



Lecture 12

The Mutual Fund Industry

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Agenda

- What is a Mutual Fund?
- The Growth of Mutual Funds
- Investment Objectives of Mutual Funds
- Mutual Fund Categories
- Mutual Fund Structure
- Advantages and disadvantages of mutual funds



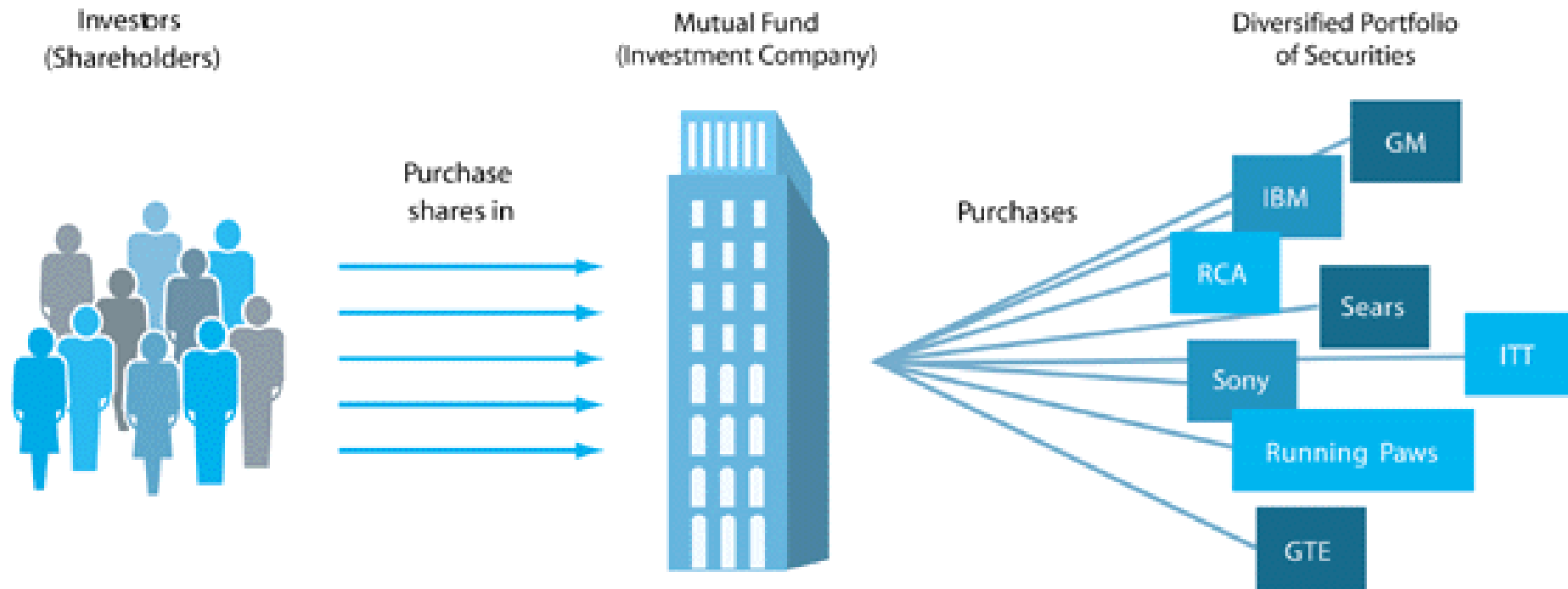
What is a Mutual Fund?



- A pool of money
- Managed by a professional investor
- Manager works for an investment firm
- Each fund has a specific objective
- Over 6,000 funds to choose from
- Each shareholder in the mutual fund participates proportionally (based upon the number of shares owned) in the gain or loss of the fund.



What is a Mutual Fund?



