



Introduction to Global Securities Market

国际证券市场简介

College of Software Technology, Zhejiang University

浙江大学软件学院

May 25-26, 2019

Edward Li, CFA, FRM

ecli_99@yahoo.com





Learning Objectives

- Through this course the students will understand the fundamental concepts about Mutual Funds Concepts, Operation, Workflow and Investment terminology.
- Quiz will be given at the end of class





推荐教材或主要参考书

1.

Name: 美国开放基金

Author: **American Bankers Association**

Publisher: **American Bankers Association**

Language: **English**

Date:

ISBN: **0-89982-359-9**

2.

Name: **Dictionary of Finance and Investment Terms**

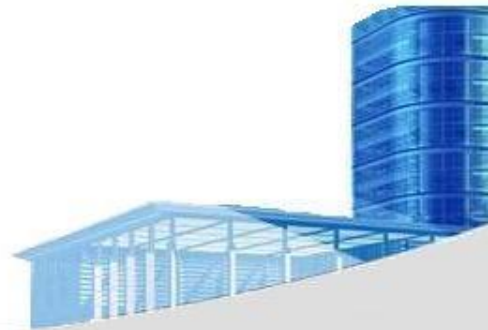
Author: **John Downes & Jordan Elliot Goodman**

Publisher: **Barron's Educational Series, Inc.**

Language: **English**

Date:

ISBN: **0-7641-0790-9**





推荐教材或主要参考书

3.

2018 Investment Company Fact Book, 58th Edition





Session 1 Mutual Fund Overview





What is a Mutual Fund?

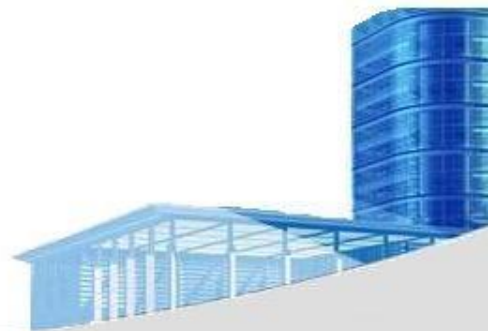
- Extremely popular over the last 30 years.
- More than 80 million people, or one half of the households in America, invest in mutual funds.
- It's common knowledge that investing in mutual funds is better than saving in bank for most people.
- Mutual Fund, Hedge Fund, ETFs
- Mutual fund is an **investment company** that pools the savings of a number of investors who share a common financial goal. The money thus collected is invested into a variety of securities, including stocks, bonds, and money-market instruments.
- Each scheme of a mutual fund can have different characteristics and objectives. Mutual funds issue units to the investors, which represent an equitable right in the assets of the mutual fund.





Basic Concepts

- > **A Mutual Fund is a trust that pools the savings of a number of investors who share a common financial goal.**
- > **The money thus collected is then invested in capital market instruments such as shares, debentures and other securities.**
- > **The income earned through these investments and the capital appreciation realized are shared by its unit holders in proportion to the number of units owned by them.**
- > **Thus a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.**





Mutual Fund Cycles

Concept of Mutual Fund

Many investors with common financial objectives pool their money

Investors, on a proportionate basis, get mutual fund units for the sum contributed to the pool

The money collected from investors is invested into shares, debentures and other securities by the fund manager

The fund manager realizes gains or losses, and collects dividend or interest income

Any capital gains or losses from such investments are passed on to the investors in proportion of the number of units held by them





Three ways to get payment from a mutual fund

- > 1) Income is earned from dividends on stocks and interest on bonds. A fund pays out nearly all of the income it receives over the year to fund owners in the form of a distribution.
- > 2) If the fund sells securities that have increased in price, the fund has a capital gain. Most funds also pass on these gains to investors in a distribution.
- > 3) If fund holdings increase in price but are not sold by the fund manager, the fund's shares increase in price. You can then sell your mutual fund shares for a profit.





Advantages of Mutual Funds

- > Professional Management
- > Diversification
- > Economies of Scale
- > Liquidity
- > Simplicity
- > Transparency
- > Flexibility
- > Choice of schemes
- > Tax benefits
- > Well regulated





Advantages of Mutual Funds

- > **In-class Exercise:**

- > **Mutual funds offer investors all the following advantages EXCEPT:**
 - Professional management
 - Tax deferral
 - Diversification
 - Convenience





Disadvantages of Mutual Funds:

- > **Professional Management** - Did you notice how we qualified the advantage of professional management with the word "theoretically"? Many investors debate whether or not the so-called *professionals* are any better than you or I at picking stocks. Management is by no means infallible, and, even if the fund loses money, the manager still takes his/her cut. We'll talk about this in detail in a later section.

Costs - Mutual funds don't exist solely to make your life easier - all funds are in it for a profit. The mutual fund industry is masterful at burying costs under layers of jargon. These costs are so complicated that in this tutorial we have devoted an entire section to the subject.

Dilution - It's possible to have too much diversification. Because funds have small holdings in so many different companies, high returns from a few investments often don't make much difference on the overall return. **Dilution** is also the result of a successful fund getting too big. When money pours into funds that have had strong success, the manager often has trouble finding a good investment for all the new money.

- > **Taxes** - When making decisions about your money, fund managers don't consider your personal tax situation. For example, when a fund manager sells a security, a capital-gains tax is triggered, which affects how profitable the individual is from the sale. It might have been more advantageous for the individual to defer the capital gains liability.





Frequently Used Terms

> Net Asset Value (NAV)

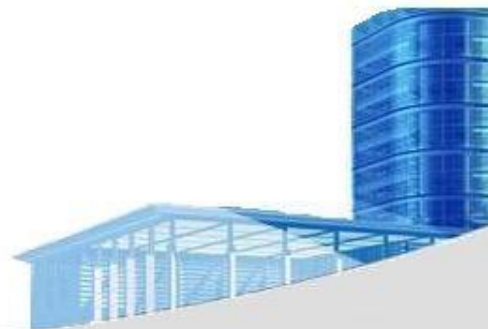
Net Asset Value is the market value of the assets of the scheme minus its liabilities. The per unit NAV is the net asset value of the scheme divided by the number of units outstanding on the Valuation Date.

> Sale Price

Is the price you pay when you invest in a scheme. Also called Offer Price. It may include a sales load.

> Repurchase Price

Is the price at which a close-ended scheme repurchases its units and it may include a back-end load. This is also called Bid Price.





Frequently Used Terms

> Redemption Price

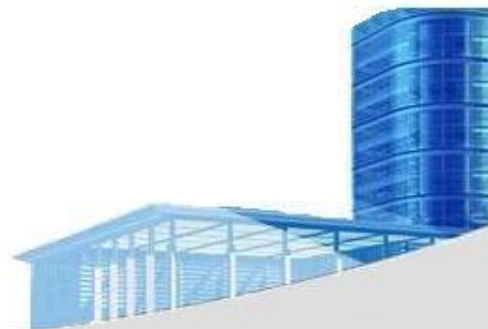
Is the price at which open-ended schemes repurchase their units and close-ended schemes redeem their units on maturity. Such prices are NAV related.

> Sales Load

Is a charge collected by a scheme when it sells the units. Also called, 'Front-end' load. Schemes that do not charge a load are called 'No Load' schemes.

> Repurchase or 'Back-end' Load

Is a charge collected by a scheme when it buys back the units from the unit holders.



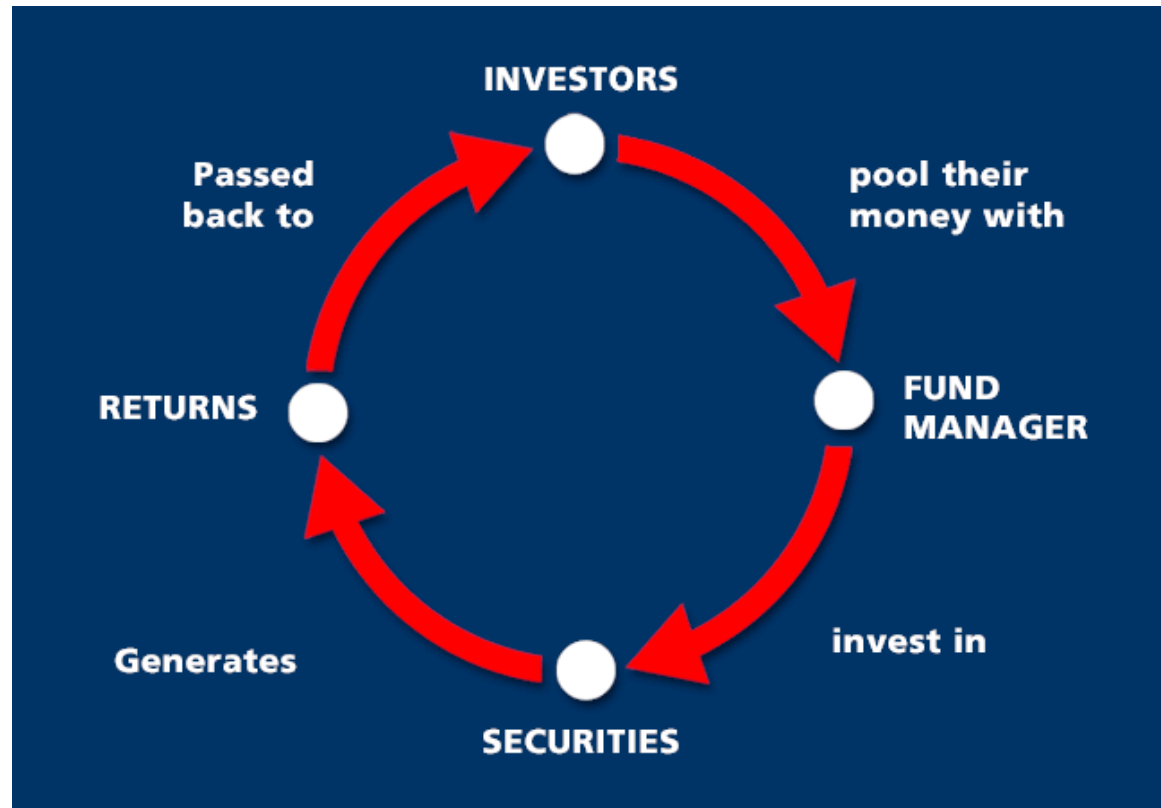


Session 2 Mutual Fund Market



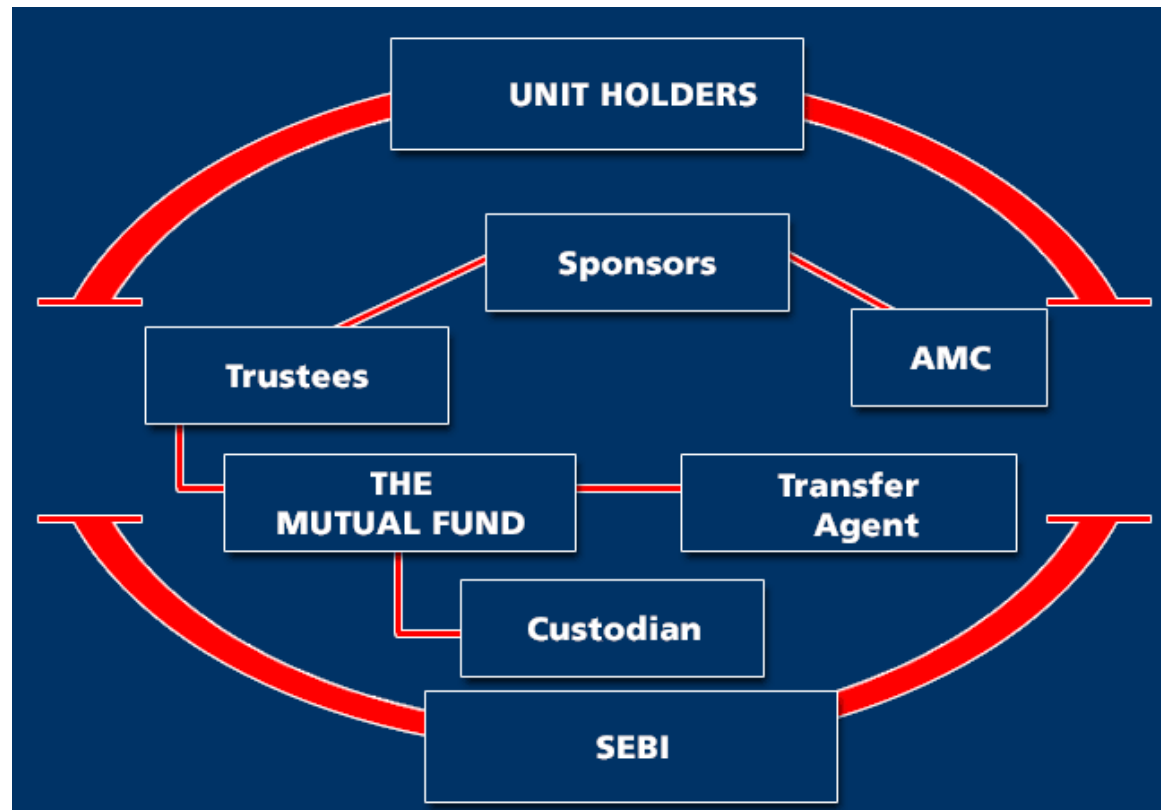


Mutual Fund Operation Flow Chart



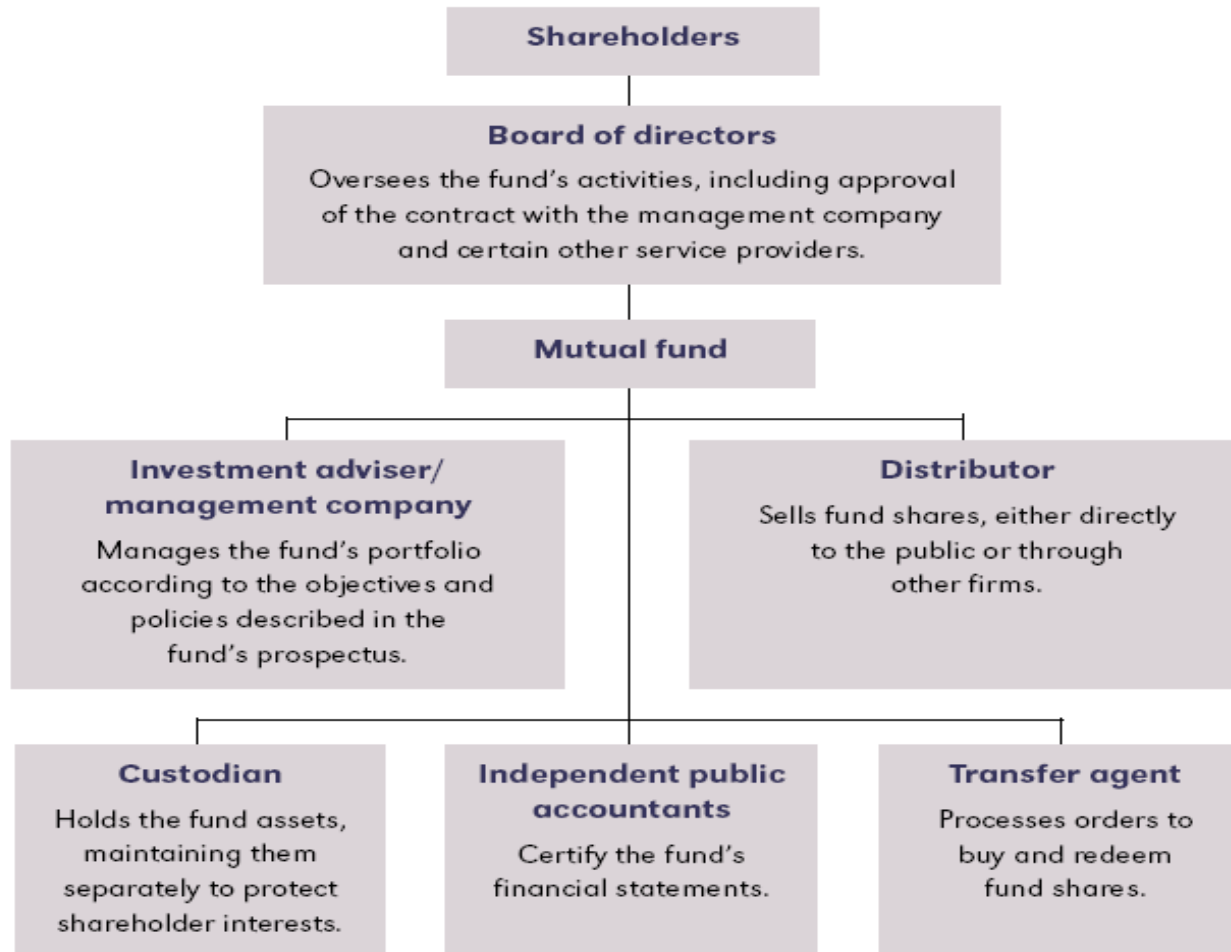


Organization of a Mutual Fund





The Structure of Mutual Fund





Mutual Fund Industry

> Transfer Agent

- A transfer agent is employed by a mutual fund to conduct recordkeeping and related functions. Transfer agents maintain records of shareholder accounts, calculate and disburse dividends, and prepare and mail shareholder account statements, federal income tax information and other shareholder notices. Some transfer agents prepare and mail statements confirming shareholder transactions and account balances and maintain customer service departments to respond to shareholder inquiries.

