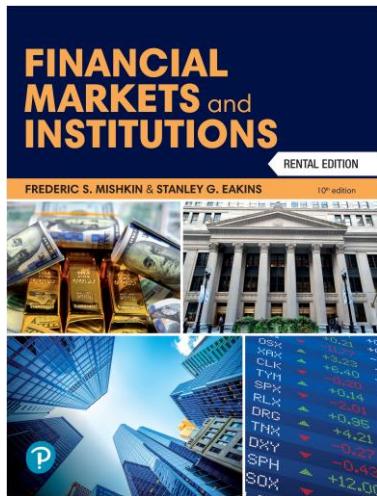


Financial Markets and Institutions

Tenth Edition



Pearson

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Chapter 20

The Mutual Fund Industry

Chapter Preview (1 of 2)

Suppose you wanted to start savings for retirement, but you can only afford to invest \$100 / month. How do you develop a diversified portfolio?

Mutual funds are one potential answer.

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Chapter Preview (2 of 2)

- Topics include:
 - The Growth of Mutual Funds
 - Mutual Fund Structure
 - Investment Objective Classes
 - Fee Structure of Investment Funds
 - Regulation of Mutual Funds
 - Hedge Funds
 - Conflicts of Interest in the Mutual Fund Industry

Mutual Funds

- Mutual funds pool the resources of many small investors by selling them shares and using the proceeds to buy securities.

The Growth of Mutual Funds (1 of 5)

- At the beginning of 2013, 57% of retirement assets were held by mutual funds.
- 28% of the U.S. stock market and almost 44% of all U.S. households hold stock via mutual funds.
- Assets held by mutual funds have grown by about 17% per year for the last 25 years, reaching over \$14 trillion.

The Growth of Mutual Funds (2 of 5)

- The first mutual fund similar to the funds of today was introduced in Boston in 1824.
- The stock market crash of 1929 set the mutual fund industry back because small investors avoid stocks and distrusted mutual funds.
- The Investment Company Act of 1940 reinvigorated the industry by requiring better disclosure of fees, etc.

The Growth of Mutual Funds (3 of 5)

- There are five principal benefits of mutual funds:
 1. Liquidity intermediation: investors can quickly convert investments into cash.
 2. Denomination intermediation: investors can participate in equity and debt offerings that, individually, require more capital than they possess.
 3. Diversification: investors immediately realize the benefits of diversification even for small investments.

The Growth of Mutual Funds (4 of 5)

- There are five principal benefits of mutual funds:
 4. Cost advantages: the mutual fund can negotiate lower transaction fees than would be available to the individual investor.
 5. Managerial expertise: many investors prefer to rely on professional money managers to select their investments.

The Growth of Mutual Funds (5 of 5)

- Ownership in mutual funds has changed dramatically over the last 20 years
 - In 1980, only 5.7% of households held mutual fund shares
 - In the beginning of 2013, that number was 75%
 - Mutual funds account for \$5.3 trillion of the retirement market (estimated at \$19.5 trillion)

Table 20.1 (1 of 5)

Total Industry Net Assets, Number of Funds, and Number of Shareholder Accounts

Year	Net Assets (\$ Millions)	Number of Funds	Number of Accounts (Thousands)
1970	47,618	361	10,690
1971	55,045	392	10,901
1972	59,830	410	10,635
1973	46,518	421	10,331
1974	35,776	431	10,074
1975	45,874	426	9,876
1976	51,276	452	9,060
1977	48,936	477	8,693
1978	55,837	505	8,658
1979	94,511	526	9,790

Table 20.1 (2 of 5)

Total Industry Net Assets, Number of Funds, and Number of Shareholder Accounts

Year	Net Assets (\$ Millions)	Number of Funds	Number of Accounts (Thousands)
1980	134,760	564	12,088
1981	241,365	665	17,499
1982	296,678	857	21,448
1983	292,985	1,026	24,605
1984	370,680	1,243	27,636
1985	495,385	1,528	34,098
1986	715,667	1,835	45,374
1987	769,171	2,312	53,717
1988	809,370	2,737	54,056
1989	980,671	2,935	57,560

