## 2022 Facts at a Glance

### Total worldwide assets invested in regulated open-end funds:* $60.1 trillion

<table>
<thead>
<tr>
<th>Region</th>
<th>Assets Invested</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>$28.6 trillion</td>
</tr>
<tr>
<td>Europe</td>
<td>$19.1 trillion</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>$9.1 trillion</td>
</tr>
<tr>
<td>Rest of the world</td>
<td>$3.4 trillion</td>
</tr>
</tbody>
</table>

### US-registered investment company total net assets: $28.9 trillion

<table>
<thead>
<tr>
<th>Category</th>
<th>Assets Invested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual funds</td>
<td>$22.1 trillion</td>
</tr>
<tr>
<td>Exchange-traded funds</td>
<td>$6.5 trillion</td>
</tr>
<tr>
<td>Closed-end funds</td>
<td>$252 billion</td>
</tr>
<tr>
<td>Unit investment trusts</td>
<td>$73 billion</td>
</tr>
</tbody>
</table>

### US-registered investment companies’ share of:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>US corporate equity</td>
<td>33%</td>
</tr>
<tr>
<td>US and foreign corporate bonds</td>
<td>23%</td>
</tr>
<tr>
<td>US Treasury and government agency securities</td>
<td>12%</td>
</tr>
<tr>
<td>US municipal securities</td>
<td>27%</td>
</tr>
<tr>
<td>Commercial paper</td>
<td>17%</td>
</tr>
</tbody>
</table>

### US household ownership of US-registered funds

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households owning funds</td>
<td>71.7 million</td>
</tr>
<tr>
<td>Number of individuals owning funds</td>
<td>120.5 million</td>
</tr>
<tr>
<td>Percentage of households owning funds</td>
<td>54.7%</td>
</tr>
<tr>
<td>Median mutual fund assets of mutual fund–owning households</td>
<td>$125,000</td>
</tr>
<tr>
<td>Median number of mutual funds owned</td>
<td>3</td>
</tr>
</tbody>
</table>

### US retirement market

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total retirement market assets</td>
<td>$33.6 trillion</td>
</tr>
<tr>
<td>Percentage of households with tax-advantaged retirement savings</td>
<td>72%</td>
</tr>
<tr>
<td>DC plan and IRA assets invested in mutual funds</td>
<td>$10.1 trillion</td>
</tr>
</tbody>
</table>

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

Fact Book

A Review of Trends and Activities in the Investment Company Industry
The Investment Company Institute (ICI) is the leading association representing regulated investment funds. ICI’s mission is to strengthen the foundation of the asset management industry for the ultimate benefit of the long term individual investor. Its members include mutual funds, exchange-traded funds (ETFs), closed-end funds, and unit investment trusts (UITs) in the United States, and UCITS and similar funds offered to investors in Europe, Asia, and other jurisdictions. ICI has offices in Washington, DC, Brussels, London, and Hong Kong and carries out its international work through ICI Global.

Sixty-third edition

ISBN 1-878731-70-X

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INVESTMENT COMPANY

Fact Book

A Review of Trends and Activities in the Investment Company Industry
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Letter from the Chief Economist

Each year, ICI’s Investment Company Fact Book seeks to bring you a wealth of data about and an update on our industry. Producing the book is a labor of love, requiring the effort of virtually everyone in ICI’s Research Department and Strategic Communications Department. It also depends critically on ICI member firms, who provide so much of the data. The process starts anew for next year’s version almost as soon as the ink is dry on this year’s. The effort is worth it, however, as we receive many comments from the media, regulators, academics, legislators, and industry professionals about the importance of the Fact Book as a necessary resource.

Speaking of ink drying (or, in this case, not drying), we are going paperless with ICI’s 2023 Fact Book. We have long considered such a change. But now, as the fund industry encourages Congress to pass legislation related to e-delivery, it seems especially appropriate for our Fact Book to walk the walk. Equally
important, shifting to a paperless *Fact Book* will free up resources we can devote to enhancing users’ experiences. As an example, our *Fact Book: Quick Facts Guide*—which we are printing for ICI’s 2023 Leadership Summit—provides a snapshot of key facts. It also features QR codes that will take you to the *Fact Book* itself and to our comprehensive data tables (which now include even more historical data), making them just a “snapshot” away. Stay tuned and let us know how we can continue to tailor the *Fact Book* for today’s audience.

In sum, we hope you will find this 63rd edition of the *Fact Book* as informative as ever. It has come a long way from the first edition, which was little more than a pamphlet—about the length of this year’s *Quick Facts Guide*—to the vast compendium of industry statistics it is today.

Best regards,

Sean Collins
Chief Economist

ICI Research Publications

ICI is the primary source of analysis and statistical information about the investment company industry. In addition to the annual *Investment Company Fact Book*, the Institute’s Research Department released more than 300 papers, statistical reports, and *ICI Viewpoints* posts in 2022. You can find all this content at [www.icifactbook.org/22-research.html](http://www.icifactbook.org/22-research.html).
ICI Senior Research Staff

Chief Economist

Sean Collins leads the Institute’s Research Department. He oversees statistical collections and research on US and global funds, financial markets, the US retirement market, financial stability, and investor demographics. Before joining ICI in 2000, Collins worked at the US Federal Reserve Board of Governors and the Reserve Bank of New Zealand. He is a member of the Group of Economic Advisors (GEA) to the European Securities and Markets Authority (ESMA). 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 Industry and Financial Analysis

Rochelle (Shelly) Antoniewicz leads the Institute’s research efforts on the structure and trends of the exchange-traded fund and mutual fund industries, as well as on financial markets in the United States and globally. Before joining ICI, Antoniewicz spent 13 years at the Federal Reserve Board of Governors. She earned a BA in management science from the University of California, San Diego, and an MS and PhD in economics from the University of Wisconsin–Madison.

Senior Director of Retirement and Investor Research

Sarah Holden leads the Institute’s research efforts on retirement and tax policy, as well as investor demographics and behavior. 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.
Acknowledgments

Publication of the 2023 Investment Company Fact Book was directed by James Duvall, economist, and Judy Steenstra, senior director of statistical research, working with ICI's Strategic Communications Department. Contributors from ICI's Research Department who developed and edited analysis, text, and data are Irina Atamanchuk, Steven Bass, Michael Bogdan, Alex Johnson, Sheila McDonald, Hammad Qureshi, Doug Richardson, Casey Rybak, Dan Schrass, and Shane Worner.
Data Tables

The statistical data tables for the 2023 Investment Company Fact Book are available online as Excel files. The data tables contain historical information (e.g., total net assets and number of funds) on US mutual funds, exchange-traded funds, closed-end funds, and unit investment trusts, as well as information on worldwide regulated open-end funds. This year we have expanded the data tables by adding more historical data.

2023 Fact Book Data Tables
www.icifactbook.org/23-fb-data-tables.html
Methods and Assumptions

The following methods, unless otherwise specified, apply to all data in this book:

- Data for US-registered investment companies only include those that report statistical information to the Investment Company Institute. Assets of these companies are at least 98 percent of industry assets.
- Funds of funds are excluded from the data to avoid double counting.
- Dollars and percentages may not add to the totals presented because of rounding.
- Data for US-registered investment companies include exchange-traded funds that are not registered under the Investment Company Act of 1940.
- Long-term funds include equity funds, hybrid funds, and bond funds.

Data are subject to revision. Although information or data provided by independent sources is believed to be reliable, the Investment Company Institute is not responsible for its accuracy, completeness, or timeliness. Opinions expressed by independent sources are not necessarily those of the Institute. If you have questions or comments about this material, please contact the source directly.
Worldwide Regulated Open-End Funds

Investors around the world have historically demonstrated strong demand for regulated open-end funds (referred to in this chapter as regulated funds). In the past decade, worldwide net sales of regulated funds have totaled $18.8 trillion, and fund providers have expanded the vast array of choices, offering investors more than 137,000 regulated funds. However, demand for regulated funds weakened considerably in 2022—several macroeconomic and geopolitical events contributed to a sharp decrease in net sales and a 15 percent decline in total net assets. By year-end 2022, regulated funds managed $60.1 trillion in total net assets.

IN THIS CHAPTER

3  What Are Regulated Funds?
4  Worldwide Total Net Assets of Regulated Funds
14  Size of Worldwide Regulated Funds in Global Capital Markets
What Are Regulated Funds?

The International Investment Funds Association (IIFA) defines regulated funds as collective investment pools that are substantively regulated, open-end investment funds. Open-end funds generally are defined as those that issue new fund shares (or units) and redeem existing shares (or units) on demand. Such funds are typically regulated with respect to disclosure; the form of organization (for example, as either corporations or trusts); custody of fund assets; minimum capital; valuation of fund assets; and restrictions on fund investments (such as limits on leverage, types of eligible investments, and diversification of portfolio investments).

In the United States, however, regulated funds include not only open-end funds (mutual funds and exchange-traded funds [ETFs]), but also unit investment trusts and closed-end funds. In Europe, regulated funds include Undertakings for Collective Investment in Transferable Securities (UCITS)—ETFs, money market funds, and other categories of similarly regulated funds—and alternative investment funds, commonly known as AIFs.

In many countries, regulated funds may also include institutional funds (funds that are restricted to being sold to a limited number of non-retail investors), funds that offer guarantees or protection of principal (those that offer a formal, legally binding guarantee of income or capital), and open-end real estate funds (funds that invest directly in real estate to a substantive degree).

At year-end 2022, fund providers globally offered 137,892 regulated funds (Figure 1.1). Europe had the largest number of regulated funds with 44 percent of the total, while equity funds were the most common type of regulated funds (34 percent), followed by balanced/mixed funds (25 percent), which also hold equities in their portfolios.

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* The primary data source for worldwide regulated funds is the IIFA. In 2022, the IIFA collected data on worldwide regulated funds from 46 jurisdictions. For information on individual jurisdictions, see the statistical data tables available online at [www.icifactbook.org/23-fb-data-tables.html](http://www.icifactbook.org/23-fb-data-tables.html). For more details about the IIFA data collection, see Worldwide Definitions of Terms and Classifications at [www.ici.org/info/ww_q3_18_definitions.xls](http://www.ici.org/info/ww_q3_18_definitions.xls).

† Data for unit investment trusts and closed-end funds are not included in this chapter; these funds are discussed in chapter 2 and chapter 5, respectively.
Worldwide Total Net Assets of Regulated Funds

Total net assets of worldwide regulated funds declined sharply in 2022 after three years of robust growth (Figure 1.2).* Several significant macroeconomic and geopolitical events negatively affected worldwide capital markets in 2022, leading to a substantial decrease in the value of the underlying stocks and bonds held by regulated funds. Along with other concerns that weighed on financial markets, these events included:

- ongoing global supply chain issues;
- Russia’s invasion of Ukraine;
- rising inflation in countries around the world; and
- soaring interest rates in various economies as central banks aggressively tightened monetary policy.

* In this chapter, unless otherwise noted, data for total net assets and net sales are denominated in US dollars.

FIGURE 1.1
Number of Worldwide Regulated Open-End Funds
Percentage of funds by region or type of fund, year-end 2022

Number of worldwide regulated open-end funds: 137,892

* Other funds include guaranteed/protected funds, real estate funds, and other funds.
Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.
Source: International Investment Funds Association
With stock markets down across the globe in 2022—19 percent in the United States, 15 percent in Europe, and 17 percent in the Asia-Pacific region*—worldwide total net assets of equity funds, which invest primarily in publicly traded stocks, decreased by 20 percent to $26.9 trillion at year-end 2022. Bond funds—which invest primarily in fixed-income securities—saw their total net assets decrease 16 percent over the same period, primarily reflecting capital losses on bonds in the United States and Europe of 12 percent and 14 percent, respectively.† In contrast, net assets of money market funds—which are generally understood to be regulated funds that are restricted to holding short-term, high-quality debt instruments—increased slightly.

* As measured by the Wilshire 5000 Total Market Index, the MSCI Daily Total Return Gross Europe Index, and the MSCI Daily Total Return Gross AC Asia-Pacific Index, which are all expressed in US dollars.

† As measured by the S&P US Aggregate Bond Index and the ICE BofA Euro Corporate Index (expressed in euros), both of which cover investment grade securities.

**FIGURE 1.2**

**Total Net Assets of Worldwide Regulated Open-End Funds Declined to $60.1 Trillion in 2022**

Trillions of US dollars by type of fund, year-end

<table>
<thead>
<tr>
<th>2013</th>
<th>2015</th>
<th>2017**</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.9</td>
<td>$5.2</td>
<td>$10.4</td>
<td>$6.9</td>
<td>$4.8</td>
<td>$13.1</td>
<td>$8.9</td>
</tr>
<tr>
<td>$3.3</td>
<td>$3.5</td>
<td>$6.4</td>
<td>$11.8</td>
<td>$6.7</td>
<td>$8.6</td>
<td>$5.7</td>
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<tr>
<td>$8.0</td>
<td>$8.0</td>
<td>$21.8</td>
<td>$24.5</td>
<td>$28.3</td>
<td>$33.6</td>
<td>$11.5</td>
</tr>
<tr>
<td>$4.7</td>
<td>$5.2</td>
<td>$4.8</td>
<td>$5.6</td>
<td>$13.7</td>
<td>$8.6</td>
<td>$7.1</td>
</tr>
<tr>
<td>$15.5</td>
<td>$16.3</td>
<td>$5.9</td>
<td>$4.8</td>
<td>$8.8</td>
<td>$33.6</td>
<td>$7.1</td>
</tr>
<tr>
<td>$36.4</td>
<td>$38.2</td>
<td>$49.3</td>
<td>$54.7</td>
<td>$62.9</td>
<td>$70.9</td>
<td>$60.1</td>
</tr>
</tbody>
</table>

Total number of worldwide regulated open-end funds

<table>
<thead>
<tr>
<th>2013</th>
<th>2015</th>
<th>2017**</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>97,371</td>
<td>106,060</td>
<td>113,226</td>
<td>122,561</td>
<td>125,701</td>
<td>131,793</td>
<td>137,892</td>
</tr>
</tbody>
</table>

1 Other funds include guaranteed/protected funds, real estate funds, and other funds.

2 Data for Russia are for 2017:Q3.

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.

Source: International Investment Funds Association
Total net assets of worldwide regulated funds also varied widely by geographic region (Figure 1.3). At year-end 2022, the majority of worldwide total net assets in regulated funds continued to be held in the United States (48 percent) and Europe (32 percent). Strong regulatory frameworks in both jurisdictions have contributed to their success. In recent decades, US regulated funds have been bolstered by their availability as investment options in tax-advantaged accounts, such as 401(k) plans. Meanwhile, the UCITS framework has many provisions that allow for the pooling of assets. These include passporting (i.e., a UCITS established in one country can be sold cross-border into one or more other European countries), the availability of UCITS in countries outside of Europe, and allowing different share classes to be denominated in a range of different currencies or adapted to different tax structures.

Regulated funds in the Asia-Pacific region held another 15 percent of worldwide total net assets. Given the size of the population, the rapidly increasing economic development and wealth in many countries, and efforts to promote individual account-based saving and investing, the region’s regulated fund market has the potential for continued growth.

![FIGURE 1.3](image)

**The United States Has the Largest Share of Total Net Assets of Worldwide Regulated Open-End Funds**

Trillions of US dollars by region, year-end

- Asia-Pacific
- Europe
- United States
- Rest of the world

<table>
<thead>
<tr>
<th>Year</th>
<th>Asia-Pacific</th>
<th>Europe</th>
<th>United States</th>
<th>Rest of the world</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>36.4</td>
<td>4.8</td>
<td>13.6</td>
<td>16.7</td>
</tr>
<tr>
<td>2015</td>
<td>38.2</td>
<td>4.8</td>
<td>13.7</td>
<td>17.7</td>
</tr>
<tr>
<td>2017</td>
<td>49.3</td>
<td>6.5</td>
<td>17.7</td>
<td>22.2</td>
</tr>
<tr>
<td>2019</td>
<td>54.7</td>
<td>7.2</td>
<td>18.7</td>
<td>25.7</td>
</tr>
<tr>
<td>2020</td>
<td>62.9</td>
<td>8.8</td>
<td>21.6</td>
<td>29.3</td>
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<tr>
<td>2021</td>
<td>70.9</td>
<td>10.0</td>
<td>23.2</td>
<td>34.1</td>
</tr>
<tr>
<td>2022</td>
<td>60.1</td>
<td>9.1</td>
<td>19.1</td>
<td>28.6</td>
</tr>
</tbody>
</table>

* Data for Russia are for 2017:Q3.

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.

Source: International Investment Funds Association
Worldwide Net Sales of Regulated Long-Term Funds

Worldwide demand for regulated long-term funds (equity, bond, balanced/mixed, and other) dropped sharply in 2022, from record net sales of $3.3 trillion in 2021 to net redemptions of $155 billion in 2022 (Figure 1.4). However, the aggregate data masks different regional experiences. While regulated long-term funds in both the United States and Europe experienced net outflows for the first time in more than a decade ($191 billion and $225 billion, respectively), regulated long-term funds in the Asia-Pacific region and the rest of the world continued to experience net inflows, with flows in the Asia-Pacific region driven largely by inflows in China and Japan.

FIGURE 1.4
Net Sales of Regulated Open-End Long-Term Funds Decreased in 2022
Billions of US dollars by region, annual

Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds. Long-term funds include equity funds, balanced/mixed funds, bond funds, and other funds (guaranteed/protected, real estate, and other funds), but exclude money market funds.
Source: International Investment Funds Association
Worldwide net sales of regulated long-term funds declined significantly across all fund categories in 2022 when compared with 2021. For example, worldwide net sales of equity funds decreased from net inflows of $1.1 trillion in 2021 to net outflows of $4 billion in 2022 (Figure 1.5). The substantial slowdown in net sales was likely associated with the negative returns on global stocks, as net flows to equity funds have historically been related to world equity returns.

Bond funds also experienced a major shift in net sales, going from net inflows of $1.2 trillion in 2021 to net outflows of $261 billion in 2022 (Figure 1.5). This reversal was primarily driven by developments in inflation and interest rates. Inflation across the globe rose considerably during 2022—reaching 40-year highs in many countries—powered mainly by an increase in the prices of energy and goods, which later broadened out to food and core services. In response, central banks tightened monetary policy by engaging in earlier and steeper-than-expected interest rate hikes. For example, in 2022, the European Central Bank raised official rates 2.50 percentage points over four separate hikes, while the Bank of England raised rates 3.25 percentage points over eight hikes. In the United States, the Federal Reserve was even more aggressive and raised the benchmark interest rate by 4.25 percentage points over seven rate increases. The Riksbank, Norges Bank, and Swiss National Bank also raised interest rates in 2022 to help curb inflation.

The cycle of tightening monetary policy among these developed economies is important because when interest rates rise, bond prices fall. This caused the value of bonds in these jurisdictions to decrease, which led to capital losses on bond funds. Like the experience with equity fund returns and flows, net flows to bond funds have historically been related to bond returns (see Figure 3.5).
FIGURE 1.5
Worldwide Net Sales of Regulated Open-End Long-Term Funds Decreased Across All Asset Classes in 2022
Billions of US dollars by type of fund, annual

- Total worldwide net sales
- Other*
- Bond
- Balanced/Mixed
- Equity

* Other funds include guaranteed/protected funds, real estate funds, and other funds.
Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.
Source: International Investment Funds Association
Ongoing Charges for UCITS in the European Union

The UCITS Directive has become a global success story since its adoption in 1985, with net assets of €9.9 trillion in EU-domiciled UCITS at year-end 2022. Investments in these funds are held by investors in Europe and other jurisdictions worldwide. In recent years, there has been renewed interest in the costs and charges paid by shareholders of investment funds. In 2019, the European Securities and Markets Authority (ESMA) issued its first annual report on the costs and charges of retail investment products in the European Union following a mandate by the European Commission. ESMA has since published other reports related to costs and charges. For example, in January 2021, ESMA launched a Common Supervisory Action (CSA) in conjunction with European national regulators on the supervision of fees and costs of UCITS. In May 2022, ESMA released a report outlining the results of this exercise.*

Like regulated fund investors in other countries, UCITS investors incur ongoing charges that cover the provision of services, including portfolio management, administration, compliance, accounting, legal, and distribution. The total cost of these charges is disclosed to investors through either the total expense ratio (TER), often found in a UCITS’ annual report and other marketing documents, or the ongoing charges figure (OCF), found in the Key Investor Information Document (KIID).

