222	452	64
2012	1,441,902	875,004	522,966	43,932	-31,540	-55,367	28,960	-5,132	1,724	1,195	469	60
2013	1,669,123	1,050,470	578,862	39,792	-53,843	-61,392	10,188	-2,638	1,733	1,180	496	57
2014	1,708,359	1,065,125	606,110	37,124	-67,432	-58,536	-6,231	-2,665	1,728	1,150	522	56
2015	1,635,134	1,006,454	589,636	39,043	-64,947	-53,813	-12,940	1,806	1,704	1,126	525	53
2016	1,672,964	1,027,850	609,222	35,892	-80,849	-64,813	-13,697	-2,340	1,681	1,103	535	43

* Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.

Note: This category includes mutual funds offered through variable annuity and variable life insurance contracts. Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 59

Variable Annuity Mutual Funds: Components of Net New Cash Flow[1]

Millions of dollars, annual

	Sales								Redemptions							
	New[2]				Exchange[3]				Regular[4]				Exchange[5]			
Year	Total	Equity	Hybrid and bond	Money market	Total	Equity	Hybrid and bond	Money market	Total	Equity	Hybrid and bond	Money market	Total	Equity	Hybrid and bond	Money market
1995	$53,101	$31,661	$9,326	$12,114	$8,674	$4,984	$727	$2,963	$32,283	$13,201	$7,234	$11,849	$8,668	$4,840	$606	$3,223
1996	84,933	53,188	13,056	18,689	12,656	7,190	864	4,602	44,729	20,497	8,041	16,191	12,726	7,182	815	4,729
1997	105,222	67,005	15,290	22,926	24,210	13,017	2,348	8,846	65,377	33,408	9,905	22,063	23,586	12,871	1,417	9,298
1998	141,464	83,457	23,227	34,780	37,136	18,967	5,502	12,668	99,141	54,024	14,964	30,153	35,199	20,542	3,403	11,254
1999	212,025	130,900	22,004	59,120	40,818	22,080	2,985	15,753	174,418	100,392	22,275	51,750	39,883	21,853	3,174	14,856
2000	334,936	222,945	20,128	91,863	36,326	22,822	1,852	11,652	287,230	166,186	27,483	93,561	35,571	21,267	2,288	12,017
2001	346,166	197,831	33,707	114,628	31,716	15,928	5,185	10,604	325,676	190,977	27,510	107,189	30,623	17,922	3,346	9,356
2002	342,193	183,758	48,179	110,256	34,171	16,428	7,160	10,583	344,224	194,374	38,908	110,942	33,425	18,574	5,281	9,570
2003	283,007	169,043	54,392	59,572	28,791	15,307	5,944	7,541	253,526	136,061	46,632	70,832	28,445	13,320	6,774	8,351
2004	261,716	170,082	46,592	45,042	26,407	14,397	5,711	6,300	228,278	136,344	44,382	47,552	26,340	14,543	5,325	6,472
2005	246,396	162,387	48,220	35,789	19,598	10,599	3,403	5,595	230,118	148,067	44,472	37,579	19,472	11,666	2,702	5,105
2006	280,246	191,872	51,529	36,846	22,318	10,823	3,425	8,070	250,509	173,300	44,350	32,859	22,344	12,376	3,412	6,555
2007	343,465	218,138	73,991	51,336	37,045	19,701	8,247	9,097	317,180	215,814	55,877	45,488	31,550	20,444	3,413	7,694
2008	380,350	198,130	94,051	88,169	25,445	11,112	5,114	9,220	390,038	227,293	90,601	72,145	21,816	12,564	3,546	5,706
2009	312,904	150,971	100,406	61,528	22,650	14,589	3,767	4,294	302,743	154,821	69,691	78,231	22,778	14,382	1,999	6,397
2010	337,926	164,882	140,079	32,964	17,325	6,755	6,742	3,828	339,668	188,495	108,772	42,401	17,578	8,517	4,959	4,102
2011	331,923	144,679	150,992	36,252	16,269	6,816	6,865	2,589	353,061	189,868	126,284	36,910	16,251	9,840	4,616	1,795
2012	310,567	128,108	153,883	28,576	14,231	10,720	2,102	1,410	341,251	181,579	125,848	33,824	15,087	12,616	1,178	1,293
2013	297,706	142,686	124,272	30,748	23,173	14,353	5,962	2,859	349,896	201,508	113,520	34,867	24,826	16,922	6,526	1,377
2014	257,848	132,904	96,743	28,202	9,562	4,669	1,578	3,316	324,679	189,773	103,862	31,044	10,163	6,335	689	3,139
2015	267,411	137,141	97,909	32,361	16,409	6,576	6,198	3,635	332,752	190,532	111,131	31,089	16,015	6,998	5,916	3,102
2016	269,544	124,208	112,212	33,124	12,094	4,949	4,014	3,131	350,875	187,521	127,274	36,080	11,613	6,449	2,648	2,515

[1] Net new cash flow is the dollar value of new sales minus redemptions combined with net exchanges.
[2] New sales are the dollar value of new purchases of mutual fund shares. This does not include shares purchased through reinvestment of dividends in existing accounts.
[3] Exchange sales are the dollar value of mutual fund shares switched into funds within the same fund group.
[4] Regular redemptions are the dollar value of shareholder liquidation of mutual fund shares.
[5] Exchange redemptions are the dollar value of mutual fund shares switched out of funds and into other funds within the same fund group.
Note: This category includes mutual funds offered through variable annuity and variable life insurance contracts. Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 60

Mutual Funds: Total Net Assets Held in Individual and Institutional Accounts

Millions of dollars, year-end

Year	Total	Equity funds	Hybrid funds	Bond funds	Money market funds
Total					
2002	$6,383,157	$2,642,420	$335,276	$1,140,387	$2,265,075
2003	7,402,118	3,653,370	447,570	1,261,157	2,040,022
2004	8,095,801	4,342,577	552,250	1,299,274	1,901,700
2005	8,891,375	4,885,444	621,479	1,357,630	2,026,822
2006	10,398,155	5,832,582	731,503	1,495,619	2,338,451
2007	12,000,168	6,413,222	821,522	1,679,664	3,085,760
2008	9,620,637	3,655,162	562,262	1,570,978	3,832,236
2009	11,112,623	4,872,541	717,580	2,206,609	3,315,893
2010	11,833,516	5,596,629	842,198	2,591,175	2,803,514
2011	11,632,585	5,212,995	883,981	2,844,659	2,690,950
2012	13,054,490	5,938,757	1,031,581	3,390,984	2,693,169
2013	15,048,980	7,762,556	1,282,571	3,286,045	2,717,808
2014	15,873,399	8,313,989	1,374,143	3,460,626	2,724,641
2015	15,650,449	8,147,999	1,334,258	3,413,449	2,754,743
2016	16,343,717	8,577,394	1,388,659	3,649,527	2,728,137
Individual accounts					
2002	$5,520,759	$2,491,013	$325,811	$1,046,924	$1,657,012
2003	6,554,272	3,463,587	435,131	1,168,216	1,487,338
2004	7,204,277	4,093,544	536,248	1,205,962	1,368,522
2005	7,803,136	4,576,625	600,437	1,235,488	1,390,586
2006	9,098,620	5,437,578	704,116	1,358,138	1,598,787
2007	10,393,003	5,986,591	792,386	1,521,986	2,092,040
2008	7,866,675	3,405,824	544,230	1,425,757	2,490,863
2009	9,294,472	4,503,074	693,742	2,009,477	2,088,180
2010	10,063,100	5,131,396	808,656	2,339,473	1,783,575
2011	9,938,069	4,779,204	845,148	2,579,603	1,734,114
2012	11,240,627	5,449,387	989,384	3,068,044	1,733,812
2013	13,064,992	7,158,114	1,224,933	2,957,015	1,724,930
2014	13,768,477	7,663,347	1,314,287	3,107,940	1,682,903
2015	13,538,065	7,499,254	1,277,635	3,059,056	1,702,120
2016[p]	14,185,497	7,905,430	1,331,735	3,280,597	1,667,735
Institutional accounts*					
2002	$862,398	$151,407	$9,465	$93,463	$608,064
2003	847,846	189,783	12,439	92,941	552,684
2004	891,524	249,033	16,002	93,312	533,178
2005	1,088,239	308,820	21,042	122,143	636,235
2006	1,299,535	395,003	27,386	137,481	739,664
2007	1,607,166	426,630	29,136	157,678	993,721
2008	1,753,962	249,337	18,031	145,220	1,341,374
2009	1,818,151	369,467	23,839	197,132	1,227,714
2010	1,770,416	465,233	33,542	251,702	1,019,939
2011	1,694,516	433,791	38,832	265,056	956,837
2012	1,813,863	489,369	42,196	322,940	959,357
2013	1,983,988	604,442	57,638	329,031	992,878
2014	2,104,922	650,642	59,856	352,685	1,041,739
2015	2,112,384	648,744	56,623	354,393	1,052,623
2016[p]	2,158,219	671,964	56,923	368,930	1,060,402

* Institutional accounts include accounts purchased by an institution, such as a business, financial, or nonprofit organization. Institutional accounts do not include primary accounts of individuals issued by a broker-dealer.

[p] Data are preliminary.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

DATA SECTION 6

TABLE 61

Mutual Funds: Total Net Assets of Institutional Investors by Type of Institution and Type of Fund

Millions of dollars, year-end

Year		Total	Business corporations	Financial institutions[1]	Nonprofit organizations	Other[2]
2007	**Total**	**$1,607,166**	**$749,128**	**$474,903**	**$150,177**	**$232,957**
	Equity	426,630	136,905	119,384	60,760	109,580
	Hybrid	29,136	8,306	10,216	4,500	6,114
	Bond	157,678	38,276	30,836	24,435	64,131
	Money market	993,721	565,641	314,466	60,482	53,132
2008	**Total**	**1,753,962**	**904,784**	**497,079**	**135,541**	**216,558**
	Equity	249,337	70,729	64,981	33,136	80,492
	Hybrid	18,031	5,702	5,708	2,717	3,904
	Bond	145,220	29,355	28,624	22,868	64,373
	Money market	1,341,374	798,998	397,766	76,820	67,789
2009	**Total**	**1,818,151**	**886,559**	**510,826**	**147,414**	**273,352**
	Equity	369,467	106,237	89,282	44,777	129,171
	Hybrid	23,839	7,989	7,126	3,665	5,060
	Bond	197,132	47,265	41,527	29,010	79,331
	Money market	1,227,714	725,069	372,893	69,963	59,790
2010	**Total**	**1,770,416**	**741,637**	**515,473**	**153,371**	**359,936**
	Equity	465,233	121,372	108,385	49,083	186,394
	Hybrid	33,542	10,953	10,186	4,262	8,142
	Bond	251,702	54,172	54,853	33,453	109,224
	Money market	1,019,939	555,140	342,048	66,574	56,177
2011	**Total**	**1,694,516**	**681,853**	**488,009**	**146,415**	**378,239**
	Equity	433,791	102,158	95,039	45,315	191,280
	Hybrid	38,832	12,042	11,390	4,795	10,606
	Bond	265,056	51,823	57,911	36,247	119,075
	Money market	956,837	515,830	323,670	60,058	57,278
2012	**Total**	**1,813,863**	**684,218**	**518,708**	**152,295**	**458,642**
	Equity	489,369	108,787	97,975	51,714	230,893
	Hybrid	42,196	11,218	13,941	5,186	11,851
	Bond	322,940	59,301	68,672	40,321	154,648
	Money market	959,357	504,912	338,120	55,074	61,251
2013	**Total**	**1,983,988**	**747,074**	**547,678**	**168,945**	**520,290**
	Equity	604,442	136,411	119,921	63,308	284,803
	Hybrid	57,638	15,305	17,246	7,420	17,667
	Bond	329,031	59,028	70,403	36,596	163,004
	Money market	992,878	536,331	340,109	61,622	54,816
2014	**Total**	**2,104,922**	**792,818**	**576,972**	**185,071**	**550,061**
	Equity	650,642	150,298	122,650	64,934	312,760
	Hybrid	59,856	15,659	18,060	7,682	18,454
	Bond	352,685	68,635	78,753	40,123	165,175
	Money market	1,041,739	558,226	357,509	72,332	53,672
2015	**Total**	**2,112,384**	**812,536**	**574,839**	**188,398**	**536,610**
	Equity	648,744	149,638	124,172	62,334	312,600
	Hybrid	56,623	15,716	19,077	8,172	13,658
	Bond	354,393	70,361	85,426	39,459	159,146
	Money market	1,052,623	576,821	346,164	78,433	51,205
2016[p]	**Total**	**2,158,219**	**725,957**	**650,731**	**207,527**	**574,004**
	Equity	671,964	151,227	122,086	64,148	334,502
	Hybrid	56,923	14,309	19,228	9,045	14,342
	Bond	368,930	72,563	89,487	42,480	164,400
	Money market	1,060,402	487,859	419,931	91,853	60,760

[1] Financial institutions include credit unions, investment clubs, accounts of banks not held as fiduciaries, insurance companies, and other financial organizations.

[2] Other institutional investors include state and local governments, funds holding mutual fund shares, and other institutional accounts not classified.

[p] Data are preliminary.