Table 20.1 (3 of 5)

Total Industry Net Assets, Number of Funds, and Number of Shareholder Accounts

Year	Net Assets (\$ Millions)	Number of Funds	Number of Accounts (Thousands)
1990	1,065,194	3,079	61,948
1991	1,393,189	3,403	68,332
1992	1,642,543	3,824	79,931
1993	2,069,960	4,534	94,015
1994	2,155,320	5,325	114,383
1995	2,811,290	5,725	131,219
1996	3,525,800	6,248	149,933
1997	4,468,200	6,684	170,299
1998	5,525,209	7,314	194,029
1999	6,846,339	7,791	226,212

Table 20.1 (4 of 5)

Total Industry Net Assets, Number of Funds, and Number of Shareholder Accounts

Year	Net Assets (\$ Millions)	Number of Funds	Number of Accounts (Thousands)
2000	6,964,630	8,155	244,705
2001	6,974,910	8,305	248,701
2002	6,383,480	8,243	251,123
2003	7,402,420	8,125	260,698
2004	8,095,080	8,040	269,468
2005	8,891,110	7,974	275,479
2006	10,396,510	8,117	288,596
2007	12,000,640	8,026	292,590
2008	9,602,600	8,022	264,597
2009	11,120,730	7,691	270,949

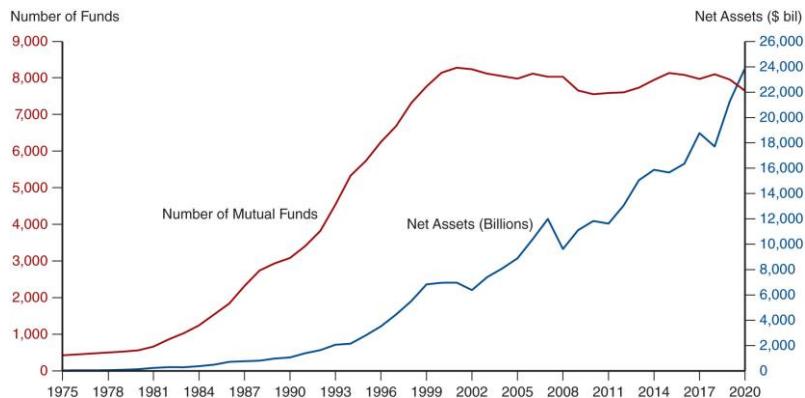
Table 20.1 (5 of 5)

Total Industry Net Assets, Number of Funds, and Number of Shareholder Accounts

Year	Net Assets (\$ Millions)	Number of Funds	Number of Accounts (Thousands)
2010	11,831.88	7,555	291,299
2011	11,627.36	7,591	275,024
2012	13,045.22	7,596	264,131

Figure 20.1

Total Industry Net Assets and Number of Mutual Funds



Data Source: Investment Company Institute, 2016 Investment Company Fact Book

(Washington, DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf

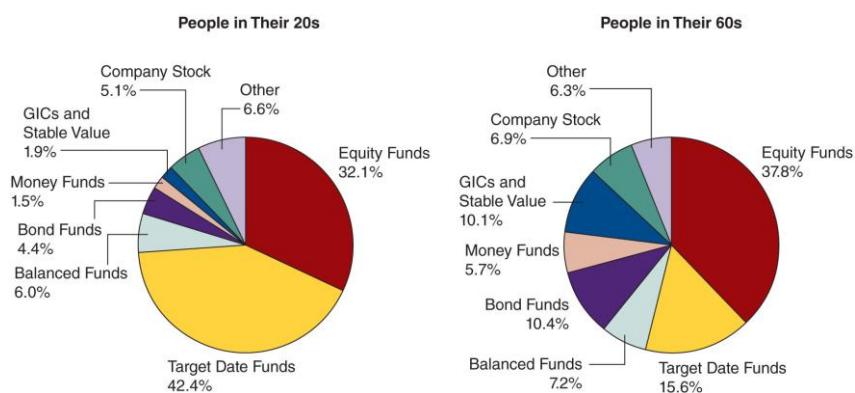
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Figure 20.2

Average Asset Allocation for All 401(k) Plan Balances



Source: Investment Company Institute, 2016 Investment Company Fact Book, (Washington, DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf . Reprinted with permission.