Average ongoing charges of equity and fixed-income UCITS continued their downward trend in 2021 (Figure 1.6). Since 2013, asset-weighted average ongoing charges for equity and fixed-income UCITS have declined 19 percent and 31 percent, respectively. In 2021, the asset-weighted average ongoing charge for equity funds fell to 1.21 percent from 1.24 percent in 2020. In other words, for every €100 invested in 2021, fund shareholders were charged €1.21 in ongoing fees. Additionally, the asset-weighted average ongoing charges for equity and fixed-income funds were below their respective simple averages, which indicates that investors tend to concentrate their assets in lower-cost funds.

CONTINUED ON THE NEXT PAGE

FIGURE 1.6
Investors in UCITS Pay Below-Average Ongoing Charges

Percent

Simple average ongoing charge
Asset-weighted average ongoing charge

Note: Data exclude ETFs.
Worldwide Net Sales of Money Market Funds

Worldwide net sales of money market funds totaled $171 billion in 2022, down from $673 billion in 2021 (Figure 1.7). The decline in worldwide demand for money market funds was largely driven by a decrease in net sales in the United States and the Asia-Pacific region. Investor demand for money market funds in the United States decreased from $424 billion in 2021 to $10 billion in 2022; and in the Asia-Pacific region, money market funds experienced net inflows of $132 billion in 2022, down from $254 billion in 2021.

Investors use money market funds because they are professionally managed, tightly regulated vehicles with holdings limited to high-quality, short-term debt instruments. As such, they are highly liquid, attractive, cash-like alternatives to bank deposits. Generally, demand for money market funds is dependent upon their yields and interest rate risk exposure relative to other high-quality fixed-income securities.

In the United States, net sales of money market funds fell as purchases by retail investors were offset by redemptions from institutional investors (see Figure 3.14). In 2022, short-term interest rates ramped up quickly in the United States, and in the second half of 2022, were higher than longer-dated fixed-income securities. US retail investors were particularly attracted to the relatively high yields and extremely low interest rate risk offered by money market funds, especially in light of the double-digit capital losses seen in stock and bond markets.

By contrast, US institutional investors, on net, redeemed cash from money market funds. This development is consistent with historical patterns in institutional money market fund flows during a monetary policy tightening cycle. Because of their size and investment knowledge, some institutional investors can easily invest directly in short-term instruments. This allows those institutional investors to capture higher yields immediately when the Federal Reserve raises the federal funds rate rather than waiting for the yield in a money market fund to catch up as older, lower-yielding short-term securities mature and are replaced with newer, higher-yielding paper.

Demand for money market funds in the Asia-Pacific region is dominated by Chinese money market funds, which hold the bulk of money market fund total net assets in the region. The People’s Bank of China lowered interest rates in the summer of 2022, as China’s economy was affected by the government’s zero-COVID policy. As a result, net inflows into money market funds in the Asia-Pacific region in the first half of 2022 turned to net outflows, lowering the overall net sales of money market funds in the region for the year.
FIGURE 1.7

Worldwide Net Sales of Money Market Funds Decreased in 2022
Billions of US dollars by region, annual

- Total worldwide net sales
- Asia-Pacific
- Europe
- United States
- Rest of the world

Source: International Investment Funds Association
Size of Worldwide Regulated Funds in Global Capital Markets

Regulated funds continue to be an important conduit for allocating capital globally, helping finance businesses, governments, and household activities. As of year-end 2022, worldwide capital markets, as measured by the value of equity and debt securities outstanding, totaled $233.3 trillion, with regulated funds holding 26 percent, or $60.1 trillion (Figure 1.8).

The share of worldwide capital markets held by regulated funds has grown somewhat over the past decade. In 2022, worldwide regulated funds held 26 percent of worldwide capital markets, compared with 21 percent in 2012 (Figure 1.8). A wide range of other investors—such as central banks, sovereign wealth funds, pension plans (both defined benefit and defined contribution), banks, insurance companies, hedge funds, broker-dealers, and households owning stocks and bonds directly—held the remaining 74 percent in 2022.

FIGURE 1.8
Worldwide Regulated Funds Held 26 Percent of Worldwide Equity and Debt Markets
Trillions of US dollars, year-end

- Other investors
- Total net assets of worldwide regulated open-end funds

Data for worldwide debt markets are as of September 30, 2022.
Note: Regulated open-end funds include mutual funds, ETFs, and institutional funds.
Source: Investment Company Institute calculations of data from the International Investment Funds Association, World Federation of Exchanges, and Bank for International Settlements
Fund Ownership in Market-Based Versus Bank-Based Economies

Generally speaking, a jurisdiction’s financial system can be described as either market-based or bank-based, depending on how its economy deploys savings and raises capital for the production of goods and services. For example, many jurisdictions within the European Union are considered bank-based economies, since banks are more often used to mobilize investor savings and allocate capital. Conversely, the United States is usually considered a market-based economy, since capital markets are the main conduit for investor savings and deploying capital. The structure of capital allocation in an economy is a factor that can influence the demand for regulated funds, and regulated funds tend to make up a greater share of household wealth in market-based economies.

In the European Union and Japan, where investors have traditionally allocated savings and capital to banks, households hold more of their financial wealth in bank products. European and Japanese households hold 35 percent and 55 percent, respectively, of their financial wealth in bank products, with relatively little in regulated funds (Figure 1.9). By comparison, households in the United States hold a much lower share of their financial wealth in bank products and a much larger share in regulated funds.

**FIGURE 1.9**
US Households Hold More of Their Wealth in Regulated Funds; Bank-Based Countries Have a Lower Share
Percentage of household¹ financial wealth, year-end 2022

- Bank deposits and currency
- Regulated funds²

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>European Union³</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>20</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>35</td>
<td>55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Households include households and nonprofit institutions serving households.
² For the United States, regulated funds include total net assets held by mutual funds and ETFs. For the European Union and Japan, regulated funds include investment fund shares as defined by their respective systems of national accounts.
³ Data for Poland are as of 2022.Q3.
Sources: Investment Company Institute, Federal Reserve Board, Eurostat, and Bank of Japan
US-Registered Investment Companies

Registered investment companies are an important segment of the asset management industry in the United States. 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 $28.9 trillion in total net assets at year-end 2022, largely on behalf of more than 120 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. US funds supply investment capital in securities markets around the world and are important investors in the US stock and municipal securities markets.

IN THIS CHAPTER

17 Number and Assets of Investment Companies
19 Americans’ Continued Reliance on Investment Companies
20 Role of Investment Companies in Financial Markets
22 Growth of Index Funds
26 Fund Complexes and Sponsors
31 Environmental, Social, and Governance Investing
Number and Assets of Investment Companies

There were 16,159 investment companies* offered by US financial services companies at year-end 2022 (Figure 2.1). The overall number of investment companies is down from a decade ago as an increase in the number of exchange-traded funds (ETFs) only partially offset a decrease in the number of unit investment trusts (UITs) and closed-end funds.

* 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, exchange-traded funds, closed-end funds, and unit investment trusts.
Total net assets in US-registered investment companies decreased in 2022 to a year-end level of $28.9 trillion, with the vast majority held by mutual funds and ETFs. US-registered investment company total net assets were concentrated in long-term funds, with equity funds alone holding $16.6 trillion—57 percent of all investment company total net assets at year-end 2022 (Figure 2.2). Domestic equity funds (those that invest primarily in shares of US corporations) held $12.8 trillion in net assets; world equity funds (those that invest significantly in shares of non-US corporations) accounted for $3.8 trillion. Bond funds held $5.9 trillion in assets, while money market funds, hybrid funds, and other funds—such as those that invest primarily in commodities—held the remaining $6.4 trillion.

**FIGURE 2.2**

The Majority of Investment Company Total Net Assets Were in Equity Funds

Percentage of total net assets, year-end 2022

- Domestic equity funds: 44%
- World equity funds: 13%
- Bond funds: 20%
- Hybrid and other funds: 6%
- Money market funds: 17%

**Investment company total net assets:** $28.9 trillion

1. The other funds category includes ETFs—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.
2. Closed-end fund data for total net assets include preferred share classes.

During 2022, mutual funds recorded an aggregate $1.1 trillion in net outflows, mainly occurring in long-term mutual funds (see Figure 3.3). Mutual fund shareholders reinvested $330 billion in income dividends and $380 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 $609 billion in 2022 (see Figure 4.4). UITs experienced net new deposits of $51 billion, a slight decrease from the previous year, and closed-end funds had net redemptions of $489 million (see Figure 5.2).
Americans’ Continued Reliance on Investment Companies

Households make up the largest group of investors in funds, and registered investment companies managed 20.7 percent of household financial assets at year-end 2022 (Figure 2.3). The growth of mutual funds inside individual retirement accounts (IRAs) and defined contribution (DC) plans, particularly 401(k) plans, explains some of the increased household reliance on investment companies in the past three decades. Mutual funds in IRAs and DC plans made up about 9.2 percent of household financial assets at year-end 2022, up from 1.3 percent in 1990.

FIGURE 2.3
Households Rely More on Investment Companies—Partly from Increased Holdings Inside DC Plans and IRAs
Percentage of US household financial assets, year-end

- Other household financial assets held in registered investment companies
- Mutual funds in IRAs and DC plans

<table>
<thead>
<tr>
<th>Year</th>
<th>Other Household Financial Assets</th>
<th>Mutual Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>6.0</td>
<td>1.3</td>
</tr>
<tr>
<td>2022</td>
<td>7.3</td>
<td>20.7</td>
</tr>
</tbody>
</table>

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

2 DC plans include private-sector employer-sponsored DC plans (such as 401(k) plans), 403(b) plans, and 457 plans.


Businesses and other institutional investors also rely on funds. For instance, institutions can use money market funds to manage some of their cash and other short-term assets. Institutional investors also have contributed to the growing demand for ETFs. Investment managers—for mutual funds, pension funds, hedge funds, and insurance companies—use ETFs to invest in markets, manage liquidity and investor flows, or hedge their exposures.

LEARN MORE
The US Retirement Market
www.ici.org/research/stats/retirement
Role of Investment Companies in Financial Markets

Investment companies have been important investors in domestic financial markets for much of the past 30 years. They have held a largely stable share of the securities outstanding across a variety of asset classes in recent years, mainly through mutual funds. At year-end 2022, investment companies held 33 percent of US corporate equities outstanding, little changed from the 34 percent at year-end 2019 (Figure 2.4).

Investment companies held 23 percent of bonds issued by US corporations and foreign bonds held by US residents at year-end 2022 and 12 percent of the US Treasury and government agency securities outstanding (Figure 2.4). Investment companies also have been important investors in the US municipal securities market, holding 27 percent of the securities outstanding at year-end 2022. Finally, mutual funds (primarily prime money market funds) held 17 percent of the US commercial paper market—a critical source of short-term funding for many major corporations around the world.
FIGURE 2.4
Investment Companies Channel Investment to Stock, Bond, and Money Markets
Percentage of total market value of securities held by investment companies, year-end

- Long-term mutual funds
- Money market funds
- Other registered investment companies

**US corporate equity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Long-term mutual funds</th>
<th>Money market funds</th>
<th>Other registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>26</td>
<td>8</td>
<td>34</td>
</tr>
<tr>
<td>2020</td>
<td>24</td>
<td>8</td>
<td>33</td>
</tr>
<tr>
<td>2021</td>
<td>23</td>
<td>9</td>
<td>32</td>
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<tr>
<td>2022</td>
<td>23</td>
<td>10</td>
<td>33</td>
</tr>
</tbody>
</table>

**US and foreign corporate bonds***

<table>
<thead>
<tr>
<th>Year</th>
<th>Long-term mutual funds</th>
<th>Money market funds</th>
<th>Other registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>18</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>2020</td>
<td>18</td>
<td>5</td>
<td>23</td>
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<td>2021</td>
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<td>6</td>
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</tr>
<tr>
<td>2022</td>
<td>17</td>
<td>6</td>
<td>23</td>
</tr>
</tbody>
</table>

**US Treasury and government agency securities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Long-term mutual funds</th>
<th>Money market funds</th>
<th>Other registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>7</td>
<td>7</td>
<td>15</td>
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<tr>
<td>2020</td>
<td>6</td>
<td>9</td>
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<tr>
<td>2022</td>
<td>6</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

**US municipal securities**

<table>
<thead>
<tr>
<th>Year</th>
<th>Long-term mutual funds</th>
<th>Money market funds</th>
<th>Other registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>20</td>
<td>3</td>
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</tr>
<tr>
<td>2020</td>
<td>20</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2021</td>
<td>22</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2022</td>
<td>19</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

**Commercial paper**

<table>
<thead>
<tr>
<th>Year</th>
<th>Long-term mutual funds</th>
<th>Money market funds</th>
<th>Other registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>3</td>
<td>24</td>
<td>26</td>
</tr>
<tr>
<td>2020</td>
<td>4</td>
<td>19</td>
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<td>2021</td>
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<td>13</td>
<td>16</td>
</tr>
<tr>
<td>2022</td>
<td>2</td>
<td>14</td>
<td>17</td>
</tr>
</tbody>
</table>

* Money market fund holdings of US and foreign corporate bonds rounded to less than 0.1 percent in all years.
Sources: Investment Company Institute, Federal Reserve Board, and World Federation of Exchanges
Growth of Index Funds

Index funds are designed to track the performance of a market index. To do this, the fund manager purchases all the securities in the index or a representative sample of them—mirroring the index composition—so that the performance of the fund tracks the value of the index. This approach to portfolio management is the primary reason that index funds tend to have below-average expense ratios (see Figures 6.6 and 6.7).

Index mutual funds were first offered in the 1970s, followed by index ETFs in the 1990s. By year-end 2022, total net assets in these two index fund categories had grown to $10.9 trillion. Along with this growth, index fund assets have become a larger share of overall fund assets. At year-end 2022, index mutual funds and index ETFs together accounted for 46 percent of assets in long-term funds, up from 22 percent at year-end 2012 (Figure 2.5). Nevertheless, actively managed funds still accounted for more than half of long-term fund assets (54 percent) at year-end 2022.

FIGURE 2.5
Index Funds Have Grown as a Share of the Fund Market
Percentage of total net assets, year-end

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actively managed mutual funds and ETFs</td>
<td>78%</td>
<td>54%</td>
</tr>
<tr>
<td>Index ETFs</td>
<td>10%</td>
<td>22%</td>
</tr>
<tr>
<td>Index mutual funds</td>
<td>11%</td>
<td>46%</td>
</tr>
</tbody>
</table>

Total net assets

2012: $11.6 trillion
2022: $23.7 trillion

Note: Data for ETFs exclude non–1940 Act ETFs. Data for mutual funds exclude money market funds.
The growth in index funds has been concentrated in funds that invest primarily in US equities, with 44 percent of inflows into index funds over the past decade going to domestic equity funds. But despite their significant growth, index domestic equity mutual funds and ETFs remain relatively small investors in the US stock markets, holding only 18 percent of the value of US stocks at year-end 2022 (Figure 2.6). Actively managed domestic equity mutual funds and ETFs held another 14 percent, while other investors—including hedge funds, pension funds, life insurance companies, and individuals—held the majority (69 percent).

**FIGURE 2.6**

*Index Fund Share of US Stock Market Is Small*

Percentage of US stock market capitalization, year-end

- **Other investors**
- **Actively managed domestic equity mutual funds and ETFs**
- **Index domestic equity mutual funds and ETFs**

<table>
<thead>
<tr>
<th>Year</th>
<th>Other investors</th>
<th>Actively managed domestic equity mutual funds and ETFs</th>
<th>Index domestic equity mutual funds and ETFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>18</td>
<td>19</td>
<td>73</td>
</tr>
<tr>
<td>2013</td>
<td>18</td>
<td>19</td>
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<td>2014</td>
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</tr>
<tr>
<td>2022</td>
<td>18</td>
<td>18</td>
<td>69</td>
</tr>
</tbody>
</table>

*Sources: Investment Company Institute and World Federation of Exchanges*
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 (or debt) trusts and equity trusts. Bond trusts are classified as taxable or tax-free; equity trusts are classified as domestic or international/global. The first UIT, introduced in 1961, held tax-free bonds, and historically, most UIT total net assets were invested in bonds. Equity UITs, however, have grown in popularity over the past three decades. At year-end 2022, assets in equity UITs far exceeded those of bond UITs, constituting 93 percent of UIT total net assets (Figure 2.7). The number of trusts outstanding has decreased as sponsors have created fewer new trusts and existing trusts have 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. Some UITs list their prices on Nasdaq’s Fund Network. 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, where 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 2.7**

Total Net Assets of UITs Have Shifted from Tax-Free Debt Trusts to Equity Trusts

Billions of dollars, year-end

- Equity trust assets
- Taxable debt trust assets
- Tax-free debt trust assets

<table>
<thead>
<tr>
<th>Year</th>
<th>Equity Trusts</th>
<th>Taxable Debt Trusts</th>
<th>Tax-Free Debt Trusts</th>
<th>Total Number of Trusts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>92</td>
<td>14</td>
<td>8</td>
<td>12,131</td>
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<tr>
<td>1995</td>
<td>51</td>
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<td>12,979</td>
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<td>2000</td>
<td>48</td>
<td>23</td>
<td>10</td>
<td>10,072</td>
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<tr>
<td>2005</td>
<td>41</td>
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<td>6,019</td>
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<tr>
<td>2010</td>
<td>51</td>
<td>4</td>
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<td>2020</td>
<td>78</td>
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<td>88</td>
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<tr>
<td>2022</td>
<td>68</td>
<td>4</td>
<td>1</td>
<td>3,966</td>
</tr>
</tbody>
</table>

**Unit Investment Trust Data**

[www.ici.org/research/stats/uit](http://www.ici.org/research/stats/uit)
Fund Complexes and Sponsors

At year-end 2022, 812 fund sponsors from around the world competed in the US market to provide investment management services to fund investors (Figure 2.8). The decline 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. Prior to 2015, the number of fund sponsors had been increasing as the economy and financial markets recovered from the 2007–2009 financial crisis. Overall, from year-end 2012 through year-end 2022, 525 sponsors entered the market while 503 left, for a net increase of 22.

Many recent entrants to the fund industry have adopted 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 multiple 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 2022, 26 percent of fund complexes saw positive flows to their long-term mutual funds, while 69 percent of ETF sponsors had positive net share issuance (Figure 2.9).
The concentration of mutual fund and ETF assets managed by the largest fund complexes has increased over time. The share of assets managed by the five largest firms rose from 35 percent at year-end 2005 to 55 percent at year-end 2022 (Figure 2.10). 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 21 percent in 2005 to 16 percent in 2022.

The concentration of mutual fund and ETF assets managed by the largest fund complexes has increased over time. The share of assets managed by the five largest firms rose from 35 percent at year-end 2005 to 55 percent at year-end 2022 (Figure 2.10). 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 21 percent in 2005 to 16 percent in 2022.

FIGURE 2.9
Easier Access to Other Investment Products Has Dampened Inflows into Long-Term Mutual Funds
Percentage of fund complexes

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Long-term mutual funds</td>
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<td>36</td>
<td>31</td>
<td>37</td>
<td>32</td>
<td>48</td>
<td>26</td>
</tr>
<tr>
<td>ETFs</td>
<td>74</td>
<td>81</td>
<td>79</td>
<td>81</td>
<td>71</td>
<td>93</td>
<td>75</td>
<td>74</td>
<td>82</td>
<td>88</td>
<td>69</td>
</tr>
</tbody>
</table>

Note: Long-term mutual fund data include net new cash flow and reinvested dividends; ETF data for net share issuance include reinvested dividends.