Note: Data for funds that invest primarily in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

TABLE 62

Taxable Money Market Funds: Total Net Assets of Institutional Investors by Type of Institution and Type of Fund

Millions of dollars, year-end

Year		Total	Business corporations	Financial institutions[1]	Nonprofit organizations	Other[2]
2002	**Total**	**$578,112**	**$303,148**	**$226,645**	**$27,673**	**$20,646**
	Institutional funds	484,760	246,880	202,475	20,186	15,219
	Retail funds	93,352	56,267	24,170	7,487	5,427
2003	**Total**	**515,153**	**270,469**	**194,259**	**32,223**	**18,202**
	Institutional funds	428,443	220,562	173,539	22,473	11,870
	Retail funds	86,710	49,907	20,720	9,751	6,333
2004	**Total**	**486,612**	**277,235**	**161,810**	**28,909**	**18,659**
	Institutional funds	406,634	228,594	146,520	18,934	12,586
	Retail funds	79,979	48,641	15,290	9,975	6,073
2005	**Total**	**578,538**	**322,944**	**197,002**	**32,896**	**25,696**
	Institutional funds	485,039	270,892	172,215	23,666	18,266
	Retail funds	93,499	52,052	24,788	9,229	7,430
2006	**Total**	**677,610**	**388,596**	**221,779**	**37,856**	**29,379**
	Institutional funds	581,580	324,089	208,179	26,698	22,613
	Retail funds	96,030	64,507	13,600	11,158	6,766
2007	**Total**	**916,501**	**514,367**	**294,432**	**57,470**	**50,232**
	Institutional funds	804,418	444,130	273,626	43,408	43,254
	Retail funds	112,082	70,237	20,806	14,062	6,977
2008	**Total**	**1,253,701**	**736,036**	**377,963**	**74,803**	**64,900**
	Institutional funds	1,129,759	659,901	350,945	60,632	58,282
	Retail funds	123,941	76,134	27,018	14,171	6,618
2009	**Total**	**1,150,656**	**668,516**	**356,992**	**68,124**	**57,025**
	Institutional funds	1,052,584	606,631	336,161	57,764	52,029
	Retail funds	98,072	61,885	20,831	10,360	4,996
2010	**Total**	**961,045**	**513,038**	**328,890**	**65,252**	**53,865**
	Institutional funds	872,602	459,592	307,203	56,442	49,365
	Retail funds	88,443	53,446	21,687	8,809	4,500
2011	**Total**	**909,996**	**481,122**	**314,508**	**58,686**	**55,680**
	Institutional funds	822,855	428,513	292,479	50,999	50,864
	Retail funds	87,141	52,610	22,029	7,687	4,815
2012	**Total**	**911,741**	**468,745**	**328,348**	**53,961**	**60,686**
	Institutional funds	835,786	422,874	309,051	47,368	56,492
	Retail funds	75,955	45,871	19,297	6,593	4,194
2013	**Total**	**948,570**	**501,228**	**332,361**	**60,660**	**54,320**
	Institutional funds	877,035	453,697	317,860	55,178	50,300
	Retail funds	71,535	47,531	14,501	5,482	4,020
2014	**Total**	**998,455**	**523,649**	**350,937**	**70,818**	**53,051**
	Institutional funds	929,225	477,571	337,217	65,089	49,348
	Retail funds	69,231	46,078	13,720	5,730	3,703
2015	**Total**	**1,010,273**	**543,165**	**339,340**	**77,244**	**50,524**
	Institutional funds	943,865	500,028	326,935	70,431	46,470
	Retail funds	66,408	43,136	12,405	6,813	4,054
2016[p]	**Total**	**1,055,485**	**487,487**	**416,168**	**91,140**	**60,690**
	Institutional funds	990,686	445,020	406,269	83,137	56,260
	Retail funds	64,800	42,467	9,899	8,004	4,430

[1] Financial institutions include credit unions, investment clubs, accounts of banks not held as fiduciaries, insurance companies, and other financial organizations.

[2] Other institutional investors include state and local governments, funds holding mutual fund shares, and other institutional accounts not classified.

[p] Data are preliminary.

Note: Institutional funds are sold primarily to institutional investors or institutional accounts. This includes accounts that are purchased by an institution, such as a business, financial, or nonprofit organization. Retail funds are sold primarily to individual investors and include variable annuity mutual funds. Data for funds that invest in other mutual funds were excluded from the series. Components may not add to the total because of rounding.

DATA SECTION 6

TABLE 63

Mutual Funds: DC Plan Assets and Estimated Net New Cash Flow by Type of Fund

Billions of dollars

	Total net assets Year-end						Estimated net new cash flow Annual					
		Equity funds						Equity funds				
Year	Total	Domestic	World	Hybrid funds	Bond funds	Money market funds	Total	Domestic	World	Hybrid funds	Bond funds	Money market funds
1997	$775	$527	$56	$73	$58	$60	$67	$45	$11	$7	$6	-$3
1998	994	688	67	91	72	76	77	44	4	6	11	11
1999	1,295	914	109	102	77	92	70	45	8	2	5	11
2000	1,285	885	115	109	81	96	85	68	22	-1	-3	-1
2001	1,227	789	96	118	105	119	91	39	2	12	19	18
2002	1,102	631	85	115	139	132	77	26	6	7	26	12
2003	1,423	867	124	155	155	122	50	37	7	13	4	-11
2004	1,657	1,016	172	195	164	110	71	40	21	22	2	-14
2005	1,880	1,105	229	255	179	112	97	13	27	46	10	(*)
2006	2,223	1,247	334	326	193	124	92	-5	47	36	6	8
2007	2,493	1,298	422	403	217	152	94	-29	35	52	13	22
2008	1,712	756	223	309	226	198	37	-38	-14	32	17	40
2009	2,197	983	324	429	292	170	41	-11	13	32	35	-29
2010	2,511	1,131	372	520	342	146	32	-12	7	34	29	-26
2011	2,476	1,070	324	554	374	154	17	-40	-2	36	16	8
2012	2,850	1,210	380	665	442	154	36	-38	-3	40	38	(*)
2013	3,480	1,620	481	809	420	150	58	14	27	36	-14	-5
2014	3,709	1,761	496	874	439	140	18	-17	25	17	2	-10
2015	3,641	1,693	505	888	414	141	-39	-65	24	24	-21	(*)
2016	3,854	1,776	519	988	443	129	-61	-90	-4	32	13	-11

(*) = between -$500 million and $500 million

Note: Data for funds that invest primarily in other mutual funds are included in the series. Components may not add to the total because of rounding.

TABLE 64

Mutual Funds: IRA Assets and Estimated Net New Cash Flow by Type of Fund

Billions of dollars

	Total net assets (Year-end)						Estimated net new cash flow (Annual)					
		Equity funds						Equity funds				
Year	Total	Domestic	World	Hybrid funds	Bond funds	Money market funds	Total	Domestic	World	Hybrid funds	Bond funds	Money market funds
1997	$787	$442	$79	$84	$92	$90	$67	$54	$7	$5	$7	-$6
1998	999	586	93	98	107	114	90	50	6	3	12	19
1999	1,277	797	137	102	110	132	67	54	2	-1	1	11
2000	1,265	781	136	104	109	136	62	68	14	-9	-7	-4
2001	1,205	699	111	110	133	153	69	34	-2	8	19	10
2002	1,090	548	93	110	175	164	55	3	(*)	10	34	9
2003	1,389	748	131	162	196	152	50	30	4	24	7	-14
2004	1,598	860	176	218	205	138	59	19	20	37	-1	-15
2005	1,782	932	231	264	211	144	64	3	24	34	2	1
2006	2,144	1,067	324	340	234	179	110	5	36	31	11	27
2007	2,438	1,125	410	409	270	224	124	-14	33	45	24	36
2008	1,697	654	221	288	261	273	-1	-43	-15	1	16	41
2009	2,121	834	309	372	376	229	24	-18	3	13	69	-44
2010	2,426	949	371	443	459	204	41	-18	11	26	47	-26
2011	2,418	895	316	495	499	213	26	-38	-11	45	21	9
2012	2,763	1,010	358	583	595	217	39	-33	-15	28	53	5
2013	3,335	1,359	449	716	581	230	92	24	25	44	-13	12
2014	3,534	1,481	460	788	586	219	17	-11	16	35	-13	-10
2015	3,498	1,459	464	783	576	216	1	-19	16	8	-2	-3
2016	3,710	1,547	466	831	622	243	-40	-59	-16	-11	18	28

(*) = between -$500 million and $500 million

Note: Data for funds that invest primarily in other mutual funds are included in the series. Components may not add to the total because of rounding.

TABLE 65

Worldwide Regulated Open-End Funds: Total Net Assets

Millions of US dollars, year-end

	2011	2012	2013	2014	2015	2016
World	**$27,884,941**	**$31,869,170**	**$36,331,117**	**$38,020,032**	**$38,155,691**	**$40,364,115**
Americas	**14,583,489**	**16,486,391**	**18,862,421**	**20,007,808**	**19,556,036**	**21,093,009**
Argentina	6,808	9,185	11,179	15,630	16,435	20,189
Brazil	1,008,928	1,070,998	1,018,641	989,542	743,530	1,060,904
Canada	753,606	856,504	940,580	981,804	889,610	996,090
Chile	33,425	37,900	39,291	44,166	39,898	46,214
Costa Rica	1,266	1,484	1,933	2,092	2,533	2,297
Mexico	92,743	112,201	120,518	119,504	105,940	92,429
Trinidad and Tobago	5,989	6,505	6,586	7,121	6,983	6,781
United States	12,680,724	14,391,614	16,723,693	17,847,949	17,751,107	18,868,105
Europe	**10,255,198**	**11,915,430**	**13,585,779**	**13,807,950**	**13,738,783**	**14,116,938**
Austria	162,758	186,905	194,932	165,084	151,199	150,939
Belgium	81,505	82,695	93,132	100,790	92,115	83,970
Bulgaria	291	324	504	496	440	548
Croatia	N/A	N/A	N/A	2,058	1,975	2,571
Cyprus	N/A	N/A	N/A	N/A	N/A	248
Czech Republic	4,445	5,122	5,302	5,746	7,812	8,901
Denmark	84,891	103,506	118,702	120,844	111,509	116,910
Finland	62,193	87,522	103,602	86,397	88,351	93,757
France	1,786,815	1,986,661	2,103,274	1,940,490	1,832,073	1,880,335
Germany	1,465,049	1,689,889	1,934,560	1,847,268	1,799,754	1,893,722
Greece	5,213	6,011	6,742	5,256	4,292	4,111
Hungary	7,193	13,063	18,138	15,980	14,825	14,582
Ireland	1,361,462	1,613,201	1,845,040	2,003,956	2,052,437	2,197,533
Italy	180,754	193,448	223,023	217,363	207,867	203,384
Liechtenstein	32,606	37,615	41,915	45,792	44,938	45,624
Luxembourg	2,712,677	3,145,220	3,606,847	3,757,624	3,817,201	3,901,304
Malta	2,132	4,522	4,468	4,423	3,808	2,739
Netherlands	582,189	681,140	781,020	801,397	729,096	771,988
Norway	79,999	98,723	109,325	112,223	102,526	113,957

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TABLE 65 CONTINUED

Worldwide Regulated Open-End Funds: Total Net Assets

Millions of US dollars, year-end

	2011	2012	2013	2014	2015	2016
Poland	18,463	26,888	29,515	34,177	32,286	29,572
Portugal	7,321	28,941	28,222	15,786	22,270	20,109
Romania	2,388	2,613	4,000	4,932	5,038	5,072
Russia	3,072	N/A	N/A	N/A	N/A	N/A
Slovakia	3,191	4,743	5,898	6,514	6,202	6,205
Slovenia	2,279	2,370	2,506	2,550	2,448	2,528
Spain	195,220	202,742	268,380	274,072	274,715	280,826
Sweden	179,707	211,236	255,822	283,683	279,977	286,412
Switzerland	273,061	327,360	425,662	436,431	457,162	475,838
Turkey	14,048	16,478	14,078	15,310	12,887	12,277
United Kingdom	944,276	1,156,492	1,361,170	1,501,308	1,583,580	1,510,976
Asia and Pacific	**2,921,278**	**3,322,199**	**3,740,049**	**4,057,800**	**4,738,804**	**5,008,346**
Australia	1,440,128	1,667,128	1,624,081	1,601,078	1,521,313	1,613,044
China	339,038	437,449	460,332	708,884	1,263,130	1,227,540
Chinese Taipei	53,437	59,192	62,286	58,049	63,147	61,773
India	87,519	114,489	107,895	136,834	168,186	216,805
Japan	745,383	738,488	1,157,972	1,171,974	1,328,634	1,459,705
Korea, Rep. of	226,717	267,583	285,172	330,168	343,293	370,600
New Zealand	23,709	31,145	34,185	41,559	41,908	48,623
Pakistan	2,984	3,159	3,464	4,156	4,164	5,360
Philippines	2,363	3,566	4,662	5,098	5,029	4,896
Africa	**124,976**	**145,150**	**142,868**	**146,474**	**122,068**	**145,822**
South Africa	124,976	145,150	142,868	146,474	122,068	145,822

N/A = not available

Note: Components may not add to the total because of rounding. Regulated open-end funds include mutual funds, exchange-traded funds (ETFs), and institutional funds. Beginning in 2014, ETFs are included in European data. Austria, France, Germany, Ireland, Luxembourg, and the United Kingdom include non-UCITS data. Prior to 2012, all other European data exclude non-UCITS. Beginning in 2013, institutional funds and funds of funds are included in data for Japan. New Zealand and Trinidad and Tobago include home- and foreign-domiciled funds. Croatia, France, Ireland, Luxembourg, Netherlands, Norway, Slovakia, and Turkey include funds of funds. Beginning in 2014, Finland, Germany, Italy, Romania, Spain, and Switzerland exclude funds of funds. For the Netherlands, data before 2015 are estimated based upon ECB and IIFA sources.