> Mutual Fund Custodian

- An entity, usually a bank or trust company, which holds and safeguards securities owned by a mutual fund. Such an entity may also act as a transfer agent.





Mutual Fund Industry

> Role of Custodian

- > **ABC Trust Company is the Akila Fund's custodian. ABC Trust's main function is to:**
 - Manage the fund's portfolio
 - Insure the fund's shareholders against investment losses
 - Indemnify the fund's directors in case of legal actions
 - **Preserve the fund's physical assets**





Mutual Fund Industry

> Role of Custodian

> The custodian bank of a mutual fund:

- Manages the fund
- Acts as the distributor of the fund
- Holds the fund's cash and securities and performs essential clerical functions but does not manage the fund
- Guarantees investors against any loss that may be incurred if the fund should decline in value





Mutual Fund Industry

- > Investment Advisor
- > A fund's investment advisor may have complete discretion to manage the fund's portfolio any way it wants as long as the fund outperforms the Dow Jones Industrial Average or some other relevant index specified in the advisor's contract:
 - True
 - **False**





Worldwide Regulated Funds

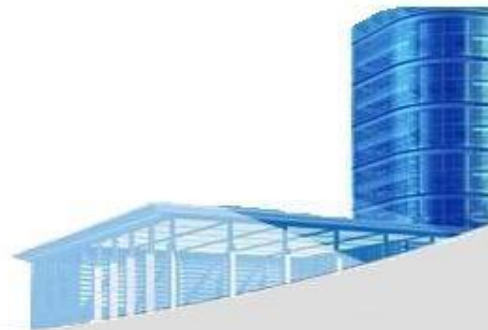
Total net assets of worldwide regulated open-end funds
have more than doubled in the past decade



More than

\$49 trillion

at year-end 2017



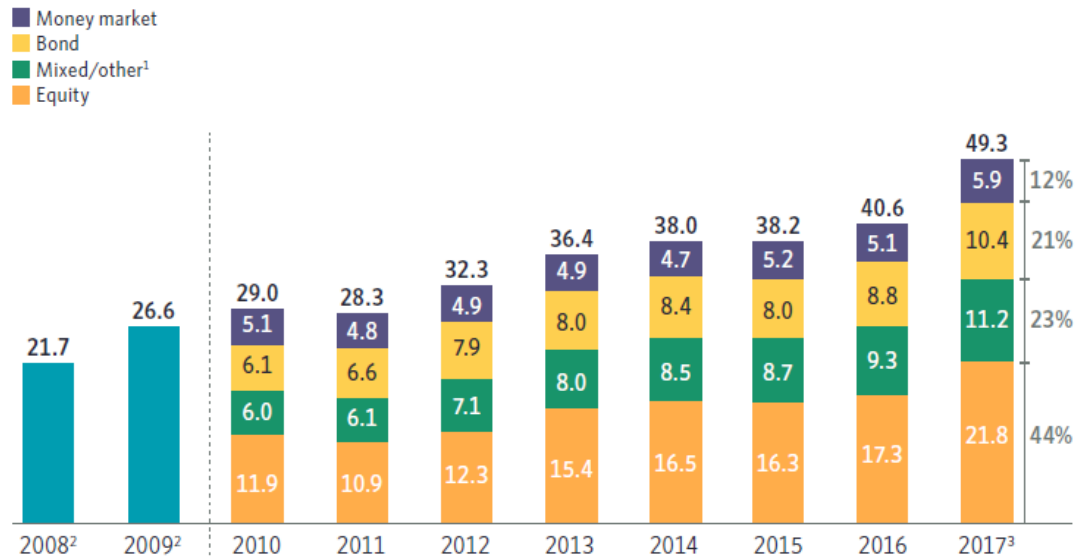


Worldwide Regulated Funds

FIGURE 1.1

Total Net Assets of Worldwide Regulated Open-End Funds Surpassed \$49 Trillion in 2017

Trillions of US dollars by type of fund; year-end, 2008-2017



Total number of worldwide regulated open-end funds

83,850 83,041 86,265 91,876 94,475 97,920 101,238 106,523 110,548 114,131

¹ Mixed/other funds include balanced/mixed funds, guaranteed/protected funds, real estate funds, and other funds.

² Data for total net assets by type of fund are not available in 2008 and 2009.

³ Data for Russia are for 2017:Q3.

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

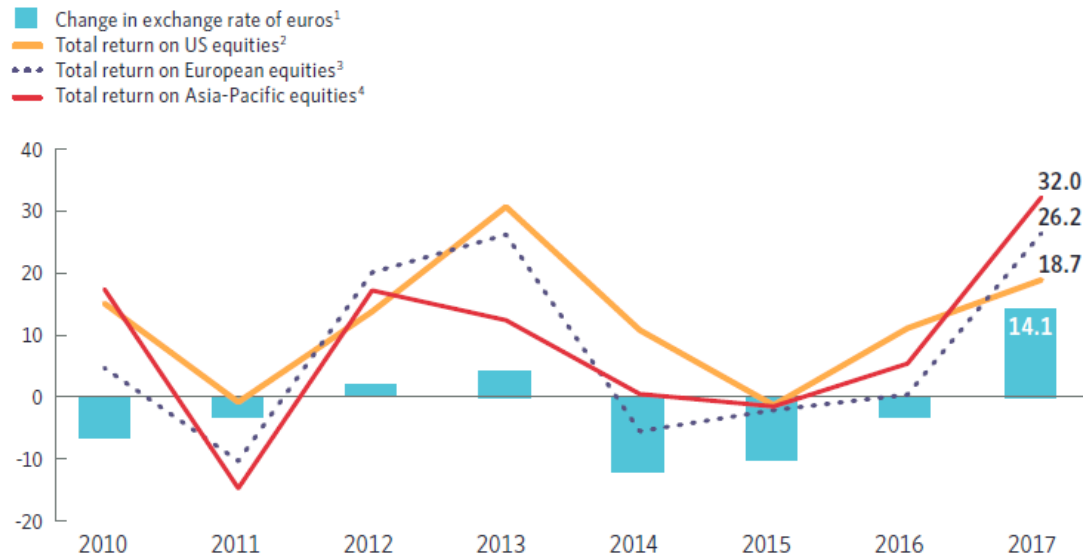
Source: International Investment Funds Association



Worldwide Regulated Funds

FIGURE 1.2

Stock Market Gains Were Strong in 2017
Percent, 2010-2017



¹ The change in the exchange rate of euros is measured as the year-over-year percent change in the exchange rate of US dollars per euro.

² The total return on US equities is measured as the year-over-year percent change in the Wilshire 5000 Total Return Index (float-adjusted).

³ The total return on European equities is measured as the year-over-year percent change in the MSCI Daily Total Return Gross Europe Index (expressed in US dollars).

⁴ The total return on Asia-Pacific equities is measured as the year-over-year percent change in the MSCI Daily Total Return Gross AC Asia-Pacific Index (expressed in US dollars).

Sources: Investment Company Institute, Bloomberg, and MSCI

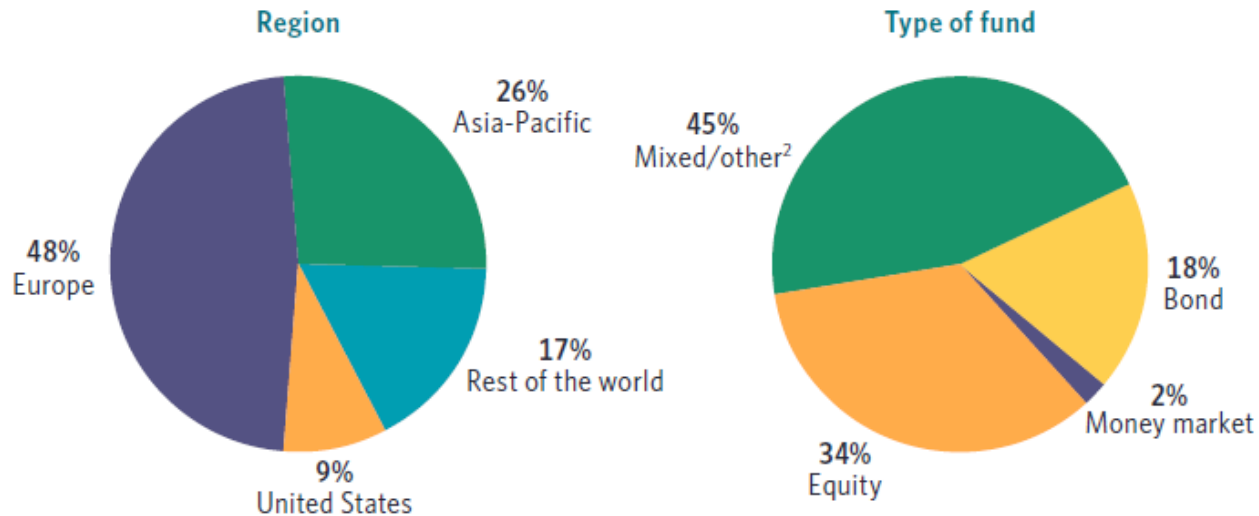


Worldwide Regulated Funds

FIGURE 1.7

Number of Worldwide Regulated Open-End Funds

Percentage of funds by region or type of fund, year-end 2017¹



Number of worldwide regulated open-end funds: 114,131

¹ Data for Russia are for 2017:Q3.

² Mixed/other funds include balanced/mixed funds, guaranteed/protected funds, real estate funds, and other funds.

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

Source: International Investment Funds Association

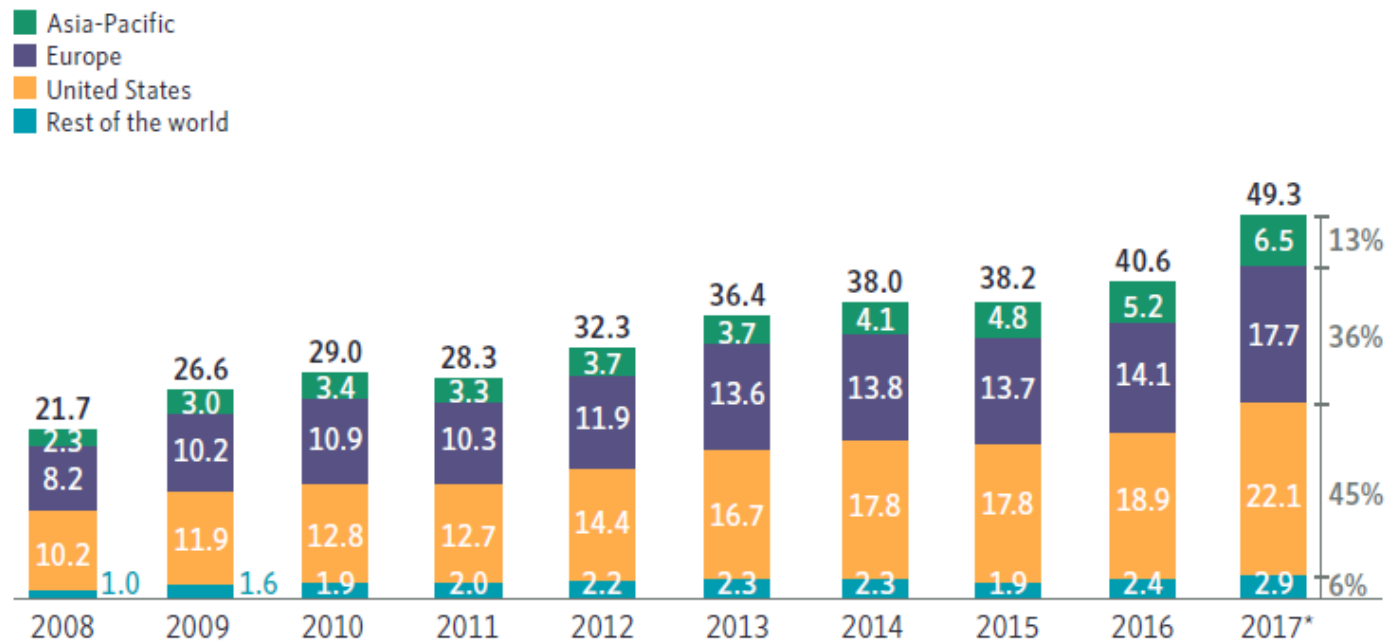


Worldwide Regulated Funds

FIGURE 1.8

Total Net Assets of Worldwide Regulated Open-End Funds

Trillions of US dollars by region; year-end, 2008-2017



* Data for Russia are for 2017:Q3.

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

Source: International Investment Funds Association

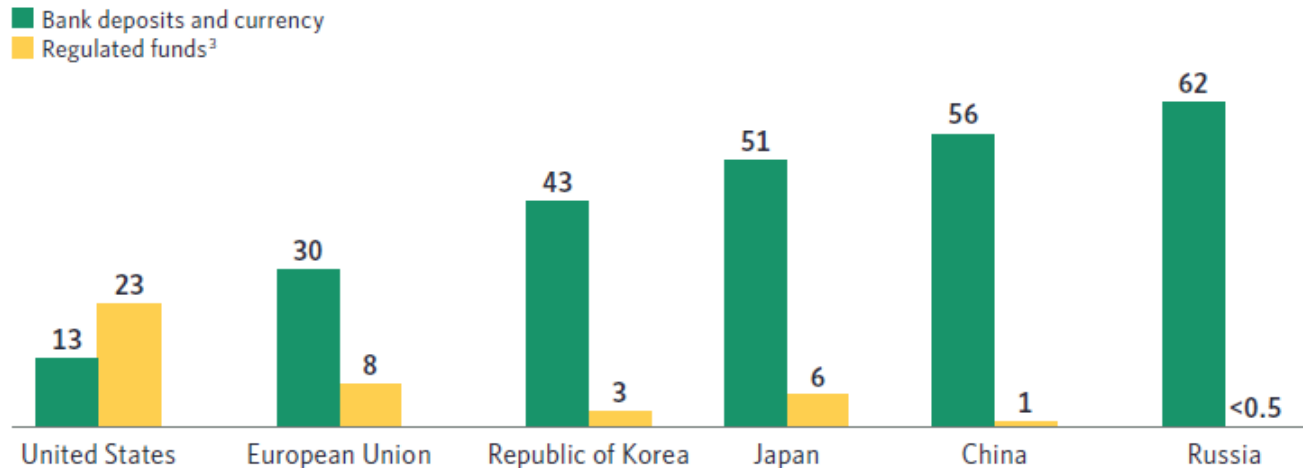


Worldwide Regulated Funds

FIGURE 1.11

US Households Have More of Their Wealth in Regulated Funds; Chinese Households Have a Lower Share

Percentage of households' financial wealth,¹ 2017²



¹ Households' financial wealth includes households and nonprofit institutions serving households; data for China exclude nonprofit institutions serving households.

² Data for the United States, the Republic of Korea, and Japan are as of 2017:Q4; data for the European Union and Russia are as of 2017:Q3; data for China are estimated as of 2014:Q4.

³ For the United States, Japan, and Russia, regulated funds include total net assets held by mutual funds and ETFs. For the European Union, Republic of Korea, and China, regulated funds include investment fund shares as defined by their respective systems of national accounts.

Source: Investment Company Institute tabulations of data from the International Investment Funds Association, Federal Reserve Board, Eurostat, Bank of Korea, Bank of Japan, Chinese Academy of Social Sciences, and Central Bank of the Russian Federation





U.S. Mutual Fund Industry

The assets of US-registered investment companies exceeded \$22 trillion in 2017





U.S. Mutual Fund Industry

Investment Company Assets in 2017

Assets in US-registered investment companies* rose \$3.3 trillion in 2017, to a record level at year-end of \$22.5 trillion (Figure 2.1). Of that \$22.5 trillion, mutual funds and exchange-traded funds (ETFs) accounted for the vast majority, \$22.1 trillion.

FIGURE 2.1

Investment Company Total Net Assets by Type

Billions of dollars; year-end, 1999–2017

	Mutual funds ¹	Closed-end funds ²	ETFs ³	UITs	Total ⁴
1999	6,846	147	34	92	7,119
2000	6,964	143	66	74	7,247
2001	6,975	141	83	49	7,248
2002	6,383	159	102	36	6,680
2003	7,402	214	151	36	7,802
2004	8,095	253	228	37	8,614
2005	8,891	276	301	41	9,509
2006	10,398	297	423	50	11,167
2007	12,000	312	608	53	12,974
2008	9,620	184	531	29	10,364
2009	11,111	223	777	38	12,150
2010	11,833	238	992	51	13,113
2011	11,633	242	1,048	60	12,983
2012	13,054	264	1,337	72	14,727
2013	15,049	279	1,675	87	17,090
2014	15,873	289	1,975	101	18,238
2015	15,652	261	2,101	94	18,108
2016	16,344	263	2,524	85	19,215
2017	18,746	275	3,401	85	22,507

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

² Closed-end fund data include preferred share classes.

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

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

Note: Data are for investment companies that report statistical information to the Investment Company Institute.

Assets of these companies are 98 percent of investor assets. Components may not add to the total because of rounding.