FIGURE 2.10
Share of Mutual Fund and ETF Assets at the Largest Fund Complexes Has Increased
Percentage of total net assets of mutual funds and ETFs, year-end

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest 5 complexes</td>
<td>35</td>
<td>42</td>
<td>45</td>
<td>53</td>
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<td>55</td>
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<tr>
<td>Largest 10 complexes</td>
<td>46</td>
<td>55</td>
<td>56</td>
<td>64</td>
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<td>68</td>
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<tr>
<td>Largest 25 complexes</td>
<td>67</td>
<td>74</td>
<td>75</td>
<td>81</td>
<td>83</td>
<td>84</td>
</tr>
</tbody>
</table>

Note: Data include only mutual funds and ETFs registered under the Investment Company Act of 1940.
At least two factors have contributed to the rise in industry concentration. First, the increased concentration reflects the growing popularity of index funds—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 after 2005, while index domestic equity mutual funds had inflows in each of these years except for 2020 and 2021. Index domestic equity ETFs had positive net share issuance in each of these years. Second, generally strong inflows over the past decade to bond mutual funds (see Figure 3.7), 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 merge or liquidate those that do not attract sufficient investor interest. A total of 691 mutual funds and ETFs opened in 2022, down from 748 in 2021 and lower than the 2012–2021 annual average of 731 (Figure 2.11). The number of mutual fund and ETF mergers and liquidations stayed relatively flat—455 in 2022 compared with 460 in 2021.

FIGURE 2.11
Mutual Funds and ETFs Enter and Exit in a Competitive Market
Number of funds

<table>
<thead>
<tr>
<th>Year</th>
<th>Opened funds</th>
<th>Merged/Liquidated funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>836</td>
<td>580</td>
</tr>
<tr>
<td>2013</td>
<td>846</td>
<td>459</td>
</tr>
<tr>
<td>2014</td>
<td>857</td>
<td>420</td>
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<td>2021</td>
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<td>748</td>
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<tr>
<td>2022</td>
<td>691</td>
<td>455</td>
</tr>
</tbody>
</table>

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 that invest primarily in other ETFs.
Fund Proxy Voting Reflects Heterogeneous Industry

Investment companies are major shareholders of public companies and have held a steady share of US-issued corporate equities outstanding over the past several years (Figure 2.4). Like any company shareholder, they are entitled to vote on proxy proposals put forth by a company’s board or its shareholders. Funds normally delegate proxy voting responsibilities to fund advisers, which have a fiduciary duty to vote in the best interest of fund shareholders.

During proxy year 2020 (the 12 months that ended June 30, 2020), shareholders of the 3,000 largest public companies considered 23,970 proposals—98 percent (23,523) of these were proposed by management and 2 percent (447) were submitted by shareholders. Investment companies cast more than 7.6 million votes on these proposals, with each investment company voting, on average, on about 1,500 separate proxy proposals. Because management proposals account for the bulk of proxy proposals, 74 percent of funds’ votes were cast on management proposals related to uncontested elections of directors, with an additional 13 percent and 11 percent related to management proposals on management compensation and ratification of audit firms, respectively.

Investment companies voted in favor of management proposals 93 percent of the time. The strong support for management proxy proposals likely reflects that the vast majority of them are not controversial—85 percent of management proposals were uncontested elections of directors and ratifications of the audit firms that companies selected.

During the same proxy year, 4 percent of the votes that investment companies cast were on 447 shareholder proxy proposals. Among the shareholder proposals, 39 percent were related to social and environmental matters; 27 percent to board structures and elections; and the remainder to shareholder rights and anti-takeover issues, compensation matters, and miscellaneous issues. Shareholder proxy proposals received support from investment companies, on average, 41 percent of the time.

CONTINUED ON THE NEXT PAGE
Investment companies’ support for shareholder proposals varied considerably depending on a range of factors. These factors included, among other things, the details of the proposal, the issuer to whom the proposal applied, and the backdrop and context in which the proposal was set. Investment companies tend to offer more support for shareholder proxy proposals that are likely to increase their rights as company shareholders. For example, investment companies voted in favor of shareholder proxy proposals related to shareholder rights or anti-takeover measures nearly 53 percent of the time in proxy year 2020.

Investment companies, on average, have provided more limited support for social and environmental proposals. In proxy year 2020, these proposals received a favorable vote 39 percent of the time. Average levels of support can mask important nuances of how investment companies vote on such issues. These kinds of proposals, though classified generally as “social and environmental,” cover a wide array of issues, including the environment, diversity in hiring practices, human rights matters, and the safety of a company’s business operations.

In addition, these proposals must be viewed in context. For example, suppose virtually identical proposals are directed to two different companies. An investment company might view the proposal as appropriate for the first company, but inappropriate for the second because the latter has already taken steps to address the proposal’s concerns.

In short, there is no one-size-fits-all description of how funds vote, other than to say that investment companies seek to vote in the interests of their shareholders and in a way that is consistent with their investment objectives and policies.

Proxy Voting Resource Center
www.ici.org/proxy_voting
Environmental, Social, and Governance Investing

Perhaps one of the most significant recent global trends is the increasing attention being paid to environmental, social, and governance (ESG) matters. These matters vary widely but are generally considered to include topics related to climate change, diversity and inclusion, human rights, the rights of company shareholders, and company compensation structures. The fund industry is responding to increased investor interest in ESG investing by, among other things, creating new funds that explicitly tailor their investments to specific ESG criteria.

Funds consider ESG factors to varying degrees. For decades, some funds have incorporated ESG factors into their investment processes as a way to enhance fund performance, manage investment risks, and identify emerging investment risks and opportunities, just as they would consider macroeconomic or interest rate risks; idiosyncratic business risks; and investment exposures to particular companies, industries, or geographical regions. Because these funds “integrate” ESG factors into the investment process, this type of investing is known as ESG integration.

Funds’ use of ESG integration is distinct from funds’ use of “sustainable investing strategies,” which use ESG analysis as a significant part of the fund’s investment thesis as a way to pursue investment returns and ESG-related outcomes.

Approaches to ESG Investing

The investment strategies funds use vary, as do the ways they describe their approaches. This section describes some of the most common approaches.

» Exclusionary investing: Investment strategies that exclude, or “screen out,” investments in particular industries or companies that do not meet certain ESG criteria. This may also be described as negative screening, sustainable investing, or socially responsible investing (SRI).

» Inclusionary investing: Investment strategies that generally seek investment returns by pursuing a strategic investing thesis focusing on investments that systematically tilt a portfolio based on ESG factors alongside traditional financial analysis. This may also be described as best-in-class, ESG thematic investing, ESG tilt, positive screening, or sustainable investing.

» Impact investing: Investment strategies that seek to generate positive, measurable social and environmental impact alongside a financial return. This may also be described as community, goal-based, sustainable, or thematic investing.
These common approaches to ESG investing are not mutually exclusive—a single fund may use multiple approaches (e.g., a best-in-class fund that excludes certain types of investments). As a result, seeking to classify funds that invest according to ESG criteria as solely exclusionary, inclusionary, or impact can be challenging. Applying ICI’s long-standing general approach to classifying funds enables research into these funds (e.g., tracking data and monitoring trends).

How ICI Categorizes Funds for Research and Statistical Purposes

ICI seeks to categorize funds as objectively as possible by applying predetermined rules and definitions to the prospectus language of mutual funds, ETFs, and closed-end funds, with a special focus on the “investment objective” and “principal investment strategies” sections.

For example, ICI Research uses prospectus language to determine which of four broad categories to place a fund in: equity, bond, hybrid, or money market. Funds are then placed in subcategories—for example, classifying equity funds as large-, mid-, or small-cap; or bond funds as investment grade or high-yield. To keep fund classifications up to date, ICI monitors funds’ prospectuses for material revisions.

This approach produces fund classifications that are consistent and relatively stable, which is very helpful when monitoring current and historical trends in fund data.

Using ICI’s Approach to Classify Funds That Invest According to ESG Criteria

ICI Research examines the prospectuses of funds to classify those that invest according to ESG criteria using the same approach that it does for other categories across all funds. In particular, ICI looks for language indicating that a fund places an important and explicit emphasis on environmental, social, or governance criteria to achieve certain goals.

Following this approach, in 2022, 881 mutual funds and ETFs with assets of $460 billion (Figure 2.12) were classified generally as investing according to exclusionary, inclusionary, or impact investing ESG criteria. The number of funds that invest according to ESG criteria has increased in each year since 2019 (the year ICI began tracking data for these funds) reflecting growing investor interest in these funds.
Among funds that use such criteria in selecting their investments, ICI classifies these funds into groups based on the frameworks or guidelines expressed at the forefront of their principal investment strategies sections.

» **Broad ESG focus**: These funds focus broadly on ESG matters. They consider all three elements of ESG (rather than focusing on one or two of the considerations) or may include ESG in their names. Index funds in this group may track a socially responsible index such as the MSCI KLD 400 Social Index.

» **Environmental focus**: These funds focus more narrowly on environmental matters. They may include terms such as alternative energy, climate change, clean energy, environmental solutions, or low carbon in their principal investment strategies or fund names.

» **Religious values focus**: These funds invest in accordance with specific religious values.

» **Other focus**: These funds focus more narrowly on some combination of environmental, social, and/or governance elements, but not all three. They often negatively screen to eliminate certain types of investments.

**Note**: Data include mutual funds and ETFs. Data include mutual funds that invest primarily in other mutual funds and ETFs that invest primarily in other ETFs.
US Mutual Funds

A mutual fund is an investment company that pools money from shareholders and invests in a portfolio of securities. In 2022, 115.3 million individual investors in 68.6 million US households owned mutual funds, relying on them to meet long-term personal financial objectives, such as preparing for retirement, education, or a home purchase. US households and institutions also use money market funds as cash management tools. Mutual funds had net outflows of $1.1 trillion in 2022, or 4.2 percent of year-end 2021 total net assets. Changing demographics, portfolio rebalancing, 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.

IN THIS CHAPTER

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38 Developments in Mutual Fund Flows
40 Equity Mutual Funds
42 Bond Mutual Funds
46 Hybrid Mutual Funds
47 Growth of Other Investment Products
50 Money Market Funds
Overview of Mutual Fund Trends

With $22.1 trillion in total net assets, the US mutual fund industry remained the largest in the world at year-end 2022. The majority of US mutual fund net assets at year-end 2022 were in long-term mutual funds, with equity funds alone making up 51 percent of US mutual fund net assets. Money market funds were the second-largest category, with 22 percent of net assets. Bond funds (20 percent) and hybrid funds (7 percent) held the remainder.

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, saving for emergencies, or saving for education. 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.

Investor demand for mutual funds decreased sharply in 2022—driven by outflows from long-term mutual funds. Equity mutual funds experienced significant outflows in 2022, reflecting the sharp decline in equity markets and an ongoing shift to other products. In addition, demand for bond mutual funds weakened considerably in 2022, as the Federal Reserve raised interest rates at the fastest pace in four decades to combat rising inflation, which led to significant losses in bond markets. Demand for money market funds steadily shifted from outflows to inflows as investors—particularly retail investors—were attracted to rising short-term yields.
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 277 mutual funds opened in 2022 (Figure 3.1). The number of new mutual funds offered in 2022 was relatively even with 2021, as an increase in the number of equity fund launches offset a decrease in the number of hybrid and taxable bond fund launches. During the same time, the number of mutual funds that were either merged or liquidated decreased 16 percent to 335 funds, as sponsors eliminated fewer equity mutual funds from their lineups.

FIGURE 3.1
Mutual Funds Enter and Exit the Industry Because of Competition and Investor Demand

- Opened mutual funds
- Merged mutual funds
- Liquidated mutual funds

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 (88 percent) of the $22.1 trillion in US mutual fund net assets at year-end 2022 (Figure 3.2). The proportion of long-term mutual fund net assets held by retail investors is even higher (94 percent). Retail investors also held substantial money market fund net assets ($3.0 trillion), but this was a relatively small share (16 percent) of their total mutual fund net assets ($19.4 trillion).

In contrast, institutional investors, such as nonfinancial businesses, financial institutions, and nonprofit organizations, held a relatively small portion of mutual fund net assets. At year-end 2022, institutions held 12 percent of mutual fund net assets (Figure 3.2). The majority (64 percent) of the $2.7 trillion that institutions held in mutual funds was in money market funds, because one of the primary reasons institutions use mutual funds is to help manage their cash balances.

**FIGURE 3.2**

Households Held 88 Percent of Mutual Fund Total Net Assets
Trillions of dollars, year-end 2022

- **$3.0** Households’ money market funds*
- **$1.7** Institutional investors’ money market funds
- **$1.0** Institutional investors’ long-term mutual funds
- **$16.3** Households’ long-term mutual funds*

**Mutual fund total net assets: $22.1 trillion**
**Long-term mutual fund total net assets: $17.3 trillion**
**Money market fund total net assets: $4.8 trillion**

* 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.
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—weakened considerably in 2022 (Figure 3.3). In 2022, mutual funds had net outflows of $1.1 trillion (4.2 percent of year-end 2021 total net assets), following net inflows of $358 billion in 2021. Long-term mutual funds experienced net outflows of $1.1 trillion in 2022, while money market funds saw net outflows of $4 billion. A number of factors—including broad-based declines in financial markets, a rising interest rate environment, ongoing demographic trends, and demand for indexed products—appeared to influence US mutual fund flows in 2022.

FIGURE 3.3
Net Outflows from Mutual Funds Were Primarily from Long-Term Funds in 2022
Billions of dollars, annual

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Fund Flow</th>
<th>Equity, Bond, Hybrid Funds</th>
<th>Money Market Funds</th>
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</thead>
<tbody>
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<td>178</td>
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<tr>
<td>2014</td>
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<td>2015</td>
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<td>2016</td>
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The US Economy and Financial Markets in 2022

The year proved to be a challenging one for the US economy and financial markets. After expanding at a brisk 5.9 percent pace in 2021, real GDP grew more slowly (2.1 percent) in 2022, as the economy struggled with persistent inflationary pressures throughout the year. In response to stubbornly high inflation, the Federal Reserve increased the federal funds rate at a rapid pace in 2022—raising it by 25 basis points in March, followed by hikes of 50 to 75 basis points at each of the six remaining Federal Open Market Committee (FOMC) meetings to end the year at a target range of 4.25 to 4.50 percent.
The swift increase in short-term rates caused the Treasury yield curve—which illustrates the difference between the yields on long-term Treasuries and short-term Treasury bills—to flatten considerably during the year. By year-end, the yield curve had inverted, which is typically considered an indicator of a looming recession by market participants.

Capital markets experienced significant volatility and losses during 2022, as the economic outlook deteriorated amid persistently high inflation, aggressive monetary policy tightening, and the effects of Russia’s invasion of Ukraine, among other factors. Stock markets in the United States ended 2022 close to bear market territory, falling 19 percent.* Additionally, rising labor costs, higher interest rates, and slowing sales growth eroded profits of corporations, while the strengthening of the US dollar—an offshoot of the Federal Reserve’s interest rate hikes—further devalued the overseas earnings of US corporations. During 2022, the VIX† averaged 25.6 and surpassed 30—a level generally considered to signal heightened volatility from increased uncertainty, risk, and investor fear—on 19 percent of trading days. Bond markets also experienced significant losses during this period. Rising interest rates deteriorated bond valuations and resulted in substantial losses of 12 percent in 2022 even after including interest income.‡

**Long-Term Mutual Fund Flows**

Although net new cash flows into long-term mutual funds are typically correlated with market returns, they tend to be moderate as a percentage of total net assets even during episodes of market turmoil. Several factors may contribute to this phenomenon. For example, households (i.e., retail investors) own the vast majority of US long-term mutual fund net assets (Figure 3.2). Retail investors generally respond less strongly to market events than institutional investors do. Most notably, households often use mutual funds to save for the long term, such as for retirement or college. Many of these investors make stable contributions through periodic payroll deductions, even during periods of market stress. In addition, many mutual 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 net assets in mutual funds are spread across 115 million individual investors who have a wide variety of individual characteristics (such as age or appetite for risk) and goals (such as saving for retirement, emergencies, or education). Investors are also 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 experience net outflows, many investors continue to purchase fund shares.

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* As measured by the Wilshire 5000 Total Market Index.
† The Chicago Board Options Exchange (CBOE) Volatility Index (VIX) is a widely used measure of expected stock market volatility.
‡ As measured by the S&P US Aggregate Bond Index.
Equity Mutual Funds

Following the decline in stock market performance around the globe, equity mutual funds experienced net outflows totaling $472 billion in 2022 (3.2 percent of year-end 2021 total net assets).

Equity mutual funds had net outflows in every month in 2022 (Figure 3.4). In the first three months of the year, investors had redeemed, on net, a modest $46 billion from equity mutual funds. Flows to mutual funds, in general, tend to be bolstered in the first quarter 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 contributions to their individual retirement accounts (IRAs) before filing their tax returns. As the year progressed, net outflows from equity mutual funds accelerated, with investors redeeming, on net, $425 billion from April through December.

Note: In March 2022, world equity mutual funds had net inflows of less than $500 million.

From December Outflows to January Inflows: Seasonal Factors in Mutual Fund Flows

www.ici.org/viewpoints/view_19_seasonal_nncf
In addition to declining stock prices, net outflows from domestic equity mutual funds in 2022 may have also been driven by investor demand for domestic equity exchange-traded funds (ETFs). As discussed in chapter 4, demand for ETFs has been very strong over the past several years. Except for April, domestic equity ETFs had net creations in every month of 2022, which resulted in $317 billion in net share issuance over the year (see Figure 4.4). In contrast, domestic equity mutual funds had net outflows of $316 billion in 2022 (Figure 3.4).

Demand for world equity mutual funds weakened considerably in 2022, with investors redeeming $156 billion (Figure 3.4), compared with net redemptions of $16 billion in 2021. Outflows were broad-based across emerging market equity, global equity, international equity, and regional equity funds.
Bond Mutual Funds

Bond mutual fund net new cash flows typically are correlated with the performance of US bonds (Figure 3.5), which, in turn, is largely driven by the US interest rate environment. Long-term interest rates increased considerably in 2022, reflecting the aggressive tightening of monetary policy by the Federal Reserve to tame inflation. The yield on the 10-year Treasury started 2022 at 1.52 percent and increased to 4.25 percent in October before falling to 3.88 percent by year-end. The sharp increase in interest rates resulted in significant capital losses on US bonds in 2022.

1 Net new cash flow is reported as a percentage of previous month-end bond mutual fund total net assets, plotted as a three-month moving average. Data exclude high-yield bond mutual funds.

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

Sources: Investment Company Institute, FTSE Russell, and Refinitiv

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FIGURE 3.5

Net New Cash Flow to Bond Mutual Funds Is Typically Related to Bond Returns
Monthly
Taxable bond mutual funds experienced net outflows in each month of 2022 totaling $393 billion, or 8.5 percent of their year-end 2021 total net assets (Figure 3.6). Portfolio rebalancing may have also contributed to these outflows. With stocks underperforming bonds in 2022, investors and target date funds following asset allocation strategies would have needed to sell bond funds and buy equity funds to remain at their target allocations.

Investor demand weakened across all categories of taxable bond mutual funds in 2022, with investment grade bond funds experiencing the bulk of outflows ($198 billion), which represented 7.5 percent of their year-end 2021 total net assets. Multi-sector bond mutual funds saw outflows of $67 billion (or 10.8 percent of their net assets at year-end 2021); world bond mutual funds, which typically hold a mix of bonds denominated in US dollars and foreign currencies, saw net outflows of $50 billion (8.6 percent); high-yield bond funds saw net outflows of $46 billion (11.7 percent); and government bond mutual funds saw net outflows of $33 billion (8.0 percent).

Demand for municipal bond mutual funds also weakened in 2022, with net outflows in nearly every month totaling $148 billion for the year, or 15.2 percent of their year-end 2021 net assets.