Source: International Investment Funds Association (IIFA)

TABLE 66

Worldwide Regulated Open-End Funds: Number of Funds

Year-end

	2011	2012	2013	2014	2015	2016
World	**88,525**	**91,173**	**97,401**	**100,849**	**106,167**	**110,271**
Americas	**20,887**	**22,292**	**23,323**	**24,378**	**25,230**	**25,898**
Argentina	281	291	297	302	346	420
Brazil	6,513	7,468	8,072	8,560	8,783	9,224
Canada	2,655	2,866	2,963	3,164	3,283	3,298
Chile	2,150	2,286	2,385	2,418	2,500	2,539
Costa Rica	63	66	66	66	65	67
Mexico	464	488	487	486	499	524
Trinidad and Tobago	36	42	43	43	44	44
United States	8,725	8,785	9,010	9,339	9,710	9,782
Europe	**50,493**	**51,211**	**51,745**	**51,352**	**53,100**	**53,483**
Austria	1,799	1,814	1,842	1,629	1,596	1,575
Belgium	1,723	1,542	1,447	1,231	1,164	1,007
Bulgaria	92	95	98	104	104	110
Croatia	N/A	N/A	N/A	82	85	89
Cyprus	N/A	N/A	N/A	N/A	N/A	30
Czech Republic	80	83	88	108	128	129
Denmark	500	495	510	526	532	558
Finland	368	507	492	383	371	372
France	11,830	11,692	11,392	11,273	11,122	10,952
Germany	5,798	5,870	5,892	5,509	5,604	5,678
Greece	196	177	166	143	139	135
Hungary	152	361	369	307	316	306
Ireland	4,929	5,305	5,599	5,833	6,201	6,470
Italy	659	744	784	687	713	760
Liechtenstein	437	769	923	946	1,184	1,287
Luxembourg	13,294	13,420	13,685	13,849	14,108	14,211
Malta	59	107	114	110	130	126
Netherlands	495	497	501	561	1,015	1,014
Norway	507	406	573	619	700	720

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TABLE 66 CONTINUED

Worldwide Regulated Open-End Funds: Number of Funds

Year-end

	2011	2012	2013	2014	2015	2016
Poland	226	324	331	398	391	423
Portugal	173	284	243	184	399	373
Romania	105	62	64	72	74	75
Russia	472	N/A	N/A	N/A	N/A	N/A
Slovakia	63	73	73	87	88	87
Slovenia	137	131	114	110	109	102
Spain	2,474	2,443	2,374	2,235	2,238	2,342
Sweden	508	475	493	522	471	496
Switzerland	664	690	795	843	860	858
Turkey	337	351	373	404	387	396
United Kingdom	2,416	2,494	2,410	2,597	2,871	2,802
Asia and Pacific	**16,198**	**16,703**	**21,271**	**23,948**	**26,510**	**29,370**
Australia	N/A	N/A	N/A	N/A	N/A	N/A
China	831	1,065	1,415	1,763	2,558	3,564
Chinese Taipei	534	554	570	577	602	653
India	680	692	699	768	804	795
Japan	4,196	4,384	7,818	8,761	9,804	10,889
Korea, Rep. of	9,064	9,121	9,876	11,235	11,918	12,626
New Zealand	709	700	694	632	609	615
Pakistan	137	139	152	159	160	171
Philippines	47	48	47	53	55	57
Africa	**947**	**967**	**1,062**	**1,171**	**1,327**	**1,520**
South Africa	947	967	1,062	1,171	1,327	1,520

N/A = not available

Note: Regulated open-end funds include mutual funds, exchange-traded funds (ETFs), and institutional funds. Beginning in 2014, ETFs are included in European data. Austria, France, Germany, Luxembourg, and the United Kingdom include non-UCITS data. Prior to 2012, all other European data exclude non-UCITS. Beginning in 2013, institutional funds and funds of funds are included in data for Japan. New Zealand and Trinidad and Tobago include home- and foreign-domiciled funds. Croatia, France, Ireland, Luxembourg, Netherlands, Norway, Slovakia, and Turkey include funds of funds. Beginning in 2014, Finland, Germany, Italy, Romania, Spain, and Switzerland exclude funds of funds.

Source: International Investment Funds Association

TABLE 67

Worldwide Regulated Open-End Funds: Net Sales

Millions of US dollars, annual

	2011	2012	2013	2014	2015	2016
World	**$324,403**	**$1,265,542**	**$1,261,547**	**$1,804,765**	**$1,977,051**	**$1,197,992**
Americas	**288,781**	**690,286**	**658,983**	**677,819**	**453,768**	**374,639**
Argentina	N/A	N/A	N/A	4511[a]	4,421	3,248
Brazil	49,995	56,099	34,713	1,886	13,531	33,568
Canada	37,032	50,697	64,965	90,035	82,238	52,601
Chile	-423	813	5,394	8,550	983	3,269
Costa Rica	432	-221	-305	341	427	-511[a]
Mexico	4,005	6,869	7,705	10,442	-1,226	782
Trinidad and Tobago	107	292	-13	292	-23	17
United States	197,633	575,737	546,524	561,762	353,417	281,665
Europe	**-20,482**	**424,683**	**455,403**	**809,295**	**738,798**	**475,769**
Austria	-5,042	-168	-921	4,688	3,198	-370
Belgium	N/A	N/A	N/A	N/A	N/A	N/A
Bulgaria	8	16	129	36	(*)	112
Croatia	N/A	N/A	N/A	-52	249	1,295
Cyprus	N/A	N/A	N/A	N/A	N/A	45
Czech Republic	-536	161	256	712	1,426	1,170
Denmark	2,537	8,038	7,439	8,137	5,945	7,362
Finland	-1,709	3,223	5,617	10,933	7,888	3,437
France	-125,565	11,630	-99,007	-26,455	24,945	31,991
Germany	55,224	95,524	111,005	120,364	149,783	108,464
Greece	-1,489	-330	-741	-303	-444	-242
Hungary	-1,136	37	2,856	1,297	226	-715
Ireland	85,666	117,666	74,644	155,231	127,605	154,311
Italy	-41,900	-17,140	14,831	38,415	11,339	9,908
Liechtenstein	353	2,685	-726	8,364	993	-448
Luxembourg	8,151	159,722	256,919	337,851	331,873	110,662
Malta	-53	662	-628	122	-267	-568
Netherlands	-9,532	-1,017	875	-5,261	-5,826	13,004
Norway	4,380	7,048	4,727	17,184	1,733	4,639

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TABLE 67 CONTINUED

Worldwide Regulated Open-End Funds: Net Sales

Millions of US dollars, annual

	2011	2012	2013	2014	2015	2016
Poland	-1,764	3,931	2,610	3,167	465	-1,656
Portugal	-2,858	-538	1,354	-221	-94	-844
Romania	351	432	1,075	1,288	378	80
Russia	N/A	N/A	N/A	N/A	N/A	N/A
Slovakia	-1,040	-451	148	855	420	104
Slovenia	-103	-140	-54	52	86	15
Spain	-11,803	-13,580	30,744	47,704	26,866	15,728
Sweden	5,843	652	8,708	15,714	8,136	2,317
Switzerland	9,067	15,887	5,780	30,075	31,736	17,466
Turkey	-1,228	166	969	-625	-160	748
United Kingdom	13,696	30,567	26,794	40,023	10,299	-2,246
Asia and Pacific	**49,475**	**136,777**	**127,092**	**307,629**	**776,596**	**336,553**
Australia	N/A	N/A	N/A	N/A	N/A	N/A
China	27,179	90,505	-3,842	167,834	470,457	122,744
Chinese Taipei	1,252	-1,015	1,472	-3,835	7,124	-3,597
India	532	15,832	2,724	7,895	33,195	42,892
Japan	33,028	21,526	129,992	97,243	233,405	134,953
Korea, Rep. of	-15,605	6,822	-4,876	34,917	29,190	35,337
New Zealand	1,784	2,468	231	3,551	2,966	3,839
Pakistan	769	10	-89	28	-68	264
Philippines	536	629	1,480	-4	327	121
Africa	**6,629**	**13,796**	**20,069**	**10,022**	**7,889**	**11,031**
South Africa	6,629	13,796	20,069	10,022	7,889	11,031

(*) = between -$0.5 million and $0.5 million

[a] Data are only for October through December.

N/A = not available

Note: Net sales is a calculation of total sales minus total redemptions plus net exchanges. Components may not add to the total because of rounding. Regulated open-end funds include mutual funds, exchange-traded funds (ETFs), and institutional funds. Beginning in 2014, ETFs are included in European data. Austria, Germany, and Luxembourg include non-UCITS data. Beginning in 2012, Italy and Malta include non-UCITS data. All other European data include non-UCITS beginning in 2014. Beginning in 2013, institutional funds and funds of funds are included in data for Japan. New Zealand and Trinidad and Tobago include home- and foreign-domiciled funds. Croatia, France, Ireland, Luxembourg, Netherlands, Norway, Slovakia, and Turkey include funds of funds. Beginning in 2014, Finland, Germany, Italy, Romania, Spain, and Switzerland exclude funds of funds.

Source: International Investment Funds Association

DATA SECTION 8

APPENDIX A

How US-Registered Investment Companies Operate and the Core Principles Underlying Their Regulation

The Origins of Pooled Investing

The investment company concept dates to the late 1700s in Europe, according to K. Geert Rouwenhorst in *The Origins of Mutual Funds*, when "a Dutch merchant and broker...invited subscriptions from investors to form a trust...to provide an opportunity to diversify for small investors with limited means."

The emergence of "investment pooling" in England in the 1800s brought the concept closer to US shores. In 1868, the Foreign and Colonial Government Trust formed in London. This trust resembled the US fund model in basic structure, providing "the investor of moderate means the same advantages as the large capitalists...by spreading the investment over a number of different stocks."

Perhaps more importantly, the British fund model established a direct link with US securities markets, helping to finance the development of the post–Civil War US economy. The Scottish American Investment Trust, formed on February 1, 1873, by fund pioneer Robert Fleming, invested in the economic potential of the United States, chiefly through American railroad bonds. Many other trusts followed that not only targeted investment in America, but also led to the introduction of the fund investing concept on US shores in the late 1800s and early 1900s.

The first mutual, or open-end, fund was introduced in Boston in March 1924. The Massachusetts Investors Trust introduced important innovations to the investment company concept by establishing a simplified capital structure, continuous offering of shares, the ability to redeem shares rather than hold them until dissolution of the fund, and a set of clear investment restrictions and policies.

The stock market crash of 1929 and the Great Depression that followed hampered the growth of pooled investments until a succession of landmark securities laws, beginning with the Securities Act of 1933 and concluding with the Investment Company Act of 1940, reinvigorated investor confidence. Renewed investor confidence and many innovations led to relatively steady growth in industry assets and number of accounts.

Four Principal Securities Laws Govern Investment Companies	
The Investment Company Act of 1940	Regulates the structure and operations of investment companies through a combination of registration and disclosure requirements and restrictions on day-to-day operations. The Investment Company Act requires the registration of all investment companies with more than 100 investors. Among other things, the act addresses investment company capital structures, custody of assets, investment activities (particularly with respect to transactions with affiliates and other transactions involving potential conflicts of interest), and the duties of fund boards.
The Investment Advisers Act of 1940	Regulates investment advisers. Requires all advisers to registered investment companies and other large advisers to register with the SEC. The Advisers Act contains provisions requiring fund advisers to meet recordkeeping, custodial, reporting, and other regulatory responsibilities.
The Securities Exchange Act of 1934	Regulates the trading, purchase, and sale of securities, including investment company shares. The 1934 Act also regulates broker-dealers, including investment company principal underwriters and others that sell investment company shares, and requires them to register with the SEC. In 1938, the Securities Exchange Act of 1934 was revised to add Section 15A, which authorized the SEC to create self-regulatory organizations. Pursuant to this authority, in 1939 a self-regulatory organization for broker-dealers—which is now known as the Financial Industry Regulatory Authority (FINRA)—was created. Through its rules, inspections, and enforcement activities, FINRA, with oversight by the SEC, continues to regulate the conduct of broker-dealers, thereby adding another layer of protection for investors.
The Securities Act of 1933	Requires the registration of public offerings of securities, including investment company shares, and regulates such offerings. The 1933 Act also requires that all investors receive a current prospectus describing the fund.

The Types of US Investment Companies

Fund sponsors in the United States offer four types of registered investment companies: mutual funds, closed-end funds, exchange-traded funds (ETFs), and unit investment trusts (UITs).

The majority of investment companies are **mutual funds**, both in terms of number of funds and assets under management. Mutual funds can have actively managed portfolios, in which a professional investment adviser creates a unique mix of investments to meet a particular investment objective, or passively managed portfolios, in which the adviser seeks to track the performance of a selected benchmark or index. One hallmark of mutual funds is that they issue redeemable securities, meaning that the fund stands ready to buy back its shares at their next computed net asset value (NAV). The NAV is calculated by dividing the total market value of the fund's assets, minus its liabilities, by the number of mutual fund shares outstanding.

Money market funds are one type of mutual fund that offer investors a variety of features, including liquidity, a market-based rate of return, and the goal of returning principal, all at a reasonable cost. These funds, which are typically publicly offered to all types of investors, are registered investment companies that are regulated by the Securities and Exchange Commission (SEC) under US federal securities laws, including Rule 2a-7 under the Investment Company Act. That rule contains numerous risk-limiting conditions concerning portfolio maturity, quality, diversification, and liquidity. In October 2016, money market funds were required to comply with the SEC's 2014 amendments to Rule 2a-7. The new rules require institutional prime money market funds (funds that primarily invest in corporate debt securities) and institutional municipal money market funds to maintain a floating NAV for transactions based on the current market value of the securities in their portfolios. Government money market funds and retail money market funds (funds designed to limit all beneficial owners of the funds to natural persons) are allowed to continue using the amortized cost or penny rounding method of pricing or both to seek to maintain a stable share price. The 2014 amendments also give money market fund boards of directors the ability to impose liquidity fees or to suspend redemptions temporarily if a fund's level of weekly liquid assets falls below a certain threshold.

Unlike mutual funds, **closed-end funds** do not issue redeemable shares. Instead, they issue 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. For more information on closed-end funds, see chapter 4 on page 74.

ETFs are described as a hybrid of other types of investment companies. They are structured and legally classified as open-end management investment companies or UITs (discussed below), but trade intraday on stock exchanges like closed-end funds. ETFs only buy and sell fund shares directly with authorized participants in large blocks, often 50,000 shares or more. For more information on ETFs, see chapter 3 on page 54.

UITs are also a hybrid, with some characteristics of mutual funds and some of closed-end funds. Like closed-end funds, UITs typically issue only a specific, fixed number of shares, called units. Like mutual funds, the units are redeemable, but unlike mutual funds, generally the UIT sponsor will maintain a secondary market in the units so that redemptions do not deplete the UIT's assets. 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. For more information on UITs, see page 20.

The Organization of a Mutual Fund

A mutual fund typically is organized under state law either as a corporation or a business trust (sometimes called a statutory trust). The three most popular forms of organization are Massachusetts business trusts, Maryland corporations, and Delaware statutory trusts (Figure A.1).[1]

Historically, Massachusetts business trusts were the most popular—in part because the very first mutual fund was formed as a Massachusetts business trust. This was a common form of organization at the time for pools that invested in real estate or public utilities and it provided a model for others to follow. Over the last few decades, the percentage of funds organized as Massachusetts business trusts has declined as more and more funds have formed as Maryland corporations, as well as Delaware statutory trusts, the most favored form of mutual fund organization.

[1] Fewer than 1,000 funds, or about 9 percent, have chosen other forms of organization, such as limited liability partnerships, or other domiciles, such as Ohio or Minnesota.