Sources: Investment Company Institute and Strategic Insight Simfund



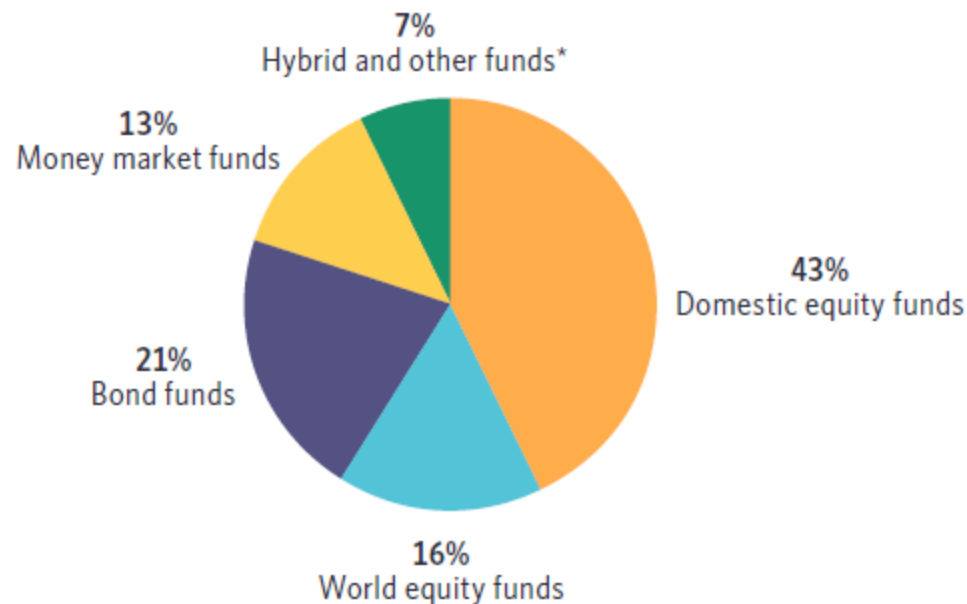


U.S. Mutual Fund Industry

FIGURE 2.2

The Majority of US Mutual Fund and ETF Total Net Assets Were in Equity Funds

Percentage of total net assets, year-end 2017



US mutual fund and ETF total net assets: \$22.1 trillion

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

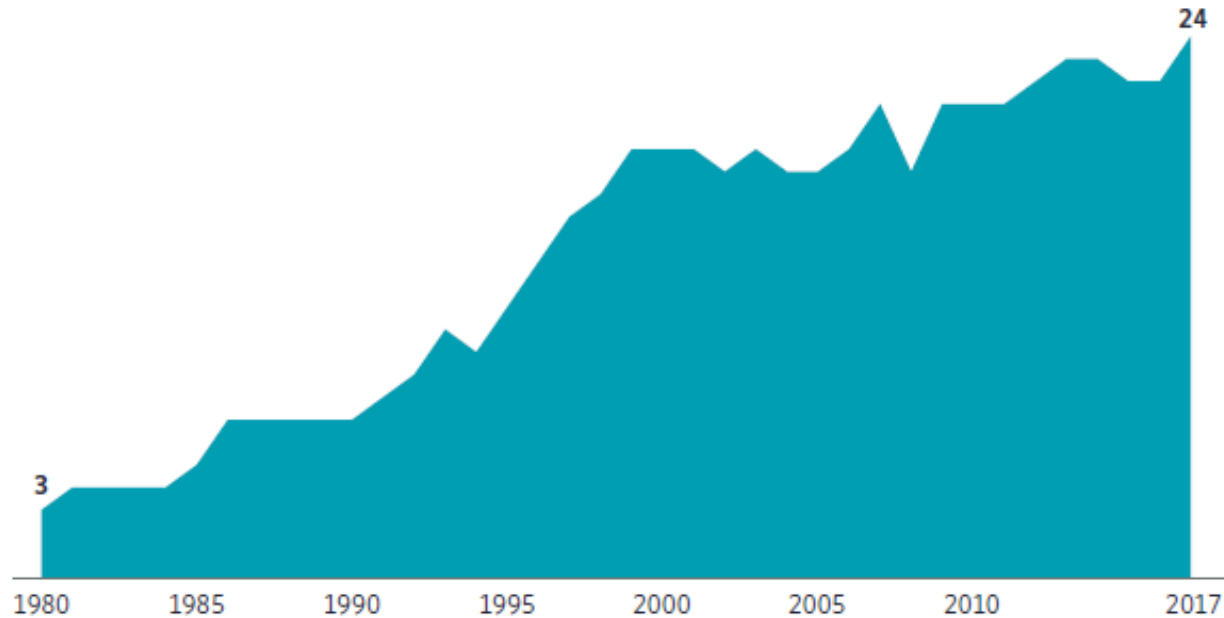


U.S. Mutual Fund Industry

FIGURE 2.3

Share of Household Financial Assets Held in Investment Companies

Percentage of household financial assets; year-end, 1980–2017



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

Sources: Investment Company Institute and Federal Reserve Board





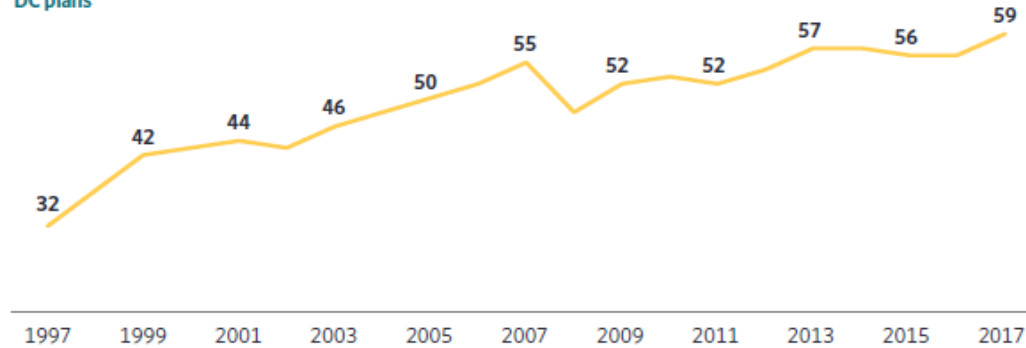
U.S. Mutual Fund Industry

FIGURE 2.4

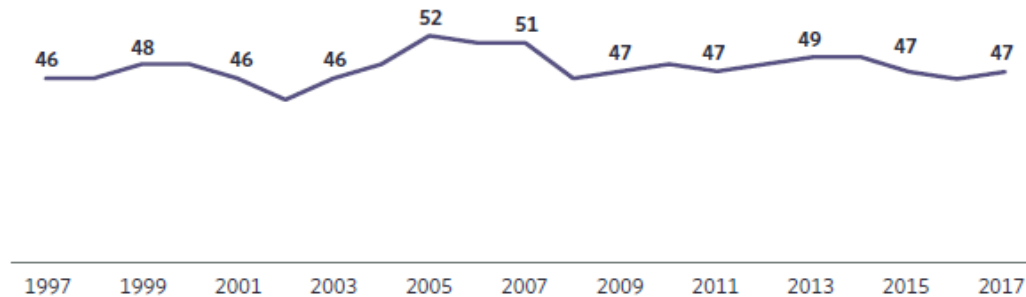
Mutual Funds in Household Retirement Accounts

Percentage of retirement assets in mutual funds by type of retirement vehicle, 1997-2017

DC plans*



IRAs



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

Sources: Investment Company Institute, Federal Reserve Board, Department of Labor, National Association of Government Defined Contribution Administrators, American Council of Life Insurers, and Internal Revenue Service Statistics of Income Division. See Investment Company Institute, "The US Retirement Market, Fourth Quarter 2017."

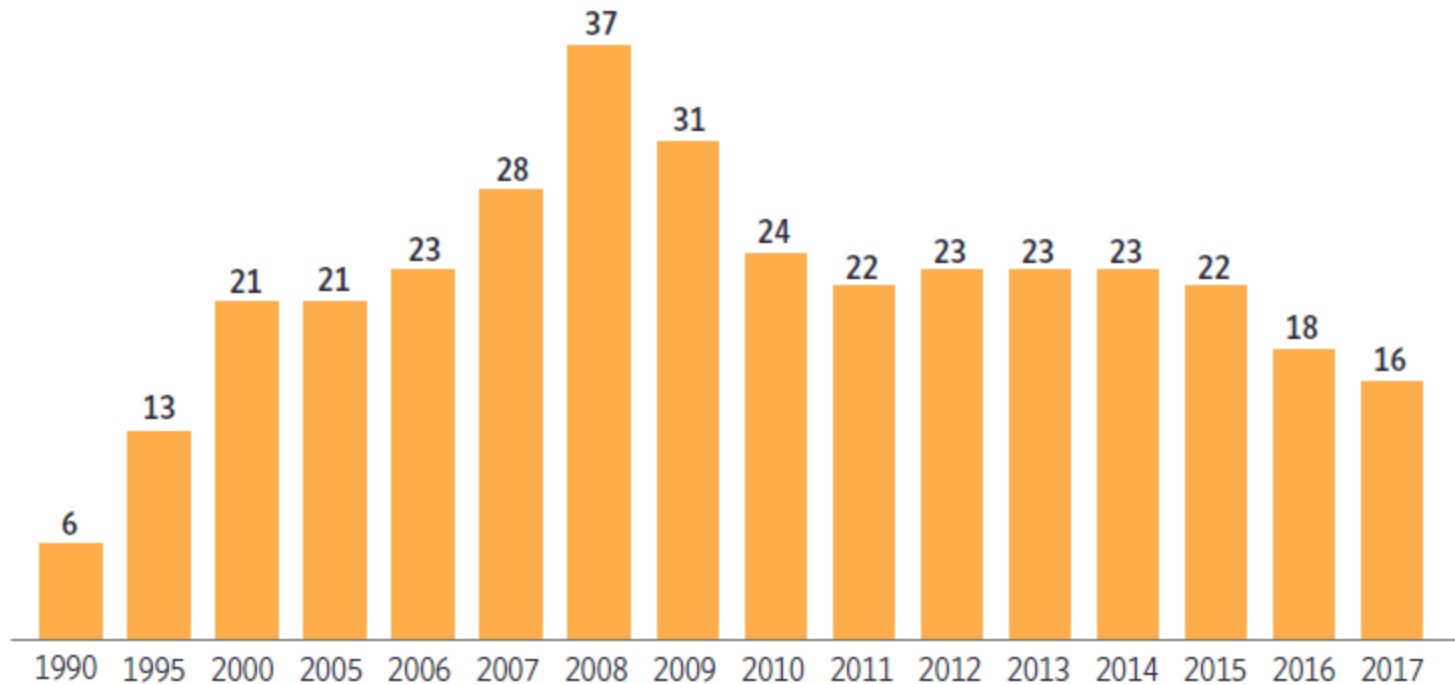


U.S. Mutual Fund Industry

FIGURE 2.5

Money Market Funds Managed 16 Percent of US Nonfinancial Businesses' Short-Term Assets in 2017

Percent; year-end, selected years



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

Sources: Investment Company Institute and Federal Reserve Board

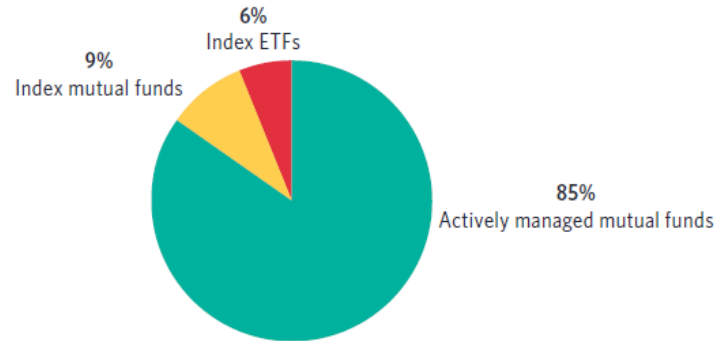


U.S. Mutual Fund Industry

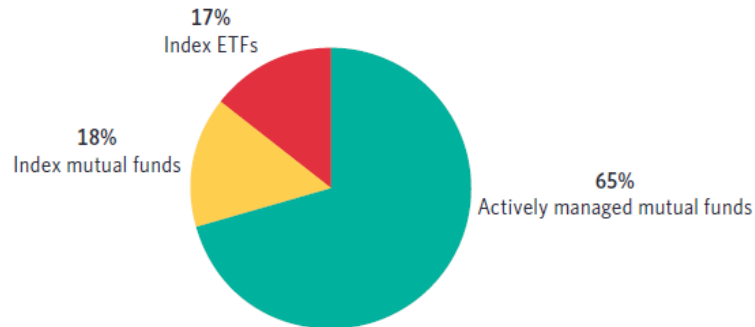
FIGURE 2.7

Index Funds Have Grown as a Share of the Fund Market

Percent, year-end 2007 and 2017



2007 total net assets: \$9.5 trillion¹



2017 total net assets: \$19.2 trillion²

¹ The first actively managed ETF was not approved until 2008.

² In 2017, actively managed ETFs accounted for 0.2 percent of the \$19.2 trillion in total net assets.

Note: The ETF category excludes non-1940 Act ETFs. The mutual fund category excludes money market fund total net assets.



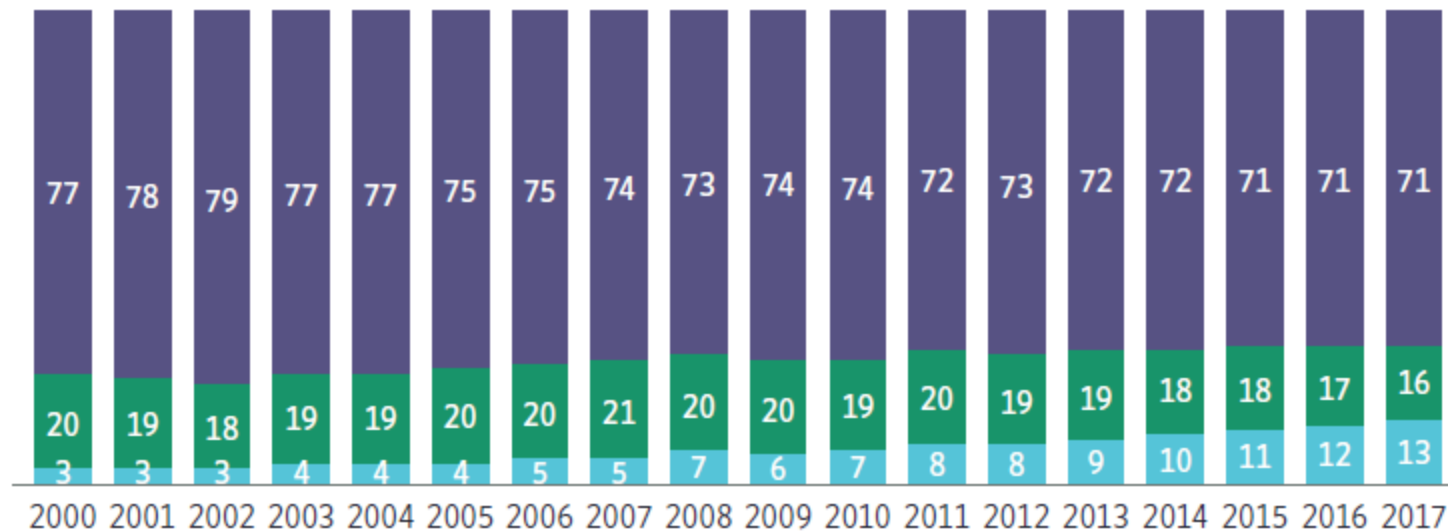
U.S. Mutual Fund Industry

FIGURE 2.8

Index Fund Share of US Stock Market Is Small

Percentage of US stock market capitalization, year-end 2000–2017

- Other investors
- Active domestic equity mutual funds and ETFs
- Index domestic equity mutual funds and ETFs



Note: In 2008 and 2009, data for index ETFs include a small number of actively managed ETFs. Components may not add to 100 percent because of rounding.