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Mutual Fund Structure (1 of 2)

- Investment companies usually offer a number of different types of mutual funds.
- Investors can often move investments among these funds without penalty.
- The complexes often issue consolidated statements.

Mutual Fund Structure (2 of 2)

- Closed-End Fund: a fixed number of nonredeemable shares are sold through an initial offering and are then traded in the OTC market. Price for the shares is determined by supply and demand forces.
- Open-End Fund: investors may buy or redeem shares at any point, where the price is determined by the **net asset value** of the fund.

Calculating a Mutual Fund's Net Asset Value

- **Net Asset Value (NAV)**
- **Definition:** Total value of the mutual fund's stocks, bonds, cash, and other assets minus any liabilities such as accrued fees, divided by the number of shares outstanding

Calculating a Mutual Fund's Net Asset Value: An Example

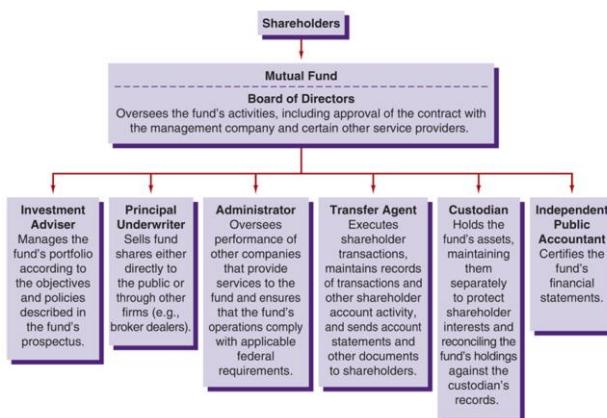
Stocks	\$20,000,000
Bonds	\$10,000,000
Cash	\$500,000
Total value of assets	\$30,500,000
Liabilities	-\$300,000
Net worth	\$30,200,000
Outstanding shares	10 million
NAV = \$30,200,000 / 10,000,000	= \$3.02

Mutual Fund Structure: The Organization (1 of 2)

- The shareholders, or owners, of the mutual fund are the investors.
- The board of directors oversee the fund's activities, hire the investment advisor, an underwriter, etc., to manage the day-to-day operations of the fund.

Figure 20.3

The Organizational Structure of a Mutual Fund



Source: Investment Company Institute, 2016 Investment Company Fact Book (Washington, DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf

Mutual Fund Structure: The Organization (2 of 2)

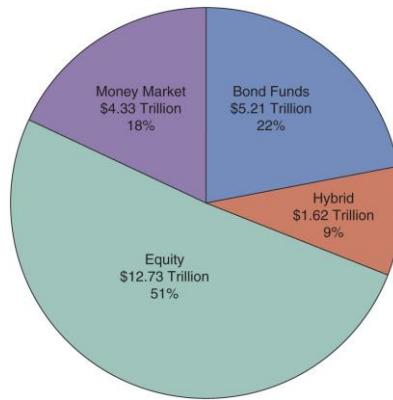
In theory, the board can fire the fund manager and hire anyone they choose. For instance, the board for the Fidelity Magellan Fund can fire Fidelity. Of course, if the board hires a non-Fidelity management team, the fund will probably lose its name, and possibly its reputation along with it.

Investment Objective Classes (1 of 7)

- There are four primary classes of mutual funds available to investors:
 1. Stock (equity) funds
 2. Bond funds
 3. Hybrid funds
 4. Money market funds
- The next slide shows the distribution of assets among these different classes.