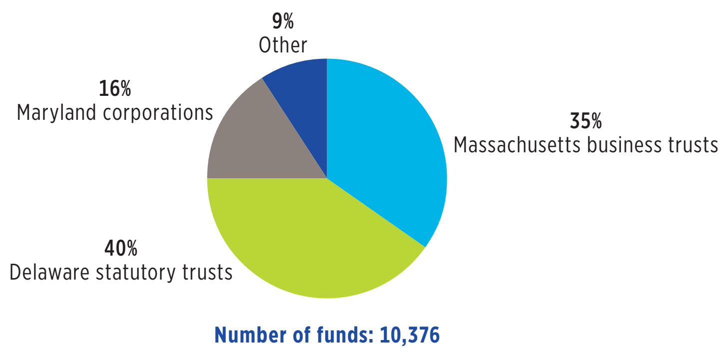
Developments in the late 1980s gave asset management companies these other attractive choices. For example, in 1987, Maryland revised its law to align it with interpretations of the Investment Company Act of 1940 concerning when funds are required to hold annual meetings. As a result, Maryland corporations became more competitive with the Massachusetts business trust as a form of organization for mutual funds. In 1988, Delaware—already a popular domicile for US corporations—adopted new statutory provisions devoted specifically to business trusts (since renamed statutory trusts). Benefits, such as management of the trust and limited liability afforded to the trust's beneficial owners, have led to its current dominance over other forms of mutual fund organization.

Mutual funds have officers and directors (if the fund is a corporation) or trustees (if the fund is a business trust).[2] The fund's board plays an important role in overseeing fund operations, described in more detail on page 258.

FIGURE A.1

The Most Popular Forms of Mutual Fund Organization

Percentage of funds, year-end 2016



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

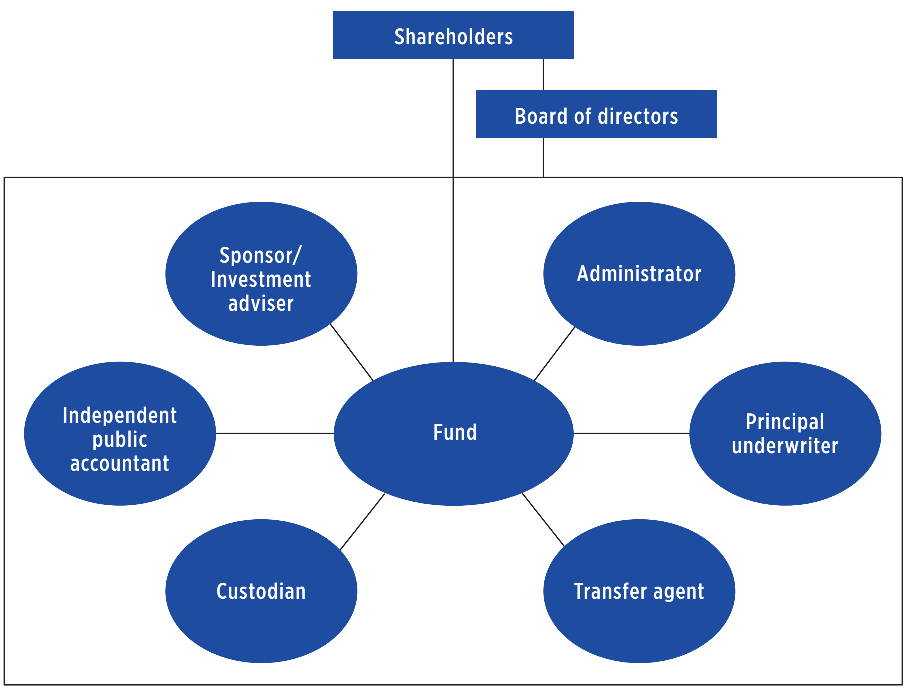
[2] For ease of reference, this appendix refers to all directors and trustees as *directors* and all boards as *boards of directors*.

Unlike other companies, a mutual fund is typically externally managed; it is not an operating company and it has no employees in the traditional sense. Instead, a fund relies upon third parties or service providers—either affiliated organizations or independent contractors—to invest fund assets and carry out other business activities. Figure A.2 shows the primary types of service providers usually relied upon by a fund.

Although it typically has no employees, a fund is required by law to have written compliance policies and procedures that govern the operations of the fund and the fund's administrator, investment adviser, transfer agent, and principal underwriter and that are reasonably designed to ensure the fund's compliance with the federal securities laws. All funds must also have a chief compliance officer (CCO), whose appointment must be approved by the fund's board and who must annually produce a report for the board regarding the adequacy of the fund's compliance policies and procedures, the effectiveness of their implementation, and any material compliance matters that have arisen.

FIGURE A.2

Organization of a Mutual Fund



Fund Boards

A fund board represents the interests of the fund's shareholders by overseeing the management and operations of the fund, including the fund's contractual arrangements with its service providers. For more information on fund boards, see page 258.

Shareholders

Like shareholders of other companies, mutual fund shareholders have specific voting rights. These include the right to elect directors at meetings called for that purpose and the right to approve material changes in the terms of a fund's contract with its investment adviser, the entity that manages the fund's assets. For example, a fund's management fee cannot be increased and a fund's investment objectives or fundamental policies cannot be changed unless a majority of shareholders vote to approve the increase or change.

Sponsors

Setting up a mutual fund is a complicated process performed by the fund's sponsor, which is typically the fund's investment adviser. The fund sponsor has a variety of responsibilities. For example, it must assemble the group of third parties needed to launch the fund, including the persons or entities charged with managing and operating the fund. The sponsor provides officers and affiliated directors to oversee the fund and recruits unaffiliated persons to serve as independent directors.

Some of the major steps in the process of starting a mutual fund include organizing the fund under state law, registering the fund with the SEC as an investment company pursuant to the Investment Company Act of 1940, and registering the fund shares for sale to the public pursuant to the Securities Act of 1933.[3] Unless otherwise exempt from doing so, the fund also must make filings and pay fees to each state (except Florida) in which the fund's shares will be offered to the public. The Investment Company Act also requires that each new fund have at least $100,000 of seed capital before distributing its shares to the public; this capital is usually contributed by the sponsor or adviser in the form of an initial investment.

Advisers

Investment advisers have overall responsibility for directing the fund's investments and handling its business affairs. The investment advisers have their own employees, including investment professionals who work on behalf of the fund's shareholders and determine which securities to buy and sell in the fund's portfolio, consistent with the fund's investment objectives and policies. In addition to managing the fund's portfolio, the adviser often serves as administrator to the fund, providing various "back-office" services. As noted earlier, a fund's

[3] For more information on the requirements for the initial registration of a mutual fund, see the SEC's Investment Company Registration and Regulation Package, available at www.sec.gov/divisions/investment/invcoreg121504.htm.

investment adviser is often the fund's initial sponsor and its initial shareholder through the seed money invested to create the fund.

To protect investors, a fund's investment adviser and the adviser's employees are subject to numerous standards and legal restrictions, including restrictions on transactions that may pose conflicts of interest. Like a mutual fund, investment advisers are required to have their own written compliance programs that are overseen by CCOs and to establish detailed procedures and internal controls designed to ensure compliance with all relevant laws and regulations.

Administrators

A fund's administrator handles the many back-office functions for a fund. For example, administrators often provide office space, clerical and fund accounting services, data processing, and bookkeeping and internal auditing; they also may prepare and file SEC, tax, shareholder, and other reports. Fund administrators also help maintain compliance procedures and internal controls, subject to oversight by the fund's board and CCO.

Principal Underwriters

Investors buy and redeem fund shares either directly through a fund's transfer agent or indirectly through a broker-dealer that is authorized to sell fund shares. In order to offer a particular fund's shares, however, a broker-dealer must have a sales agreement with the fund. The role of a fund's principal underwriter is to act as the agent for the fund in executing sales agreements that authorize broker-dealers to offer for sale and sell fund shares. Though principal underwriters must register under the Securities Exchange Act of 1934 as broker-dealers, they (1) do not operate as full service broker-dealers, (2) typically are not involved in offering or selling fund shares to retail investors, and (3) do not establish or maintain accounts for retail investors.

Transfer Agents

Mutual funds and their shareholders rely on the services of transfer agents to maintain records of shareholder accounts, calculate and distribute dividends and capital gains, and prepare and mail shareholder account statements, federal income tax information, and other shareholder notices. Some transfer agents also prepare and mail statements confirming shareholder transactions and account balances. Additionally, they may maintain customer service departments, including call centers, to respond to shareholder inquiries.

Auditors

Auditors certify the fund's financial statements. The auditors' oversight role is described more fully on page 259.

Tax Features of Mutual Funds

Mutual funds are subject to special tax rules set forth in subchapter M of the Internal Revenue Code. Unlike most corporations, mutual funds are not subject to taxation on their income or capital gains at the entity level, provided that they meet certain gross income and asset requirements and distribute their income annually.

To qualify as a regulated investment company (RIC) under subchapter M, at least 90 percent of a mutual fund's gross income must be derived from certain sources, including dividends, interest, payments with respect to securities loans, and gains from the sale or other disposition of stock, securities, or foreign currencies. In addition, at the close of each quarter of the fund's taxable year, at least 50 percent of the value of the fund's total net assets must consist of cash, cash items, government securities, securities of other funds, and investments in other securities which, with respect to any one issuer, represent neither more than 5 percent of the assets of the fund nor more than 10 percent of the voting securities of the issuer. Further, no more than 25 percent of the fund's assets may be invested in the securities of any one issuer (other than government securities or the securities of other funds), the securities (other than the securities of other funds) of two or more issuers that the fund controls and are engaged in similar trades or businesses, or the securities of one or more qualified publicly traded partnerships.

If a mutual fund satisfies the gross income and asset tests and thus qualifies as a RIC, the fund is eligible for the tax treatment provided by subchapter M, including the ability to deduct from its taxable income the dividends it pays to shareholders, provided that the RIC distributes at least 90 percent of its income (other than net capital gains) each year. A RIC may retain up to 10 percent of its income and all capital gains, but the retained income and capital gains are taxed at regular corporate tax rates. Therefore, mutual funds generally distribute all, or nearly all, of their income and capital gains each year.

The Internal Revenue Code also imposes an excise tax on RICs, unless a RIC distributes by December 31 at least 98 percent of its ordinary income earned during the calendar year, 98.2 percent of its net capital gains earned during the 12-month period ending on October 31 of the calendar year, and 100 percent of any previously undistributed amounts. Mutual funds typically seek to avoid this charge—imposed at a 4 percent rate on the underdistributed amount—by making the required minimum distribution each year.

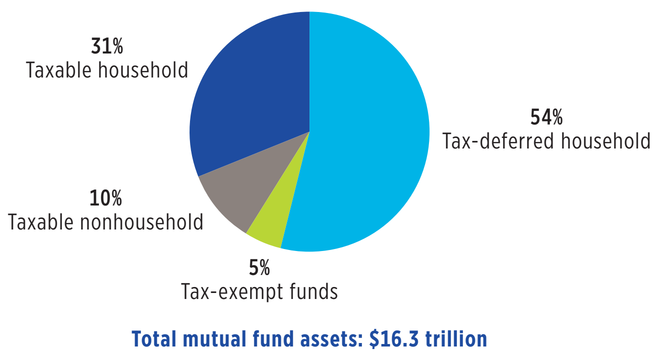
Mutual Fund Assets by Tax Status

Fund investors are responsible for paying tax on the amount of a fund's earnings and gains distributed to them, whether they receive the distributions in cash or reinvest them in additional fund shares. Investors often attempt to lessen the impact of taxes on their investments by investing in tax-exempt funds and tax-deferred retirement accounts and variable annuities. As of year-end 2016, 5 percent of all mutual fund assets were held in tax-exempt funds, and 54 percent were invested in tax-deferred accounts held by households.

FIGURE A.3

59 Percent of Mutual Fund Assets Were Held in Tax-Deferred Accounts and Tax-Exempt Funds

Percentage of assets, year-end 2016



Types of Distributions

Mutual funds make two types of taxable distributions to shareholders: ordinary dividends and capital gains.

Ordinary dividend distributions come primarily from the interest and dividends earned by the securities in a fund's portfolio and net short-term gains, if any, after expenses are paid by the fund. These distributions must be reported as dividends on a US investor's tax return and are taxed at the investor's ordinary income tax rate, unless they are qualified dividends. Qualified dividend income is taxed at a maximum rate of 20 percent. Some dividends paid by mutual funds may qualify for these lower top tax rates.

Long-term capital gains distributions represent a fund's net gains, if any, from the sale of securities held in its portfolio for more than one year. Long-term capital gains are taxed at a maximum rate of 20 percent.

Certain high-income individuals also are subject to a 3.8 percent tax on net investment income (NII). The tax on NII applies to interest, dividends, and net capital gains, including those received from a mutual fund.

Non-US investors may be subject to US withholding and estate taxes and certain US tax reporting requirements on investments in US funds. Amounts distributed to non-US investors that are designated as interest-related dividends or dividends deriving from capital gains will generally be eligible for exemption from US withholding tax. Other distributions that are treated as ordinary dividends will generally be subject to US withholding tax (at a 30 percent rate or lower treaty rate).

To help mutual fund shareholders understand the impact of taxes on the returns generated by their investments, the SEC requires mutual funds to disclose standardized after-tax returns for one-, five-, and 10-year periods. After-tax returns, which accompany before-tax returns in fund prospectuses, are presented in two ways:

» After taxes on fund distributions only (preliquidation)

» After taxes on fund distributions and an assumed redemption of fund shares (postliquidation)

Types of Taxable Shareholder Transactions

An investor who sells mutual fund shares usually incurs a capital gain or loss in the year the shares are sold; an exchange of shares between funds in the same fund family also results in either a capital gain or loss.

Investors are liable for tax on any capital gain arising from the sale of fund shares, just as they would be if they sold a stock, bond, or other security. Capital losses from mutual fund share sales and exchanges, like capital losses from other investments, may be used to offset other capital gains in the current year and thereafter. In addition, up to $3,000 of capital losses in excess of capital gains ($1,500 for a married individual filing a separate return) may be used to offset ordinary income.

The amount of a shareholder's gain or loss on fund shares is determined by the difference between the cost basis of the shares (generally, the purchase price—including sales loads—of the shares, whether acquired with cash or reinvested dividends) and the sale price. Many funds voluntarily have been providing cost basis information to shareholders or computing gains and losses for shares sold. New tax rules enacted in 2012 require all brokers and funds to provide cost basis information to shareholders, as well as to indicate whether any gains or losses are long-term or short-term, for fund shares acquired beginning in 2012.