Note: In July 2022, municipal bond mutual funds had net inflows of less than $500 million.
How Bond Mutual Funds Manage Investor Flows

When meeting redemptions, fund managers’ actions are guided by market conditions, expected investor flows, and other factors. A fund might decide to sell some of its holdings to raise the cash needed to fulfill redemptions. But its choice of which particular securities to sell may depend on market conditions. For example, during a market downturn, with liquidity at a premium, some fund managers might seek to add shareholder value by selling some of their funds’ 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 sell a representative “slice” of their funds’ entire portfolios.

Bond mutual fund managers have other ways of meeting redemption requests. For example, a fund might already have cash on hand. Or, the fund may use the cash that bond mutual funds receive each day in the form of interest income from bonds held in the portfolio, proceeds from matured bonds, or new sales of fund shares.

In addition, bond funds often use derivatives or hold liquid assets other than cash. For example, a high-yield bond fund might hold some portion of its assets in equities, because equities are very liquid, and the return profiles of high-yield bonds and equities can be similar. Derivatives can be more liquid than their physical counterparts, and 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 of the funds commonly called liquid alternative funds, as these funds are explicitly designed to allow frequent investor trading and do so in large measure through the use of derivatives.

Long-Term Demand for Bond Mutual Funds

Despite outflows in 2022, bond mutual funds have received $1.7 trillion in net new cash flow and reinvested dividends in the past decade (Figure 3.7).

A number of factors have helped contribute to this long-term demand for bond mutual funds, including demographics. Older investors tend to have larger 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 US population has boosted flows to bond funds.
The popularity of target date mutual funds has also contributed to strong demand for bond mutual funds during this period. 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. Over the past 10 years, target date mutual funds have received net inflows of $405 billion. At year-end 2022, target date mutual funds had total net assets of $1.5 trillion. 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 (see Figure 8.10).

These long-term factors, combined with mostly positive annual returns on bonds and inflows from portfolio allocation strategies, have caused bond mutual fund total net assets to increase from $3.4 trillion at year-end 2012 to $4.5 trillion at year-end 2022. However, long-term mutual funds’ share of bond markets—most of which is held by bond mutual funds—has stayed relatively stable in recent years (see Figure 2.4).
**Hybrid Mutual Funds**

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 its asset allocation more in line with prospectus objectives, which could be necessary following capital gains or losses in the stock or bond markets.

Over the past eight years, investors have moved away from hybrid mutual funds, which had been a popular way to achieve a managed, balanced portfolio of stocks and bonds (Figure 3.8). In 2022, hybrid mutual funds had net outflows of $103 billion (or 5.7 percent of their net assets at year-end 2021). Many factors have likely contributed to this change. For example, investors may be shifting out of hybrid funds and into portfolios of ETFs that are periodically rebalanced, often with the assistance of a fee-based financial adviser. In addition, investors may be shifting assets toward target date funds as an alternative way to achieve a balanced portfolio.*

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*ICI generally excludes funds of funds from total net asset and net new cash flow calculations to avoid double counting. Although target date funds are classified as hybrid funds by ICI, 97 percent of target date fund assets are in funds of funds, and therefore, their flows are excluded from the hybrid mutual fund flows presented in Figure 3.8.*
Growth of Other Investment Products

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

Index mutual funds—which hold all (or a representative sample) of the securities in a specified index—are popular among investors. Of households that owned mutual funds, 48 percent owned at least one index equity mutual fund in 2022. As of year-end 2022, 517 index mutual funds managed total net assets of $4.8 trillion. For 2022 as a whole, investors added $37 billion in net new cash flow to these funds (Figure 3.9). Outflows from index world equity mutual funds ($3 billion) were more than offset by inflows into index domestic equity mutual funds and index bond and hybrid mutual funds ($36 billion and $5 billion, respectively).

FIGURE 3.9
Net New Cash Flow to Index Mutual Funds
Billions of dollars, annual
Index domestic equity mutual funds and ETFs have particularly benefited from the overall increased investor demand for index-based investment products. From 2013 through 2022, index domestic equity mutual funds and ETFs received $2.5 trillion in net new cash and reinvested dividends, while actively managed domestic equity mutual funds experienced net outflows of $2.3 trillion (including reinvested dividends) (Figure 3.10). Index domestic equity ETFs have grown particularly quickly—attracting nearly three times the amount of net inflows of index domestic equity mutual funds since 2013. Part of the recent increasing popularity of ETFs is likely attributable to more brokers and financial advisers using them in their clients’ portfolios. In 2021, full-service brokers and fee-based advisers had 28 percent and 41 percent, respectively, of their clients’ household assets invested in ETFs, up sharply from 6 percent and 10 percent in 2011 (Figure 3.11).

FIGURE 3.10
Some of the Outflows from Domestic Equity Mutual Funds Have Gone to ETFs
Cumulative flows to domestic equity mutual funds and net share issuance of index domestic equity ETFs, billions of dollars, monthly

Note: Mutual fund data include net new cash flow and reinvested dividends; ETF data for net share issuance include reinvested dividends.
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 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 3.12 demonstrates, this trend has translated into a growing share of assets held in CITs by large 401(k) plans. That share increased from 6 percent in 2000 to an estimated 30 percent in 2021. This recent expansion is due, in part, to the growth in target date CITs.
Money Market Funds

In 2022, money market funds saw net outflows of $4 billion (Figure 3.13). Prime money market funds and tax-exempt money market funds received inflows ($224 billion and $25 billion, respectively), but these flows were offset by outflows from government money market funds ($253 billion).

Most of the demand for money market funds in 2022 was from retail investors. Retail money market funds had net inflows of $254 billion while institutional money market funds had net outflows of $258 billion (Figure 3.14). In 2022, short-term interest rates ramped up quickly amid aggressive monetary tightening and by year-end were higher than longer dated fixed-income securities. Retail investors were particularly attracted to rising yields and extremely low interest rate risk offered by money market funds, especially in light of significant capital losses in stock and bond markets. To mitigate these losses, retail investors may have shifted some of their bond fund positions into money market funds to shorten the duration of their fixed-income investments.
In contrast, institutional investors, on net, redeemed cash from money market funds—a development that is consistent with previous monetary policy tightening cycles. Because of their size and investment knowledge, some institutional investors can easily invest directly in short-term instruments. This allows those institutional investors to capture higher yields immediately when the Federal Reserve raises the federal funds rate—rather than waiting for yields on money market funds to catch up as older, lower-yielding short-term securities mature and are replaced with newer, higher-yielding paper.

**FIGURE 3.14**

**Inflows into Retail Money Market Funds Mostly Offset Outflows from Institutional Money Market Funds**

Billions of dollars, 2022
US Exchange-Traded Funds

ETFs are a convenient, cost-effective tool for investors seeking to gain or shed exposure to broad markets, particular sectors or geographical regions, or specific investment strategies. Demand for ETFs has grown markedly as investors—both institutional and retail—increasingly turn to them as investment options. In the past 10 years, net share issuance of ETFs has totaled $4.1 trillion. As investor demand has increased, sponsors have offered more ETFs with a greater variety of investment objectives. With $6.5 trillion in total net assets at year-end 2022, the US ETF industry remained the largest in the world.

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60 Characteristics of ETF-Owning Households
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. ETFs have been available as an investment product for 30 years in the United States. Most ETFs are structured as open-end investment companies, like mutual funds, and are 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.

Learn More About ETFs

ETFs have proven to be a successful financial innovation among registered investment companies since the first one was created in 1993. The demand for ETFs has grown markedly as both institutional and retail investors have gravitated toward them because of their appealing features. For an introduction to the creation, operation, and evolution of the regulation of ETFs, as well as information about authorized participants (or APs) and the key similarities and differences between ETFs and mutual funds, see the ETF Resource Center available at www.ici.org/etf.
ETF Total Net Assets

At year-end 2022, the US ETF market—with 2,844 funds and $6.5 trillion in total net assets—remained the largest in the world, accounting for 72 percent of the $8.9 trillion in ETF net assets worldwide.* Within the United States, total net assets in ETFs accounted for 22 percent of assets managed by investment companies at year-end 2022 (see Figure 2.1). ETFs have been available for 30 years, and in that time, large-cap domestic equity ETFs have accounted for a substantial proportion of ETF net assets. At year-end 2022, net assets in large-cap domestic equity ETFs totaled $1.9 trillion, or 30 percent of ETF net assets. Bond ETFs, which have been fueled by strong investor demand over the past several years, accounted for $1.3 trillion (19 percent) of net assets.

FIGURE 4.1
Total Net Assets and Number of ETFs
Billions of dollars, year-end

* Commodity ETFs include funds—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.
Note: The first bond, hybrid, and commodity ETFs were opened in 2002, 2007, and 2004, respectively.

* Based on ICI calculations of data from the International Investment Funds Association (IIFA).
Secondary Market Trading in ETF Shares

Many investors access ETFs through the secondary market (e.g., on an exchange). Although many large institutional investors can access ETFs in both the primary market (i.e., through creations and redemptions of ETF shares via an AP) and the secondary market, retail investors generally can access them only in the secondary market. ETF investors trading in the secondary market generally are not motivated by arbitrage. They are using ETFs to gain or reduce exposure to specific asset classes or investment strategies, diversify their portfolios, or hedge investment risks. Thus, these funds provide investors with an efficient means to transfer risk. Therefore, it is not surprising that ETF secondary market trading volumes (as measured by the value of shares traded) are a substantial share of total trading on US stock exchanges and other venues. But despite tremendous growth in ETFs in the past decade, their average daily share of total stock market trading has remained relatively flat—fluctuating in a narrow range. In 2022, ETFs’ share of trading volume somewhat increased and accounted for 30 percent of average daily total stock market trading (Figure 4.2), which was likely related to elevated market volatility.

During periods of market turbulence, ETF secondary market trading volumes rise—both in absolute terms and as a share of total stock market trading—as investors, especially institutional investors, turn to ETFs to quickly and efficiently transfer and hedge risks. For example, in late 2018, stock market volatility jumped, largely reflecting market participants’ concerns about slowing global growth and intensifying trade tensions. On December 24, 2018, when the S&P 500 index neared bear market territory following its September peak, ETF trading volume accounted for 43 percent of total stock market trading—its highest share in the past decade (Figure 4.2). More recently, in 2022, there was an abundance of concern over the increased volatility in equity and bond markets and the Federal Reserve’s stance on monetary policy to combat rising inflation—with year-over-year inflation reaching a 40-year high in June. As such, ETF trading volume peaked at 39 percent of total stock market trading on June 13, 2022, one day before the Federal Reserve’s June Federal Open Market Committee (FOMC) meeting.
Across all ETFs, most activity is conducted in the secondary market (trading ETF shares) rather than the primary market (creations and redemptions of ETF shares through an AP). On average, 86 percent of the total activity in ETFs occurred on the secondary market in 2022. Even for ETFs focused on narrower asset classes—such as emerging market equity, domestic high-yield bond, and emerging market bond—the bulk of the trading occurred on the secondary market (95 percent, 81 percent, and 88 percent, respectively).*

Most ETF secondary market trades represent investors exchanging shares of ETFs among themselves. Unlike primary market activity, these trades do not affect the ETF’s underlying securities. In 2022, domestic equity ETFs had a total of $5.2 trillion in primary market activity, which represented only 5.2 percent of the $99.8 trillion traded in company stocks during the year (Figure 4.3). Even in years with significant market volatility, such as 2018, 2020, and 2022, creations and redemptions of domestic equity ETFs accounted for only a modest share of trading in company stocks.

* Based on ICI calculations of data from Refinitiv.
Demand for ETFs

In recent years, demand for ETFs has grown as institutional investors have found ETFs to be a convenient vehicle for participating in, or hedging against, broad movements in the stock market, and financial advisers are investing more of their retail clients’ assets in ETFs (see Figure 3.11). Although down from 2021’s record high, net issuance of ETF shares (including reinvested dividends) in 2022 was a robust $609 billion, even with steep losses in stock and bond markets (Figure 4.4).

Net issuance of domestic equity ETFs was $317 billion in 2022, down from $519 billion in 2021, and net issuance of global/international equity ETFs fell from $211 billion to $100 billion. The drop-off in demand for these two categories likely reflected the poor performance of worldwide stock prices—US stocks were down 19 percent* and international stocks lost 16 percent.† Demand for global/international equity ETFs was also likely tamped down by an appreciation in the value of the US dollar, which generally decreases the attractiveness of international investments to US investors. Despite losses of 12 percent (including interest income) on US bonds,‡ demand for bond ETFs remained fairly steady, with net issuance totaling $197 billion in 2022 versus $203 billion in 2021. In 2022, net issuance of bond ETFs was more concentrated in low duration funds—an estimated 42 percent of the bond ETF net issuance went to funds with durations of two years or less.§

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* As measured by the Wilshire 5000 Total Market Index.
† As measured by the MSCI ACWI Ex USA Index (expressed in US dollars).
‡ As measured by the S&P US Aggregate Bond Index.
§ Based on ICI calculations of data from Morningstar Direct.
FIGURE 4.4
Net Share Issuance of ETFs Declined in 2022
Billions of dollars, annual

* Commodity ETFs include 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 share issuance include reinvested dividends.
Overall demand for ETFs in 2022 may have also been boosted due to tax loss harvesting—a strategy that allows investors to offset capital gains with capital losses to reduce or minimize their tax liability. Because tax loss harvesting involves selling a security at a loss, some investors tend to replace the security that was sold with a similar one to maintain the portfolio’s allocation structure and its associated risk profile. These transactions, however, must comply with the wash-sale rule, which disallows claimed losses on the sale of a security if that same security or a substantially identical one is bought within 30 days. As a result, some investors may have chosen to buy ETFs with similar but not substantially identical investment exposure to replace the securities they sold to avoid violating the wash-sale rule.

Strong investor demand for ETFs has led to a substantial increase in the number of ETFs created by fund sponsors, with 2,763 new ETFs offered to investors in the past decade (Figure 4.5). Over the same period, 946 ETFs were liquidated or merged with another fund. In any given year, fund sponsors will liquidate or merge ETFs that have failed to attract sufficient demand. In 2022, 414 ETFs—mostly equity ETFs—were launched. Meanwhile, 120 ETFs were liquidated or merged as sponsors eliminated some sector equity ETFs and global/international equity ETFs from their lineups.

FIGURE 4.5
Number of ETFs Entering and Exiting the Industry

<table>
<thead>
<tr>
<th>Year</th>
<th>Opened</th>
<th>Liquidated/Merged</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>147</td>
<td>46</td>
</tr>
<tr>
<td>2014</td>
<td>196</td>
<td>59</td>
</tr>
<tr>
<td>2015</td>
<td>274</td>
<td>75</td>
</tr>
<tr>
<td>2016</td>
<td>230</td>
<td>97</td>
</tr>
<tr>
<td>2017</td>
<td>254</td>
<td>114</td>
</tr>
<tr>
<td>2018</td>
<td>240</td>
<td>84</td>
</tr>
<tr>
<td>2019</td>
<td>235</td>
<td>110</td>
</tr>
<tr>
<td>2020</td>
<td>316</td>
<td>182</td>
</tr>
<tr>
<td>2021</td>
<td>457</td>
<td>59</td>
</tr>
<tr>
<td>2022</td>
<td>414</td>
<td>120</td>
</tr>
</tbody>
</table>

Note: Data include ETFs that invest primarily in other ETFs.
Characteristics of ETF-Owning Households

About 12 percent of US households (16.1 million) held ETFs in 2022 (see Figure 7.1). Of households that owned mutual funds, an estimated 19 percent also owned ETFs. ETF-owning households tended to include investors who owned a range of equity and fixed-income investments.

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 (Figure 4.6). ETF-owning households, however, also exhibit some characteristics that distinguish them from other households. For example, ETF-owning households tended to be younger and more likely to own individual retirement accounts (IRAs) than households that own mutual funds and those that own individual stocks.

ETF-owning households also exhibit more willingness to take investment risk (Figure 4.6). Fifty-two percent of ETF-owning households were willing to take substantial or above-average investment risk for substantial or above-average gain in 2022, compared with 24 percent of all US households and 34 percent of mutual fund–owning households. This result may be explained by the predominance of equity ETFs, which make up 78 percent of ETF total net assets. Investors who are more willing to take investment risk generally may be more likely to invest in equities.
### FIGURE 4.6
**Characteristics of ETF-Owning Households**
2022

<table>
<thead>
<tr>
<th>Median</th>
<th>All US households</th>
<th>Households owning ETFs</th>
<th>Households owning mutual funds</th>
<th>Households owning individual stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of head of household&lt;sup&gt;1&lt;/sup&gt;</td>
<td>52</td>
<td>51</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td>Household income&lt;sup&gt;2&lt;/sup&gt;</td>
<td>$69,000</td>
<td>$125,000</td>
<td>$100,000</td>
<td>$125,000</td>
</tr>
<tr>
<td>Household financial assets&lt;sup&gt;3&lt;/sup&gt;</td>
<td>$87,500</td>
<td>$465,000</td>
<td>$250,000</td>
<td>$375,000</td>
</tr>
</tbody>
</table>

### Percentage of households

#### Household primary or co-decisionmaker for saving and investing

- Married or living with a partner: 64, 72, 71, 72
- College or postgraduate degree: 39, 66, 54, 61
- Employed (full- or part-time): 56, 65, 64, 64
- Retired from lifetime occupation: 32, 33, 34, 33

#### Household owns

- IRA(s): 42, 81, 67, 69
- DC retirement plan account(s): 57, 76, 81, 79

#### Household's willingness to take financial risk

- Substantial risk for substantial gain: 5, 10, 6, 7
- Above-average risk for above-average gain: 19, 42, 28, 37
- Average risk for average gain: 39, 38, 47, 44
- Below-average risk for below-average gain: 11, 6, 11, 8
- Unwilling to take any risk: 26, 4, 8, 4

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

<sup>2</sup> Total reported is household income before taxes in 2021.

<sup>3</sup> Household financial assets include assets in employer-sponsored retirement plans but exclude the household’s primary residence.
US 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. 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. Total assets of closed-end funds were $252 billion at year-end 2022.

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63 What Is a Closed-End Fund?
64 Total Assets and Net Issuance of Closed-End Funds
66 Closed-End Fund Distributions
67 Closed-End Fund Leverage
70 Characteristics of Households Owning Closed-End Funds
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 stocks, 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 are also permitted to issue one class of preferred shares in addition to common shares. Holders of preferred shares are paid dividends, but do not participate in the gains and losses on the fund’s investments. 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 are generally 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.
Total Assets and Net Issuance of Closed-End Funds

At year-end 2022, 441 closed-end funds had total assets of $252 billion (Figure 5.1)—a decrease of 19 percent from year-end 2021. The decrease in closed-end fund assets in 2022 reflected market returns and negative net share issuance.

Historically, bond funds have accounted for the majority of assets in closed-end funds. At year-end 2022, bond closed-end funds accounted for 61 percent of all closed-end fund assets, the same as at year-end 2017 (Figure 5.1). These shares have remained relatively stable, in part, because of two offsetting factors. Cumulative net issuance of bond closed-end fund shares exceeded that of equity fund shares—offsetting the total returns on US stocks,* which exceeded those of US bonds† during this time.

The number of closed-end funds available to investors decreased again in 2022 (Figure 5.1). In recent years, more closed-end funds were liquidated, merged, or converted into open-end mutual funds or ETFs than were launched.

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* As measured by the Wilshire 5000 Total Market Index.
† As measured by the S&P US Aggregate Bond Index.
Closed-end funds had negative net share issuance of $489 million in 2022, compared with positive net issuance of $17.2 billion in 2021 (Figure 5.2). In 2022, equity closed-end funds had positive net issuance of $135 million, while bond closed-end funds had negative net issuance of $623 million. Negative returns on stocks around the world and capital losses on bonds likely contributed to the weakened demand for closed-end funds in 2022.