Figure 20.4

Distribution of Assets Among Types of Mutual Funds



Source: Investment Company Institute, 2016 Investment Company Fact Book (Washington, DC: ICI),
https://www.ici.org/pdf/2016_factbook.pdf

Investment Objective Classes (2 of 7)

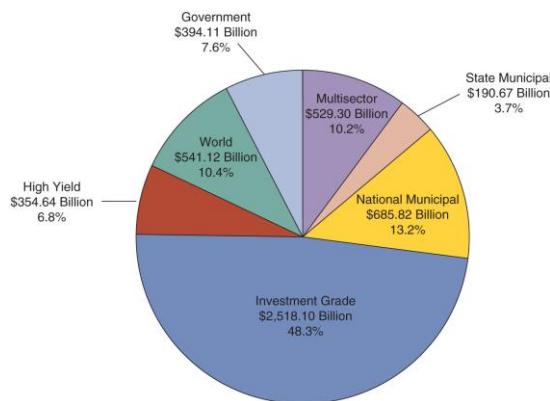
- Stock Funds
 - Other than investing in common equity, the stated objective of any particular fund can vary dramatically.
 - Capital Appreciation Funds seek rapid increase in share price, not being concerned about dividends.
 - Total Return Funds seek a balance of current income and capital appreciation.
 - World Equity Funds invest primarily in foreign firms.
 - Other types in Value, Growth, a particular industry, etc.

Investment Objective Classes (3 of 7)

- Bond Funds
 - Strategic Income Funds invest primarily in U.S. corporate bonds, seeking a high level of current income.
 - Government Bond Funds invest in U.S. Treasury, as well as state and local government bonds.
 - Others include World Bond Funds, etc.
- The next figure shows the distribution of assets among the bond fund classifications.

Figure 20.5

Assets Invested in Different Types of Bond Mutual Funds



Source: Investment Company Institute, 2016 Investment Company Fact Book (Washington DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf , Table 4, pg. 193.

Investment Objective Classes (4 of 7)

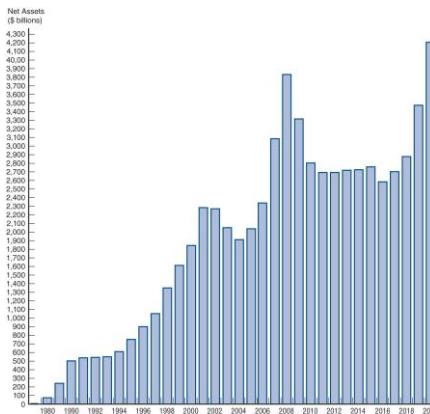
- Hybrid Funds
 - Combine stocks and bonds into a single fund.
 - Account for about 5% of all mutual fund accounts.

Investment Objective Classes (5 of 7)

- Money Market Mutual Funds
 - Open-end funds that invest only in money market securities.
 - Offer check-writing privileges.
 - Net assets have grown dramatically, as seen in the next slide.

Figure 20.6

Net Assets of Money Market Mutual Funds



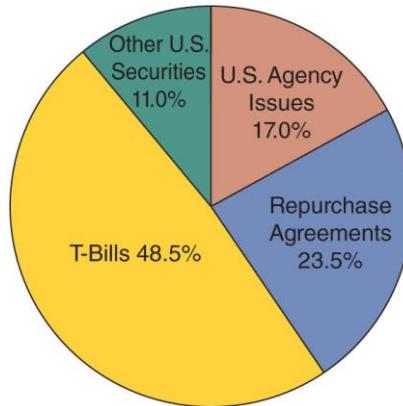
Source: Investment Company Institute, 2016 Investment Company Fact Book (Washington, DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf

Investment Objective Classes (6 of 7)

- Money Market Mutual Funds
 - Although money market mutual funds offer higher returns than bank deposits, the funds are not federally insured.
 - The next slide shows the distribution of assets in MMMF, which are relatively safe assets.