Tax-Exempt Funds

Tax-exempt bond funds distribute amounts attributable to municipal bond interest. These "exempt-interest dividends" are exempt from federal income tax and, in some cases, state and local taxes. Tax-exempt money market funds invest in short-term municipal securities or equivalent instruments and also pay exempt-interest dividends. Even though income from these funds generally is tax-exempt, investors must report it on their income tax returns. Tax-exempt funds provide investors with this information and typically explain how to handle exempt-interest dividends on a state-by-state basis. For some taxpayers, portions of income earned by tax-exempt funds also may be subject to the federal alternative minimum tax.

Mutual Fund Ordinary Dividend Distributions

Ordinary dividend distributions represent income—primarily from interest and dividends earned by securities in a fund's portfolio—after expenses are paid by the fund. Mutual funds distributed $253 billion in dividends to fund shareholders in 2016. Bond and money market funds accounted for 42 percent of all dividend distributions in 2016. Forty-two percent of all dividend distributions were paid to tax-exempt fund shareholders and tax-deferred household accounts. Another 51 percent were paid to taxable household accounts.

FIGURE A.4

Dividend Distributions

Billions of dollars, 2000–2016

Year	Tax-deferred household and tax-exempt funds	Taxable household	Taxable nonhousehold	Total
2000	$74	$87	$25	$186
2001	68	72	23	162
2002	59	43	12	114
2003	57	37	9	103
2004	65	41	10	117
2005	84	61	21	166
2006	114	90	36	240
2007	143	118	47	309
2008	138	100	38	276
2009	109	63	15	187
2010	112	64	12	188
2011	121	74	12	208
2012	128	80	13	222
2013	123	81	14	218
2014	137	93	15	245
2015	140	94	16	250
2016	107	130	16	253

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

Mutual Fund Capital Gains Distributions

Capital gains distributions represent a fund's net gains, if any, from the sale of securities held in its portfolio. When gains from these sales exceed losses, they are distributed to fund shareholders. Mutual funds distributed $220 billion in capital gains to shareholders in 2016. Fifty-three percent of these distributions were paid to tax-deferred household accounts, and another 44 percent were paid to taxable household accounts. Equity, bond, and hybrid funds can distribute capital gains, but equity funds typically account for the bulk of these distributions. In 2016, 50 percent of equity fund share classes made a capital gains distribution, and 62 percent of these share classes distributed more than 2.0 percent of their assets as capital gains.

FIGURE A.5

Capital Gains Distributions

Billions of dollars, 2000–2016

Year	Tax-deferred household	Taxable household	Taxable nonhousehold	Total
2000	$194	$119	$13	$326
2001	51	16	2	69
2002	10	5	1	16
2003	8	6	1	14
2004	30	21	4	55
2005	78	43	8	129
2006	164	79	14	257
2007	260	131	22	414
2008	97	29	7	132
2009	11	4	1	15
2010	22	18	3	43
2011	40	30	4	73
2012	58	37	5	100
2013	147	82	11	239
2014	253	130	17	400
2015	250	115	15	379
2016	116	96	8	220

Note: Capital gains distributions include long-term and short-term capital gains. Components may not add to the total because of rounding.

Core Principles Underlying the Regulation of US Investment Companies

Embedded in the structure and regulation of mutual funds and other registered investment companies are several core principles that provide important protections for shareholders.

Transparency

Funds are subject to more extensive disclosure requirements than any other comparable financial product, such as separately managed accounts, collective investment trusts, and private pools. The cornerstone of the disclosure regime for mutual funds and ETFs is the prospectus.[4] Mutual funds and ETFs are required to maintain a current prospectus, which provides investors with information about the fund, including its investment objectives, investment strategies, risks, fees and expenses, and performance, as well as how to purchase, redeem, and exchange fund shares. Importantly, the key parts of this disclosure with respect to performance information and fees and expenses are standardized to facilitate comparisons by investors. Mutual funds and ETFs may provide investors with a summary prospectus containing key information about the fund, while making more information available on the Internet and on paper upon request.

Mutual funds and ETFs also are required to make statements of additional information (SAIs) available to investors upon request and without charge. The SAI conveys information about the fund that, though useful to some investors, is not necessarily needed to make an informed investment decision. For example, the SAI generally includes information about the history of the fund, offers detailed disclosure on certain investment policies (such as borrowing and concentration policies), and lists officers, directors, and other persons who control the fund.

The prospectus, SAI, and certain other required information are contained in the fund's registration statement, which is filed electronically with the SEC and is publicly available via the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. Mutual fund and ETF registration statements are amended at least once each year to ensure that financial statements and other information do not become stale.[5] These funds also amend registration statements throughout the year as necessary to reflect material changes to their disclosure.

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4 Closed-end funds and UITs also provide investors with extensive disclosure, but under a slightly different regime that reflects the way shares of these funds trade. Both closed-end funds and UITs file an initial registration statement with the SEC containing a prospectus and other information related to the initial offering of their shares to the public.

5 Section 10(a)(3) of the Securities Act of 1933 prohibits investment companies that make a continuous offering of shares from using a registration statement with financial information that is more than 16 months old. This gives mutual funds and ETFs four months after the end of their fiscal year to amend their registration statements.

In addition to registration statement disclosure, funds provide shareholders with several other disclosure documents. Shareholders receive audited annual and unaudited semiannual reports within 60 days after the end and the midpoint of the fund's fiscal year. These reports contain updated financial statements, a list of the fund's portfolio securities,[6] management's discussion of financial performance, and other information current as of the date of the report.

Following their first and third quarters, funds file an additional form with the SEC, Form N-Q, disclosing the complete schedule of their portfolio holdings.[7] Additionally, funds must file census-type information semiannually on Form N-SAR.[8] Finally, funds annually disclose how they voted on specific proxy issues at portfolio companies on Form N-PX. Funds are the only shareholders required to publicly disclose each and every proxy vote they cast. Funds are not required to mail Form N-Q, Form N-SAR, and Form N-PX to shareholders, but the forms are publicly available via the SEC's EDGAR database.[9]

The combination of prospectuses, SAIs, annual and semiannual shareholder reports, Form N-Q, Form N-SAR, and Form N-PX provide the investing public, regulators, media, and other interested parties with far more information on funds than is available for other types of investments. This information is easily and readily available from most funds and the SEC. It is also available from private-sector vendors, such as Morningstar, that are in the business of compiling publicly available information on funds in ways that might benefit investors.

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6 A fund is permitted to include a summary portfolio schedule in its shareholder reports in lieu of the complete schedule, provided that the complete portfolio schedule is filed with the SEC and is provided to shareholders upon request, free of charge. The summary portfolio schedule includes each of the fund's 50 largest holdings in unaffiliated issuers and each investment that exceeds 1 percent of the fund's NAV.

7 As of June 2018, certain non–money market funds will be required to make Form N-PORT filings monthly, providing much more detailed information about a fund's portfolio holdings in a structured data format. The form will replace Form N-Q, as funds will attach their complete schedule of portfolio holdings at the end of the first and third fiscal quarters. The form also will require each fund to provide information regarding, among other items, each portfolio investment, flows, monthly returns, securities lending, and—for funds investing in more than a minimum amount of fixed-income securities—portfolio-level risk metrics. Beginning December 2018, Form N-PORT filing at the end of each fiscal quarter will be publicly disclosed. Money market funds, which already must file portfolio holdings monthly on Form N-MFP and disclose those holdings on their websites, will not need to file Form N-PORT.

8 Beginning in June 2018, Form N-CEN will replace Form N-SAR and require much more detailed census-type information annually, including information about ETFs, closed-end funds, and securities lending activities.

9 Similarly, funds will not be required to mail Form N-PORT or Form N-CEN to shareholders, but those forms will be publicly available via the SEC's EDGAR database.

Daily Valuation and Liquidity

Nearly all funds offer shareholders liquidity and market-based valuation of their investments at least daily. ETFs and most closed-end fund shares are traded intraday on stock exchanges at market-determined prices, giving shareholders real-time liquidity and pricing. Mutual fund shares are redeemable on a daily basis at a price that reflects the current market value of the fund's portfolio investments. The value of each portfolio investment is determined either by a market quotation, if a market quotation is readily available, or at fair value as determined in good faith by the fund's board.

The daily pricing process is a critically important core compliance function that involves numerous staff and pricing vendors. The fair valuation process, a part of the overall pricing process, receives particular scrutiny from funds, their boards of directors, regulators, and independent auditors. Under SEC rules, all funds must adopt written policies and procedures that address the circumstances under which investments may be fair valued, and must establish criteria for determining how to assign fair values in particular instances.[10]

This daily valuation process results in a NAV for the fund. The NAV is the price used for all mutual fund share transactions occurring that day—new purchases, sales (redemptions), and exchanges from one fund to another within the same fund family.[11] It represents the current mark-to-market value of all the fund's assets, minus liabilities (e.g., accrued fund expenses payable), divided by the total number of outstanding shares. Mutual funds release their daily NAVs to investors and others after they complete the pricing process, generally around 6:00 p.m. eastern time. Daily fund prices are available through fund toll-free telephone services, websites, and other means.

[10] ICI has published several papers on the mutual fund valuation process. For more information, see two white papers by ICI, the Independent Directors Council, and ICI Mutual Insurance Company titled *Valuation and Liquidity Issues for Mutual Funds* (February 1997 and March 2002) and two installments of ICI's *Fair Value Series*, "An Introduction to Fair Valuation" (2005) and "The Role of the Board" (2006). ICI also has a two-volume compendium of SEC releases, staff letters, and enforcement actions related to the mutual fund valuation process, which is available at www.ici.org/pdf/pub_15_valuation_update_vol1.pdf and www.ici.org/pdf/pub_15_valuation_update_vol2.pdf.

[11] The pricing process is also critical for ETFs, although for slightly different reasons. ETFs operate like mutual funds with respect to transactions with authorized participants that trade with the ETF in large blocks, often of 50,000 shares or more. The NAV is the price used for these large transactions. Closed-end funds are not required to strike a daily NAV, but most do so in order to provide the market with the ability to calculate the difference between the fund's market price and its NAV. That difference is called the fund's *premium* or *discount*.

The Investment Company Act of 1940 requires mutual funds to process transactions based upon “forward pricing,” meaning that shareholders receive the next computed NAV following the fund’s receipt of their transaction orders. For example, for a fund that prices its shares as of 4:00 p.m.,[12] orders received before 4:00 p.m. receive the NAV determined that same day as of 4:00 p.m. Orders received after 4:00 p.m. receive the NAV determined as of 4:00 p.m. on the next business day. Forward pricing is an important protection for mutual fund shareholders. It is designed to minimize the ability of shareholders to take advantage of fluctuations in the prices of a fund’s portfolio investments that occur after the fund has last calculated its NAV.

When a shareholder redeems shares in a mutual fund, he or she can expect to be paid promptly. Mutual funds may not suspend redemptions of their shares (subject to certain extremely limited exceptions)[13] or delay payments of redemption proceeds for more than seven days.

No more than 15 percent of a mutual fund’s portfolio may be invested in illiquid assets,[14] in part to ensure that redemptions can be made. In 2016, the SEC adopted a liquidity risk management program rule and related reporting and disclosure requirements applicable to mutual funds and open-end ETFs, which will supersede the SEC’s current liquidity guidance and substantially enhance funds’ regulatory obligations in this area. For most funds, the compliance date for many of these new requirements is December 1, 2018.

[12] Funds must price their shares at least once every business day as of a time determined by the fund’s board. Many funds price as of 4:00 p.m. eastern time or when the New York Stock Exchange closes.

[13] Natural disasters and other emergencies that disrupt fund pricing do occur, but Section 22(e) of the Investment Company Act prohibits funds from suspending redemptions unless the SEC permits them to do so or declares an emergency, or the New York Stock Exchange closes or restricts trading. These occurrences are relatively rare, although funds have suspended redemptions on several occasions, such as during Hurricane Sandy in 2012. See also page 242.

[14] Money market funds are held to different liquidity standards.

Oversight and Accountability

All funds are subject to a strong system of oversight from both internal and external sources. Boards of directors, which include independent directors, and written compliance programs overseen by CCOs, both at the fund and adviser levels (see Compliance Programs on page 258), are examples of internal oversight mechanisms. External oversight is provided by the SEC, the Financial Industry Regulatory Authority (FINRA), and external service providers, such as certified public accounting firms.

Fund Boards

Mutual funds, closed-end funds, and most ETFs have boards. The role of a fund's board of directors is primarily one of oversight. The board of directors typically is not involved in the day-to-day management of the fund company. Instead, day-to-day management is handled by the fund's investment adviser or administrator pursuant to a contract with the fund.

Investment company directors review and approve major contracts with service providers (including, notably, the fund's investment adviser), approve policies and procedures to ensure the fund's compliance with federal securities laws, and undertake oversight and review of the performance of the fund's operations. Directors devote substantial time and consider large amounts of information in fulfilling these duties, in part because they must perform all their duties in "an informed and deliberate manner."

Fund boards must maintain a particular level of independence. The Investment Company Act of 1940 requires at least 40 percent of the members of a fund board to be independent from fund management. An independent director is a fund director who does not have any significant business relationship with a mutual fund's adviser or underwriter. In practice, most fund boards have far higher percentages of independent directors. As of year-end 2014, independent directors made up at least three-quarters of boards in 83 percent of fund complexes.[15]

Independent fund directors play a critical role in overseeing fund operations and are entrusted with the primary responsibility for looking after the interests of the fund's shareholders. They serve as watchdogs, furnishing an independent check on the management of funds. Like directors of operating companies, they owe shareholders the duties of loyalty and care under state law. But independent fund directors also have specific statutory and regulatory responsibilities under the Investment Company Act beyond the duties required of other types of directors. Among other things, they oversee the performance of the fund, approve the fees paid to the investment adviser for its services, and oversee the fund's compliance program.

[15] See *Overview of Fund Governance Practices, 1994–2014* for a description of the study that collects data on this and other governance practices. Available at www.idc.org/pdf/pub_15_fund_governance.pdf.

Compliance Programs

The internal oversight function played by the board has been greatly enhanced in recent years by the development of written compliance programs and a formal requirement that all funds have CCOs. Rules adopted in 2003 require every fund and adviser to have a CCO who administers a written compliance program reasonably designed to prevent, detect, and correct violations of the federal securities laws. Compliance programs must be reviewed at least annually for their adequacy and effectiveness, and fund CCOs are required to report directly to the independent directors.