Sources: Investment Company Institute and World Federation of Exchanges

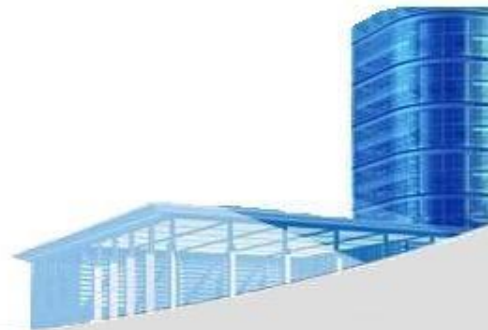
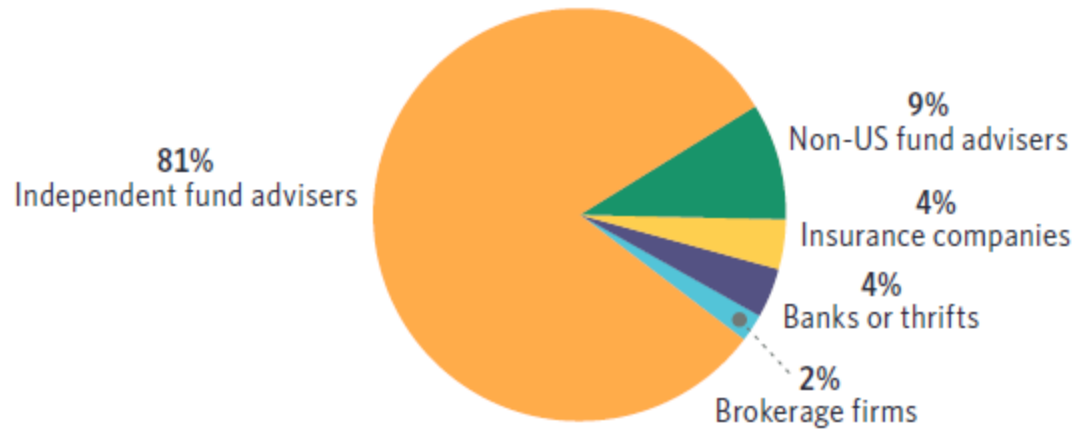


U.S. Mutual Fund Industry

FIGURE 2.9

More Than 80 Percent of Fund Complexes Were Independent Fund Advisers

Percentage of investment company complexes by type of intermediary, year-end 2017





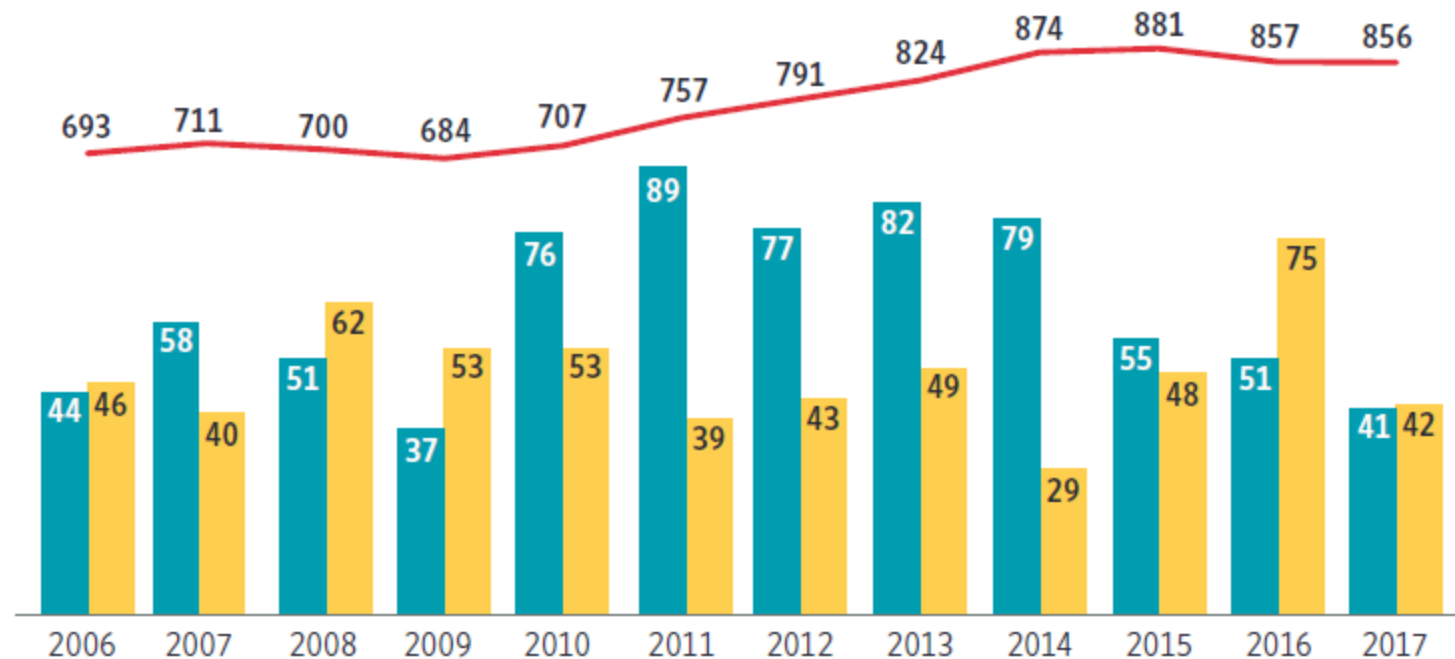
U.S. Mutual Fund Industry

FIGURE 2.10

Number of Fund Sponsors

2006-2017

- Total fund sponsors at year-end
- Fund sponsors entering
- Fund sponsors leaving



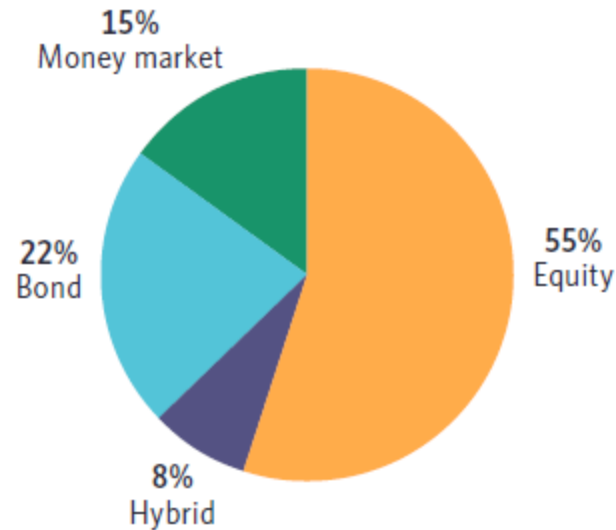


U.S. Mutual Fund Industry

FIGURE 3.1

Equity Mutual Funds Held More Than Half of Mutual Fund Total Net Assets

Percentage of total net assets, year-end 2017



US mutual fund total net assets: \$18.7 trillion





Mutual Fund Industry

- > **In-class Exercise:**
- > **The CEO of the Happy Widows Income Fund wants to change its investment objective from income to growth and income. In order to do this, she will need to obtain the approval of:**
 - A majority of the fund's non-interested directors
 - All of the members of the fund's board of directors
 - A majority of the fund's outstanding shares
 - The fund's investment advisor and custodian



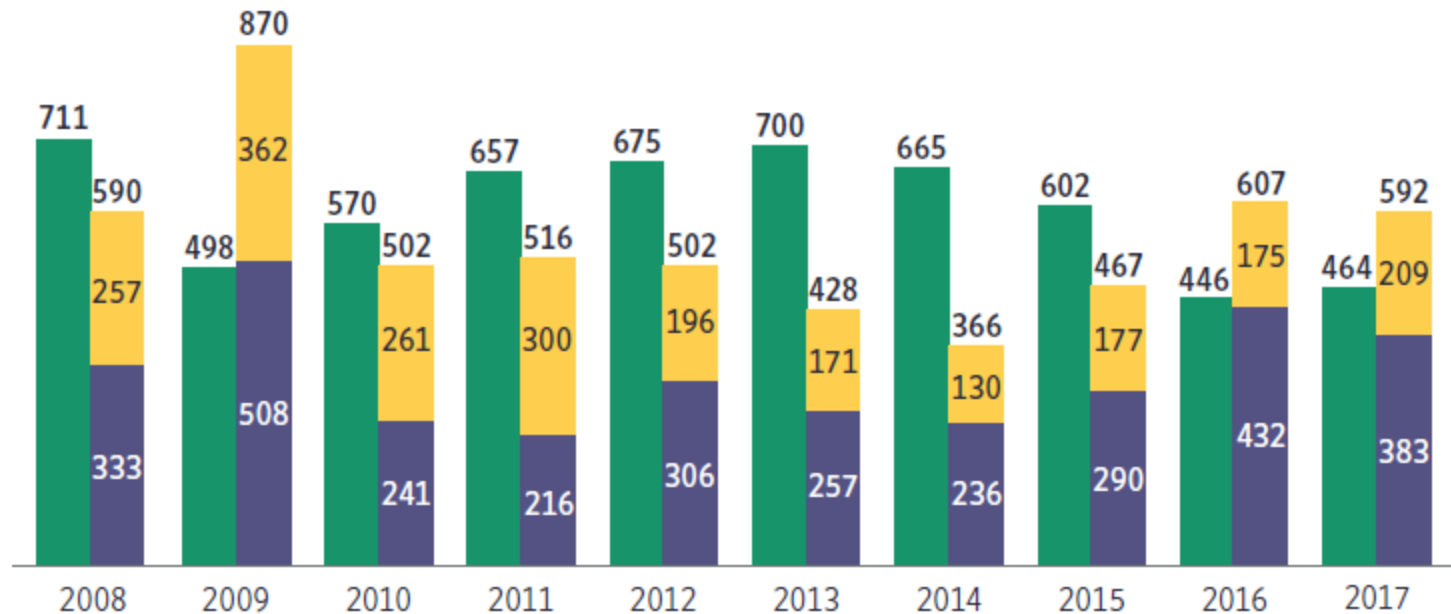


Recent Mutual Fund Trends

FIGURE 3.2

Number of Mutual Funds Entering and Exiting the Industry 2008-2017

- 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.

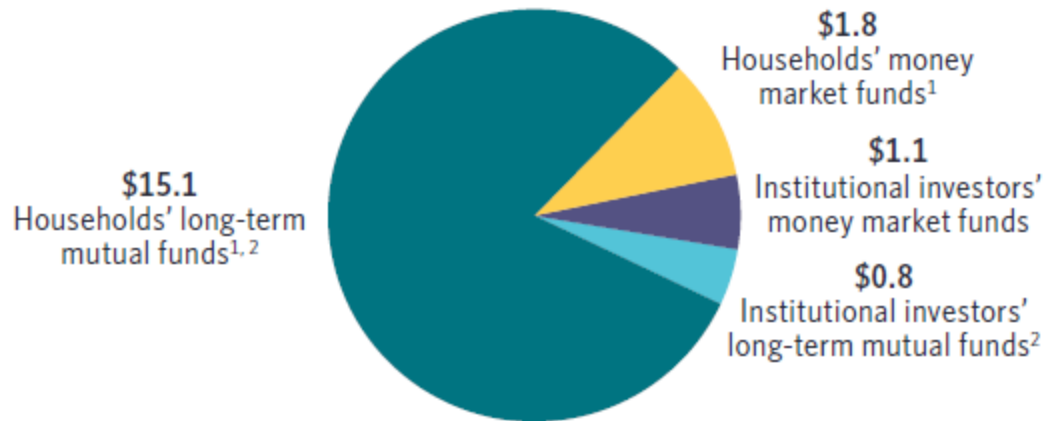


Recent Mutual Fund Trends

FIGURE 3.3

Households Held 90 Percent of Mutual Fund Total Net Assets

Trillions of dollars, year-end 2017



Mutual fund total net assets: \$18.7 trillion
Long-term mutual fund² total net assets: \$15.9 trillion
Money market fund total net assets: \$2.8 trillion

¹ Mutual funds held as investments in individual retirement accounts, defined contribution retirement plans, variable annuities, 529 plans, and Coverdell education savings accounts are counted as household holdings of mutual funds.

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

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





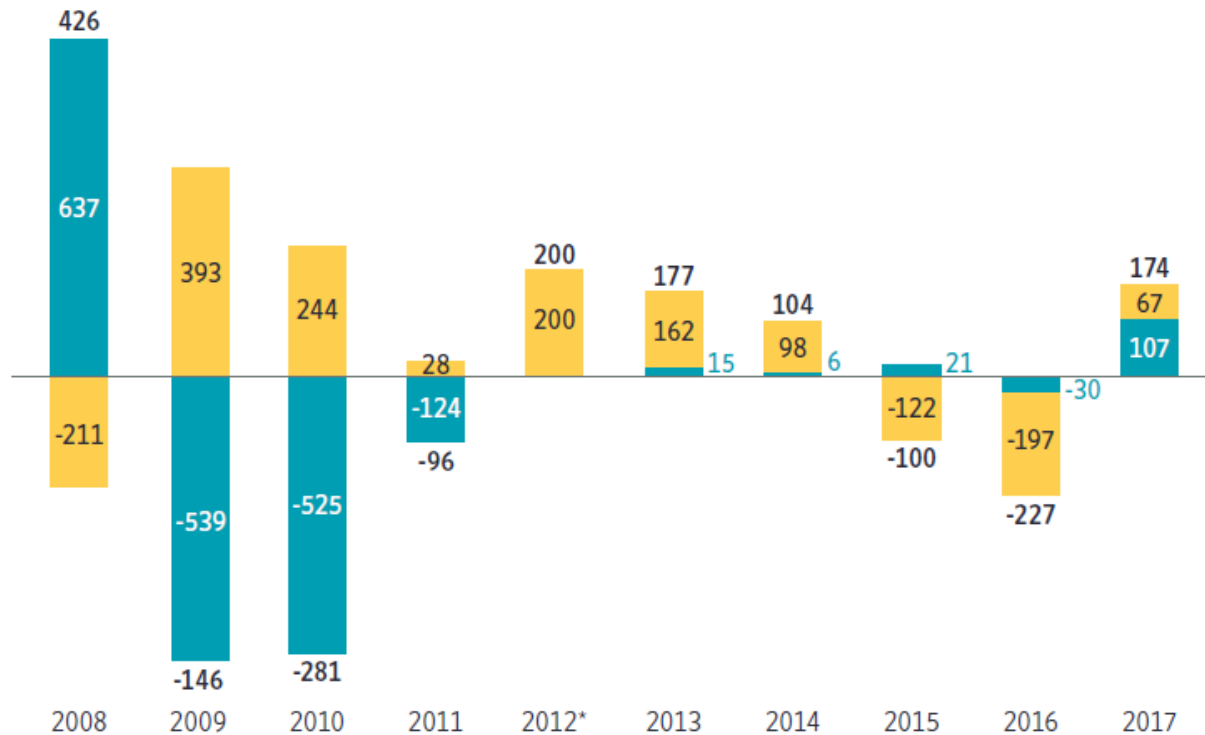
Recent Mutual Fund Trends

FIGURE 3.4

Net New Cash Flow to Mutual Funds

Billions of dollars; annual, 2008-2017

- Equity, bond, and hybrid mutual funds
- Money market funds



* In 2012, investors withdrew less than \$500 million from money market funds.