Figure 20.7

Assets Invested in Different Types of Bond Mutual Funds



Source: Investment Company Institute, 2016 Investment Company Fact Book (Washington DC: ICI), https://www.ici.org/pdf/2016_factbook.pdf, Table 4, pg. 193.

Investment Objective Classes (7 of 7)

- Index Funds

- A special class of mutual funds that do fit into any of the categories discussed so far.
- The fund contains the stock of the index it is mimicking. For example, an S&P 500 index fund would hold the equities comprising the S&P 500.
- Offers benefits of traditional mutual funds without the fees of the professional money manager.

Fee Structure of Investment Funds (1 of 2)

- **Load** funds (class A shares) charge an upfront fee for buying the shares. **No-load** funds do not charge this fee.
- **Deferred load** (class B shares) funds charge a fee when the shares are redeemed.
- If the particular fund charges no front or back end fees, it is referred to as class C shares.

Fee Structure of Investment Funds (2 of 2)

- Other fees charges by mutual funds include:
 - contingent deferred sales charge: a back end fee that may disappear altogether after a specific period.
 - redemption fee: another name for a back end load
 - exchange fee: a fee (usually low) for transferring money between funds in the same family.
 - account maintenance fee: charges if the account balance is too low.
 - 12b-1 fee: fee to pay marketing, advertising, and commissions.

Regulation of Mutual Funds (1 of 2)

- Mutual funds are regulated by four primary laws:
 - Securities Act of 1933: specifies disclosure requirements
 - Securities Exchange Act of 1934: details antifraud rules
 - Investment Company Act of 1940: requires registration and minimal operating standards
 - Investment Advisors Act of 1940: regulates fund advisors

Regulation of Mutual Funds (2 of 2)

- Mutual funds are the only companies in the United States that are required by law to have independent directors, as follows (2001 SEC rules):
 - Independent directors must constitute a majority of the board
 - Independent directors select and nominate other independent directors
 - Legal counsel to the independent directors must also be independent

Hedge Funds (1 of 3)

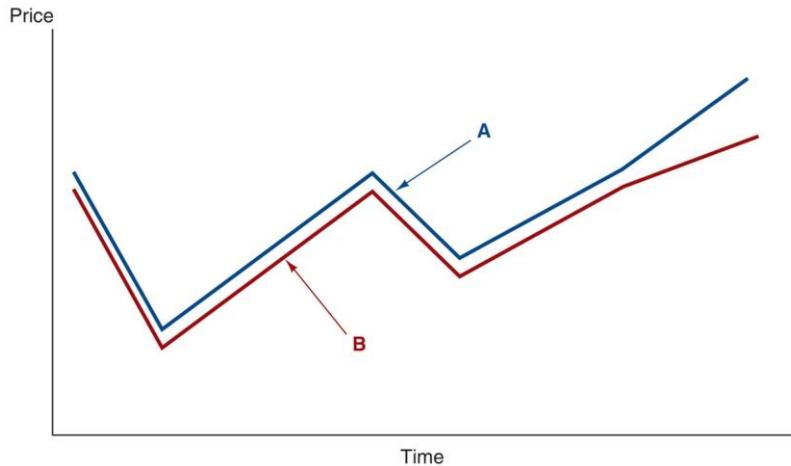
- A special type of mutual fund that received considerable attention following the collapse of Long Term Capital Management.
- Different from typical mutual funds, as follows:
 - High minimum investment, averaging around \$1 million
 - Long-term commitment of funds is required
 - High fees: typically 1% of assets plus 20% of profits
 - Highly levered
 - Little current regulation

Hedge Funds (2 of 3)

- Hedge funds are often trying to take advantage of unusual spreads between security prices
- For example, at LTCM, the managers of that 29.5-year U.S. Treasury bonds seemed cheap relative to 30-year Treasury securities. The managers figured that the value of the two bonds would converge over time.
- LTCM bought \$2 billion of the 29.5-year bonds and sold short \$2 billion of the 30-year bonds. Six months later, the fund reversed these transactions, and realized a \$25 million profit!