Regulatory Oversight

Internal oversight is accompanied by a number of forms of external oversight and accountability. Funds are subject to inspections, examinations, and enforcement by their primary regulator, the SEC. Fund underwriters and distributors also are overseen by FINRA, a self-regulatory organization. Funds affiliated with a bank may additionally be overseen by banking regulators. All funds are subject to the antifraud jurisdiction of each state in which the fund's shares are offered for sale or sold.

Auditors

A fund's financial statement disclosure is also subject to several internal and external checks. For example, annual reports include audited financial statements certified by a certified public accounting firm subject to oversight by the Public Company Accounting Oversight Board (PCAOB). This ensures that the financial statements are prepared in conformity with generally accepted accounting principles (GAAP) and fairly present the fund's financial position and results of operations.

Sarbanes-Oxley Act

Like officers of public companies, fund officers are required to make certifications and disclosures required by the Sarbanes-Oxley Act. For example, they must certify the accuracy of the financial statements.

Additional Regulation of Advisers

In addition to the system of oversight applicable directly to funds, investors enjoy protections through SEC regulation of the investment advisers that manage fund portfolios. All advisers to registered funds are required to register with the SEC, and are subject to SEC oversight and disclosure requirements. Advisers also owe a fiduciary duty to each fund they advise, meaning that they have a fundamental legal obligation to act in the best interests of the fund pursuant to a duty of undivided loyalty and utmost good faith.

Limits on Leverage

The inherent nature of a fund—a professionally managed pool of assets owned pro rata by its investors—is straightforward and easily understood by investors. The Investment Company Act of 1940 fosters simplicity by prohibiting complex capital structures and limiting funds' use of leverage.

The Investment Company Act imposes various requirements on the capital structure of mutual funds, closed-end funds, and ETFs, including limitations on the issuance of "senior securities" and borrowing. These limitations greatly minimize the possibility that a fund's liabilities will exceed the value of its assets.

Generally speaking, a senior security is any debt that takes priority over the fund's shares, such as a loan or preferred stock. The SEC historically has interpreted the definition of senior security broadly, taking the view that selling securities short, purchasing securities on margin, and investing in many types of derivative instruments, among other practices, may create senior securities.

The SEC also takes the view that the Investment Company Act prohibits a fund from creating a future obligation to pay unless it "covers" the obligation. A fund generally can cover an obligation by owning the instrument underlying that obligation. For example, a fund that wants to take a short position in a certain stock can comply with the Investment Company Act by owning an equivalent long position in that stock. The fund also can cover by earmarking or segregating liquid securities equal in value to the fund's potential exposure from the leveraged transaction. The assets set aside to cover the potential future obligation must be liquid, unencumbered, and marked-to-market daily. They may not be used to cover other obligations and, if disposed of, must be replaced.

The Investment Company Act also limits borrowing. With the exception of certain privately arranged loans and temporary loans, any promissory note or other indebtedness would generally be considered a prohibited senior security.[16] Mutual funds and ETFs are permitted to borrow from a bank if, immediately after borrowing, the fund's total net assets are at least three times total aggregate borrowings. In other words, the fund must have at least 300 percent asset coverage.

[16] Temporary loans cannot exceed 5 percent of the fund's total net assets and must be repaid within 60 days.

Closed-end funds have a slightly different set of limitations. They are permitted to issue debt and preferred stock, subject to certain conditions, including asset coverage requirements of 300 percent for debt and 200 percent for preferred stock.

Many funds voluntarily go beyond the prohibitions in the Investment Company Act, adopting policies that further restrict their ability to issue senior securities or borrow. Funds often, for example, adopt a policy stating that they will borrow only as a temporary measure for extraordinary or emergency purposes and not to finance investment in securities. In addition, they may disclose that, in any event, borrowings will be limited to a small percentage of fund assets (such as 5 percent). These are meaningful voluntary measures, because under the Investment Company Act, a fund's policies on borrowing money and issuing senior securities cannot be changed without the approval of fund shareholders.

Custody

To protect fund assets, the Investment Company Act requires all funds to maintain strict custody of fund assets, separate from the assets of the adviser. Although the act permits other arrangements,[17] nearly all funds use a bank custodian for domestic securities. Foreign securities are required to be held in the custody of an international foreign bank or securities depository.

A fund's custody agreement with a bank is typically far more elaborate than the arrangements used for other bank clients. The custodian's services generally include safekeeping and accounting for the fund's assets, settling securities transactions, receiving dividends and interest, providing foreign exchange services, paying fund expenses, reporting failed trades, reporting cash transactions, monitoring corporate actions at portfolio companies, and tracing loaned securities.

The strict rules on the custody and reconciliation of fund assets are designed to prevent theft and other fraud-based losses. Shareholders are further insulated from these types of losses by a provision in the Investment Company Act that requires all mutual funds to have fidelity bonds designed to protect them against possible instances of employee larceny or embezzlement.

[17] The Investment Company Act contains six separate custody rules for the possible types of custody arrangements for mutual funds, closed-end funds, and ETFs. UITs are subject to a separate rule that requires the use of a bank to maintain custody. See Section 17(f) of the Investment Company Act of 1940 and SEC Rules 17f-1 through 17f-7 thereunder.

Prohibitions on Transactions with Affiliates

The Investment Company Act of 1940 contains a number of strong and detailed prohibitions on transactions between the fund and fund insiders or affiliated organizations (such as the corporate parent of the fund's adviser). Many of these prohibitions were part of the original statutory text of the act, enacted in response to instances of overreaching and self-dealing by fund insiders during the 1920s in the purchase and sale of portfolio securities, loans by funds, and investments in related funds. The SEC's Division of Investment Management has said that "for more than 50 years, [the affiliated transaction prohibitions] have played a vital role in protecting the interests of shareholders and in preserving the industry's reputation for integrity; they continue to be among the most important of the act's many protections."[18]

Although a number of prohibitions in the Investment Company Act relate to affiliated transactions, three are particularly noteworthy:

- General prohibition on direct transactions between a fund and an affiliate
- General prohibition on "joint transactions," where the fund and affiliate are acting together vis-à-vis a third party
- Restrictions preventing investment banks from placing or "dumping" unmarketable securities with an affiliated fund by generally prohibiting the fund from buying securities in an offering syndicated by an affiliated investment bank

[18] See *Protecting Investors: A Half Century of Investment Company Regulation*, Report of the Division of Investment Management, Securities and Exchange Commission (May 1992), available at www.sec.gov/divisions/investment/guidance/icreg50-92.pdf. The Division of Investment Management is the division within the SEC responsible for the regulation of funds.

Diversification

Both tax and securities law provide diversification standards for funds registered under the Investment Company Act. As discussed in detail above, to qualify as RICs under the tax laws, all mutual funds, closed-end funds, and ETFs, as well as most UITs, must meet a tax diversification test every quarter. The effect of this test is that a fund with a modest cash position and no government securities would hold securities from at least 12 different issuers. Another tax diversification restriction limits the amount of an issuer's outstanding voting securities that a fund may own.

The securities laws set higher standards for funds that elect to be diversified. If a fund elects to be diversified, the Investment Company Act requires that, with respect to at least 75 percent of the portfolio, no more than 5 percent may be invested in the securities of any one issuer and no investment may represent more than 10 percent of the outstanding voting securities of any issuer. Diversification is not mandatory, but all mutual funds, closed-end funds, and ETFs must disclose whether or not they are diversified under the act's standards.

In practice, most funds that elect to be diversified are much more highly diversified than they need to be to meet these two tests. As of December 2016, for example, the median number of stocks held by US equity mutual funds was 83.[19]

[19] This number is the median among domestic equity mutual funds, excluding sector mutual funds and funds of funds. This number is tabulated using Morningstar data.

APPENDIX B

Significant Events in Fund History

1774	Dutch merchant and broker Adriaan van Ketwich invites subscriptions from investors to form a trust, the Eendragt Maakt Magt, with the aim of providing investment diversification opportunities to investors of limited means.
1868	The Foreign and Colonial Government Trust, the precursor to the US investment fund model, is formed in London. This trust provides "the investor of moderate means the same advantages as large capitalists."
1924	The first mutual funds are established in Boston.
1933	The Securities Act of 1933 regulates the registration and offering of new securities, including mutual fund and closed-end fund shares, to the public.
1934	The Securities Exchange Act of 1934 authorizes the Securities and Exchange Commission (SEC) to provide for fair and equitable securities markets.
1936	The Revenue Act of 1936 establishes the tax treatment of mutual funds and their shareholders. Closed-end funds were covered by the Act in 1942.
1940	The Investment Company Act of 1940 is signed into law, setting the structure and regulatory framework for registered investment companies. The forerunner to the National Association of Investment Companies (NAIC) is formed. The NAIC will become the Investment Company Institute.
1944	The NAIC begins collecting investment company industry statistics.
1951	The total number of mutual funds surpasses 100, and the number of shareholder accounts exceeds one million for the first time. The first mutual fund focusing on non-US investments is made available to US investors.
1954	Households' net purchases of fund shares exceed those of corporate stock. NAIC initiates a nationwide public information program emphasizing the role of investors in the US economy and explaining the concept of investment companies.
1961	The first tax-free unit investment trust is offered. The NAIC changes its name to the Investment Company Institute (ICI) and welcomes fund advisers and underwriters as members.
1962	The Self-Employed Individuals Tax Retirement Act creates savings opportunities (Keogh plans) for self-employed individuals.

1971	Money market funds are introduced.
1974	The Employee Retirement Income Security Act (ERISA) creates the individual retirement account (IRA) for workers not covered by employer-sponsored retirement plans.
1976	The Tax Reform Act of 1976 permits the creation of municipal bond funds. The first retail index fund is offered.
1978	The Revenue Act of 1978 creates new Section 401(k) retirement plans and simplified employee pensions (SEPs).
1981	The Economic Recovery Tax Act establishes "universal" IRAs for all workers. IRS proposes regulations for Section 401(k).
1986	The Tax Reform Act of 1986 reduces IRA deductibility.
1987	ICI welcomes closed-end funds as members.
1990	Mutual fund assets top $1 trillion.
1993	The first exchange-traded fund (ETF) shares are issued.
1996	Enactment of the National Securities Markets Improvement Act of 1996 (NSMIA) provides a more rational system of state and federal regulation, giving the SEC exclusive jurisdiction for registering and regulating mutual funds, exchange-listed securities, and larger advisers. States retain their antifraud authority and responsibility for regulating non-exchange-listed offerings and smaller advisers. The Small Business Job Protection Act creates SIMPLE plans for employees of small businesses.
1997	The Taxpayer Relief Act of 1997 creates the Roth IRA and eliminates restrictions on portfolio management that disadvantage fund shareholders.
1998	The SEC approves the most significant disclosure reforms in the history of US mutual funds, encompassing "plain English," fund profiles, and improved risk disclosure.
1999	The Gramm-Leach-Bliley Act modernizes financial services regulation and enhances financial privacy.
2001	Enactment of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) significantly expands retirement savings opportunities for millions of working Americans.
2003	The Jobs and Growth Tax Relief Reconciliation Act (JGTRRA) provides mutual fund shareholders with the full benefits of lower tax rates on dividends and capital gains.

2006	The Pension Protection Act (PPA) and the Tax Increase Prevention and Reconciliation Act provide incentives for investors of all ages to save more in tax-deferred and taxable investment accounts.
2008	The SEC votes to adopt the Summary Prospectus rule. Reserve Primary Fund fails to maintain $1.00 NAV, becoming the second money market fund in 25 years to "break the dollar."
2009	Money market fund assets hit $3.9 trillion, their highest level to date. The Money Market Working Group, a task force of senior industry executives, submits its report to the ICI Board. The board endorses the working group's call for immediate implementation of new regulatory and oversight standards for money market funds.
2010	The SEC adopts new rules and amendments to regulations governing money market funds. In *Jones v. Harris*, the US Supreme Court unanimously upholds the *Gartenberg* standard under which courts have long considered claims of excessive fund advisory fees. Enactment of the RIC Modernization Act streamlines and updates technical tax rules, benefiting shareholders by making funds more efficient.
2011	In *Business Roundtable et al. v. SEC*, the United States Court of Appeals for the District of Columbia Circuit vacated the SEC's proxy access rule for failing to adequately evaluate the rule's costs and benefits. ICI Global—the first industry body exclusively advancing the perspective of regulated investment funds globally—is formed.
2014	The SEC adopted sweeping changes to the rules that govern money market funds, building upon the changes to money market fund regulation adopted by the SEC in 2010.
2015	The Federal Reserve raises its short-term policy interest rate target for the first time in more than nine years.
2016	The Department of Labor (DOL) redefines the term *fiduciary* under ERISA investment advice rules. The SEC adopts new rules to require funds to report portfolio holdings in a structured format and otherwise modernize fund reporting, to require certain funds to establish a liquidity risk management program, and to permit mutual funds to use swing pricing.