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

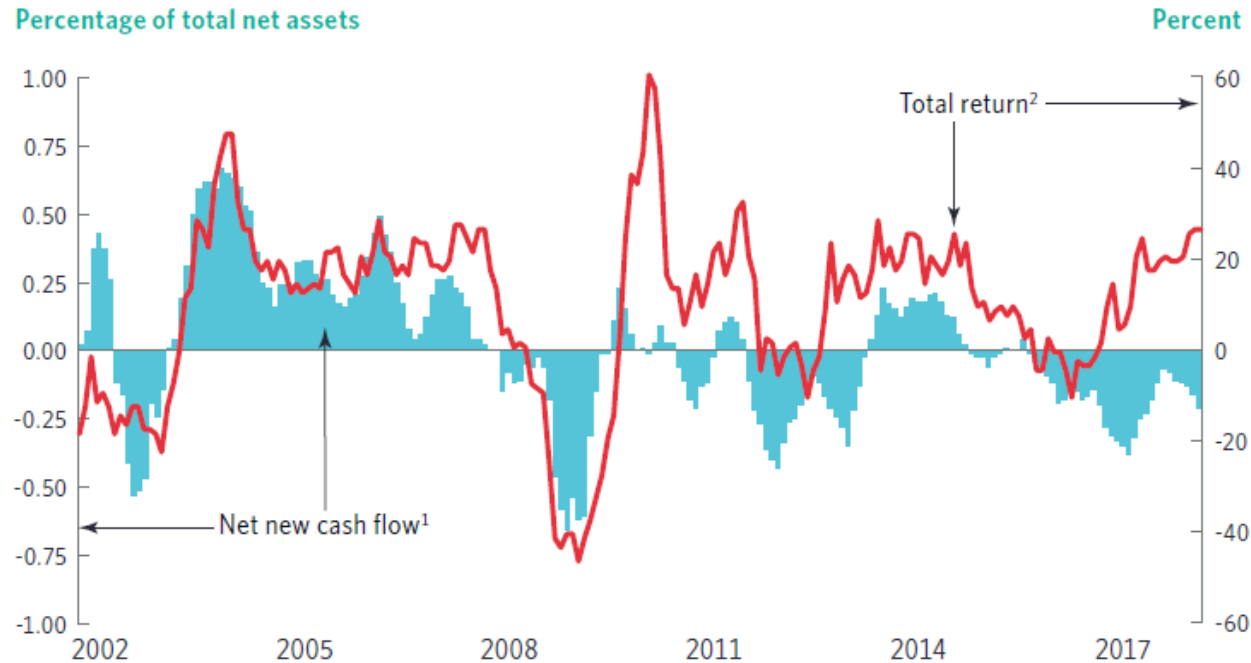


Recent Mutual Fund Trends

FIGURE 3.5

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

Monthly, 2002-2017



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

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

Sources: Investment Company Institute, MSCI, and Bloomberg

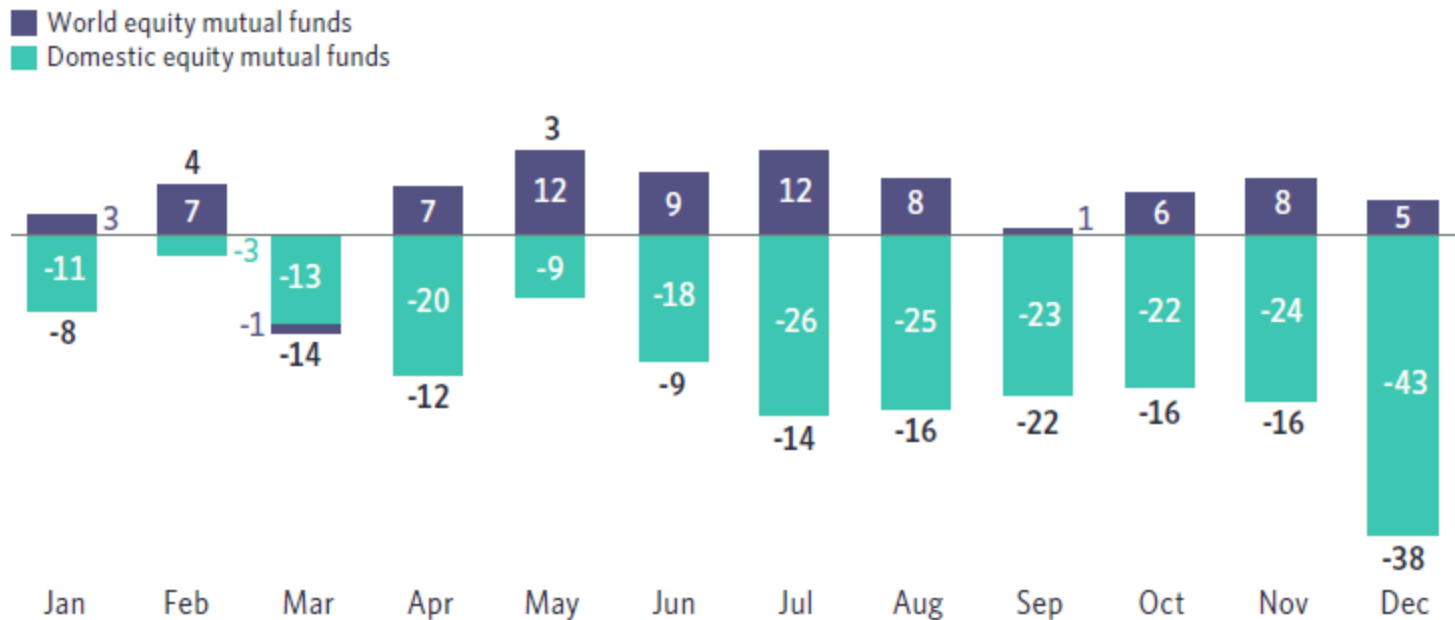


Recent Mutual Fund Trends

FIGURE 3.6

Net New Cash Flow to Equity Mutual Funds in 2017

Billions of dollars; monthly, January-December 2017



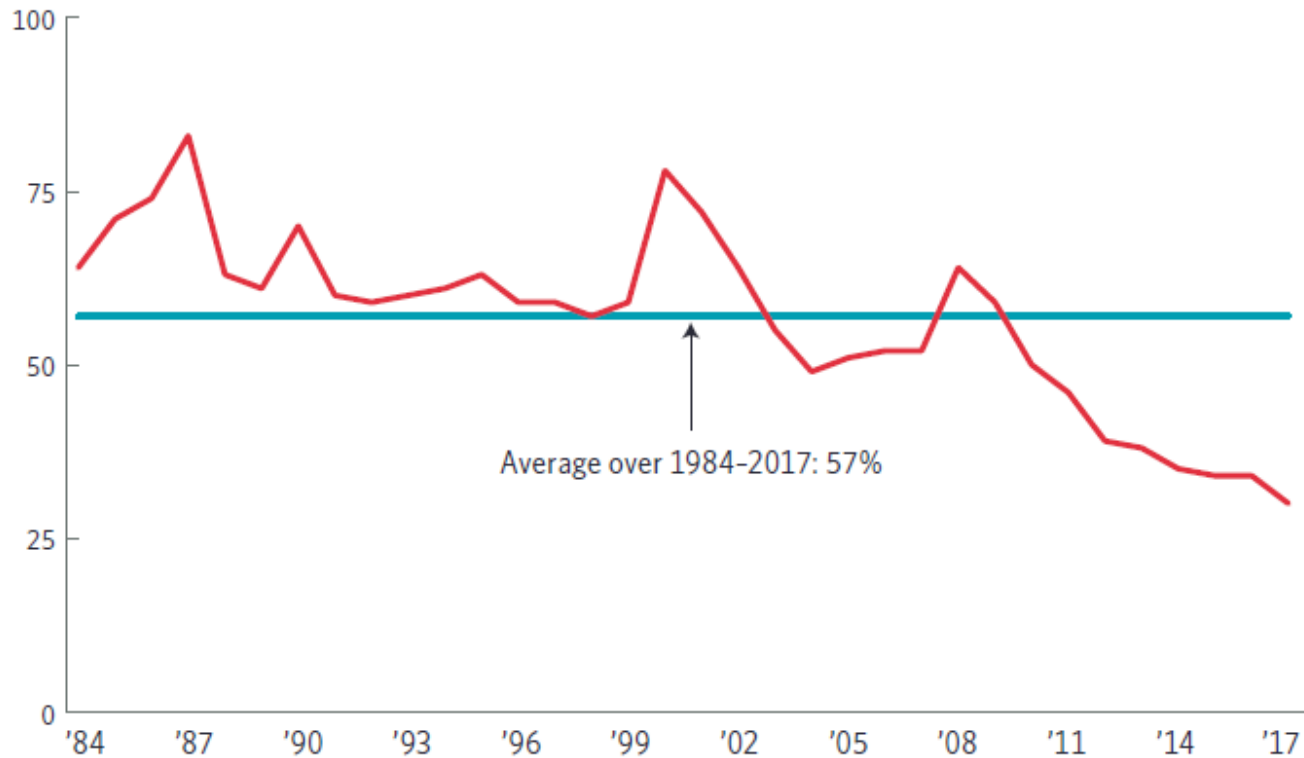
Note: Components may not add to the total because of rounding.



Recent Mutual Fund Trends

FIGURE 3.7

Turnover Rate Experienced by Equity Mutual Fund Investors 1984-2017



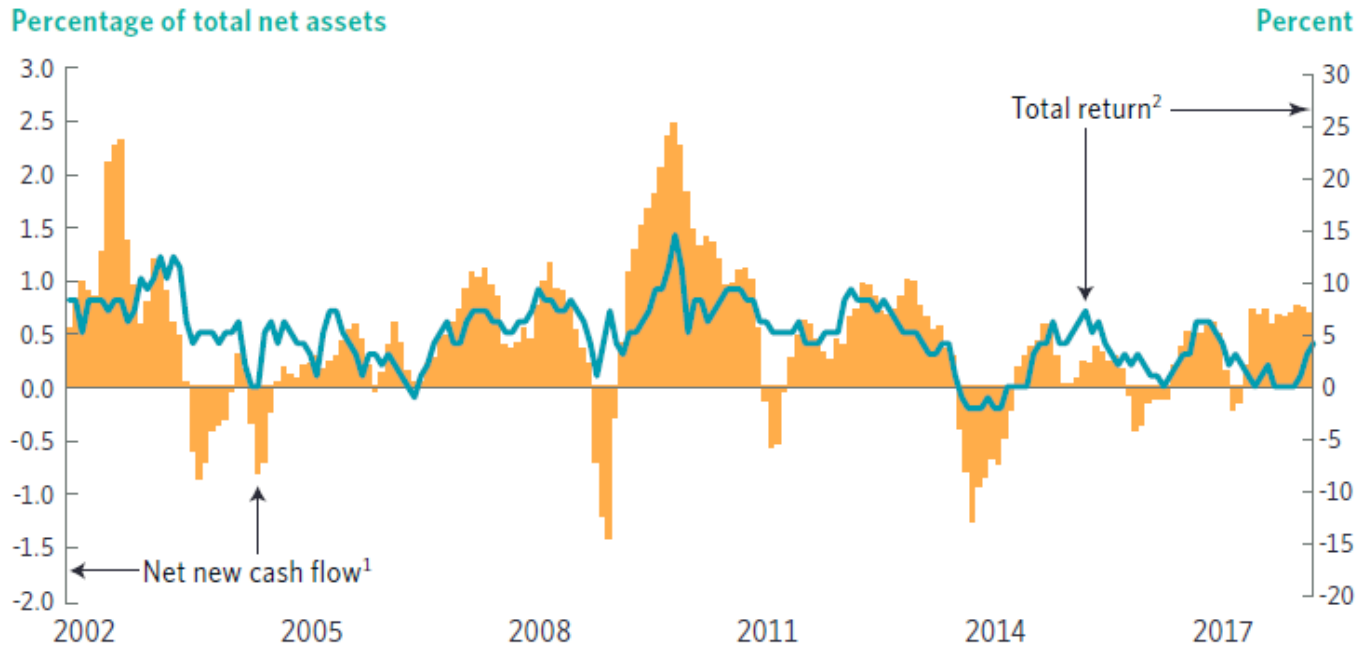
Note: The turnover rate is an asset-weighted average. Data exclude mutual funds that invest primarily in other mutual funds.



Recent Mutual Fund Trends

FIGURE 3.8

Net New Cash Flow to Bond Mutual Funds Typically Is Related to Bond Returns
Monthly, 2002-2017



¹ Net new cash flow is the 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 Citi US Broad Investment Grade Corporate Bond Index.

Sources: Investment Company Institute, Citigroup, and Bloomberg

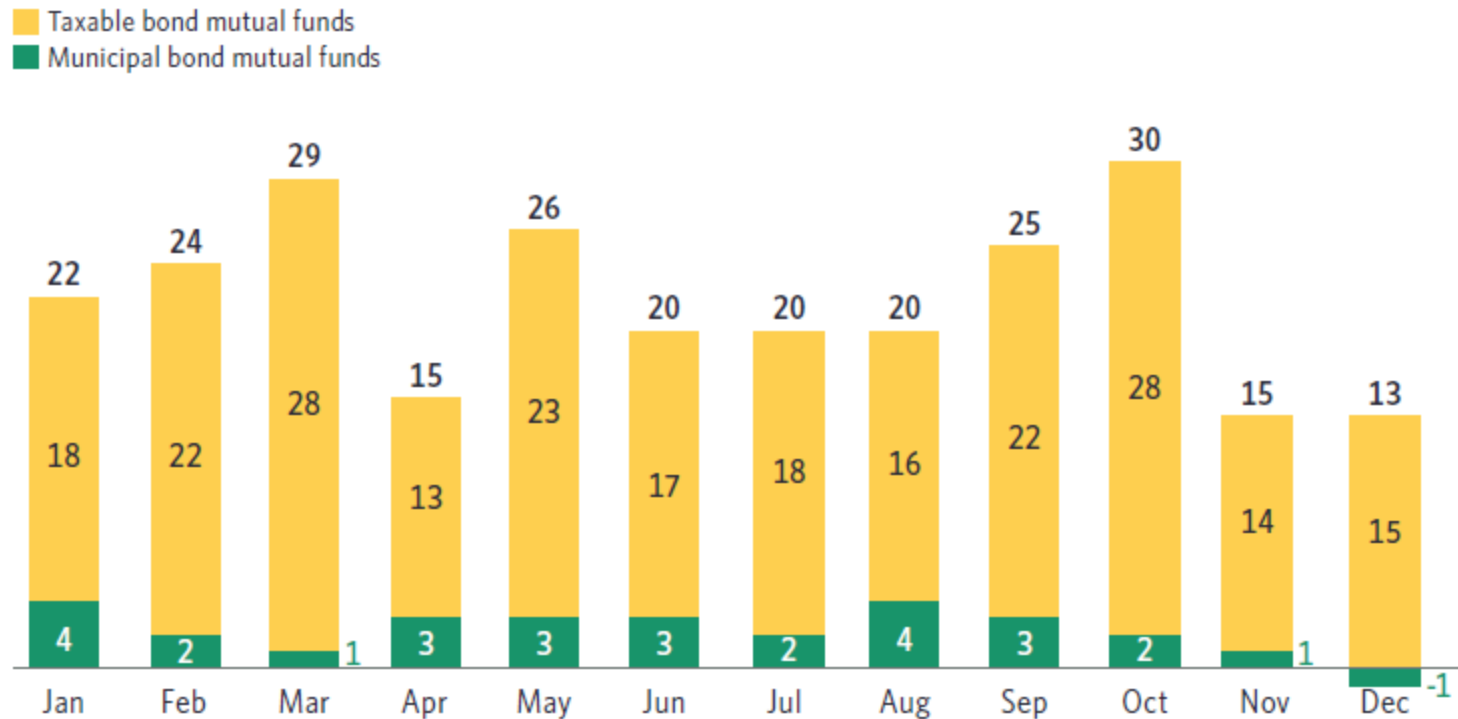


Recent Mutual Fund Trends

FIGURE 3.9

Net New Cash Flow to Bond Mutual Funds in 2017

Billions of dollars; monthly, January–December 2017



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

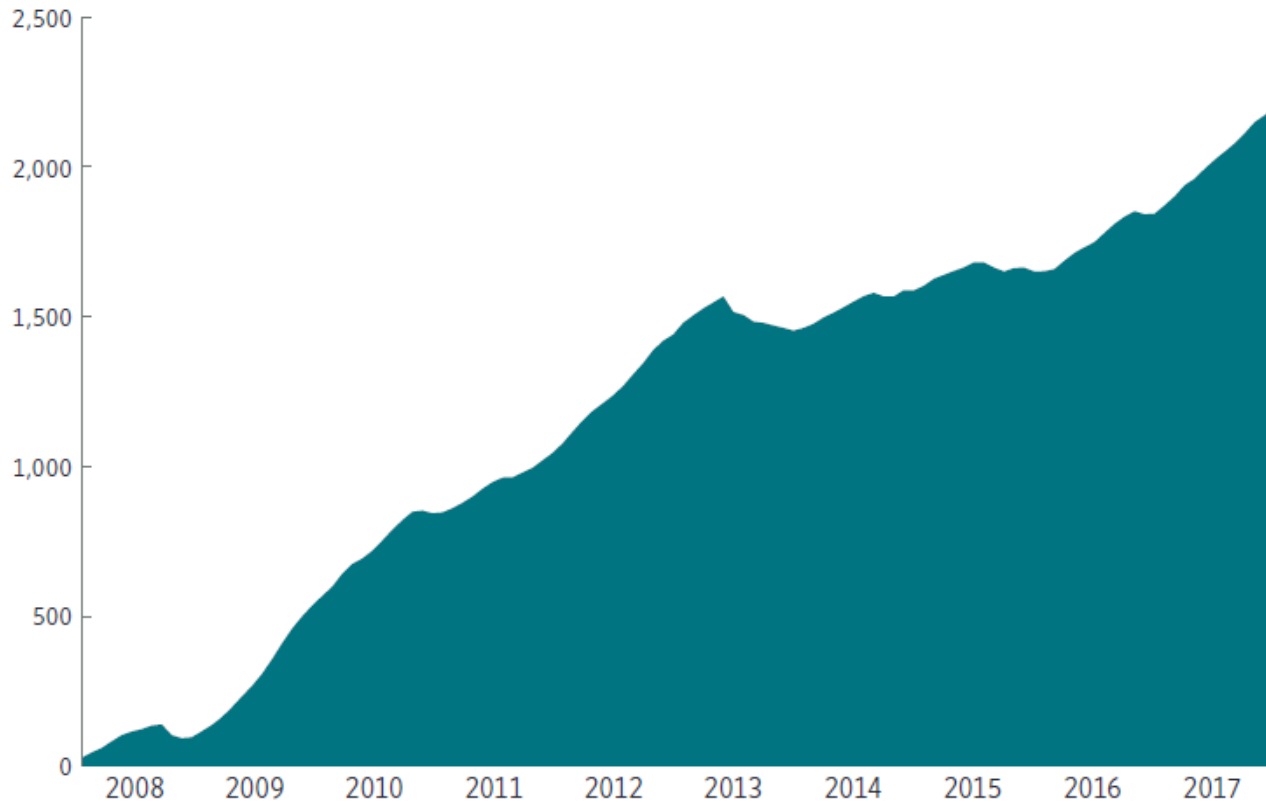


Recent Mutual Fund Trends

FIGURE 3.10

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

Cumulative flows to bond mutual funds, billions of dollars; monthly, January 2008–December 2017



Note: Bond mutual fund data include net new cash flow and reinvested dividends.