FIGURE 5.2
Closed-End Fund Net Share Issuance Weakened Substantially in 2022
Billions of dollars, annual

Note: Net share issuance is the dollar value of gross issuance (proceeds from initial and additional public offerings of shares) minus gross redemptions of shares (share repurchases and fund liquidations).
Closed-End Fund Distributions

In 2022, closed-end funds distributed an estimated $16.7 billion to shareholders (Figure 5.3). Closed-end funds may make distributions to shareholders from three possible sources: income distributions, which are payments from interest and dividends that the fund earns on its investments in securities; realized capital gains distributions; and return of capital. Income distributions accounted for the majority (72 percent) of closed-end fund distributions. Capital gains distributions accounted for 11 percent of closed-end fund distributions and return of capital for 17 percent.

FIGURE 5.3
Most Closed-End Fund Distributions Are from Income Distributions
Percentage of closed-end fund distributions, 2022

72% Income distributions*

11% Capital gains distributions

17% Return of capital

Total closed-end fund distributions: $16.7 billion

* Income distributions are paid from interest and dividends that the fund earns on its investments in securities.
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 2022, 274 funds, accounting for 62 percent of closed-end funds, used structural leverage, some types of portfolio leverage (i.e., tender option bonds or reverse repurchase agreements), or both as a part of their investment strategy (Figure 5.4).

FIGURE 5.4
Closed-End Funds Are Employing Structural Leverage and Portfolio Leverage
Number of funds, end of period

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

Structural leverage affects the closed-end fund’s capital structure by increasing the fund’s portfolio assets through borrowing and issuing debt and preferred shares.

Portfolio leverage is leverage that results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of investments/transactions with a leverage characteristic (and the use of different definitions of leverage), actual portfolio leverage may be materially different from what is reflected above.

Structural 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 capital and issuing debt and preferred shares. At the end of 2022, 239 funds had a total of $49 billion in structural leverage, with $28 billion from preferred shares and $21 billion from other structural leverage, which includes bank borrowing and other forms of debt (Figures 5.4 and 5.5). The average leverage ratio* across those closed-end funds employing structural leverage was 30 percent at year-end 2022. Among closed-end funds employing structural leverage, the average leverage ratio for bond funds was somewhat higher (32 percent) than that of equity funds (26 percent).

Portfolio leverage is leverage that results from particular portfolio investments, such as certain types of derivatives, reverse repurchase agreements, and tender option bonds. At the end of 2022, 119 closed-end funds had $18 billion outstanding in reverse repurchase agreements and tender option bonds (Figures 5.4 and 5.5).

**FIGURE 5.5**
Closed-End Funds Use Leverage
Billions of dollars, year-end 2022

<table>
<thead>
<tr>
<th>Structural leverage</th>
<th>Portfolio leverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred shares¹</td>
<td>Reverse repurchase</td>
</tr>
<tr>
<td></td>
<td>agreements</td>
</tr>
<tr>
<td>28.0</td>
<td>11.8</td>
</tr>
<tr>
<td>Other structural leverage²</td>
<td>Tender option bonds</td>
</tr>
<tr>
<td>21.5</td>
<td>6.6</td>
</tr>
</tbody>
</table>

¹ A closed-end fund may issue preferred shares to raise additional capital, which can be used to purchase more securities for its portfolio. Holders of preferred shares are paid dividends, but do not participate in the gains and losses on the fund’s investments.

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

³ Portfolio leverage is leverage that results from particular types of portfolio investments, including certain types of derivatives, reverse repurchase agreements, tender option bonds, and other investments or types of transactions. Data are only available for reverse repurchase agreements and tender option bonds. Given data collection constraints, and the continuing development of types of investments/transactions with a leverage characteristic (and the use of different definitions of leverage), actual portfolio leverage may be materially different from what is reflected above.


* The leverage ratio is the ratio of the amount of structural leverage to the sum of the amount of common share assets and structural leverage.
Closed-End Fund Discounts

More than 95 percent of exchange-listed closed-end funds calculate the value of their portfolios every business day, while the rest calculate their portfolio values weekly or on some other basis. The net asset value (NAV) of a closed-end fund is calculated by subtracting the fund's liabilities (e.g., fund borrowing) from the current market value of its assets and dividing by the total number of shares outstanding. The NAV changes as the total value of the underlying portfolio securities rises or falls, or the fund's liabilities change.

Because an exchange-listed closed-end fund's shares trade based on investor demand, the fund may trade at a price higher or lower than its NAV. A closed-end fund trading at a share price higher than its NAV is said to be trading at a “premium” to the NAV, while a closed-end fund trading at a share price lower than its NAV is said to be trading at a “discount.” Funds may trade at discounts or premiums to the NAV based on market perceptions or investor sentiment. For example, a closed-end fund that invests in securities that are anticipated to generate above-average future returns and are difficult for retail investors to obtain directly may trade at a premium because of a high level of market interest. In contrast, a closed-end fund with large unrealized capital gains may trade at a discount because investors will have priced in any perceived tax liability. Closed-end fund price deviations widened somewhat in 2022. Although discounts fluctuated over the course of the year, they averaged 5.7 percent for equity funds and 5.0 percent for bond funds in 2022.

FIGURE 5.6
Closed-End Fund Discounts Widened in 2022
Percent, month-end

Note: The premium/discount rate is the simple average of the percent difference between share price and NAV at month-end.
Source: Investment Company Institute calculations of Bloomberg and Refinitiv data
Characteristics of Households Owning Closed-End Funds

An estimated 3.8 million US households owned closed-end funds in 2022 (see Figure 7.1). These households tended to include investors who owned a range of equity and fixed-income investments (Figure 5.7). More than nine in 10 households owning closed-end funds also owned mutual funds, and more than six in 10 also owned ETFs. Six in 10 households owning closed-end funds also invested in individual stocks.

Because households that owned closed-end funds often also owned individual stocks and mutual funds, the characteristics of each group were similar in many respects. For instance, households that owned closed-end funds (like households owning individual stocks and mutual funds) tended to have household incomes and financial assets above the national median or tended to own retirement accounts (Figure 5.8). Nonetheless, households that owned closed-end funds exhibited certain differences. For example, 39 percent of closed-end fund–owning households were retired from their lifetime occupations compared with about one-third of those owning individual stocks or mutual funds. Households owning closed-end funds also expressed more willingness to take financial risk, as 49 percent were willing to take above-average or substantial risk, compared with 34 percent of mutual fund–owning households.

### FIGURE 5.7
Closed-End Fund Investors Owned a Broad Range of Investments
Percentage of closed-end fund–owning households holding each type of investment, 2022

<table>
<thead>
<tr>
<th>Investment Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity mutual funds, individual stocks, or variable annuities (total)</td>
<td>88</td>
</tr>
<tr>
<td>Bond mutual funds, individual bonds, or fixed annuities (total)</td>
<td>56</td>
</tr>
<tr>
<td>Mutual funds (total)</td>
<td>91</td>
</tr>
<tr>
<td>Equity</td>
<td>79</td>
</tr>
<tr>
<td>Bond</td>
<td>40</td>
</tr>
<tr>
<td>Hybrid</td>
<td>39</td>
</tr>
<tr>
<td>Money market</td>
<td>59</td>
</tr>
<tr>
<td>Exchange-traded funds (ETFs)</td>
<td>62</td>
</tr>
<tr>
<td>Individual stocks</td>
<td>60</td>
</tr>
<tr>
<td>Individual bonds</td>
<td>16</td>
</tr>
<tr>
<td>Fixed or variable annuities</td>
<td>23</td>
</tr>
<tr>
<td>Investment real estate</td>
<td>28</td>
</tr>
</tbody>
</table>

Note: Multiple responses are included.
### FIGURE 5.8
Closed-End Fund Investors Had Above-Average Household Incomes and Financial Assets
2022

<table>
<thead>
<tr>
<th></th>
<th>All US Households</th>
<th>Households owning closed-end funds</th>
<th>Households owning mutual funds</th>
<th>Households owning individual stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Median</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of head of household(^1)</td>
<td>52</td>
<td>50</td>
<td>54</td>
<td>53</td>
</tr>
<tr>
<td>Household income(^2)</td>
<td>$69,000</td>
<td>$100,000</td>
<td>$100,000</td>
<td>$125,000</td>
</tr>
<tr>
<td>Household financial assets(^3)</td>
<td>$87,500</td>
<td>$323,000</td>
<td>$250,000</td>
<td>$375,000</td>
</tr>
</tbody>
</table>

**Percentage of households**

<table>
<thead>
<tr>
<th>Household primary or co-decisionmaker for saving and investing</th>
<th>All US Households</th>
<th>Households owning closed-end funds</th>
<th>Households owning mutual funds</th>
<th>Households owning individual stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married or living with a partner</td>
<td>64</td>
<td>69</td>
<td>71</td>
<td>72</td>
</tr>
<tr>
<td>College or postgraduate degree</td>
<td>39</td>
<td>50</td>
<td>54</td>
<td>61</td>
</tr>
<tr>
<td>Employed (full- or part-time)</td>
<td>56</td>
<td>59</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Retired from lifetime occupation</td>
<td>32</td>
<td>39</td>
<td>34</td>
<td>33</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household owns</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IRA(s)</td>
<td>42</td>
<td>71</td>
<td>67</td>
<td>69</td>
</tr>
<tr>
<td>DC retirement plan account(s)</td>
<td>57</td>
<td>78</td>
<td>81</td>
<td>79</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household’s willingness to take financial risk</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Substantial risk for substantial gain</td>
<td>5</td>
<td>12</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Above-average risk for above-average gain</td>
<td>19</td>
<td>37</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>Average risk for average gain</td>
<td>39</td>
<td>33</td>
<td>47</td>
<td>44</td>
</tr>
<tr>
<td>Below-average risk for below-average gain</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Unwilling to take any risk</td>
<td>26</td>
<td>7</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

\(^1\) Age is based on the sole or co-decisionmaker for household saving and investing.
\(^2\) Total reported is household income before taxes in 2021.
\(^3\) Household financial assets include assets in employer-sponsored retirement plans but exclude the household’s primary residence.

US 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 expense ratios (i.e., ongoing expenses) paid by US 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 0.44 percent in 2022, a 56 percent decline. Mutual fund share classes with sales loads are far less commonly sold today than they were a few decades ago. In 2022, the vast majority of gross sales to long-term mutual funds went to share classes that charge neither a sales load nor a 12b-1 fee.

IN THIS CHAPTER

73  Trends in Mutual Fund Expenses
75  Understanding the Decline in Mutual Fund Expense Ratios
80  Expense Ratios of Index Mutual Funds and Index ETFs
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). Mutual fund share classes with a sales load are far less commonly sold today than they were a few decades ago as investors have gravitated toward funds without them (see The Shift to No-Load Funds on page 76).

On an asset-weighted basis, average expense ratios* incurred by mutual fund investors have fallen substantially (Figure 6.1). In 2000, equity mutual fund investors incurred expense ratios of 0.99 percent, on average, or 99 cents for every $100 invested. By 2022, that average had fallen to 0.44 percent, a 56 percent decline. Hybrid and bond mutual fund expense ratios have also declined over this period, by 34 percent and 51 percent, respectively.

* In this chapter, unless otherwise noted, average expense ratios are calculated on an asset-weighted basis. 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 the expense ratio of each fund’s share class by its year-end assets.

The fund investment categories used in this chapter are broad and encompass diverse investment styles (e.g., active and index), a range of general investment types (e.g., equity, bond, and hybrid funds), and a variety of arrangements for shareholder services, recordkeeping, or distribution charges (known as 12b-1 fees). This material is intended to provide general information on fees incurred by investors through funds as well as insight into average fees across the marketplace. It is not intended for benchmarking fees and expenses incurred by a particular investor, or charged by a particular fund or other investment product.
FIGURE 6.1
Expense Ratios Incurred by Mutual Fund Investors Have Declined Substantially Since 2000
Percent

- Simple average
- Asset-weighted average

Note: Data exclude mutual funds available as investment choices in variable annuities.
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. This 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 over the same period (Figure 6.2).

FIGURE 6.2
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 and index mutual funds.

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


Another factor contributing to 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 page 76).
The Shift to No-Load Funds

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, 67 percent own mutual fund shares through investment professionals (see Figure 7.6). 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 sales loads (e.g., front-end loads) and toward asset-based fees. An important element in the changing distribution structure of mutual funds has been this 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.

The shift toward no-load share classes has been an important force in driving down the average expense ratio of mutual funds. Some movement toward no-load funds can be attributed to “do-it-yourself” investors who invest through discount brokers or directly with fund companies. Another factor is an ongoing shift to compensate financial professionals with asset-based fees outside of mutual funds (for example, through fee-based professionals and full-service brokerage platforms). Additionally, assets and flows to no-load share classes have been bolstered by 401(k) plans and other retirement accounts. Gross sales to no-load mutual funds without 12b-1 fees have grown substantially since 2000 and were 91 percent of total gross sales to long-term mutual funds in 2022 (Figure 6.3).
The Majority of Long-Term Mutual Fund Gross Sales Went to No-Load Mutual Funds Without 12b-1 Fees

Percentage of long-term mutual fund gross sales, annual.

Mutual fund expense ratios also have fallen because of economies of scale and competition. Investor demand for mutual fund services has increased dramatically in the past few decades. From 1990 to 2022, the number of households owning mutual funds nearly tripled—from 23.4 million to 68.6 million (see Figure 7.1). All else being 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 4, Figure 3.10, and page 82 of this chapter), competition from collective investment trusts (CITs) in retirement plans (see Figure 3.12), and economies of scale resulting from the growth in fund assets.

Finally, shareholders indicate that they typically reviewed the fund’s fees and expenses when selecting their mutual funds (see Figure 7.7) and tend to invest in mutual funds with below-average expense ratios (Figure 6.1). The simple average expense ratio of equity mutual funds (the average for all equity mutual funds offered for sale) was 1.12 percent in 2022. The asset-weighted average expense ratio for equity mutual funds (the average shareholders actually paid) was far lower, at 0.44 percent. Another way to illustrate the tendency for investors to gravitate to lower-cost funds is to examine how the allocation of their assets across funds varies by expense ratio. At year-end 2022, equity mutual funds with expense ratios in the lowest quartile held most (79 percent) of equity mutual funds’ total net assets, and this pattern holds for both actively managed and index equity mutual funds.
Differences in Mutual Fund Expense Ratios

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, fund assets, whether the fund is actively managed or tracks an index, and payments to financial intermediaries.

Mutual Fund Investment Objective

Mutual fund expense ratios vary by investment objective. 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 0.61 percent or less, while another 10 percent have expense ratios of 1.78 percent or more (Figure 6.4). Among other things, this variation reflects the fact that some growth funds focus more on small- or mid-cap stocks and others focus more on large-cap stocks. Portfolios of small- and mid-cap stocks tend to cost more to manage since information about these types of stocks is less readily available, which means that active portfolio managers must spend more time doing research.

FIGURE 6.4
Mutual Fund Expense Ratios Vary Across Investment Objectives
Percent, 2022

Note: Each fund’s share class is weighted equally for the simple average and the median, 10th, and 90th percentiles. Data exclude mutual funds available as investment choices in variable annuities.
Sources: Investment Company Institute and Morningstar

IRA Investors Are Concentrated in Lower-Cost Mutual Funds
www.ici.org/viewpoints/22-view-iras
Expense Ratios of Index Mutual Funds and Index ETFs

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 both index mutual funds and index 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 limiting downside risk, managing volatility, underweighting or overweighting various sectors, and altering asset allocations in response to market conditions. These characteristics tend to make active management more costly than management of an index fund.

Index Mutual Funds

Growth in index mutual funds has contributed to the decline in asset-weighted average expense ratios of equity, hybrid, and bond mutual funds. From 2000 to 2022, index mutual fund total net assets grew significantly, from $384 billion to $4.8 trillion (Figure 6.5). Consequently, over the same period, index mutual funds’ share of long-term mutual fund net assets more than tripled, from 7.5 percent at year-end 2000 to 27.9 percent at year-end 2022. Within index mutual funds, index equity mutual funds accounted for the bulk (81 percent) of index mutual fund total net assets at year-end 2022.

FIGURE 6.5
Total Net Assets of Index Mutual Funds Fell in 2022
Billions of dollars, year-end

<table>
<thead>
<tr>
<th>Year</th>
<th>Index Bond Mutual Funds and Index Hybrid M.</th>
<th>Index Equity Mutual Funds</th>
<th>Total Net Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>384</td>
<td>1,020</td>
<td>4,843</td>
</tr>
<tr>
<td>2005</td>
<td>619</td>
<td>418</td>
<td>5,798</td>
</tr>
<tr>
<td>2010</td>
<td>827</td>
<td>1,797</td>
<td>4,840</td>
</tr>
<tr>
<td>2015</td>
<td>2,215</td>
<td>3,913</td>
<td>5,025</td>
</tr>
<tr>
<td>2020</td>
<td>4,772</td>
<td>4,843</td>
<td>10,615</td>
</tr>
<tr>
<td>2021</td>
<td>3,933</td>
<td>1,025</td>
<td>5,798</td>
</tr>
<tr>
<td>2022</td>
<td>3,933</td>
<td>4,840</td>
<td>8,767</td>
</tr>
</tbody>
</table>

Number of index mutual funds:

<table>
<thead>
<tr>
<th>Year</th>
<th>Index Bond Mutual Funds and Index Hybrid M.</th>
<th>Index Equity Mutual Funds</th>
<th>Total Net Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>27</td>
<td>193</td>
<td>4,843</td>
</tr>
<tr>
<td>2005</td>
<td>71</td>
<td>1,797</td>
<td>5,798</td>
</tr>
<tr>
<td>2010</td>
<td>372</td>
<td>2,215</td>
<td>4,840</td>
</tr>
<tr>
<td>2015</td>
<td>412</td>
<td>4,772</td>
<td>10,615</td>
</tr>
<tr>
<td>2020</td>
<td>503</td>
<td>3,933</td>
<td>8,767</td>
</tr>
<tr>
<td>2021</td>
<td>517</td>
<td>4,840</td>
<td>8,767</td>
</tr>
</tbody>
</table>

2023 INVESTMENT COMPANY FACT BOOK
Index mutual funds tend to have below-average expense ratios for several reasons. First, their approach to portfolio management lends itself to being less costly. This is because index funds’ portfolios tend not to change frequently, and therefore, have low turnover rates.

Second, index mutual funds tend to have below-average expense ratios because of their investment focus. Net 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. Net assets of actively managed equity mutual funds, on the other hand, are more widely distributed across stocks of varying capitalizations, international regions, or specialized business sectors. Managing portfolios of small- or mid-cap, international, or sector stocks is generally acknowledged to be more expensive than managing portfolios of US large-cap stocks.

Finally, index mutual funds are larger on average than actively managed mutual funds, which, through economies of scale, helps reduce fund expense ratios. At year-end 2022, the average index equity mutual fund ($9.1 billion) was significantly larger than the average actively managed equity mutual fund ($1.9 billion).

These reasons, among others, help explain why index mutual funds generally have lower expense ratios than actively managed mutual funds. However, it is important to note that both index and actively managed mutual funds have contributed to the decline in the average expense ratios of mutual funds (Figure 6.6).

Note: Expense ratios are measured as asset-weighted averages. Data exclude mutual funds available as investment choices in variable annuities.
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. Index equity mutual funds with expense ratios in the lowest quartile held 85 percent of index equity mutual funds’ net assets at year-end 2022. This phenomenon is not unique to index mutual funds, however; the proportion of assets in the lowest-cost actively managed mutual funds is also high.

**Index ETFs**

ETF total net assets have grown rapidly in recent years, from $992 billion at year-end 2010 to $6.5 trillion at year-end 2022 (see Figure 4.1). During this time, ETFs have become a significant market participant, with net assets accounting for 22 percent of total net assets managed by investment companies at year-end 2022 (see Figure 2.1). ETFs are largely index-based and generally registered with the Securities and Exchange Commission (SEC) under the Investment Company Act of 1940. Actively managed ETFs registered under the 1940 Act represented 5.2 percent of ETF total net assets at year-end 2022, and ETFs not registered under the 1940 Act represented 1.8 percent. Like index mutual funds, most of the net assets in ETFs are in funds that focus on equities. Equity ETFs accounted for 78 percent of the total net assets of ETFs at year-end 2022.