GLOSSARY

You can find more information about many of these entries in the chapters and appendix of this book and on ***www.ici.org***.

actively managed fund. A fund that employs a portfolio manager or management team to manage the fund's investments to try to outperform their benchmarks and peer group average.

adviser. See **investment adviser**.

after-tax return. The total return of a fund after the effects of taxes on distributions and/or redemptions have been assessed. Funds are required by federal securities law to calculate after-tax returns using standardized formulas based upon the highest tax rates. These standardized after-tax returns are not relevant for shareholders in tax-deferred retirement accounts. (Consequently, they are not representative of the after-tax returns of most mutual fund shareholders.)

annual report. A report that a fund sends to its shareholders that discusses the fund's performance over the past fiscal year and identifies the securities in the fund's portfolio on the last business day of the fund's fiscal year. The annual report includes audited financial statements. See also **semiannual report**.

appreciation. An increase in an investment's value. Contrast **depreciation**.

asset allocation. The proportion of different investment categories—such as stocks, bonds, and cash equivalents—that investors hold in their portfolios.

asset class. A group of securities or investments that have similar characteristics and behave similarly in the marketplace. Three common asset classes are equities (e.g., stocks), fixed income (e.g., bonds), and cash equivalents (e.g., money market funds).

assets. The securities, cash, and receivables owned by a fund. Examples of this are stocks, bonds, and other investments.

auditor. An auditor certifies a fund's financial statements, providing assurance that they are prepared in conformity with generally accepted accounting principles (GAAP) and fairly present the fund's financial position and results of operations.

authorized participant. An entity, usually an institutional investor, that submits orders to an exchange-traded fund (ETF) for the creation and redemption of ETF **creation units**.

average portfolio maturity. The average maturity of all the securities in a bond or money market fund's portfolio.

back-end load. See **contingent deferred sales load (CDSL)**.

basis point. One one-hundredth of 1 percent (0.01 percent); thus, 100 basis points equals 1 percentage point. When applied to $1.00, 1 basis point is $0.0001, and 100 basis points equals one cent ($0.01). Basis points are often used to simplify percentages written in decimal form.

bear market. A period during which the majority of securities prices in a particular market (such as the stock market) drop substantially. One generally accepted measure is a price decline of 20 percent or more over at least a two-month period. Contrast **bull market**.

benchmark. A standard against which the performance of a security or a mutual fund can be measured. For example, Barclays Capital Aggregate Bond Index is a benchmark index for many bond mutual funds. Many equity mutual funds are benchmarked to the **S&P 500 index**. See also **index**.

bond. A debt security issued by a company, municipality, government, or government agency. A bond investor lends money to the issuer and, in exchange, the issuer promises to repay the loan amount on a specified maturity date; the issuer usually pays the bondholder periodic interest payments over the life of the loan. The term *fixed-income* is often used interchangeably with *bond*.

bond fund. A fund that invests primarily in bonds and other debt instruments.

breakpoints. Designated levels above which certain discounts or fee rate reductions apply. In the mutual fund context, breakpoints relate to the sales charges investors pay if they buy fund shares through a broker or other intermediary, or to the management fee the fund pays to its investment adviser. Many funds offer sales charge (load) discounts to investors when they initially purchase fund shares if the amount invested surpasses a specified breakpoint. The amount of the discount typically increases as the amount of the investment reaches higher breakpoints. Similarly, funds may establish breakpoints requiring a reduction in the rate of the management fee the fund's investment adviser may charge as fund assets surpass specified levels.

break the dollar. A phrase used to describe when the net asset value (NAV) of a money market fund falls below its stable $1.00 NAV. This could be triggered by a deviation greater than one-half of 1 percent (one-half cent, or $0.0050) between the fund's mark-to-market value (shadow price) and its stable $1.00 NAV. Also known as *break the buck*.

broker. See **broker-dealer**.

broker-dealer. A *broker* is a firm engaged in the business of effecting transactions in securities for the accounts of others, and is often paid by commission. A *dealer* is a firm engaged in the business of buying and selling securities for its own account. A *broker-dealer* is a firm that acts as both a broker and a dealer. Broker-dealers selling mutual fund shares are required to be registered with the SEC and regulated by FINRA. They typically are compensated for their services through sales charges paid by investors and other fees paid by the fund (e.g., **12b-1 fees**).

bull market. A period during which the majority of securities prices in a particular market (such as the stock market) rise substantially. Contrast **bear market**.

capital gain. An increase in the value of an investment, calculated by the difference between the net purchase price and the net sale price. Contrast **capital loss**.

capital gains distributions. A distribution to mutual fund shareholders resulting from the fund's sale of securities held in its portfolio at a profit.

capital loss. A decline in the value of an investment, calculated by the difference between the net purchase price and the net sale price. Contrast **capital gain**.

catch-up contribution. An additional contribution that individuals aged 50 or older are permitted to make to an individual retirement account (IRA) or employer-sponsored retirement savings plan in excess of the annual contribution limit. In 2016, the catch-up contribution amount was limited to $1,000 for traditional and Roth IRAs, $6,000 for 401(k) plans, and $3,000 for SIMPLE IRA plans.

certificate of deposit (CD). A savings certificate entitling the bearer to receive interest. A CD bears a fixed maturity date, has a specified fixed interest rate, and can be issued in any denomination. CDs generally are issued by commercial banks and currently are insured by the Federal Deposit Insurance Corporation (FDIC) up to a maximum of $250,000. CDs generally are offered at terms ranging from one month to five years.

closed-end fund. A type of investment company 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.

commercial paper. Short-term, unsecured notes issued by a corporation to meet immediate short-term needs for cash, such as the financing of accounts payable, inventories, and short-term liabilities. Maturities typically range from overnight to 270 days. Commercial paper usually is issued by corporations with high credit ratings and sold at a discount from face value.

common stock. An investment that represents a share of ownership in a corporation. Also known as *common shares*. See also **preferred stock**.

compounding. The cumulative effect that reinvesting an investment's earnings can have by generating additional earnings of its own. Over time, compounding can produce significant growth in the value of an investment.

contingent deferred sales load (CDSL). A fee that may be imposed by a fund on shareholders who redeem (sell back to the fund) shares during the first few years of ownership. A CDSL is disclosed to shareholders in the fund's prospectus. Also known as a *back-end load*.

corporate bond. A bond issued by a corporation, rather than by a government entity. The credit risk for a corporate bond is based on the ability of the issuing company to repay the bond.

Coverdell Education Savings Account (ESA). A tax-advantaged trust or custodial account set up to pay the qualified education expenses of a designated beneficiary. These accounts were previously referred to as *education IRAs*.

creation unit. Financial institutions (called authorized participants) interact directly with an ETF by purchasing and redeeming ETF shares in large blocks called creation units. A creation unit generally contains between 25,000 and 200,000 ETFs shares. See also **authorized participant**.

custodian. An organization, usually a bank, that safeguards the securities and other assets of a mutual fund.

dealer. See **broker-dealer**.

defined benefit (DB) plan. An employer-sponsored pension plan in which the amount of future benefits an employee will receive from the plan is defined, typically by a formula based on salary history and years of service. The amount of contributions the employer is required to make will depend on the investment returns experienced by the plan and the benefits promised. Contrast **defined contribution plan**.

defined contribution (DC) plan. An employer-sponsored retirement plan, such as a 401(k) plan or a 403(b) plan, in which contributions are made to individual participant accounts. Depending on the type of DC plan, contributions may be made by the employee, the employer, or both. The employee's benefits at retirement or termination of employment are based on the employee and employer contributions and earnings and losses on those contributions. See also **401(k) plan** and **403(b) plan**. Contrast **defined benefit plan**.

depreciation. A decline in an investment's value. Contrast **appreciation**.

director. A person serving on the board of directors of a mutual fund. Mutual fund directors oversee the management and operations of a fund organized as a corporation. Directors also have significant and specific responsibilities under the federal securities laws. Among other things, they oversee the performance of the fund, approve the fees paid to the investment adviser for its services, and oversee the fund's compliance program. All directors have a fiduciary duty to represent the interests of shareholders. See also **independent director** and **trustee**.

distribution. (1) A fund's payment of dividends and capital gains to shareholders, (2) a method of selling fund shares to the public, which could involve either direct sales from the fund to retail or institutional investors, or sales through intermediaries, such as broker-dealers, who interact directly with the purchaser of fund shares, or both, or (3) a term used to describe a withdrawal of funds from a retirement plan.

diversification. The practice of investing broadly across a number of different securities, industries, or asset classes to reduce risk. Diversification is a key benefit of investing in mutual funds and other investment companies that have diversified portfolios.

dividend. Money that a fund or company pays to its shareholders, typically from its investment income, after expenses. The amount is usually expressed on a per-share basis. A dividend is a type of **distribution**.

education IRA. See **Coverdell Education Savings Account (ESA)**.

emerging market. Generally, economies that are in the process of growth and industrialization, for example, countries in Africa and Latin America. Though relatively undeveloped, these economies may hold significant growth potential in the future. May also be called *developing markets*.

equity. A security or investment representing ownership in a company. By contrast, a bond represents a loan from the investor (owner of the bond) to a borrower (the issuer of the bond). The term *equity* is often used interchangeably with **stock**.

equity fund. A fund that concentrates its investments in equities. Also known as a *stock fund*.

exchange-traded fund (ETF). An 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 on the secondary market through a broker, just as they would the shares of any publicly traded company. Authorized participants are the only entities allowed to purchase and redeem ETF shares directly from the ETF. See also **authorized participant**.

expense ratio. A measure of what it costs to operate a fund, expressed as a percentage of its assets. This ratio is disclosed in the fund's prospectus and shareholder reports.

fair value. The amount a fund might reasonably expect to receive upon a current sale of a security. Where the value of the security cannot be readily determined from transactions occurring on an exchange or otherwise, a fund must have a process in place to determine how to value the amount it would expect to receive upon a current sale.

federal funds rate. The interest rate at which banks lend to each other in overnight borrowings to maintain their bank reserves at the Federal Reserve.

Financial Industry Regulatory Authority (FINRA). A self-regulatory organization that was created under the Securities Exchange Act of 1934 and that is charged with regulating broker-dealers. To fulfill its responsibilities, FINRA adopts regulatory rules that broker-dealers must comply with, conducts inspections of such broker-dealers, and imposes sanctions on those broker-dealers that violate its rules. FINRA's activities are overseen by the SEC.

financial statements. The written record of the financial status of a fund or company, usually published in the annual report. The record generally includes a balance sheet, income statement, and other financial statements and disclosures.

529 plan. An investment program designed to help pay future qualified higher education expenses through a tax-advantaged account. These plans are offered by state governments and may also be offered by private consortiums. States offer two types of 529 plans: prepaid tuition programs allow contributors to establish an account in the name of a student to cover the cost of a specified number of academic periods or course units in the future; and college savings plans allow individuals to contribute to an investment account to pay for a student's qualified higher education expenses.

fixed-income security. See **bond**.

forward pricing. The concept describing the price at which mutual fund shareholders buy or redeem fund shares. Shareholders must receive the next computed share price following the fund's receipt of a shareholder transaction order.

457 plan. An employer-sponsored retirement plan that enables employees of state and local governments and other tax-exempt employers to make tax-deferred contributions from their salaries to the plan.

401(k) plan. An employer-sponsored retirement plan that enables employees to make tax-deferred contributions from their salaries to the plan. See also **defined contribution plan**.

403(b) plan. An employer-sponsored retirement plan that enables employees of universities, public schools, and nonprofit organizations to make tax-deferred contributions from their salaries to the plan. See also **defined contribution plan**.

front-end load. A fee imposed by some funds at the point of purchase to cover selling costs. Any front-end load imposed by a fund will be described in detail in the fund's prospectus.

fund family. A group or complex of funds, each typically with its own investment objective, that is managed and distributed by the same company.

funds of funds. Mutual funds that primarily invest in shares of other mutual funds rather than investing directly in individual securities. Also, ETFs that primarily invest in shares of other ETFs rather than investing directly in individual securities.

fund supermarket. A brokerage platform that provides access to funds from a wide range of fund families.

government bond. A debt security issued by a government or its agencies (e.g., in the United States: savings bonds, Treasury bonds, Treasury inflation-protected securities [TIPS]).

government money market fund. A money market fund that seeks to maintain a stable share price and invests at least 99.5 percent of its total assets in cash, government securities, and/or repurchase agreements collateralized by government securities or cash. See also **money market fund**.

government securities. Any debt obligation issued by a government or its agencies (e.g., Treasury bills issued by the United States). See also **US Treasury securities**.

hedge fund. A private investment pool for qualified (typically wealthy) investors that, unlike a mutual fund, is exempt from SEC registration.

hybrid fund. A mutual fund that invests in a mix of equity and fixed-income securities, which can change proportionally over time or remain fixed.

income distributions. Dividends, interest, and/or short-term capital gains paid to a mutual fund's shareholders. Operating expenses are deducted from income before it is distributed to shareholders.

independent director. A fund director must satisfy a number of specific and stringent requirements to be "independent." In general, under the 1940 Act, an independent director cannot currently have, or at any time during the previous two years have had, a significant business relationship with the fund's adviser, principal underwriter (distributor), or affiliates. An independent director also cannot own any stock of the investment adviser or certain related entities, such as parent companies or subsidiaries. See also **director** and **trustee**.

independent public accountant. The entity that audits a fund's financial statements. As part of the audit, the independent public accountant must consider the fund's internal control over financial reporting, including controls for safeguarding the fund's securities. The independent public accountant reports to the board's audit committee.

index. A portfolio of assets that tracks the performance of a particular financial market or subset of it (e.g., stock, bond, or commodity markets) and serves as a benchmark against which to evaluate a fund's performance. The most common index for equity funds is the **S&P 500**. See also **benchmark**.

index fund. A fund designed to track the performance of a market index. The fund's portfolio of assets is either a replicate or a representative sample of the designated market index. Often referred to as *passively managed portfolios*.

individual retirement account (IRA). A tax-advantaged account set up by or for an individual to hold and invest funds for retirement.

inflation. The overall general upward price movement of goods and services in an economy. Inflation is one of the major risks to investors over the long term because it erodes the purchasing power of their savings.

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

institutional investor. Businesses, nonprofit organizations, and other similar investors that own funds and other securities on behalf of their organizations. This classification of investors differs from individual or household investors who own the majority of investment company assets.

institutional money market fund. A money market fund that does not qualify as either a retail or government money market fund and does not limit all beneficial owners of the fund to natural persons.

interest/interest rate. The fee charged by a lender to a borrower, usually expressed as an annual percentage of the principal.

intraday indicative value (IIV). A real-time estimate of an exchange-traded fund's (ETF) intraday value. Typically, third-party providers calculate and disseminate this measure every 15 to 60 seconds during securities market trading hours.

investment adviser. An organization retained by an investment company to give professional advice on the fund's investments and asset management practices. All investment advisers to registered investment companies, such as mutual funds, must be registered with the US Securities and Exchange Commission (SEC) under the Investment Advisers Act of 1940.

investment company. A corporation, trust, or partnership that invests pooled shareholder dollars in securities appropriate to the organization's objective. Mutual funds, closed-end funds, unit investment trusts, and exchange-traded funds are the main types of SEC-registered investment companies.

investment objective. The goal (e.g., current income, long-term capital growth) that a fund pursues on behalf of its investors. The fund's investment objective is disclosed to investors in the fund's prospectus and the fund's investments must be consistent with the stated investment objective.

investment return. The gain or loss on an investment over a certain period, expressed as a percentage. Income and capital gains or losses are included in calculating the investment return.

investment risk. The possibility of losing some or all of the amounts invested or not gaining value in an investment.

issuer. The company, municipality, government, or government agency that issues securities, such as stocks, bonds, or money market instruments.