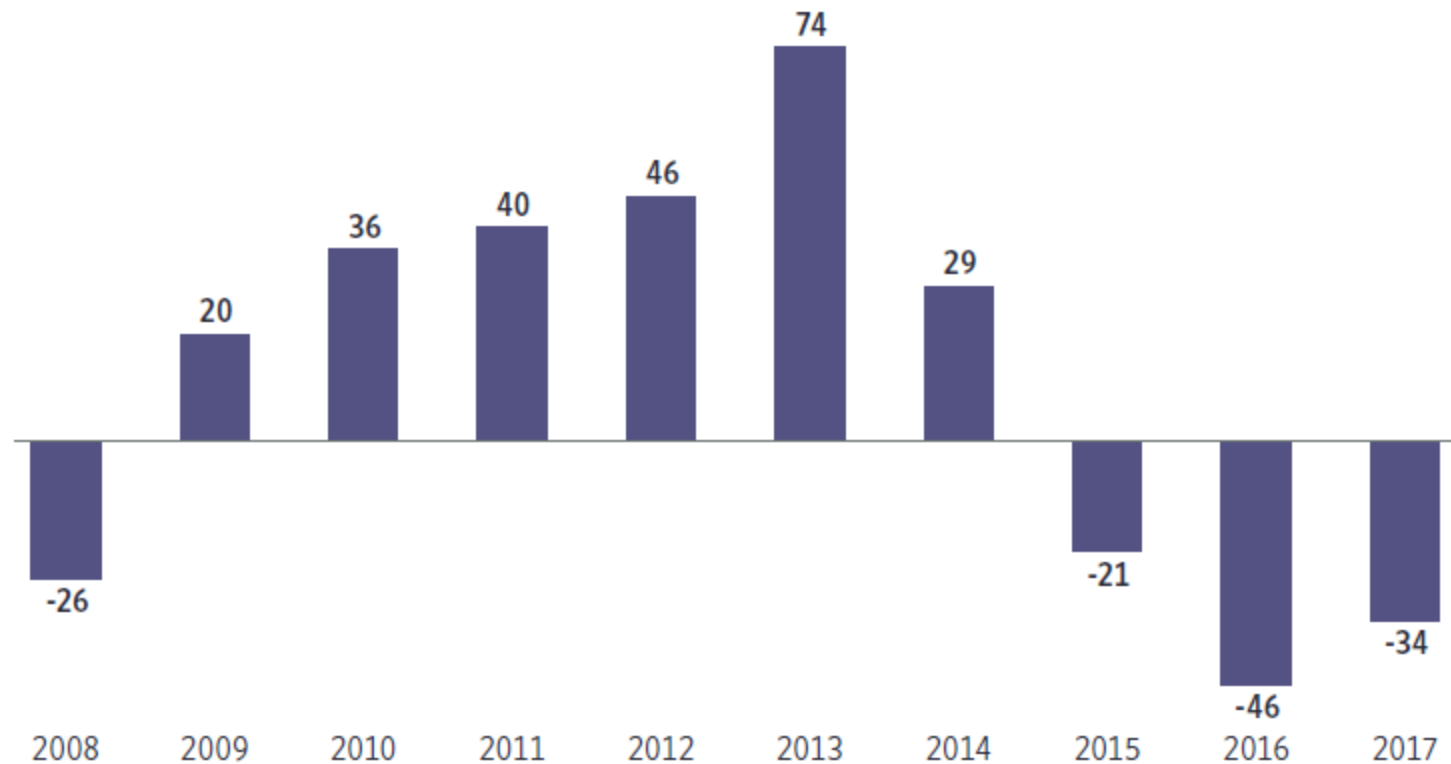


Recent Mutual Fund Trends

FIGURE 3.11

Net New Cash Flow to Hybrid Mutual Funds

Billions of dollars; annual, 2008-2017



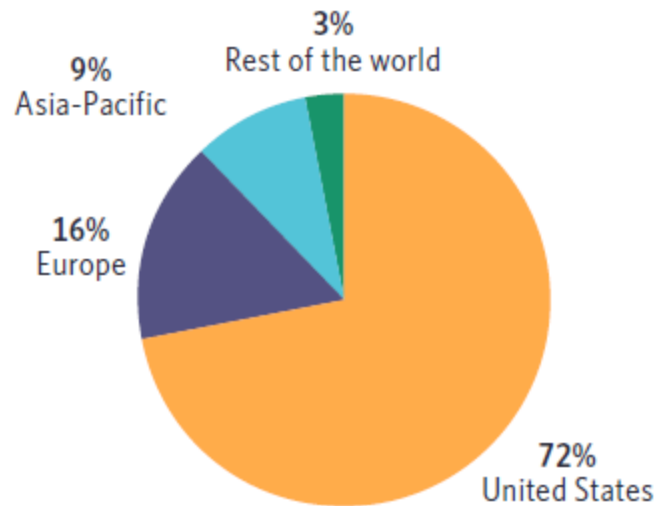


Recent Mutual Fund Trends

FIGURE 4.1

The United States Has the Largest ETF Market

Percentage of total net assets, year-end 2017



Worldwide ETF total net assets: \$ 4.7 trillion

Sources: Investment Company Institute and ETFGI



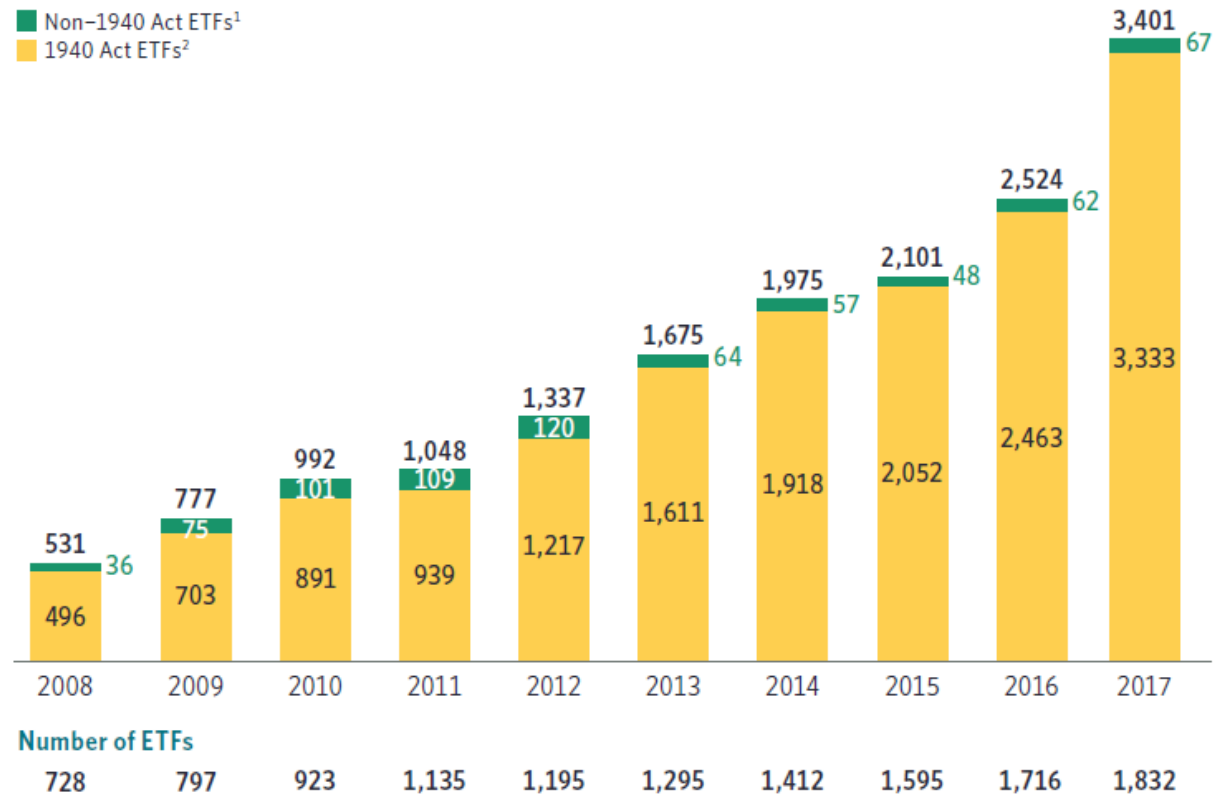


Recent Mutual Fund Trends

FIGURE 4.2

Total Net Assets and Number of ETFs

Billions of dollars; year-end, 2008-2017



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

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

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

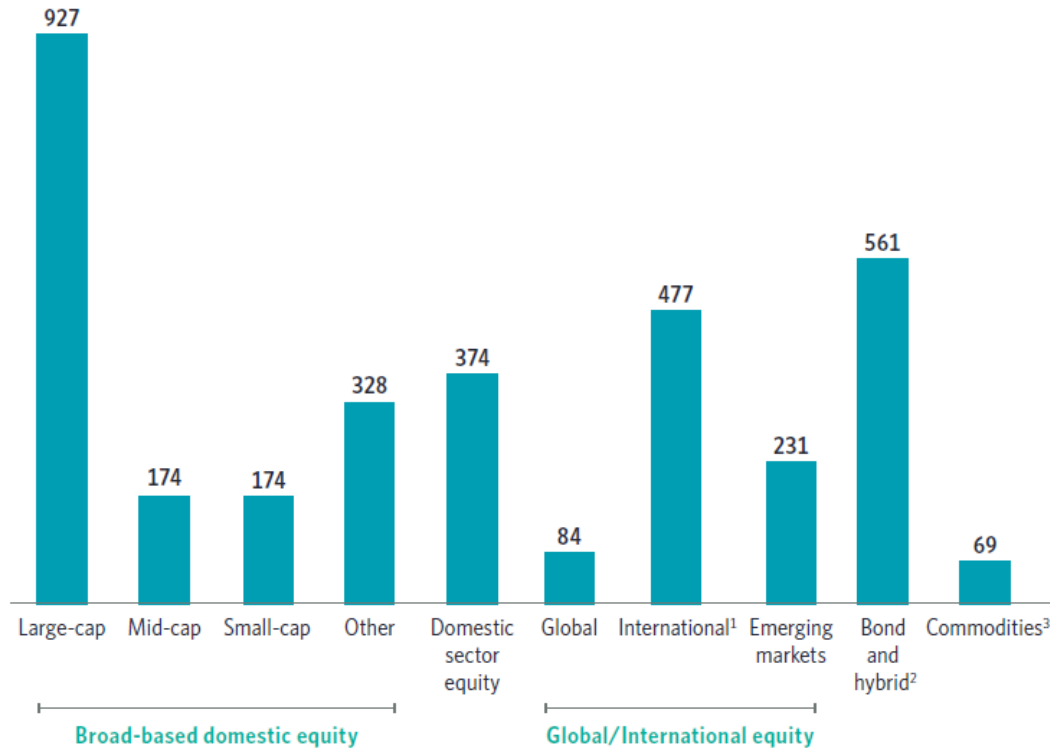


Recent Mutual Fund Trends

FIGURE 4.9

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

Billions of dollars, year-end 2017



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

² Bond ETFs represented 99 percent of total net assets in the bond and hybrid category in 2017.

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

Note: Data exclude ETFs that invest primarily in other ETFs.



Session 3 Mutual Fund Types and Characteristics

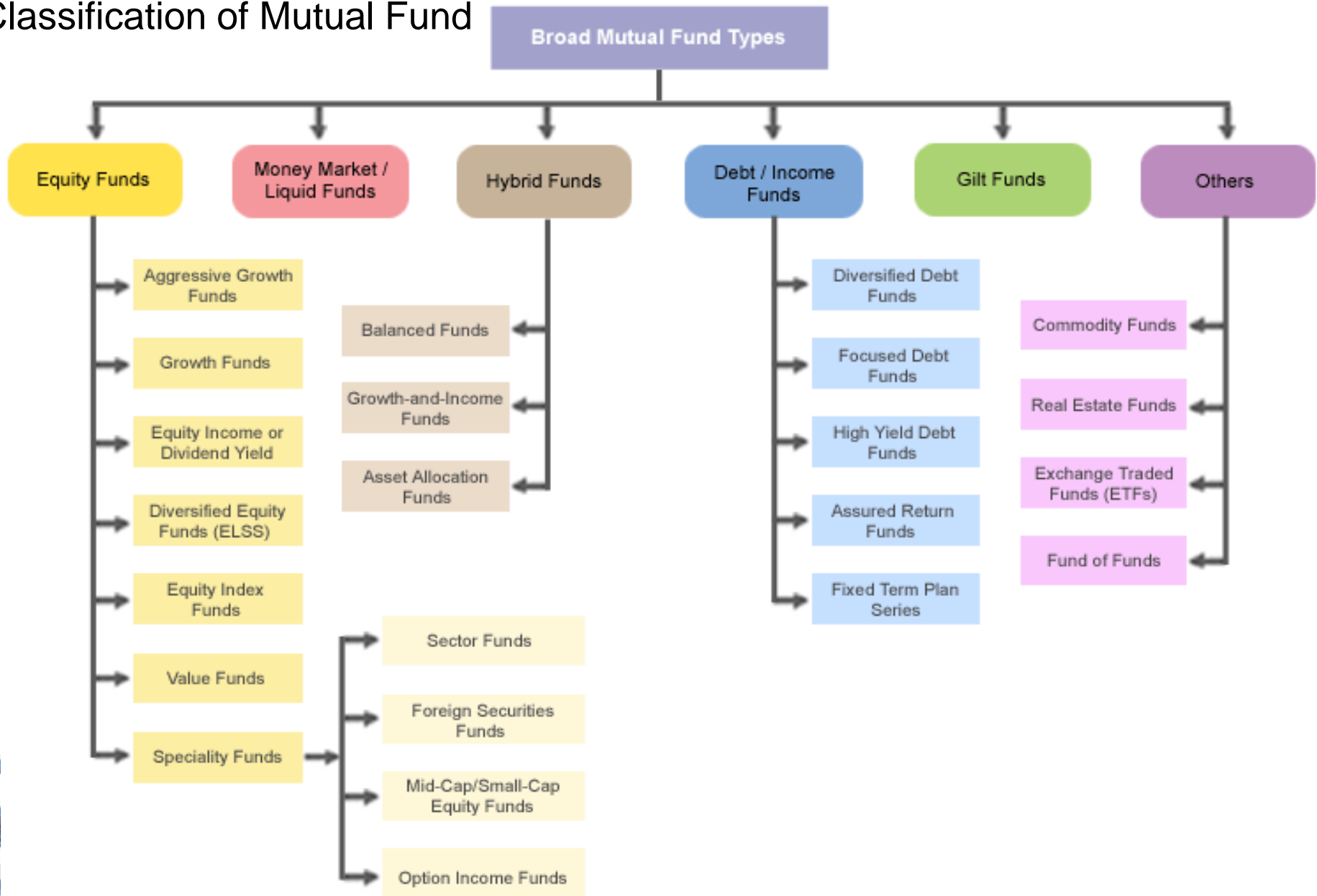




Types of Funds

- > No matter what type of investor you are, there is bound to be a mutual fund that fits your style.
- > It's important to understand that each mutual fund has different risks and rewards.
- > **By Structure**
 - Open Ended Schemes
 - Close Ended Schemes
 - Interval Schemes
- > **By Investment Objectives**
 - Growth Schemes
 - Income Schemes
 - Balance Schemes
 - Money Market Schemes
- > **Other Schemes**
 - Tax Saving Schemes
- > **Special Schemes**
 - Index Schemes
 - Sector Specific Schemes







Open-end Funds

- > a. Investors buy and sell shares back to the fund itself
- > b. There is no limit on the number of shares the fund can issue
- > c. **NET ASSET VALUE (NAV)**
 - Defined as the total market value of all securities held by the fund less liabilities, divided by the number of fund shares outstanding.
 - NAV is calculated per the fund's prospectus
- > **Example: NAV**
 - XYZ Mutual Fund owns assets totaling \$10M and liabilities equal to \$500,000 with 500,000 shares outstanding
 - Therefore, NAV is:
$$(\$10,000,000 - \$500,000) / 500,000$$
 - \$19/share





NAV

> A mutual fund must calculate its NAV:

- Continuously
- Only once per day
- Weekly
- As stated in its prospectus





Automatic Reinvesting Dividends

- > **What are the advantages for mutual fund investors in automatically reinvesting their dividends?**
 - Deferring income taxes
 - The effects compounding
 - Being able to purchase more shares with no sales charges
 - Both b and c

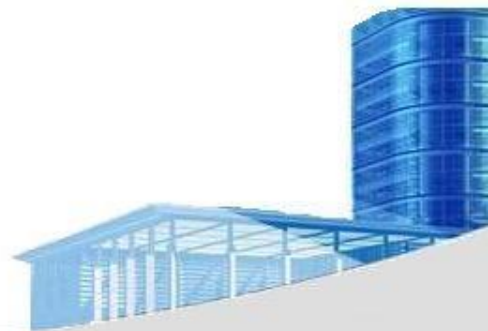




Fixed-dollar systematic withdrawal plan

- > Under this withdrawal plan, the investor will receive the same amount of money every month until the funds in his account are exhausted.