Figure 20.8

The Price of Two Similar Securities



Mini-Case: The LTCM Debacle

Long Term Capital Management was a hedge fund run by John Meriwether, and its board included Nobel Laureates Myron Scholes and Robert C. Merton.

It recorded returns in excess of 30% for the first several years.

The LTCM Debacle (1 of 2)

It took bets that went the wrong way. Its collapse was eminent, and regulators decided they had to develop a bailout. LTCM had over \$80 billion in equity positions and over \$1 trillion in derivative positions. Its failure could have been devastating for the U.S. economy.

The LTCM Debacle (2 of 2)

Hedge funds have continued to fail since LTCM. Amaranth Advisors lost \$6 billion in one week in natural gas futures. Other funds have similar losses. Indeed, hedge fund investing is a potentially high-risk game for well-heeled investors (gamblers?)

Hedge Funds (3 of 3)

- The SEC passed regulation in 2006 requiring hedge fund advisors to register with the SEC. The SEC became concerned about fraud, and hedge funds became available to the average investor via “retailization”.

Conflicts of Interest in the Mutual Fund Industry (1 of 2)

- Investor confidence in the stability and integrity of the mutual fund industry is critical.
- However, the usual problems of asymmetric information and the principal-agent problem arose, leading to abuses on the part of fund management.

Conflicts of Interest in the Mutual Fund Industry (2 of 2)

- Mutual Fund Abuses
 - Late trading: allowing trades after 4:00 pm to trade at today's 4:00 NAV instead of tomorrow's price. This is illegal under SEC regulations.
 - Market timing: taking advantage of time zone differences for determination of NAV. This is not illegal under SEC rulings.

Conflicts of Interest: Mutual Fund Lawsuits and Settlements (1 of 2)

- Alliance Capital Management Corp. was charged with allowing traders to engage in market timing, paying \$250 million in fines and restitution to shareholders.
- Bank of America, along with Canary Capital Partners, agreed to fee reductions of \$160 million and fines and restitution of \$375 million

Conflicts of Interest: Mutual Fund Lawsuits and Settlements (2 of 2)

- Janus reduced fees by \$125 million and paid fines and restitution of \$100 million
- Putnam Investments, the fifth-largest family of funds, agreed to pay \$100 million in fines and restitution

Conflicts of Interest: SEC Survey Finds Abuses Widespread

- In a sample of the largest 88 mutual fund companies, which represented 90% of the industry's assets, the SEC said that about 25% of the broker-dealers were allowed to make illegal late trades.
- Half the funds let some privileged shareholders engage in market timing trades.
- Research also showed that more than 30% of the funds admitted that their managers had shared sensitive portfolio information with favored shareholders.

Conflicts of Interest in the Mutual Fund Industry

- Government Response to Abuses
 - Require more independent directors
 - Hardening the 4:00 valuation rule: this addresses the late trading problem, but not market timing.
 - Increased and enforces redemption fees: fees to discourage market timing by additional fees for short-term redemptions.
 - Increased transparency: hits operating practices, directors, investment managers, compensation arrangements with brokers, etc.

Chapter Summary (1 of 4)

- The Growth of Mutual Funds: mutual funds growth has been dramatic, increasing from under \$300 billion in 1980 to over \$14 trillion in 2012.
- Mutual Fund Structure: the organization structure, including ownership, the board, and operations of the fund, was reviewed.

Chapter Summary (2 of 4)

- Investment Objective Classes: along with delineating equity and debt funds, we also reviewed classes on funds within each major category.
- Fee Structure of Investment Funds: the various fees charged by funds were defined and reviewed.

Chapter Summary (3 of 4)

- Regulation of Mutual Funds: the various acts and laws that govern mutual funds were listed.
- Hedge Funds: the purpose, definition, and differences between traditional mutual funds and hedge funds were discussed.

Chapter Summary (4 of 4)

- Conflicts of Interest in the Mutual Fund Industry: recent abuses and governmental responses to those abuses were outlined.

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