Part of the strong growth in ETFs is attributable to their distribution structure, in which the ETF generally charges an expense ratio that provides no compensation to financial professionals. Compensation to financial professionals for distribution or account servicing and maintenance is typically paid directly by the investor.* And because ETFs are generally index funds, they typically have lower expense ratios.

Like mutual fund investors, ETF shareholders tend to invest in funds with below-average expense ratios (Figure 6.7). For example, the simple average expense ratio of index equity ETFs (the average for all index equity ETFs offered for sale) was 0.46 percent in 2022. The asset-weighted average expense ratio for index equity ETFs (the average shareholders actually paid) was much less than that, 0.16 percent.

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* Some ETFs bundle distribution fees in the expense ratio to cover marketing and distribution expenses. These fees are usually small, typically no more than 0.04 percent.
Additionally, like mutual funds, index ETF expense ratios differ both across and within investment objectives. Within specific investment objectives, expense ratios vary between actively managed and index ETFs and even among index ETFs for a range of reasons. For example, expense ratios may differ because not all index ETFs in a given investment objective rely on the same index, and licensing fees that ETFs pay to index providers may vary.
Characteristics of US Mutual Fund Owners

A majority of US households rely on mutual funds to help them meet their financial goals. These mutual fund−owning households represent a broad range of the US population—coming from all age and income groups. For instance, Generation Z and Millennial households are well on their way to widespread mutual fund ownership. Mutual fund investors, who often are primarily saving for retirement, make informed purchasing decisions by researching their fund investment choices and often seeking the assistance of investment professionals.

IN THIS CHAPTER

85  Household Ownership of Mutual Funds Is Widespread
86  Mutual Fund−Owning Households Reflect Everyday People
88  Mutual Fund Ownership Tends to Rise Across the Generations
89  Mutual Fund Ownership Patterns Vary by Generation
90  Mutual Fund−Owning Households Primarily Save for Retirement
91  Many Mutual Fund−Owning Households Rely on Investment Professionals
92  Mutual Fund−Owning Households Make Informed Purchasing Decisions
Household Ownership of Mutual Funds Is Widespread

Mutual funds are an important way US households build their financial wealth. In 2022, about 55 percent of US households owned shares of mutual funds or other US-registered investment companies—including exchange-traded funds, closed-end funds, and unit investment trusts—representing an estimated 71.7 million households (Figure 7.1).

Mutual funds were the most common type of fund owned, with 68.6 million US households, or 52 percent, owning mutual funds in 2022 (Figure 7.1). All told, 115.3 million individual investors owned mutual funds in 2022. In aggregate, US households’ investment in funds represents about one-fifth of their financial assets, a higher share than seen in other jurisdictions (see Figure 1.9).

FIGURE 7.1
Mutual Funds Are a Key Investment Product for US Households
Ownership of US-registered investment companies; millions of US households, 2022

<table>
<thead>
<tr>
<th>US-registered investment companies</th>
<th>Mutual funds</th>
<th>Exchange-traded funds</th>
<th>Closed-end funds</th>
<th>Memo: Share of US household financial assets held in US-registered investment companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>71.7</td>
<td>68.6</td>
<td>16.1</td>
<td>3.8</td>
<td>21%</td>
</tr>
</tbody>
</table>

Percentage of US households

|                        | 55%         | 52%         | 12%         | 3%          |

Sources: Investment Company Institute, US Census Bureau, and Federal Reserve Board

Ownership of Mutual Funds and Shareholder Sentiment, 2022
www.ici.org/files/2022/per28-09.pdf
Mutual Fund–Owning Households Reflect Everyday People

Households that own mutual funds come from all demographic groups and typically are working and saving for retirement (Figure 7.2). In 2022, the median mutual fund–owning head of household:

» was middle-aged, employed, and educated;
» owned mutual funds inside an employer-sponsored retirement plan;
» purchased their first mutual fund through an employer-sponsored retirement plan;
» owned mutual funds outside employer-sponsored retirement plans, primarily purchased through investment professionals (registered investment advisers, full-service brokers, independent financial planners, bank or savings institution representatives, insurance agents, or accountants);
» had more than half of the household’s financial assets (excluding the primary residence) invested in mutual funds;
» owned an IRA;
» was using mutual funds to save for retirement; and
» was confident that mutual funds could help them reach their financial goals.

Many US mutual fund shareholders had moderate household incomes and were in their peak earning and saving years. More than two-thirds of US households owning mutual funds had incomes less than $150,000, and 54 percent were headed by individuals between the ages of 35 and 64 in 2022 (Figure 7.2). The median mutual fund–owning household had $100,000 in household income, $250,000 in household financial assets, and $125,000 invested in three mutual funds, including at least one equity mutual fund.

Members of the Baby Boom Generation and Generation X headed the largest shares of mutual fund–owning households in 2022, reflecting both their generation’s sizes and their high rates of mutual fund ownership. Thirty-five percent of households owning mutual funds were headed by members of the Baby Boom Generation, and 28 percent were headed by members of Generation X (Figure 7.2).
FIGURE 7.2
Mutual Fund–Owning Households Are from All Demographic Groups
Percentage of mutual fund–owning households, 2022

Who are they?

<table>
<thead>
<tr>
<th>Demographic Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged 35 to 64</td>
<td>54%</td>
</tr>
<tr>
<td>College graduates</td>
<td>54%</td>
</tr>
<tr>
<td>Employed (full- or part-time)</td>
<td>64%</td>
</tr>
<tr>
<td>Household income under $150,000</td>
<td>69%</td>
</tr>
<tr>
<td>Retired</td>
<td>34%</td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>35%</td>
</tr>
<tr>
<td>Generation X</td>
<td>28%</td>
</tr>
<tr>
<td>Millennials or Generation Z*</td>
<td>28%</td>
</tr>
</tbody>
</table>

What do they own?

<table>
<thead>
<tr>
<th>Asset Ownership</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hold more than half of their financial assets in mutual funds</td>
<td>66%</td>
</tr>
<tr>
<td>Own individual retirement accounts (IRAs)</td>
<td>67%</td>
</tr>
<tr>
<td>Own defined contribution (DC) retirement plan accounts</td>
<td>81%</td>
</tr>
<tr>
<td>Own equity mutual funds</td>
<td>81%</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Purchase Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bought their first mutual fund before 2000</td>
<td>44%</td>
</tr>
<tr>
<td>Purchased first mutual fund through an employer-sponsored retirement plan</td>
<td>65%</td>
</tr>
</tbody>
</table>

Why do they invest in mutual funds?

<table>
<thead>
<tr>
<th>Investment Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save for retirement</td>
<td>90%</td>
</tr>
<tr>
<td>Save for emergencies</td>
<td>26%</td>
</tr>
<tr>
<td>Reduce taxable income</td>
<td>20%</td>
</tr>
<tr>
<td>Save for education</td>
<td>12%</td>
</tr>
<tr>
<td>Confident mutual funds can help them reach their financial goals</td>
<td>82%</td>
</tr>
</tbody>
</table>

* Generation Z (born 1997 to 2012) are aged 10 to 25 in 2022; survey respondents, however, must be 18 or older.
Mutual Fund Ownership Tends to Rise Across the Generations

Mutual fund–owning households are headed by members of all generations, but members of the older generations, who have had more time to save, had the highest ownership rates in 2022. More than half of households headed by a member of Generation X, the Baby Boom Generation, or the Silent Generation owned mutual funds in 2022 (Figure 7.3). Younger households were well on their way to widespread mutual fund ownership: 47 percent of Millennial households and 36 percent of Generation Z households owned mutual funds in 2022.

The Baby Boom Generation held the majority (51 percent) of US households’ mutual fund assets reflecting: (1) their immense size, (2) their high rate of mutual fund ownership, and (3) the decades they have had to save and invest. Generation X households held 24 percent of households’ total mutual fund assets and Silent Generation households held another 14 percent. Generation Z and Millennial households—who are younger and have not had as much time to save as Baby Boom households (who have gone through or are in their peak earning and saving years)—held the remaining 11 percent of households’ mutual fund assets.

FIGURE 7.3
Mutual Fund Ownership Is Higher Among Older Generations
Percentage of US households by generation, 2022

<table>
<thead>
<tr>
<th>Generation of head of household</th>
<th>Generation Z*</th>
<th>Millennial Generation</th>
<th>Generation X</th>
<th>Baby Boom Generation</th>
<th>Silent Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of head of household</td>
<td>18 to 25*</td>
<td>26 to 41</td>
<td>42 to 57</td>
<td>58 to 76</td>
<td>77 or older</td>
</tr>
</tbody>
</table>

* Generation Z (born 1997 to 2012) are aged 10 to 25 in 2022; 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.
Mutual Fund Ownership Patterns Vary by Generation

How households own mutual funds often depends on where they are in the lifecycle of investing. Because younger generations are more likely to be early in their careers, they tend to own mutual funds only inside employer-sponsored retirement plans. As Americans change jobs over their careers, they may roll over retirement savings to IRAs, and older generations are more likely to own funds outside employer-sponsored retirement plans. In 2022, 36 percent of mutual fund–owning Millennial households held funds only inside employer-sponsored retirement plans, compared with 22 percent of mutual fund–owning Baby Boom households (Figure 7.4). Sixty-four percent of mutual fund–owning Millennial households owned funds outside of employer-sponsored retirement plans, compared with 78 percent of mutual fund–owning Baby Boom households. Younger generation households are more likely than older generations to own funds both inside and outside employer-sponsored retirement plans. At 66 percent, mutual fund–owning Silent Generation households are the most likely to hold them only outside employer-sponsored retirement plans, perhaps reflecting limited access to defined contribution (DC) plans early in their careers or consolidation of retirement savings into IRAs when they retired.

FIGURE 7.4
Mutual Fund Ownership Often Occurs Through Employer-Sponsored Retirement Plans
Percentage of mutual fund–owning households by generation, 2022

Source of mutual fund ownership
- Outside employer-sponsored retirement plans only
- Inside and outside employer-sponsored retirement plans
- Inside employer-sponsored retirement plans only

<table>
<thead>
<tr>
<th>Source of mutual fund ownership</th>
<th>All US households owning mutual funds</th>
<th>Generation Z*</th>
<th>Millennial Generation</th>
<th>Generation X</th>
<th>Baby Boom Generation</th>
<th>Silent Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside employer-sponsored retirement plans only</td>
<td>27</td>
<td>24</td>
<td>14</td>
<td>15</td>
<td>36</td>
<td>66</td>
</tr>
<tr>
<td>Inside and outside employer-sponsored retirement plans</td>
<td>45</td>
<td>50</td>
<td>49</td>
<td>42</td>
<td>22</td>
<td>28</td>
</tr>
<tr>
<td>Inside employer-sponsored retirement plans only</td>
<td>28</td>
<td>28</td>
<td>36</td>
<td>36</td>
<td>22</td>
<td>6</td>
</tr>
</tbody>
</table>

* Generation Z (born 1997 to 2012) are aged 10 to 25 in 2022; survey respondents, however, must be 18 or older.
Note: Generation is based on the age of the sole or co-decisionmaker for household saving and investing. 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, 2022"
Mutual Fund–Owning Households Primarily Save for Retirement

Mutual fund–owning households overwhelmingly report that saving for retirement is one of their financial goals (90 percent, with 80 percent indicating it is the household’s primary goal) and that they are confident mutual funds help them reach their financial goals (82 percent) (Figure 7.2). The importance that mutual fund–owning households place on retirement saving is reflected in where they own their funds—in 2022, 94 percent held mutual fund shares inside employer-sponsored retirement plans, IRAs, or variable annuities.

Prompted by this long-term focus, with concentration on retirement saving, most of households’ mutual funds were invested in long-term mutual funds (equity, hybrid, and bond funds), with more than half of their long-term mutual fund assets held in DC plans and IRAs (Figure 7.5). At year-end 2022, mutual fund assets held in DC plans and IRAs accounted for $9.5 trillion, or 58 percent of households’ long-term mutual fund assets. Households had another $1.2 trillion in long-term variable annuity mutual fund assets outside retirement plans, which have similar tax advantages and restrictions as retirement plans and are counted as part of Americans’ nest egg for retirement (see Figures 8.5 and 8.15). In addition, households held a relatively small amount of money market fund assets in DC plans, IRAs, and variable annuities outside retirement plans.

**FIGURE 7.5**

Households’ Mutual Fund Assets Reflect a Long-Term Investment Focus
Billions of dollars, year-end 2022

- Other household accounts
- Variable annuities outside retirement plans
- IRAs
- DC plans

![Chart showing mutual fund assets by category]

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, and other DC plans without 401(k) features.
Many Mutual Fund–Owning Households Rely on Investment Professionals

Households owning mutual funds outside employer-sponsored retirement plans often seek the assistance of investment professionals. In 2022, 67 percent of these households owned mutual funds purchased with the help of investment professionals (Figure 7.6). Of these households, 48 percent owned funds purchased solely with the help of an investment professional, and another 19 percent owned funds purchased from investment professionals and directly from fund companies or discount brokers.

Retirement saving is also important for households holding mutual funds only outside employer-sponsored retirement plans, with 72 percent holding 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).

FIGURE 7.6
Mutual Fund Investments Outside Retirement Plans Are Often Guided by Investment Professionals
2022

Sources of mutual fund ownership
Percentage of US households owning mutual funds

<table>
<thead>
<tr>
<th>Source of Ownership</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside employer-sponsored plans only</td>
<td>27%</td>
</tr>
<tr>
<td>Inside and outside employer-sponsored plans</td>
<td>45%</td>
</tr>
<tr>
<td>Inside employer-sponsored plans only</td>
<td>28%</td>
</tr>
</tbody>
</table>

Sources for households owning mutual funds outside employer-sponsored retirement plans
Percentage of US households owning mutual funds outside employer-sponsored retirement plans

<table>
<thead>
<tr>
<th>Source of Ownership</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source unknown</td>
<td>13%</td>
</tr>
<tr>
<td>Investment professionals</td>
<td>48%</td>
</tr>
<tr>
<td>Fund companies or discount brokers</td>
<td>20%</td>
</tr>
<tr>
<td>Investment professionals and fund companies or discount brokers</td>
<td>19%</td>
</tr>
</tbody>
</table>

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.


Profile of Mutual Fund Shareholders, 2022
Mutual Fund–Owning Households Make Informed Purchasing Decisions

ICI also surveyed mutual fund–owning households about the importance of a variety of factors when making their mutual fund purchase decisions.

In 2022, 93 percent of mutual fund–owning households considered a fund’s investment objective when making their purchase decision (Figure 7.7). Similarly, 95 percent of mutual fund–owning households reviewed the risk level of a fund’s investments. The vast majority of mutual fund–owning households also reviewed the historical performance of a fund and considered a fund’s performance compared with an index.

Mutual fund–owning households also typically reviewed the fund’s fees and expenses when selecting their mutual funds. Indeed, mutual fund investors tend to concentrate their assets in lower-cost funds (see Chapter 6).
FIGURE 7.7
Most Mutual Fund–Owning Households Research Fund Investments
Percentage of mutual fund–owning households, 2022

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very important</th>
<th>Somewhat important</th>
<th>Not very important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fund’s investment objective</td>
<td>36</td>
<td>47</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Risks associated with investing in the fund</td>
<td>41</td>
<td>47</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Historical performance</td>
<td>45</td>
<td>43</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Performance compared with an index</td>
<td>38</td>
<td>48</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Mutual fund rating service</td>
<td>18</td>
<td>44</td>
<td>22</td>
<td>16</td>
</tr>
<tr>
<td>Fees and expenses</td>
<td>50</td>
<td>37</td>
<td>8</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: ICI Research Perspective, "What US Households Consider When They Select Mutual Funds, 2022"
US Retirement and Education Savings

National policies that have created or enhanced tax-advantaged savings accounts have proved integral to helping Americans save for retirement and other long-term goals. Assets earmarked for retirement represent close to one-third of US households’ financial assets, and many Americans use mutual funds in tax-advantaged retirement accounts. ICI studies the US retirement market; the investors who use 401(k) plans, IRAs, 529 plans, and other tax-advantaged savings vehicles; and the role of mutual funds in the retirement and education savings markets. At year-end 2022, individual account-based retirement savings were 62 percent of the total US retirement market, and mutual funds managed about half of those account-based retirement assets.

IN THIS CHAPTER

95 The US Retirement System Has Many Components
100 US Retirement System Produces Robust Income Replacement in Retirement
102 Defined Contribution Plans Play an Increasing Role in Retirement Saving
107 IRAs Are a Significant Part of US Retirement Savings
113 The Role of Mutual Funds in Retirement Savings
114 Mutual Funds Also Play a Role in Education Savings
The US Retirement System Has Many Components

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. A better analogy, however, is to think of Americans’ retirement resources as a five-layer pyramid. Unlike the legs of a stool, pyramid layers need not be the same size.

Americans’ Multi-Tiered Retirement Resources

The retirement resource pyramid has five layers, which draw from government programs, compensation deferred until retirement, and other savings (Figure 8.1):

- 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

Together these resources have broadly enabled recent generations of retirees to maintain their standard of living in retirement, though the use of each layer differs by household. For example, the composition of households’ retirement resources varies with income. Lower-income households tend to rely more on Social Security, reflecting the fact that Social Security benefits replace a higher share of pre-retirement earnings for workers with lower lifetime earnings.
The amount and composition of retirement resources also change with age. Younger households are more likely to save primarily for reasons other than retirement, such as for a home purchase, family, or education (Figure 8.2). By contrast, older households are more likely to save primarily for retirement, as many have already 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, which predict that most workers delay saving for retirement until later in their careers when they typically have higher earnings.

**FIGURE 8.2**

Primary Reason for Household Saving Changes with Age

Percentage of households by age of household head, 2019

<table>
<thead>
<tr>
<th>Age of household head</th>
<th>Primary reason for saving</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 to 29</td>
<td>Home purchase, family, or education: 30, Retirement: 11</td>
</tr>
<tr>
<td>30 to 39</td>
<td>Home purchase, family, or education: 30, Retirement: 18</td>
</tr>
<tr>
<td>40 to 44</td>
<td>Home purchase, family, or education: 20, Retirement: 32</td>
</tr>
<tr>
<td>45 to 54</td>
<td>Home purchase, family, or education: 15, Retirement: 38</td>
</tr>
<tr>
<td>55 to 64</td>
<td>Home purchase, family, or education: 10, Retirement: 44</td>
</tr>
</tbody>
</table>

Source: Investment Company Institute tabulations of the 2019 Federal Reserve Board Survey of Consumer Finances
Social Security, the base of the US retirement resource pyramid, is a substantial 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 (split equally between employers and employees) up to a maximum taxable earnings amount ($147,000 in 2022). 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. The Congressional Budget Office estimates that, for those in the lowest quintile (20 percent) of households ranked by lifetime household earnings, first-year Social Security benefits will replace 78 percent of inflation-indexed lifetime earnings, on average, for workers born in the 1960s who claim benefits at age 65 (Figure 8.3). That replacement rate drops to 58 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 households, Social Security benefits are projected to replace a considerable portion (31 percent) of earnings.

FIGURE 8.3
Social Security Benefit Formula Is Highly Progressive
Average scheduled Social Security replacement rates for workers in the 1960s birth cohort by quintile of lifetime household earnings, percent

Note: 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, CBO’s 2021 Long-Term Projections for Social Security: Additional Information

Homeownership is the second most important retirement resource after Social Security for many near-retiree households. 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 benefit from this resource simply by living in their homes rent-free.
**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 which Social Security replaces a smaller share of earnings. In 2019, three-quarters of 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 8.4).