- > Walker is liquidating his account at Spendthrift Funds. He is going to receive \$1000 per month as long as the money in his account lasts. Walker is using:
 - A fixed-dollar systematic withdrawal plan
 - A fixed-shares systematic withdrawal plan
 - A letter of intent
 - Dollar cost averaging





Characteristics of Open-end Funds

An open-end investment company:

Continuously issues new shares to the public





Characteristics of Open-end Funds

- > Which of the following would NOT require a majority vote of a mutual fund's shares?
- i. Changing the fund from open-end to closed-end
 - ii. Changing the investment objectives of the fund
 - iii. Increasing the capital gain distribution paid by the fund
 - iv. Decreasing the dividend paid by the fund
- a. I and II only
 - b. I and III only
 - c. III and IV only
 - d. I, II, III, and IV





Closed-end Funds

- > A fixed number of shares outstanding
- > Professionally managed
- > May be invested in equities, bonds, and other securities
- > 573 Closed-end funds at year-end 2017
- > \$275 billion market value
- > Shares sold at current market price
- > Trading on exchange market



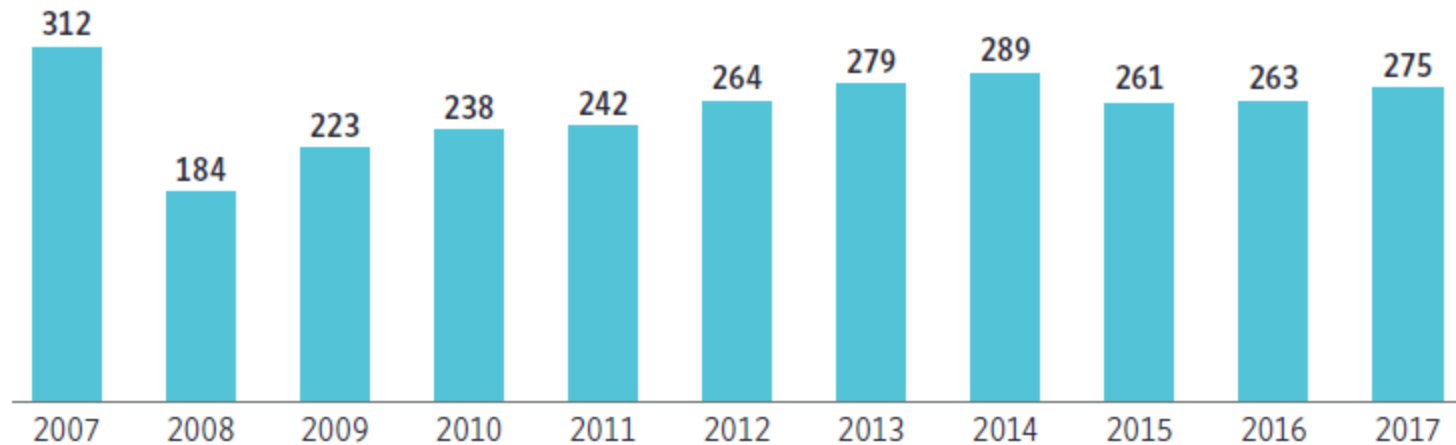


Closed-end Funds

FIGURE 5.1

Total Assets of Closed-End Funds Were \$275 Billion at Year-End 2017

Billions of dollars; year-end, 2007-2017



Number of closed-end funds

Year	Number of closed-end funds
2007	662
2008	642
2009	627
2010	624
2011	632
2012	602
2013	599
2014	568
2015	559
2016	532
2017	530

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

Source: ICI Research Perspective, "The Closed-End Fund Market, 2017"





Closed-end Funds

- > **All of the following statements are true about closed-end investment companies EXCEPT that the:**
- a. Number of outstanding shares is constant
 - b. Shares are sold at the current market price
 - c. Shares may not sell below the current net asset value
 - d. Shares may be listed on the NYSE





Money Market Funds

- > **Tax-exempt money market funds invest in securities that provide safety of principal, liquidity and income exempt from federal income taxes by investing in short-term, high-rated municipal obligations.**
- > **The money market consists of short-term debt instruments, mostly Treasury bills. This is a safe place to park your money. You won't get great returns, but you won't have to worry about losing your principal. A typical return is twice the amount you would earn in a regular checking/savings account and a little less than the average certificate of deposit (CD).**





Money Market Funds

- > In-class exercise:

- > The portfolio of a money-market fund might contain all of the following securities **EXCEPT**:
 - Treasury bills
 - Negotiable CDs
 - Preferred stocks
 - Bankers' acceptances





Money Market Funds

- > In-class exercise:

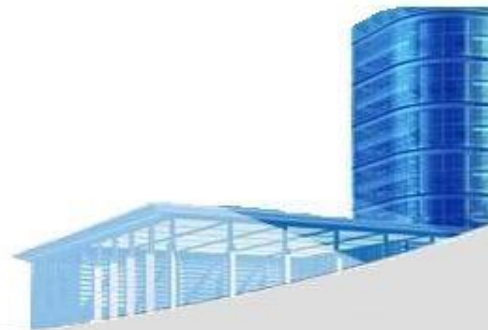
- > David is moving to Cancun in Mexico to start his exporting business. He has \$300,000 that he is going to use for pay the company's initial expenses over the next year. He wants to invest this money so that he can earn some interest on it, but he also needs to keep it liquid since he will be making frequent withdrawals. Which of the following funds would you recommend to David?
 - A money-market fund
 - A long-term U.S. government bond fund
 - A growth fund
 - An emerging markets fund





Fixed Income Funds

- > Those that invest primarily in bonds and preferred stocks are classified as fixed-income funds. These funds invest in corporate bonds or government-backed mortgage securities that have a fixed rate of return.
- > Bond funds are likely to pay higher returns than certificates of deposit and money market investments, but bond funds aren't without risk. Because there are many different types of bonds, bond funds can vary dramatically depending on where they invest. For example, a fund specializing in high-yield junk bonds is much more risky than a fund that invests in government securities. Furthermore, nearly all bond funds are subject to interest rate risk, which means that if rates go up the value of the fund goes down.
- > Gilt funds differ from bond funds because bond funds invest in corporate bonds, government securities, and money market instruments. Gilt funds stick to high quality-low risk debt, mainly government securities.





Municipal Bond Fund

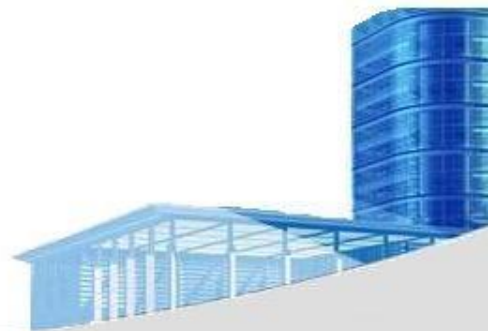
- > Which of the following would most likely be the main investment objective of a municipal bond fund?
- Capital appreciation
 - Tax-exempt income
 - Speculation
 - Long-term growth





Balanced Funds

- > **The objective of these funds is to provide a balanced mixture of safety, income and capital appreciation. The strategy of balanced funds is to invest in a combination of fixed income and equities. A typical balanced fund might have a weighting of 60% equity and 40% fixed income. The weighting might also be restricted to a specified maximum or minimum for each asset class.**
- > **A similar type of fund is known as an asset allocation fund. Objectives are similar to those of a balanced fund, but these kinds of funds typically do not have to hold a specified percentage of any asset class. The portfolio manager is therefore given freedom to switch the ratio of asset classes as the economy moves through the business cycle.**





Balanced Funds

> **Example:**

> **Which of the following is the objective of a balanced Fund?**

1. Provide a balanced mixture of safety, income and capital appreciation
2. Provide an aggressive growth on capital appreciation
3. Provide a stable income
4. Provide a conservation of the principal





Balanced Funds

- > In-class exercise:

- > **ABC Fund always invests 10 to 20% of its portfolio in cash equivalents, 20 to 30% in bonds and 50 to 70% in preferred and common stocks. Although the exact proportion varies, the fund must always have some of its assets in each category. ABC Fund is an example of a(n):**
 - Asset allocation fund
 - Balanced fund
 - Conservative growth fund
 - Index fund





Equity Funds

- > Funds that invest in stocks represent the largest category of mutual funds. Generally, the investment objective of this class of funds is long-term capital growth with some income. There are, however, many different types of equity funds because there are many different types of equities. A great way to understand the universe of equity funds is to use a style box, an example of which is below.

	Investment Style		
	Value	Blend	Growth
Size			
Large			
Mid			
Small			

- > These companies are characterized by P/E and price-to-book ratios and dividend yields.





Equity Funds

> **In-class exercise:**

- > **Amy and her husband just had their first child, David. They have \$1,000 that they would like to invest for David's college education. Which of the following funds would you recommend?**
- A money-market fund
 - A short-term U.S. government bond fund
 - A municipal bond fund
 - A diversified common stock fund





Global/International Funds

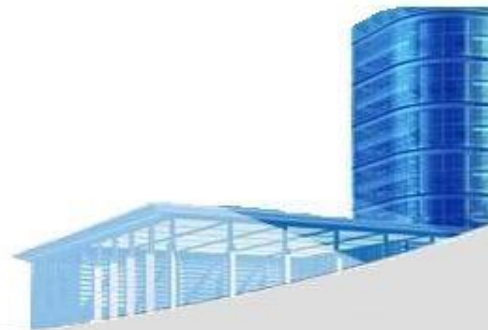
- > An international fund (or foreign fund) invests only outside your home country. Global funds invest anywhere around the world, including your home country.
- > What's the key difference between an international fund and a global fund?
- > The funds do tend to be more volatile and have unique country and/or political risks.





Specialty Funds

- > Sector funds are targeted at specific sectors of the economy such as financial, technology, health, etc. Sector funds are extremely volatile. There is a greater possibility of big gains, but you have to accept that your sector may tank.
- > Regional funds make it easier to focus on a specific area of the world. This may mean focusing on a region (say Latin America) or an individual country (for example, only Brazil). An advantage of these funds is that they make it easier to buy stock in foreign countries, which is otherwise difficult and expensive. Just like for sector funds, you have to accept the high risk of loss, which occurs if the region goes into a bad recession.
- > Socially-responsible funds (or ethical funds) invest only in companies that meet the criteria of certain guidelines or beliefs. Most socially responsible funds don't invest in industries such as tobacco, alcoholic beverages, weapons or nuclear power. The idea is to get a competitive performance while still maintaining a healthy conscience.





Specialty Funds

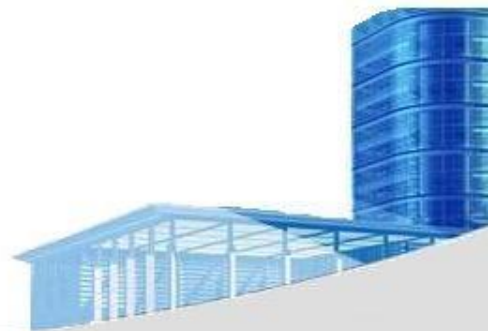
- > A specialized or specialty fund invests in stocks that are primarily:
 - In many industries
 - In a particular industry or geographical area
 - Traded in the OTC market
 - Special situations





Index Funds

- > **The last but certainly not the least important are index funds. This type of mutual fund replicates the performance of a broad market index such as the S&P 500 or Dow Jones Industrial Average (DJIA). An investor in an index fund figures that most managers can't beat the market. An index fund merely replicates the market return and benefits investors in the form of low fees.**





Index Funds

- > **A client would like to invest \$500 a month and have broad exposure to the U.S. equity market. Which of the following recommendations would be the most suitable?**
- A managed closed-end fund
 - An S&P 500 Index mutual fund
 - An S&P 500 Index Exchange Traded Fund
 - An DJIA Exchange Traded Fund





Exchange Traded Fund (ETF)

- > **Exchange-Traded Funds, or ETFs, are index funds that trade just like stocks on major stock exchanges.**
- > **Because it trades like a stock whose price fluctuates daily, an ETF does not have its net asset value (NAV) calculated every day like a mutual fund does.**
- > **By owning an ETF, you get the diversification of an index fund as well as the ability to sell short, buy on margin and purchase as little as one share.**
- > **Another advantage is that the expense ratios for most ETFs are lower than those of the average mutual fund. When buying and selling ETFs, you have to pay the same commission to your broker that you'd pay on any regular order.**





Exchange Traded Fund (ETF)

- > **A client wants to invest in a portfolio that is passively managed. Which two of the following will achieve this goal?**
- I. A portfolio that invests only in fixed income securities
 - II. An exchange traded fund based on the NASDAQ 100 Index
 - III. A mutual fund that tracks the S&P 500 Index
 - IV. An account managed by an investment adviser
- a. I and III
 - b. I and IV
 - c. II and III
 - d. II and IV



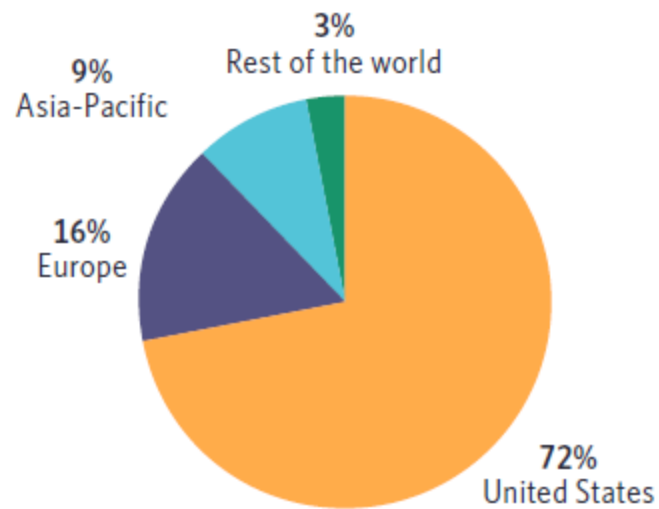


ETF

FIGURE 4.1

The United States Has the Largest ETF Market

Percentage of total net assets, year-end 2017



Worldwide ETF total net assets: \$ 4.7 trillion

Sources: Investment Company Institute and ETFGI



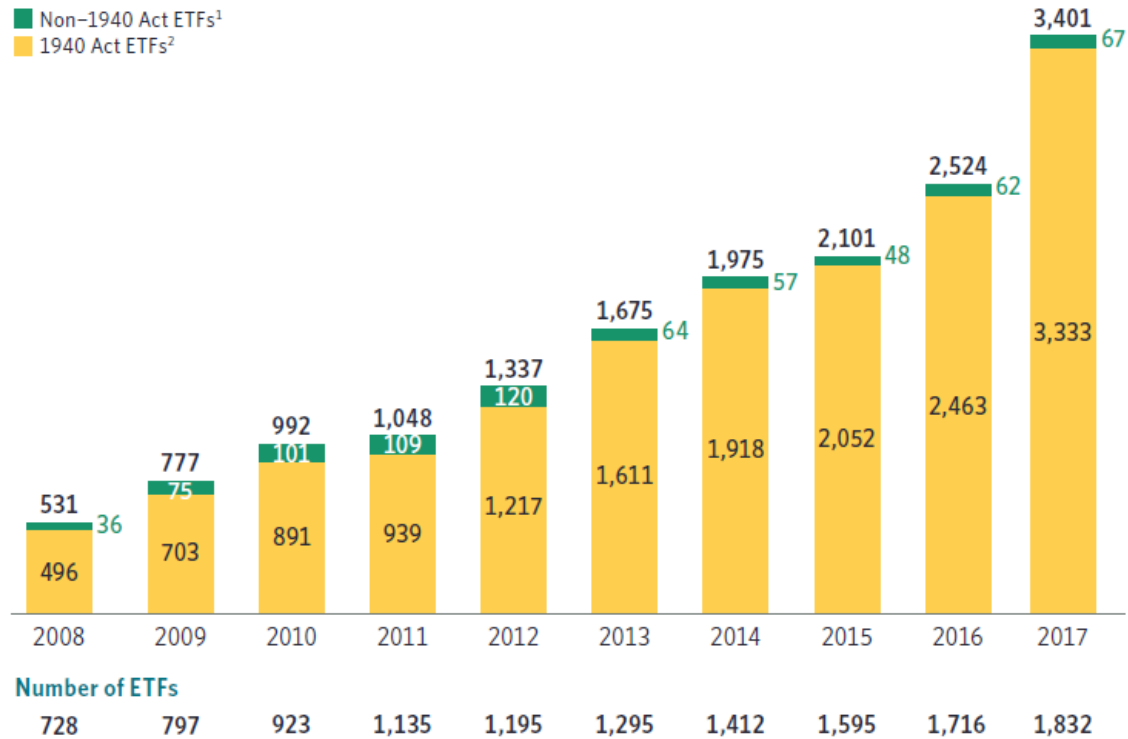


ETF

FIGURE 4.2

Total Net Assets and Number of ETFs

Billions of dollars; year-end, 2008–2017



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

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

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



Additional Categories of Mutual Funds

➤ Funds of Funds (FOFs)

- ◆ FOFs are **mutual funds** that **hold** and invest in shares of **other mutual funds**.
- ◆ Funds of funds are usually organized in a fund family of their own, offering funds that will specialize in international stocks, aggressive growth, income, and other objectives.
- ◆ The most popular type of these funds is **hybrid funds** - about 80 percent of fund-of-fund assets are in hybrid funds of funds. Hybrid funds of funds invest their net new cash in underlying stock, bond, and hybrid mutual funds.





Hedge Fund

- > A hedge fund is a private **investment fund** that charges a **performance fee** and is typically open to only a limited range of qualified **investors**
- > In the United States, in order for an investment fund to be exempt from direct regulation, it must be open to **accredited investors** only and only a limited number of investors can belong to it.
- > Because of an exemption from the types of regulation, hedge fund can invest in more complex and riskier investments than a public fund might.
- > the hedge fund manager will receive both a management fee and a performance fee.
- > The bulk of hedge funds exploit different market opportunities, use different techniques and different instruments:
 - **Style or strategy:** **global macro**, directional, **event driven**, **relative value** (**arbitrage**), managed futures (CTA)
 - **Exposure:** directional, **market neutral**
 - **Market:** **equity**, **fixed income**, **commodity**, **currency**
 - **Instrument:** long/short, **futures**, **options**





Special Services

> 1. Saving Plans

- Investor adds funds on a regular basis

> 2. Automatic Reinvestment Plans

- Dividends and capital gains are reinvested in additional shares

> 3. Regular Income

- Through withdrawal plans, the investor can receive periodic repayment or income
 - Shares or Dollars

> 4. Conversion Privileges

- Allows the investor the right to switch from one fund to another
 - a. Must confine switches within the same family of funds
 - b. Usually no transfer charges





Costs

- > Fees can be broken down into two categories:
- > 1. Ongoing yearly fees to keep you invested in the fund.
- > 2. Transaction fees paid when you buy or sell shares in a fund (loads).
- > **The Expense Ratio - The ongoing expenses of a mutual fund is represented by the expense ratio. The expense ratio is composed of the following:**
 - The cost of hiring the fund manager(s) - Also known as the management fee, this cost is between 0.5% and 1% of assets on average.
 - Administrative costs - These include necessities such as postage, record keeping, customer service, cappuccino machines, etc.
 - The last part of the ongoing fee (in the United States anyway) is known as the 12B-1 fee. This expense goes toward paying brokerage commissions and toward advertising and promoting the fund.
 - On the whole, expense ratios range from as low as 0.2% (usually for index funds) to as high as 2%. The average equity mutual fund charges around 1.3%-1.5%. You'll generally pay more for specialty or international funds, which require more expertise from managers.