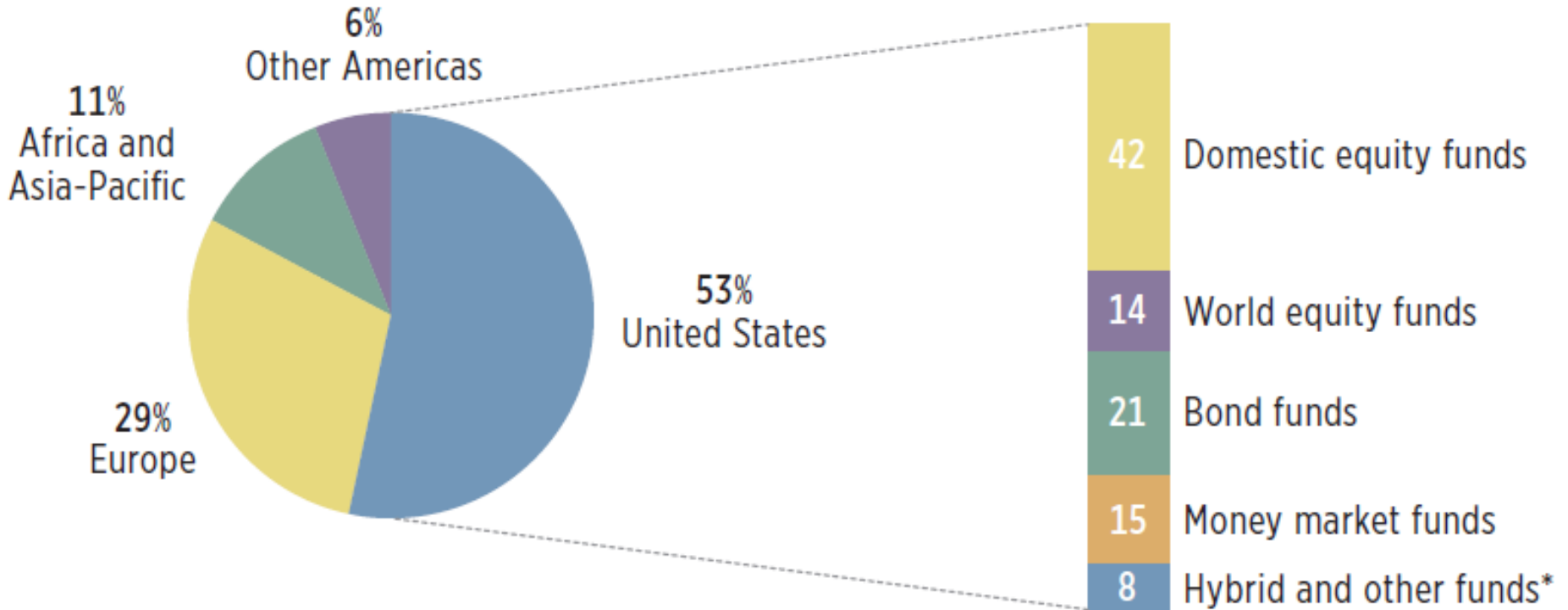


The Growth of Mutual Funds

- The first mutual fund similar to the funds of today was introduced in Boston in 1924.
- 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.