Finally, 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 8.4
Near-Retiree Households Across All Income Groups Have Retirement Assets, DB Plan Benefits, or Both

Percentage of near-retiree households\(^1\) by income quintile,\(^2\) 2019

<table>
<thead>
<tr>
<th>Household income quintile(^2)</th>
<th>DB plan benefits only(^3)</th>
<th>Both DB plan benefits and retirement assets(^1, 4)</th>
<th>Retirement assets only(^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lowest</strong> $39,707 or less</td>
<td>36</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td><strong>Second</strong> $39,707 to $66,178</td>
<td>46</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td><strong>Middle</strong> $66,178 to $96,721</td>
<td>81</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td><strong>Fourth</strong> $96,721 to $178,171</td>
<td>95</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td><strong>Highest</strong> $178,171 or more</td>
<td>95</td>
<td>4</td>
<td>43</td>
</tr>
</tbody>
</table>

\(^1\) 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 2018.

\(^3\) 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.

\(^4\) In this figure, retirement assets include DC plan assets (401(k), 403(b), 457, thrift, and other DC plans), whether from private-sector or government employers, and IRAs (traditional, Roth, SEP, SAR-SEP, and SIMPLE).

Source: Investment Company Institute tabulations of the 2019 Federal Reserve Board Survey of Consumer Finances
US Households Have Accumulated a Significant Retirement Nest Egg

Employer-sponsored retirement plans, IRAs (including rollovers), and annuities play an important role in the US retirement system, with assets earmarked for retirement representing close to one-third of US households’ total financial assets at year-end 2022.

Although household balance sheets were affected by the impact of a declining stock market over the year, assets earmarked for retirement amounted to $33.6 trillion at year-end 2022 (Figure 8.5). The largest components of retirement assets were IRAs and employer-sponsored DC plans (including 401(k) plans), which together represented 62 percent of all retirement market assets at year-end 2022. IRAs and DC plans had about half of their assets invested in mutual funds at year-end 2022 (Figure 8.15). In addition, US households had $1.2 trillion in variable annuity (VA) mutual fund assets held outside retirement accounts.

FIGURE 8.5
US Retirement Market Assets
Trillions of dollars, year-end

* Data are estimated.


Learn More
www.ici.org/research/stats/retirement

US RETIREMENT AND EDUCATION SAVINGS
While US households manage individual account-based savings (DC plans and IRAs), traditional DB plans promise to pay benefits in retirement typically based on salary and years of service. Some DB plans, however, do not have sufficient assets to cover promised benefits that households have a legal right to expect. Unfunded liabilities are a larger issue for government DB plans than for private-sector DB plans. As of year-end 2022, unfunded liabilities were 46 percent of benefit entitlements for state and local government DB plans, 37 percent of benefit entitlements for federal government DB plans, and 17 percent of benefit entitlements for private-sector DB plans.

**US Retirement System Produces Robust Income Replacement in Retirement**

In retirement, most Americans maintain spendable income that is a high percentage of the spendable income they had in their late 50s, according to a study by ICI economists analyzing tax data. The study, which followed Americans who were aged 55 in 2000 until they were aged 72 in 2017, also finds that most retirees get substantial amounts of both Social Security benefits and retirement income—that is, distributions from employer-sponsored retirement plans, annuities, and IRAs. Indeed, at every age through age 72, the typical individual maintained more than 90 percent of the inflation-adjusted spendable income they had, on average, from age 55 through age 59. Spendable income is the income available after paying taxes and contributing to retirement accounts.

Lower-income Americans typically had higher spendable income replacement rates. Individuals were ranked by their average total income from age 55 to age 59 and split into 20 groups, or ventiles. At age 72, the median replacement rate for lower-income individuals (third ventile) was 103 percent, for middle-income individuals (10th ventile) was 93 percent, and for higher-income individuals (18th ventile) was 84 percent (Figure 8.6). A similar pattern by ventile is seen throughout the replacement rate distribution. At the 75th percentile, replacement rates were well above 100 percent for lower-income ventiles. At the 25th percentile, the relationship between replacement rates and income was less pronounced, with ventiles 4 through 16 all around 70 percent.

**Income from Retirement Plans**

www.ici.org/research/retirement/income
In addition to Social Security benefits, the study found that the vast majority of American retirees had income from employer-sponsored retirement plans, annuities, and IRAs. At age 72, either directly or through a spouse, 97 percent received Social Security benefits and 75 percent received retirement income (Figure 8.7). Nearly half (48 percent) had Social Security benefits and retirement income (but no labor income), and more than one-quarter had all three.
Defined Contribution Plans Play an Increasing Role in Retirement Saving

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 DB plans over the past three decades, increasing from less than one-third of total DC and DB plan assets in 1992 to nearly half by year-end 2022.
A Closer Look: 401(k) Plans Are the Most Common DC Plan

At the end of 2022, employer-sponsored DC plans—which include 401(k) plans, 403(b) plans, 457 plans, the federal Thrift Savings Plan (TSP), and other private-sector DC plans—held an estimated $9.3 trillion in assets (Figure 8.5). With $6.6 trillion in assets at year-end 2022, 401(k) plans held the largest share of employer-sponsored DC plan assets; 403(b) plans—which are similar to 401(k) plans and are offered by some education and nonprofit organizations—held another $1.1 trillion in assets.

With 91 percent of 401(k) plan participants in plans offering employer contributions, 401(k) plans are a powerful saving tool (Figure 8.8). DC-owning individuals agree that payroll deduction makes it easier to save and that the tax treatment of DC plans is a big incentive to contribute. The typical 401(k) plan offers a full assortment of investment options generally including domestic equity funds, international equity funds, domestic bond funds, and target date funds. Eighty-five percent of DC-owning individuals agree that their plan offers a good lineup of investment options.

### FIGURE 8.8
401(k) Plans Offer Powerful and Convenient Saving and Investing

<table>
<thead>
<tr>
<th>401(k) plans:</th>
<th>60 million active participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$6.6 trillion in assets at year-end 2022</td>
</tr>
<tr>
<td></td>
<td>62 percent of 401(k) plan assets invested in mutual funds</td>
</tr>
<tr>
<td></td>
<td>28 investment options, on average</td>
</tr>
<tr>
<td></td>
<td>Typically including domestic equity funds, international equity funds, domestic bond funds, and target date funds¹</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>401(k) participants:</th>
<th>91 percent are offered employer contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>94 percent have investments in equities²</td>
</tr>
<tr>
<td></td>
<td>59 percent have invested in target date funds¹</td>
</tr>
<tr>
<td></td>
<td>84 percent have access to plan loans</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DC-owning individuals:</th>
<th>91 percent agree that payroll deduction makes it easier for them to save</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>85 percent agree that the tax treatment of their retirement plan is a big incentive to contribute</td>
</tr>
<tr>
<td></td>
<td>85 percent agree that their employer-sponsored retirement plan offers them a good lineup of investment options</td>
</tr>
</tbody>
</table>

¹ Funds include mutual funds, collective investment trusts, separate accounts, and other pooled investment products.
² Equities include equity funds, company stock, and the equity portion of balanced funds. The Investment Company Institute classifies balanced funds as hybrid in its data.

401(k) Plan Participants’ Asset Allocation Varies with Participant Age

The vast majority of 401(k) plan participants embrace investing in equities—whether through equity funds, balanced funds* (including target date funds), or company stock. According to research conducted by ICI and the Employee Benefit Research Institute (EBRI), 94 percent of 401(k) participants held at least some equities in their 401(k) accounts at year-end 2020 (Figure 8.8). Younger 401(k) plan participants were more likely to have high concentrations in equities in their accounts compared with older participants. At year-end 2020, more than three-quarters of 401(k) plan participants in their twenties or thirties had more than 80 percent of their account balances invested in equities, compared with less than one-fifth of those in their sixties.

The composition of the asset allocation of 401(k) participants’ accounts also varies with participant age. At year-end 2020, 401(k) plan participants in their twenties had a much higher allocation to target date funds (50 percent of their 401(k) plan balances) than those in their sixties (28 percent) (Figure 8.9). Older 401(k) plan participants had much higher allocations to fixed-income investments (bond funds; GICs and other stable value funds; and money funds) compared with younger 401(k) plan participants. All told, younger participants allocate more of their portfolios to equities compared with older participants. At year-end 2020, participants in their twenties had 84 percent of their 401(k) assets invested in equities, on average, while those in their sixties had 56 percent of their 401(k) assets invested in equities.

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

EBRI/ICI 401(k) Database  
www.ici.org/research/retirement/ebri-ici-401k
Average 401(k) Asset Allocation Varies with Participant Age
Percentage of account balances, year-end 2020

<table>
<thead>
<tr>
<th>Category</th>
<th>Participants in their twenties</th>
<th>Participants in their sixties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity funds</td>
<td>33.5</td>
<td>37.8</td>
</tr>
<tr>
<td>Target date funds¹</td>
<td></td>
<td>50.2</td>
</tr>
<tr>
<td>Non–target date balanced funds²</td>
<td>5.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Bond funds</td>
<td>4.9</td>
<td>11.2</td>
</tr>
<tr>
<td>Money funds</td>
<td>0.3</td>
<td>1.3</td>
</tr>
<tr>
<td>GICs and other stable value funds</td>
<td>1.7</td>
<td>8.4</td>
</tr>
<tr>
<td>Company stock</td>
<td>0.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Other</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Memo: equities³</td>
<td></td>
<td>56.2</td>
</tr>
</tbody>
</table>

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.

Target Date Funds Enjoy Rising Popularity

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.

The offering and use of target date funds in 401(k) plans have increased in recent years. Target date funds (including target date mutual funds, target date collective investment trusts, and other pooled target date investments) have risen from 8 percent of 401(k) plan assets at year-end 2007 to 31 percent at year-end 2020 (Figure 8.10). Participant use of target date funds also has increased—at year-end 2020 about six in 10 401(k) plan participants held target date funds.

FIGURE 8.10
Target Date Funds’ Rising 401(k) Market Share
Percentage of total 401(k) market, year-end

<table>
<thead>
<tr>
<th>Year</th>
<th>Participants in plans offering target date funds</th>
<th>Participants holding target date funds</th>
<th>Target date fund assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>70</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>2012</td>
<td>74</td>
<td>45</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>77</td>
<td>56</td>
<td>25</td>
</tr>
<tr>
<td>2020</td>
<td>87</td>
<td>59</td>
<td>31</td>
</tr>
</tbody>
</table>

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

**401(k) Plan Loans Can Offer a Safety Valve in Times of Need**

Most 401(k) plan participants do not borrow from their plans, although the majority have access to plan loans. The percentage of 401(k) plan participants with loans outstanding has been trending down in the wake of changes to plan rules regarding hardship withdrawals since 2019 and special COVID-related access during 2020. According to the ICI Survey of DC Plan Recordkeepers, only 13 percent of DC plan participants had loans outstanding at year-end 2022. Analysis of EBRI/ICI 401(k) data finds that outstanding loan balances among participants with loans averaged 8 percent of the remaining 401(k) account balance at year-end 2020. And US Department of Labor data indicate that outstanding loan amounts were 1 percent of 401(k) plan assets in 2020.

**IRAs Are a Significant Part of US Retirement Savings**

IRA assets totaled $11.5 trillion at year-end 2022, accounting for 34 percent of US retirement market assets (Figure 8.5). Mutual funds were 44 percent of IRA assets at year-end 2022 (Figure 8.11). More than four in 10, or 55 million, US households owned IRAs in 2022.

The first type of IRA—known as a traditional IRA—was created under the Employee Retirement Income Security Act of 1974 (ERISA) and is the most common type of IRA (Figure 8.11). 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 businesses to provide retirement plans by simplifying the rules applicable to tax-qualified plans.

Traditional IRA–owning households access a full array of investment options, with 72 percent reporting they held mutual funds and 30 percent indicating they held ETFs in their traditional IRAs (Figure 8.11). Two-thirds of traditional IRA–owning households have a strategy to manage income and assets in retirement. Typically, these strategies have many components, including reviewing asset allocations, determining their retirement expenses, developing a retirement income plan, setting aside emergency funds, and determining when to take Social Security benefits.

Roth IRA–owning households also access a full array of investment options, with 68 percent reporting they held mutual funds and 34 percent indicating they held ETFs in their Roth IRAs (Figure 8.11). Roth IRA–owning households skewed a bit younger than traditional IRA–owning households.

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**The Role of IRAs in US Households’ Saving for Retirement**

www.ici.org/research/retirement/role-of-iras
FIGURE 8.11
IRAs Play an Important Role in US Households’ Retirement Saving

IRAs:
» 55 million US households own IRAs
» $11.5 trillion in assets at year-end 2022
» 44 percent of IRA assets invested in mutual funds

Traditional IRA–owning households:
» $9.7 trillion in assets in traditional IRAs
» 72 percent have mutual funds in their traditional IRAs
» 30 percent have ETFs in their traditional IRAs
» 60 percent have rollovers from employer-sponsored retirement plans in their traditional IRAs
» The three most common primary reasons for rolling over were:
  » 22 percent not wanting to leave assets behind at the former employer
  » 22 percent wanting to consolidate assets
  » 15 percent wanting to preserve the tax treatment of the savings
» 67 percent have a strategy to manage income and assets in retirement
» 61 years old is their median age

Roth IRA–owning households:
» $1.1 trillion in assets in Roth IRAs
» 68 percent have mutual funds in their Roth IRAs
» 34 percent have ETFs in their Roth IRAs
» 63 percent have a strategy to manage income and assets in retirement
» 51 years old is their median age

Sources: Investment Company Institute, The US Retirement Market (www.ici.org/research/stats/retirement); The Role of IRAs in US Households’ Saving for Retirement (www.ici.org/research/retirement/role-of-iras)
Analysis of the IRA Investor Database—which contains information on millions of IRA investors—
finds that contributions are more important for opening new Roth IRAs, while rollovers are important
for opening new traditional IRAs. In 2020, 77 percent of new Roth IRAs were opened solely with
contributions, while 74 percent of new traditional IRAs were opened only with rollovers (Figure 8.12).

**FIGURE 8.12**

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

Percentage of new IRAs opened in 2020 by type of IRA

<table>
<thead>
<tr>
<th>Combination of activities</th>
<th>Contribution only</th>
<th>Conversion only</th>
<th>Rollover only</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>77</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td></td>
<td>74</td>
</tr>
</tbody>
</table>

New Roth IRAs | New traditional IRAs

Note: New IRAs are accounts that did not exist in The IRA Investor Database in 2019 and were opened by one of the paths indicated in 2020. 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 2020 and 0.3 million new traditional IRA investors aged 18 to 74 at year-end 2020. Data are preliminary.

Source: The IRA Investor Database™
Traditional IRA–owning households generally researched the decision to roll over money from their former employers’ retirement plans into traditional IRAs. Traditional IRA–owning households with rollovers cite multiple reasons for rolling over their retirement plan assets into traditional IRAs. The three most common primary reasons for rolling over were not wanting to leave assets behind at the former employer, wanting to consolidate assets, and wanting to preserve the tax treatment of the savings (Figure 8.11).

IRA Portfolios Often Reach Toward Equity Investments

As with 401(k) plan assets, a majority of IRA assets is invested in equities, and younger IRA investors tend to have a larger share of their assets invested in equities, equity funds, and target date funds than older investors. Older investors tend to be more invested in bonds, bond funds, and non–target date balanced funds. In 2020, traditional IRA investors in their thirties had, on average, a combined 84 percent of their assets in equities, equity funds, and target date funds (Figure 8.13). Traditional IRA investors in their sixties held a lower share of their assets (62 percent) in these combined categories, while holding much higher allocations across bonds, bond funds, and non–target date balanced funds. Roth IRA investors display a similar pattern of investing by age; although in all age groups, they tended to have higher allocations to equities and equity funds and lower allocations to bonds and bond funds compared with traditional IRA investors.
FIGURE 8.13
Average IRA Asset Allocation Varies with Investor Age
Percentage of assets, year-end 2020

- Other investments
- Money market funds
- Bonds and bond funds
- Non–target date balanced funds
- Target date funds
- Equities and equity funds

Traditional IRA investors

<table>
<thead>
<tr>
<th>Investors in their thirties</th>
<th>Investors in their sixties</th>
</tr>
</thead>
<tbody>
<tr>
<td>60.0</td>
<td>52.9</td>
</tr>
<tr>
<td>6.3</td>
<td>8.7</td>
</tr>
<tr>
<td>23.9</td>
<td>13.5</td>
</tr>
<tr>
<td>4.1</td>
<td>18.6</td>
</tr>
<tr>
<td>3.6</td>
<td>5.8</td>
</tr>
<tr>
<td>2.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Roth IRA investors

<table>
<thead>
<tr>
<th>Investors in their thirties</th>
<th>Investors in their sixties</th>
</tr>
</thead>
<tbody>
<tr>
<td>65.7</td>
<td>68.8</td>
</tr>
<tr>
<td>6.4</td>
<td>8.4</td>
</tr>
<tr>
<td>24.3</td>
<td>12.6</td>
</tr>
<tr>
<td>6.3</td>
<td>8.2</td>
</tr>
<tr>
<td>1.2</td>
<td>5.7</td>
</tr>
<tr>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>2.3</td>
<td>2.3</td>
</tr>
</tbody>
</table>

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 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. Data are preliminary.
Source: The IRA Investor Database
IRA Withdrawals Are Rare Until Required by Law Later in Life

Withdrawals from IRAs tend to occur later in life, often to fulfill required minimum distributions (RMDs) under the law. An RMD is calculated as a percentage of the IRA balance, based on remaining life expectancy. Older traditional IRA owners generally must withdraw at least the minimum amount each year, or pay a penalty (historically, RMDs began at age 70½, but this age has since increased to 73). In addition, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) waived RMDs for 2020.

Withdrawal activity is lower among younger traditional and Roth IRA investors, likely related to early withdrawal penalties for distributions taken by individuals younger than 59½ (Figure 8.14). Withdrawal activity rises for investors in their sixties (where withdrawals are generally penalty free) and increases substantially for traditional IRA investors aged 70 or older, likely related to RMD rules. The 60 percent of traditional IRA investors aged 70 or older taking withdrawals in 2020 represents a reduced rate of withdrawal activity—compared with 81 percent in 2019—reflecting the CARES Act suspension of RMDs in that year. The withdrawal rate does not increase after age 70 for Roth IRA investors, who are not subject to RMDs during the owner’s lifetime.

FIGURE 8.14
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, 2020

<table>
<thead>
<tr>
<th>Age of IRA investor</th>
<th>Roth IRA investors</th>
<th>Traditional IRA investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 59</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>60 to 69</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>70 or older</td>
<td>6</td>
<td>60</td>
</tr>
</tbody>
</table>

Note: The samples are 4.6 million Roth IRA investors aged 18 or older at year-end 2020 and 6.6 million traditional IRA investors aged 18 or older at year-end 2020. Data are preliminary.

Source: The IRA Investor Database™
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 2022, mutual funds accounted for 55 percent of DC plan assets and 44 percent of IRA assets (Figures 8.5 and 8.15). Investors held slightly more mutual fund assets in DC plans ($5.1 trillion) than in IRAs ($5.0 trillion) (Figure 8.15).

Mutual fund assets held in DC plans and IRAs represent a large share of mutual fund assets overall, and long-term mutual fund assets in particular (Figure 8.15). The $10.1 trillion in mutual fund retirement assets made up 46 percent of all mutual fund assets at year-end 2022. DC plans and IRAs held 55 percent of equity, hybrid, and bond mutual fund assets, but only 13 percent of money market fund assets. Another $1.2 trillion held in VA mutual funds outside retirement accounts represented another 7 percent of long-term mutual fund assets.