Keogh. A tax-favored investment vehicle covering self-employed individuals, partners, and owners of unincorporated businesses; also called an H.R. 10 plan. These were first made available by Congress in 1962, but today operate under rules very similar to those for retirement plans for a corporation's employees.

level load. A combination of an annual 12b-1 fee (typically 1 percent) and a contingent deferred sales load fee (also often 1 percent) imposed by funds when shares are sold within the first year after purchase. See also **contingent deferred sales load** and **12b-1 fee**.

lifecycle fund. See **target date fund**.

lifestyle fund. Mutual funds that maintain a predetermined risk level and generally use words such as "conservative," "moderate," or "aggressive" in their names to indicate the fund's risk level. Also known as *target risk fund.*

liquidity. The ability to gain ready access to invested money. Mutual funds are liquid because their shares can be redeemed for the next computed net asset value (NAV) on any business day. 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.

load. See **sales charge**.

load fund. A mutual fund that imposes a sales charge—either when fund shares are purchased (front-end load) or redeemed (contingent deferred sales load)—or a fund that charges a 12b-1 fee greater than 0.25 percent. See also **12b-1 fee**.

long-term funds. A mutual fund industry designation for all mutual funds other than money market funds. Long-term funds are broadly divided into equity (stock), bond, and hybrid funds.

management fee. The amount paid by a mutual fund to the investment adviser for its services.

market value. The price at which a security was last traded or a price based on its current ask or bid prices.

maturity. The date by which an issuer promises to repay a bond's face value.

money market. The global financial market for short-term borrowing and lending where short-term instruments such as Treasury bills (T-bills), commercial paper, and repurchase agreements are bought and sold.

money market fund. A mutual fund regulated pursuant to Rule 2a-7 under the Investment Company Act of 1940 that invests in short-term, high-quality, fixed-income securities, and seeks the highest level of income consistent with preservation of capital (e.g., maintaining a stable share price).

mutual fund. An investment vehicle that offers investors professional money management and diversified investment opportunities. All mutual funds are investment companies that are registered with the SEC under the Investment Company Act of 1940. Mutual funds buy a portfolio of securities selected by the fund's investment adviser to meet a specified investment objective. One hallmark of mutual funds is that they are considered a liquid investment because they issue redeemable securities, meaning that the fund stands ready to buy back its shares at their next computed net asset value (NAV). See also **open-end investment company**.

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. Mutual funds calculate their NAVs at least once daily on each day the financial markets are open.

net new cash flow. The net amount of "new" money flowing into a mutual fund. The amount is determined by calculating the dollar value of new sales of the fund minus redemptions, plus net exchanges. A positive number indicates new sales plus exchanges into funds exceeded redemptions plus exchanges out of funds. A negative number indicates redemptions plus exchanges out of funds exceeded new sales plus exchanges into funds.

no-load fund. A mutual fund whose shares are sold without a sales charge and without a 12b-1 fee of more than 0.25 percent per year. See also **12b-1 fee**.

open-end investment company. The legal name for a mutual fund, indicating that it stands ready to redeem (buy back) its shares from investors. See also **mutual fund**.

operating expenses. Business costs paid from a fund's assets. These include management fees, 12b-1 fees, and other expenses.

payroll deduction plan. An arrangement that some employers offer where employees can authorize their employer to deduct a specified amount from their salaries at stated times to buy mutual fund shares.

pooled investing. The basic concept behind mutual funds and other investment companies in which a fund aggregates the assets of investors who share common financial goals. A fund uses the pooled assets to buy a portfolio of investments, and each share purchased represents a shareholder's pro rata ownership interest in the fund's portfolio.

portfolio. A collection of investments owned by an individual or an institution (such as a mutual fund) that may include stocks, bonds, money market instruments, and other investments.

portfolio manager. A specialist employed by a fund's adviser to invest the fund's assets in accordance with predetermined investment objectives.

portfolio turnover rate. A measure of how frequently securities are bought and sold within a fund during a year. The portfolio turnover rate usually is expressed as a percentage of the total value of a fund.

preferred stock. An investment that represents a share of ownership in a corporation that has a higher claim on the corporation's assets and earnings than common stock. Preferred stock differs from common stock in that preferred stock generally pays a fixed dividend that must be paid out before dividends to common stock shareholders. Also known as *preferred shares*. See also **common stock**.

principal underwriter. A mutual fund underwriter enters into sales agreements with retail distributors (e.g., broker-dealers) of the mutual fund. To sell fund shares, a retail distributor must have executed a contract with a fund or its principal underwriter, which authorizes the distributor to offer and sell fund shares to the public. Generally speaking, a fund's underwriter is not involved in the offer or sale of fund shares to investors.

prospectus. The official document that describes an investment company to prospective investors. The prospectus contains information required by the SEC, such as investment objectives and policies, risks, services, and fees. Federal law requires that every mutual fund investor receive a prospectus. See also **summary prospectus**.

redeem. To sell mutual fund shares back to the fund. Mutual fund shares may be redeemed on any business day. An investor receives the next computed share price, called net asset value (NAV), minus any deferred sales charge or redemption fee.

redemption price. The amount per share that mutual fund shareholders receive when they redeem. See **redeem**.

registered investment company. Any fund—including a mutual fund—that is registered as an investment company with the SEC under the Investment Company Act of 1940. In addition to registering as an investment company under the Investment Company Act of 1940, shares of the registered investment company must be registered under the Securities Act of 1933 (if they are offered to the public) and the investment company's investment adviser must be registered with the SEC under the Investment Advisers Act of 1940. Each of these acts imposes regulatory responsibilities on the entities or securities registered under such acts.

regulated investment company (RIC). A fund eligible under subchapter M of the Internal Revenue Code to eliminate tax at the entity level by distributing all of its taxable income to its shareholders. The fund's income thus is taxed only once, at the investor level. A RIC may be organized in either corporate or trust form—but is treated in all cases as a corporation. To qualify as a RIC, a corporation must be registered at all times during the taxable year under the Investment Company Act of 1940 and must derive at least 90 percent of its income from certain sources, including dividends, interest, and capital gains. It also must distribute at least 90 percent of the dividends and interest received.

repurchase agreements. A form of short-term funding that is typically used by dealers and other institutional investors. In a repurchase transaction, one party sells securities to another party and agrees to buy back the securities at a specified time (e.g., the next day) for a specified price. Also known as a *repo*.

required minimum distribution (RMD). Rules under the Internal Revenue Code that require a person who owns a traditional IRA or 401(k) account to take annual distributions from the IRA or 401(k) account beginning at age 70½. The annual distribution amount is determined by formulas established by the IRS and must be calculated each year based on the owner's age (or the ages of the owner and the owner's spouse). The IRS formula is intended to ensure that the entire amount of a traditional IRA or 401(k) account be distributed over the expected life of the individual (or the joint lives of the individual and the individual's spouse). Distributing less than the required amount will result in a tax penalty. Roth IRAs are not subject to required minimum distributions during the account holder's lifetime.

retail money market fund. A money market fund that has policies and procedures reasonably designed to limit all beneficial owners of the fund to natural persons.

return. The gain or loss of a security in a particular period. It usually is quoted as a percentage.

RIC. See **regulated investment company**.

risk tolerance. An investor's willingness to lose some or all of an investment in exchange for greater potential returns.

rollover. The transfer of an investor's assets from one qualified retirement plan (including an IRA) to another—due to changing jobs, for instance—without a tax penalty.

Roth IRA. An individual retirement plan, first available in 1998, that permits only after-tax contributions; earnings are not taxed, and qualified distributions of earnings and principal are generally tax-free.

sales charge. The sales fee that may be imposed on mutual fund shares that are purchased through a broker-dealer or other financial intermediary. By regulation, mutual fund sales charges are capped. Sales charges may vary depending on where the shares are acquired (e.g., a fund supermarket or a broker-dealer), the amount invested, and the fund purchased. Also known as the *load*.

SAR-SEP IRA (salary reduction simplified employee pension). A SEP IRA with a salary reduction feature (see **SEP IRA**). The Small Business Job Protection Act of 1996, which created SIMPLE IRAs, prohibited the formation of new SAR-SEP IRAs, which were created in 1986.

secondary market. Market in which an investor purchases or sells certain assets (such as closed-end fund, UIT, and ETF shares) from another investor through an intermediary such as a broker-dealer.

sector mutual fund. A fund that invests in a particular or specialized segment of the marketplace, such as stocks of companies in the software, healthcare, or real estate industries.

securitization. The process of aggregating similar instruments, such as loans or mortgages, into a negotiable security, such as the creation of mortgage-backed securities.

security. A general term for stocks, bonds, interests in funds, and other investments.

semiannual report. A report a fund sends to its shareholders that discusses the fund's performance over the first six months of the fiscal year and identifies the securities in the fund's portfolio on the last business day of the first six months of the fiscal year. See also **annual report**.

separate account. An insurance company account that is segregated or separate from the insurance company's general assets. Also refers to a fund managed by an investment adviser for a single plan.

SEP IRA (simplified employee pension plan). A retirement program created in 1978 that consists of individual retirement accounts for all eligible employees, to which the employer can contribute according to certain rules. A fairly simple, inexpensive plan to establish and administer, a SEP IRA can be attractive to small businesses and self-employed individuals.

series trust fund. A group of different mutual funds, each with its own investment objective and policies, that is structured as a single corporation or business trust.

share. A representation of ownership in a company or investment fund. Also a synonym for *stock*.

share classes. Some mutual funds offer investors different types of shares known as classes (e.g., Class A, institutional shares). Each class will invest in the same portfolio of securities and will have the same investment objectives and policies, but each class will have different shareholder services and/or distribution arrangements with different fees and expenses and, therefore, different performance results. A multiclass structure offers investors the ability to select a fee and expense structure that is most appropriate for their investment goals (including the time that they expect to remain invested in the fund).

shareholder. An investor who owns shares of a mutual fund or other company.

short-term fund. See **money market fund**.

SIMPLE IRA (savings incentive match plan for employees). A simplified tax-favored retirement plan created in 1996 that small employers can set up for the benefit of their employees.

S&P 500 index. A daily measure of stock market performance based on 500 US stocks chosen by Standard & Poor's for market size, liquidity, and industry group representation.

sponsor. A company or financial institution that creates a fund and determines its investment objective. When a new fund complex is launched, the fund sponsor (often an investment adviser) typically is the initial and sole shareholder of the new funds and elects the initial slate of directors.

stable value fund. An investment fund that seeks to preserve principal and to provide consistent returns and liquidity. Stable value funds include collective investment funds sponsored by banks or trust companies or contracts issued by insurance companies.

statement of additional information (SAI). The supplementary document to a prospectus that contains more detailed information about a fund; also known as "Part B" of the fund's SEC registration statement.

stock. A share of ownership or equity in a corporation.

stock fund. See equity fund.

summary prospectus. SEC rules permit mutual funds to provide their investors with a brief summary (generally three to four pages) of key fund information instead of the fund's long-form, statutory prospectus if they make the statutory prospectus available online or by mail upon request and meet certain additional conditions. The summary prospectus must contain the following items in standardized order and cannot include additional information, nor omit required information: investment objectives/goals; fee and expense tables; principal investment strategies, principal risks and performance table; and management information. See also prospectus.

target date fund. Funds designed to satisfy their investors' investment objective by a particular target date, which is usually included in the name of the fund. For example, a Target Date 2025 fund may be designed for persons who plan to retire in 2025. To fulfill the investor's investment objective, the fund is typically constructed as a hybrid fund that follows a predetermined reallocation of risk over the lifetime of the investment. These funds invest in a mix of asset classes and typically rebalance their portfolios over time to become more conservative and income producing as the fund approaches and passes its target date. Target date funds are most commonly used to save for retirement or education, where the owner of the account expects to use the account proceeds at a known future date. Also known as *lifecycle fund.*

target risk fund. See lifestyle fund.

tender offer. In a closed-end fund tender offer, shareholders are given a limited opportunity to sell a portion of their shares back to the fund at a price—the tender price. Generally, the tender price is close to the fund's net asset value (NAV) and is higher than the market price.

total net assets. The total amount of assets, less any liabilities, a fund holds as of a certain date.

total return. A measure of a fund's performance that encompasses all elements of return: dividends, capital gains distributions, and changes in net asset value (NAV). Total return is the change in value of an investment over a given period, assuming reinvestment of any dividends and capital gains distributions, expressed as a percentage of the initial investment.

traditional IRA. The first type of individual retirement account, created in 1974. Individuals may make tax-deductible or nondeductible (depending on income and other requirements) contributions to these accounts. See also individual retirement account (IRA).

transfer agent. A transfer agent is the entity within a fund complex that maintains all shareholder account records, processes all transactions effected by shareholders, and provides shareholders who own shares directly with the fund communications regarding the fund or the shareholder's account. Typically, when a mutual fund shareholder contacts the fund to discuss the shareholder's account, it is the transfer agent that handles such inquiries. The transfer agent must be registered with the SEC under the Securities Exchange Act of 1934 and must perform its services pursuant to an agreement with the fund's board.

Treasury bill (T-bill). A short-term debt obligation of the US government with a maturity of less than one year. T-bills are sold in denominations of $1,000 up to a maximum purchase of $5 million and commonly have maturities of one month (four weeks), three months (13 weeks), or six months (26 weeks).

trustee. A member of the board of trustees of a fund organized as a business or statutory trust. Mutual fund trustees oversee the management and operations of the fund and have a fiduciary duty to represent the interests of shareholders. Fund trustees have the same responsibilities as fund directors. See also **director**.

12b-1 fee. A mutual fund fee, named for the SEC rule that permits it, used to pay distribution costs such as compensation to financial advisers for initial and ongoing assistance. If a fund has a 12b-1 fee, it will be disclosed in the fee table of a fund's prospectus.

underwriter. See **principal underwriter**.

unit investment trust (UIT). A type of fund that blends characteristics of mutual funds and 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 fixed portfolio of securities until the UIT's set termination date, at which time the trust is dissolved and proceeds are paid to shareholders.

US Treasury securities. Debt securities issued by the US government and secured by its full faith and credit. Treasury securities are the debt financing instruments of the US federal government, and they are often referred to simply as *Treasuries*. There are four types of Treasury securities: Treasury bills, Treasury bonds, Treasury notes, and Treasury inflation protected securities (TIPS). See also **Treasury bill**.

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.

yield. A measure of income (dividends and interest) earned by the securities in a fund's portfolio less the fund's expenses during a specified period. A fund's yield is expressed as a percentage of the maximum offering price per share on a specified date.

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