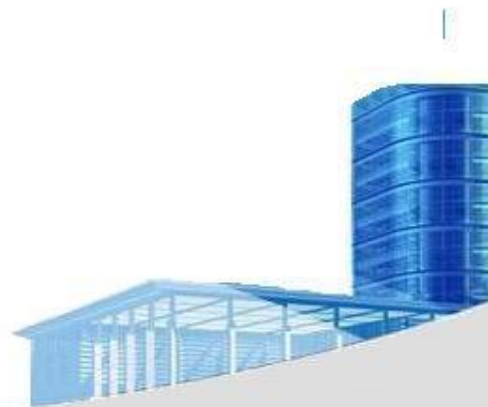




Costs

Normally, the largest expense incurred by an open-end investment company is the:

- Sales charge reallocated to the broker-dealers
- Custodial fee
- Investment advisory fee
- Accountant's fee





12b-1 Fees

12b-1 fees are used to pay the costs of distributing and marketing a fund. These costs include paying commissions to the registered representatives who sell the fund's shares to the public.

Among other things, 12b-1 fees are used to pay which of the following:

1. Taxes
2. Commissions
3. Investment advisory fees
4. Insurance





Load and No load

> Front-end loads

- These are the most simple type of load: you pay the fee when you purchase the fund. If you invest \$1,000 in a mutual fund with a 5% front-end load, \$50 will pay for the sales charge, and \$950 will be invested in the fund.

> Back-end loads (also known as deferred sales charges)

- You pay the a back-end load if you sell a fund within a certain time frame. A typical example is a 6% back-end load that decreases to 0% in the seventh year. The load is 6% if you sell in the first year, 5% in the second year, etc. If you don't sell the mutual fund until the seventh year, you don't have to pay the back-end load at all.

> No-load fund

- A no-load fund sells its shares without a commission or sales charge.





Mutual Funds Prospectus

- > **Issue date and Issuer**
- > **Investment objectives**
- > **Strategies**
- > **Risk/Return**
- > **Fees and expenses**
- > **Past performance (return bar chart)**
- > **Managers/advisers/organization**
- > **shareholder service: reinvest, redemption**





Mutual Funds Prospectus

- > Circular
- > Registration statement
- > Legal document
- > Investor protection
- > SEC standard formats
- > Section 10





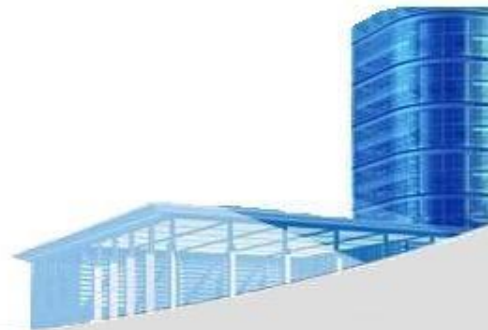
Mutual Funds Prospectus

> Expense – load, no-load, 12b -1 fees

- Load or No Load
 - a. Load Fund
 - Charges a commission when shares are bought (7 - 8 1/2% or more)
 - b. No Load Fund
 - No sales charges are levied
- Other fees and Costs
 - a. Professional Management Fee
 - .25 to 1.75 percent of the average dollar amount of assets under management

> Expense Ratio

> Turnover Ratio





Session 4 Mutual Fund Analysis





How to analyze a mutual fund

- > **Assessment of your risk tolerance**
- > **The style of mutual fund**
- > **History performance of mutual fund**

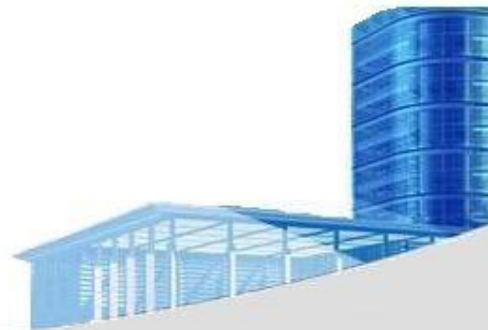




Assessment of Risk Tolerance

> Risk Tolerance Group:

- **Defensive** - investors wish to eliminate all investment price volatility in favour of guaranteed security of their investment. **100% Defensive Assets**
- **Conservative** - investors are willing to accept a measured amount of price volatility in expectation of slightly higher long-term returns. **80% Defensive Asset, 20% Growth Assets**
- **Moderately Conservative** - investors are more comfortable with price volatility and are willing to accept the possibility of a modest loss in capital value in the medium-term. **60% Defensive Assets, 40% Growth Assets.**
- **Balanced** - investors seek a higher level of growth and perhaps some tax effective returns from their portfolio, but they wish to have their growth assets 'balanced' by some defensive assets in order to manage the volatility of their total portfolio. **40% Defensive Assets, 60% Growth Assets**
- **Assertive** - investors generally have had more experience in investing and understand and are willing to accept a higher level of price volatility when seeking higher returns. **20% Defensive Assets, 80% Growth Assets**
- **Aggressive** - investors are generally experienced in investment markets and are willing to take a high level of risk in the short term when seeking high levels of long-term returns. **100% Growth Assets**





Assessment of Risk Tolerance

> Indicative Portfolio

	Cash	Fixed Interest	Property	Australian Equities	International Equities	Defensive Assets	Growth Assets
Defensive	10%	90%	-	-	-	100%	-
Conservative	10%	70%	5%	10%	5%	80%	20%
Moderately Conservative	5%	55%	10%	20%	10%	60%	40%
Balanced	5%	35%	10%	30%	20%	40%	60%
Assertive	5%	15%	10%	40%	30%	20%	80%
Aggressive	-	-	10%	50%	40%	0%	100%

> Risk Tolerance Assessment

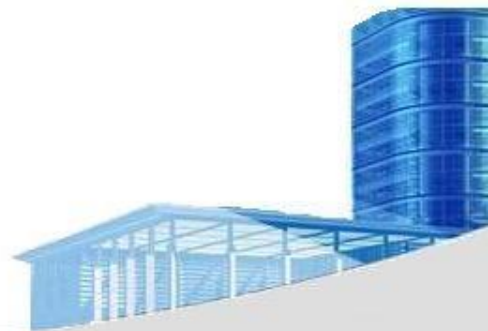
- Questionnaire is used to risk tolerance assessment





Analyzing Mutual Funds

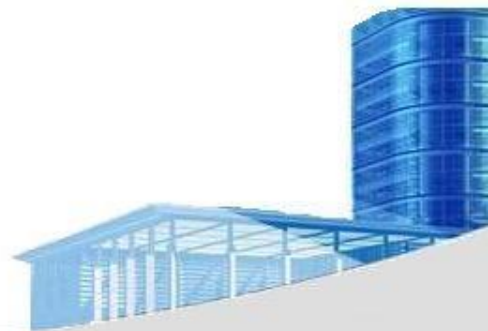
- > **Style Analysis:** Style analysis identifies the process of investing by fund managers that leads them to pick certain kinds of securities.
- > **Three factors of style analysis:**
 - Growth
 - Value
 - Company Size





Analyzing Mutual Funds

- > **Growth Managers** buy stocks in companies whose earnings are growing rapidly.
- > **Value Managers** are bargain hunters seeking stocks with low prices compared to intrinsic value.
- > **Company Size Managers** specialize in small companies or large cos.





Mutual Fund Style Analysis

- > **Style determines 85-90% of a fund portfolio's return.**
- > **The technique looks at the way funds perform on a monthly basis against one of 12 different indexes. The mix of indexes that are most highly correlated determines the style of the mutual fund manager.**





Mutual Fund Style Analysis

- > **The mutual fund universe can be divided into six basic styles:**
- Small cap growth funds
 - Large cap growth funds
 - Small cap value
 - Large cap value
 - Foreign funds
 - Fixed income funds





Vanguard Growth Index Inv (VIGRX)

Strategy & Objective (VIGRX)

Profile

The investment seeks to track the performance of a benchmark index that measures the investment return of large-capitalization growth stocks. The fund employs a passive management investment approach designed to track the performance of the MSCI US Prime Market Growth Index, a broadly diversified index of growth stocks of large U.S. companies. It attempts to replicate the target index by investing all, or substantially all, of its assets in the stocks that make up the index, holding each stock in approximately the same proportion as its weighting in the index. The fund currently offers Investor, Institutional and Admiral shares.

Growth





Vanguard Growth Index Inv (VIGRX)

Fund Facts (VIGRX)

Fiscal Year End	December
CUSIP	922908504
Fund Inception	11/02/1992
Net Assets as of 12/31/2010 (\$M)	3,842.80000
Fund Symbol	VIGRX
Order Cutoff Time*	4:00 PM ET

* You must place your orders by the cutoff time to receive today's closing price. Orders placed after the cutoff time will receive tomorrow's closing price.

[Prospectus & Reports](#)



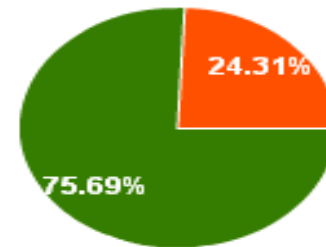


Vanguard Growth Index Inv (VIGRX)

Holdings (VIGRX)

Top 10 Holdings² as of 12/31/2010 [?](#)

Apple, Inc.
Microsoft Corporation
International Business Machines Corp
Google, Inc.
Oracle Corporation
Cisco Systems, Inc.
Schlumberger, Ltd.
Wal-Mart Stores, Inc.
Philip Morris International, Inc.
PepsiCo, Inc.



■ Top 10 Holdings
■ Other Holdings

24.31% of Portfolio

Asset Allocation (%)² as of 12/31/2010 [?](#)

	12/31/2010
Domestic Equities	99.29
Cash	0.07
Foreign Equities	0.64

Turnover Rate as of 12/31/2010 26%





Vanguard Growth Index Inv (VIGRX)

Major Market Sectors (%)² as of 12/31/2010

	12/31/2010
Basic Materials	4.27
Communication Services	2.32
Consumer Cyclical	14.28
Consumer Defensive	12.61
Energy	7.45
Financial Services	6.31
Healthcare	10.26
Industrials	12.88
Real Estate	1.20
Technology	28.21
Utilities	0.21

Portfolio Data

Weighted Average Maturity as of 12/31/2010	Years
Option Adjusted Duration as of 12/31/2010	Years





Vanguard Growth Index Inv (VIGRX)

Fees, Expenses & Loads (VIGRX)

Click on each fee to view additional information and read the footnotes to understand the specific policy regarding each fee.

Fidelity Brokerage Fees¹ ?

Transaction Fee (Online):	\$75
---------------------------	------

Fund Management & Admin. Fees ?

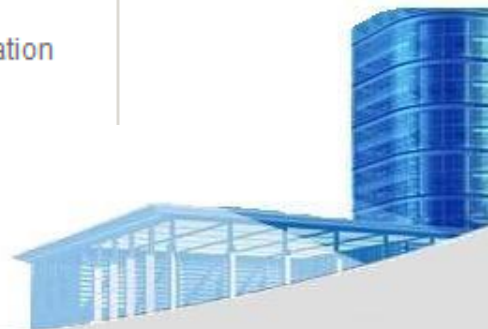
Management Fee:	0.23%
-----------------	-------

Expense Ratio: as of 04/29/2010	0.28%
---------------------------------	-------

Expense Ratio after Reductions: as of 04/29/2010	0.28%
--	-------

Expense Ratio after Reductions reflect fund expenses net of fee waivers or reimbursements (if any), which may be voluntary or contractual and expire. For important details regarding the fund's expense waiver/reimbursement arrangements, please see the fund prospectus.

See the [Understanding Fees](#) section and the fund [prospectus](#) for more information on Fees, Expenses & Loads.





Vanguard Growth Index Inv (VIGRX)

Features (VIGRX)

Fund Features

Minimum Initial Investment	\$3,000
Minimum Retirement	\$3,000
Minimum Additional Investment	\$250
Minimum Automatic Account Builder	\$100
Simple IRA	No





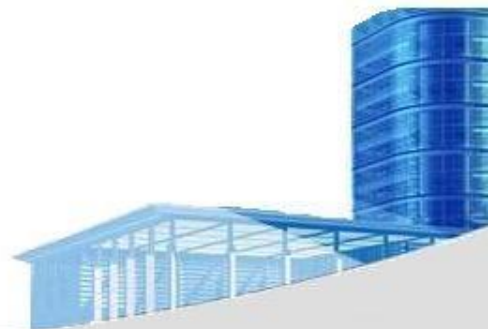
Vanguard Growth Index Inv (VIGRX)

Prices & Distribution (VIGRX)

Price History as of 04/30/2011 [?](#)

12 Month Low-High	\$24.93 - \$34.10
Monthly Low-High	\$32.61 - \$34.10
On 04/01/2011	\$33.09
On 04/30/2011	\$34.10

[Chart Fund Price \(NAV\)](#)

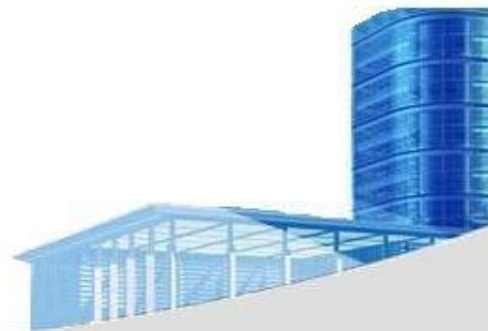




Mutual Fund Style Analysis

- > **In-class exercise:**

- > **The ABC Fund invests primarily in the stocks of small-cap companies, particularly companies that have just gone public for the first time. What type of fund is it?**
 - Money-market
 - Fixed income
 - Aggressive growth
 - Balanced





Mutual Fund Style Analysis

- > **In-class exercise:**
- > Here are the top 4 holdings of the High Returns Stock Fund.
 - **Big-Blue Computers**
 - **Orange Computers**
 - **Semiconductor Manufacturer**
 - **Macrohard Software**
- > Based on this information, the High Returns Fund is probably an example of which of the following types of funds?
 - **Money-market fund**
 - **Sector fund**
 - **Emerging market fund**
 - **Tax-exempt fund**





Mutual Fund Annual Report

- > **Two Reports a Year:** Mutual funds typically issue two financial reports a year - the semiannual report, which is often dated June 30 or April 30, and the year-end or annual report, which is often dated December 31 or October 31.
- > **Shareholder Letter:** A shareholder letter is usually written by the fund's president or investment manager and reviews the fund's investment objectives and performance for the current period.
- > **Top 10:** By looking at a mutual fund's top 10 holdings, you will get a sense of the type of investments in the portfolio and the degree to which the fund meets your investment objectives. Similarly, study the industry composition of the portfolio - the percent of the fund's asset that is invested in a particular industry.





Mutual Fund Annual Report

- > **Investment Portfolio:** An investment portfolio comprises the assets (securities) held within a mutual fund.
- > **Portfolio Turnover:** Portfolio turnover is the percentage of the portfolio's investment that are bought and sold in one year. A fund with a portfolio turnover rate of 100 percent means they effectively bought and sold every security in the portfolio. High portfolio turnover increases transaction expenses and often reduces your rate of return.
- > **Charts and Graphs:** Many mutual fund reports include charts and graphs. A line graph may compare the growth of a \$10,000 investment in the fund to the growth of similar investments over five years, ten years, or over the life of the fund. Pie charts are used to show the % of each type of investment in the fund: common stock, bonds, and cash.





Mutual Fund Annual Report

- > **Portfolio:** Some mutual fund financial reports include a more in-depth discussion of the fund's performance for the period than the shareholder's letter.
- > **Statement of Assets and Liabilities:** A mutual fund's statement of assets and liabilities reflects the fund's financial position at the stock or bond market's close on the date of the report. Assets typically include investments that are valued at market on the financial statement date. Other assets include collateral held for securities loaned and receivables. Two examples are dividends and interest income receivable, which represent income earned by the fund but not yet collected in cash. Liabilities primarily represent amounts the fund owes for the purchase of new securities.





Mutual Fund Annual Report

- > **Footnotes to the Financial Statements:** Mutual fund financial reports include footnotes similar to those found in other annual reports. Footnotes include significant accounting policies, and related party and affiliate transactions.
- > **Significant Accounting Policies:** Related party and affiliate transactions typically include three types of transactions. The first occurs when payment of fees is made to portfolio managers and financial advisors. The second occurs when a mutual fund accumulates an ownership stake of at least 5% of the company. The third occurs when one mutual fund sells some of its investments to another mutual fund sponsored by the same mutual fund family.