FIGURE 8.15
Substantial Amounts of Retirement Market Assets Are Invested in Long-Term Mutual Funds
Assets, billions of dollars, year-end 2022

- Equity, hybrid, and bond mutual funds (total $17,333 billion)
- Money market funds (total $4,777 billion)

Mutual Funds Also Play a Role in Education Savings

Twelve percent of households that owned mutual funds in 2022 cited education as a financial goal for their fund investments (see Figure 7.2), and 15 percent of mutual fund–owning households have 529 plans. Nevertheless, the demand for education savings vehicles has been moderate since their introduction in the 1990s, partly because of their limited availability and partly due to investors’ lack of familiarity with them. The Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) enhanced the attractiveness of two education savings vehicles—Section 529 plans and Coverdell education savings accounts (ESAs)—by making them more flexible and allowing larger contributions. The 2006 Pension Protection Act (PPA) made the EGTRRA enhancements 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. The Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act) expanded the types of education costs that are covered by 529 plans. The SECURE 2.0 Act of 2022 will allow Roth IRA rollovers of a limited amount of 529 plan assets (starting in 2024).

Assets in Section 529 savings plans were $388.0 billion at year-end 2022, down 14 percent from year-end 2021. As of year-end 2022, there were 15.1 million 529 savings plan accounts, with an average account size of approximately $25,600.

Households Saving for College Tend to Be Younger

In 2022, as a group, households saving for college through 529 plans, Coverdell ESAs, or mutual funds or ETFs held outside these accounts tended to be headed by younger individuals—about half (51 percent) were younger than 45 (Figure 8.16). Heads of households saving for college had a range of educational attainment levels. Sixty-one percent had completed college, 22 percent had an associate’s degree or some college experience, and 17 percent had a high school diploma or less. These households also represented a range of incomes, with 43 percent of households saving for college having household income of less than $100,000. Finally, these households typically had children (younger than 18) in the home.

529 Plan Program Statistics

www.ici.org/research/stats/529s
### Characteristics of Households Saving for College

#### Percentage of US households saving for college, 2022

<table>
<thead>
<tr>
<th>Age of head of household</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Younger than 35</td>
<td>27</td>
</tr>
<tr>
<td>35 to 44</td>
<td>24</td>
</tr>
<tr>
<td>45 to 54</td>
<td>23</td>
</tr>
<tr>
<td>55 to 64</td>
<td>12</td>
</tr>
<tr>
<td>65 or older</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education level of head of household</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High school diploma or less</td>
<td>17</td>
</tr>
<tr>
<td>Associate’s degree or some college</td>
<td>22</td>
</tr>
<tr>
<td>Completed college</td>
<td>37</td>
</tr>
<tr>
<td>Completed graduate school</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household income</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $50,000</td>
<td>22</td>
</tr>
<tr>
<td>$50,000 to $99,999</td>
<td>21</td>
</tr>
<tr>
<td>$100,000 to $149,999</td>
<td>20</td>
</tr>
<tr>
<td>$150,000 to $199,999</td>
<td>13</td>
</tr>
<tr>
<td>$200,000 or more</td>
<td>24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of children in home</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>45</td>
</tr>
<tr>
<td>One</td>
<td>24</td>
</tr>
<tr>
<td>Two</td>
<td>21</td>
</tr>
<tr>
<td>Three or more</td>
<td>10</td>
</tr>
</tbody>
</table>

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 or ETFs.
2. Age and education level are based on the sole or co-decisionmaker for saving and investing.
3. Total reported is household income before taxes in 2021.
4. The number of children reported is children younger than 18 living in the home.

Source: Investment Company Institute Annual Mutual Fund Shareholder Tracking Survey
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 the number of accounts.
## Four Principal Securities Laws Govern Investment Companies

<table>
<thead>
<tr>
<th>Law</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Investment Company Act of 1940</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>The Investment Advisers Act of 1940</strong></td>
<td>Regulates investment advisers. The Advisers Act requires all advisers to registered investment companies and other large advisers to register with the Securities and Exchange Commission (SEC). The act also contains provisions requiring fund advisers to meet recordkeeping, custodial, reporting, and other regulatory responsibilities.</td>
</tr>
<tr>
<td><strong>The Securities Exchange Act of 1934</strong></td>
<td>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 act 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.</td>
</tr>
<tr>
<td><strong>The Securities Act of 1933</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>
The Types of US Investment Companies

Fund sponsors in the United States offer four main 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. They 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.* Since October 2016, institutional prime money market funds (funds that primarily invest in corporate debt securities) and institutional municipal money market funds 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 use the amortized cost method of pricing or penny rounding—or both—to seek to maintain a stable share price. Money market funds’ boards of directors also have 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 5.

ETFs are a hybrid 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 4.

* On December 15, 2021, the SEC proposed certain amendments to Rule 2a-7. As of the date of this publication, the proposed amendments have not been adopted.
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, see chapter 2.

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).*

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. Developments in the late 1980s gave asset management companies other attractive choices, and since then, the percentage of funds organized as Massachusetts business trusts has declined as more and more funds have formed as Maryland corporations and Delaware statutory trusts. For example, in 1987, Maryland revised its law to align it with interpretations of the Investment Company Act 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 Delaware statutory trusts being the most favored form of mutual fund organization.

* At year-end 2022, 6 percent of mutual funds chose other forms of organization, such as limited liability partnerships, or other domiciles, such as Ohio or Wisconsin.
Mutual funds have officers and directors (if the fund is a corporation) or trustees (if the fund is a business trust).* The fund’s board plays an important role in overseeing fund operations, described in more detail on page 135.

FIGURE A.1
The Most Popular Forms of Mutual Fund Organization
Percentage of funds, year-end 2022

- 36% Massachusetts business trusts
- 16% Maryland corporations
- 6% Other
- 42% Delaware statutory trusts

Number of funds: 9,346

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.

* 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 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.

**FIGURE A.2**
**Organization of a Mutual Fund**

![Organization of a Mutual Fund Diagram]

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.
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 135.

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 unless a majority of shareholders vote to approve the increase.

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, and registering the fund shares for sale to the public pursuant to the Securities Act of 1933.* Unless the sales of shares in a particular state qualify for an exemption, the fund also must make filings and pay fees to those states 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 investment adviser is often the fund’s initial sponsor and its initial shareholder through the seed money invested to create the fund.

* 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.
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 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, 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 136.
Types of Mutual Fund Complexes

A variety of financial services companies offer registered funds in the United States. At year-end 2022, 81 percent of investment company complexes were independent fund advisers (Figure A.3), managing 70 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 A.3
81 Percent of Fund Complexes Were Independent Fund Advisers
Percentage of investment company complexes by type of intermediary, year-end 2022
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 that, 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 that 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 under-distributed 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-advantaged retirement accounts and variable annuities. As of year-end 2022, 4 percent of all mutual fund assets were held in tax-exempt funds and 52 percent were invested in tax-advantaged accounts held by households.

FIGURE A.4
The Majority of Mutual Fund Total Net Assets Were Held in Tax-Advantaged Accounts and Tax-Exempt Funds
Percentage of total net assets, year-end 2022

- 52% Tax-advantaged household accounts
- 4% Tax-exempt funds
- 12% Taxable nonhousehold accounts
- 32% Taxable household accounts

Mutual fund total net assets: $22.1 trillion
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 usually 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. 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. For shares acquired before 2012, many funds have voluntarily been providing cost basis information to shareholders or computing gains and losses for shares sold.

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 $379 billion in dividends to fund shareholders in 2022. Bond and money market funds accounted for 46 percent of all dividend distributions in 2022. Overall, 49 percent of dividend distributions were paid to tax-advantaged household accounts and tax-exempt fund shareholders. Another 43 percent were paid to taxable household accounts.

**FIGURE A.5**
Dividend Distributions
Billions of dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Tax-advantaged household accounts and tax-exempt funds</th>
<th>Taxable household accounts</th>
<th>Taxable nonhousehold accounts</th>
<th>Total</th>
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</thead>
<tbody>
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<td>2002</td>
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<td>2022</td>
<td>185</td>
<td>163</td>
<td>30</td>
<td>379</td>
</tr>
</tbody>
</table>
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 $395 billion in capital gains to shareholders in 2022—68 percent of these distributions were paid to tax-advantaged household accounts, and 28 percent were paid to taxable household accounts and tax-exempt fund shareholders.* Equity mutual funds typically represent the bulk of capital gains distributions. In 2022, 59 percent of equity mutual fund share classes made a capital gains distribution, and 81 percent of these share classes distributed more than 2.0 percent of their assets as capital gains.

FIGURE A.6
Capital Gains Distributions
Billions of dollars

<table>
<thead>
<tr>
<th>Year</th>
<th>Tax-advantaged household accounts</th>
<th>Taxable household accounts and tax-exempt funds</th>
<th>Taxable nonhousehold accounts</th>
<th>Total</th>
</tr>
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</tr>
<tr>
<td>2022*</td>
<td>268</td>
<td>112</td>
<td>15</td>
<td>395</td>
</tr>
</tbody>
</table>

* In 2022, tax-exempt funds distributed less than $500 million in capital gains.

Note: Capital gains distributions include long-term and short-term capital gains.

* Only the net gains from the sale of a fund’s assets held for more than one year (long-term capital gain distributions) are taxed as capital gains. Net short-term gains are taxed as ordinary dividend distributions. Data presented here on capital gains distributions include both long-term and short-term capital gains.
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 hedge funds and other private pools. The cornerstone of the disclosure regime for mutual funds and ETFs is the prospectus. 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 online and by mail upon request.

Mutual funds and ETFs are also 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 disclosures 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 a year to ensure that financial statements and other information do not become stale. These funds also amend registration statements throughout the year as necessary to reflect material changes to their disclosures.

In addition to the registration statement disclosure, funds provide shareholders with several other disclosure documents. Funds must transmit annual and semiannual shareholder reports within 60 days after the end and the midpoint of the fund’s fiscal year, respectively. These reports contain performance and expense information, financial statements, and a list of the fund’s portfolio.

* Closed-end funds and UITs also provide investors with extensive disclosures, 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.

† 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.

‡ Until July 2024, open-end funds may transmit a notice to shareholders indicating that a new shareholder report is available online and in print by request in lieu of transmitting a shareholder report. The notice must include a website address where the shareholder report can be accessed and a toll-free telephone number the shareholder can use to request a paper copy of the report at no charge.
An independent accountant must audit the financial statements included in the annual shareholder report. The annual shareholder report for non–money market mutual funds and most ETFs must also provide management’s discussion of fund performance (MDFP), describing the factors that affected the fund’s performance, including relevant market conditions and investment strategies and techniques used by the fund’s investment adviser.†

Funds are also required to file Form N-PORT with the SEC. Form N-PORT must include a complete list of the fund’s portfolio securities in a structured data format along with other information, including flows, returns, securities lending information, and—for funds investing more than a specified amount in fixed-income securities—portfolio-level risk metrics. Funds must file Form N-PORT for each month during the year; however, only the filing relating to the third month of each fiscal quarter is made publicly available. The Form N-PORT relating to the fund’s third and ninth months of the fiscal year must include a list of the fund’s investments, similar to that included in the fund’s annual and semiannual shareholder reports. These requirements cause funds to publicly disclose their portfolio holdings at least four times each fiscal year.†

Funds must also file census-type information annually on Form N-CEN, and must 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. They are not required to mail Form N-PORT, Form N-CEN, or Form N-PX to shareholders, but the forms are publicly available via the SEC’s EDGAR database.§

The combination of prospectuses, SAIs, annual and semiannual shareholder reports, Form N-PORT, Form N-CEN, and Form N-PX provides 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 compile publicly available information on funds in ways that might benefit investors.

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* 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 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.

† After August 2021, closed-end funds must also include an MDFP section in their annual shareholder reports. Beginning in July 2024, open-end funds must transmit to shareholders a condensed annual and semiannual shareholder report that highlights key information, including cost and performance information, a graphical presentation of holdings, and, for annual reports of non–money market funds and most ETFs, an MDFP. The full financial statements and a list of the fund’s portfolio securities will move to an easily accessible online site that the fund operates.

† Money market funds, which already must file portfolio holdings with the SEC monthly on Form N-MFP and disclose those holdings on their websites, are not required to file Form N-PORT.

§ Again, only the Form N-PORT filing relating to the third month of the fiscal quarter is made publicly available.
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 one is readily available, or at fair value (i.e., an estimate of the amount for which the investment could be sold in a current transaction). Under the SEC’s fair value rule, fair value for applicable portfolio investments may be determined by the fund’s board or its investment adviser (subject to continued oversight by the fund’s board).

The daily pricing process is a critically important core compliance function that involves numerous staff of the investment adviser and pricing vendors. The fair valuation process, a part of the overall pricing process, receives particular scrutiny from funds, their advisers, and their boards of directors, as well as regulators and independent auditors. Under SEC rules, all funds must adopt written fair valuation policies and procedures and establish methodologies for determining fair values in particular instances.* Those methodologies must be consistent with US generally accepted accounting principles (GAAP).

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.† 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.

The Investment Company Act 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.,‡ 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.

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† 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 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 (if the market price is greater than the NAV) or discount (if the market price is less than the NAV).

‡ Mutual funds and ETFs must price their shares at least once every business day as of a time determined by the fund’s board. Many of these funds price as of 4:00 p.m. eastern time or when the New York Stock Exchange closes.
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 narrow exceptions)* or delay payments of redemption proceeds for more than seven days.

Under the SEC’s liquidity rule, no more than 15 percent of a mutual fund’s or ETF’s portfolio may be invested in illiquid assets,† in part to ensure that the fund can make redemptions. This liquidity rule and its related reporting framework also impose other liquidity-related regulatory obligations on these funds.

**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 (see Compliance and Risk Management Programs on page 136), are examples of internal oversight mechanisms. External oversight is provided by the SEC, FINRA, and external service providers such as certified public accounting firms.

**Fund Boards**

Mutual funds, closed-end funds, and ETFs structured as open-end funds 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 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 2020, independent directors made up at least three-quarters of boards in 84 percent of fund complexes.‡

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* Section 22(e) of the Investment Company Act prohibits mutual funds and ETFs 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 119.

† Money market funds are held to different liquidity standards. For more information on this topic, see The Types of US Investment Companies on page 119 and www.ici.org/mmfs/current/16_mmf_reg_summ.

Independent fund directors play a critical role in overseeing fund operations and are entrusted with the primary responsibility for safeguarding 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 have a fiduciary duty to represent the interests of shareholders. 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.

**Compliance and Risk Management Programs**

The board’s oversight function 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 also 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 an independent public accounting firm subject to oversight by the Public Company Accounting Oversight Board (PCAOB). This practice ensures that the financial statements are prepared in conformity with GAAP and fairly present the fund’s financial position and results of operations.

**Sarbanes-Oxley Act**

Like officers of public companies, fund officers must make certifications and disclosures required by the Sarbanes-Oxley Act. For example, they have to 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 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, finding 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 recently modernized its framework governing funds’ use of derivatives, permitting mutual funds, closed-end funds, and ETFs to invest in derivatives if they adopt a derivatives risk management program that a fund’s board oversees and comply with an outer-bound limit on fund leverage risk. Funds that limit their derivatives exposure to less than 10 percent of their net assets will not need to comply with the new requirements but will need to adopt and implement written policies and procedures reasonably designed to manage the fund’s derivatives risks. 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.* 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.

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.

In addition, funds may invest in reverse repurchase agreements and other similar financing transactions if they treat those investments as borrowings subject to the relevant asset coverage requirements applicable to open-end funds (mutual funds or ETFs) or closed-end funds, or if they treat such transactions as derivatives investments.

Many funds voluntarily impose stricter limitations on their ability to issue senior securities or borrow than set forth under the Investment Company Act. 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.

* Temporary loans cannot exceed 5 percent of the fund’s total net assets and must be repaid within 60 days.
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, 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.

Prohibitions on Transactions with Affiliates

The Investment Company Act 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.”

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

* 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 and SEC Rules 17f-1 through 17f-7.

Diversification

Both tax and securities laws provide diversification standards for funds registered under the Investment Company Act. 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 2022, for example, the median number of stocks held by US equity mutual funds was 76.*

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* This number—calculated using Morningstar data—is the median among domestic equity mutual funds, excluding sector funds and funds of funds.
### Significant Events in Fund History

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>1774</td>
<td>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.</td>
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<td>1868</td>
<td>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.”</td>
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<td>1924</td>
<td>The first mutual funds are established in Boston.</td>
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<td>1933</td>
<td>The Securities Act of 1933 regulates the registration and offering of new securities, including mutual fund and closed-end fund shares, to the public.</td>
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<td>1934</td>
<td>The Securities Exchange Act of 1934 authorizes the Securities and Exchange Commission (SEC) to provide for fair and equitable securities markets.</td>
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| 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. |
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<td>1940</td>
<td>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.</td>
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<td>1944</td>
<td>The NAIC begins collecting investment company industry statistics.</td>
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<td>1951</td>
<td>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.</td>
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<td>1954</td>
<td>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.</td>
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<td>1954</td>
<td>The first tax-free unit investment trust is offered.</td>
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<td>1954</td>
<td>The NAIC changes its name to the Investment Company Institute (ICI) and welcomes fund advisers and underwriters as members.</td>
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<td>1961</td>
<td>The Self-Employed Individuals Tax Retirement Act creates savings opportunities (Keogh plans) for self-employed individuals.</td>
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<td>1962</td>
<td>Money market funds are introduced.</td>
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<td>1971</td>
<td>The Employee Retirement Income Security Act of 1974 (ERISA) creates the individual retirement account (IRA).</td>
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<td>1974</td>
<td>The Tax Reform Act of 1976 permits the creation of municipal bond funds. The first retail index fund is offered.</td>
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<td>1976</td>
<td>The Revenue Act of 1978 creates new Section 401(k) retirement plans and simplified employee pensions (SEPs).</td>
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<td>1986</td>
<td>ICI welcomes closed-end funds as members.</td>
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<td>1990</td>
<td>Mutual fund assets top $1 trillion.</td>
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<td>1993</td>
<td>The first exchange-traded fund (ETF) shares are issued.</td>
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<td>1996</td>
<td>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.</td>
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<td>1997</td>
<td>The Taxpayer Relief Act of 1997 creates the Roth IRA and eliminates restrictions on portfolio management that disadvantage fund shareholders.</td>
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<td>1998</td>
<td>The SEC approves the most significant disclosure reforms in the history of US mutual funds, encompassing “plain English,” fund profiles, and improved risk disclosure.</td>
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<td>1999</td>
<td>The Gramm-Leach-Bliley Act modernizes financial services regulation and enhances financial privacy.</td>
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<td>2001</td>
<td>Enactment of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) significantly expands retirement savings opportunities for millions of working Americans.</td>
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<td>2003</td>
<td>The Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) provides mutual fund shareholders with the full benefits of lower tax rates on dividends and capital gains.</td>
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<td>2006</td>
<td>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.</td>
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<td>2008</td>
<td>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.”</td>
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<td>2009</td>
<td>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.</td>
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<td>2010</td>
<td>The SEC adopts new rules and amendments to regulations governing money market funds. In <em>Jones v. Harris</em>, 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.</td>
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</table>
In *Business Roundtable et al. v. SEC*, the United States Court of Appeals for the District of Columbia Circuit vacates the SEC’s proxy access rule for failing to adequately evaluate the rule’s costs and benefits.

ICI launches ICI Global to carry out the Institute’s international work by advancing the perspective of regulated investment funds globally.

The SEC adopts 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.

Congress passes the most significant tax bill in three decades. Reflecting congressional support for the voluntary, employer-based retirement system, lawmakers reject proposals to raise revenue by limiting retirement savings tax incentives.

The SEC adopts Rule 30e-3, permitting US-registered funds to deliver shareholder reports online to satisfy their fund disclosure obligations.

The SEC adopts Rule 6c-11, known as the ETF rule, finally enabling most ETFs to operate under the Investment Company Act of 1940 without having to apply for exemptive relief.

The SEC provides relief measures to funds to navigate operational challenges during the COVID-19 pandemic.

The SEC adopts Rule 18f-4 and related amendments modernizing regulations governing fund investments in derivatives.

The SEC amends fund shareholder reports, dramatically condensing them to highlight key information for investors to assess and monitor their fund investments.

The SEC adopts rules to modernize and enhance proxy voting disclosure by registered investment companies.