Worldwide Mutual Funds



Total worldwide mutual fund and ETF assets:
\$33.4 trillion

Total U.S. mutual fund and ETF assets:
\$17.8 trillion

Percentage of total net assets, year-end 2014

Source: ICI Investment Company Fact 2015

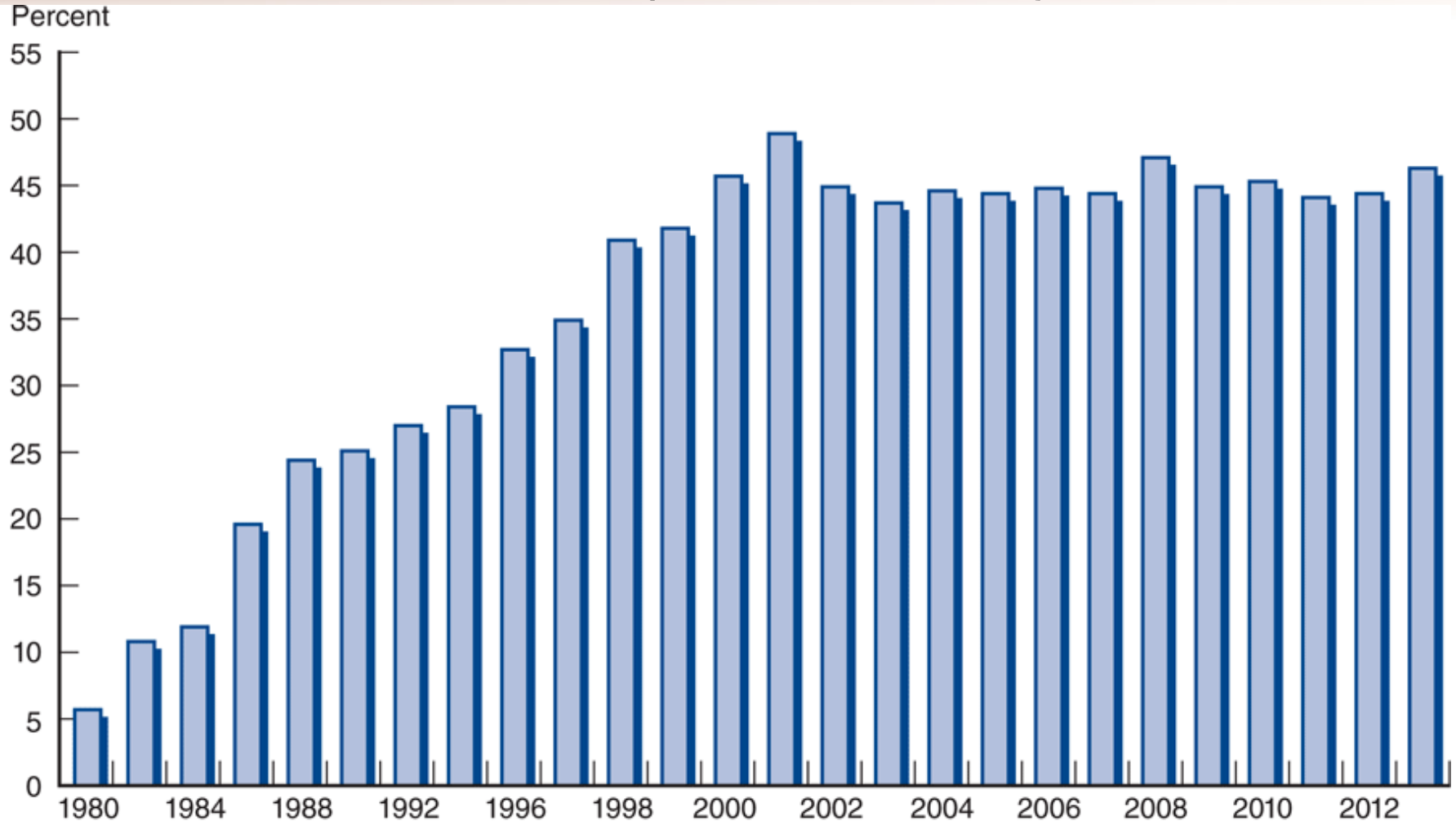


The Growth of Mutual Funds

- Ownership in mutual funds has changed dramatically over the last 30 years
 - In 1980, only 5.7% of households held mutual fund shares
 - In the beginning of 2013, that number increased to 75%
 - Mutual funds account for \$5.3 trillion of the retirement market (estimated at \$19.5 trillion)



Household Ownership of Mutual Funds (1980-2012)



Data Source: Investment Company Institute, *2012 Investment Company Fact Book*, 53rd ed. (Washington, DC: ICI), www.icifactbook.org

Source for additional (2010–2012) data: Table 6.1 in section 6 ICI fact book.



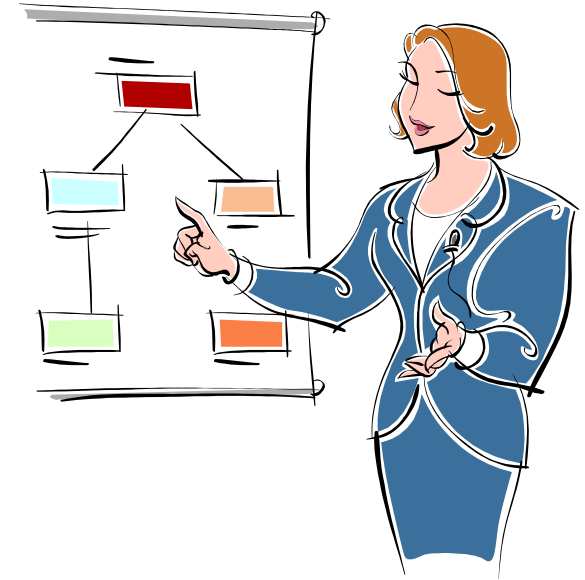
The Mutual Fund Prospectus

- This is a legal document which describes the investment objective of the fund, the manner in which the fund is administered and operated, the fees and other pertinent information.
- The prospectus should be read thoroughly before making an investment decision.



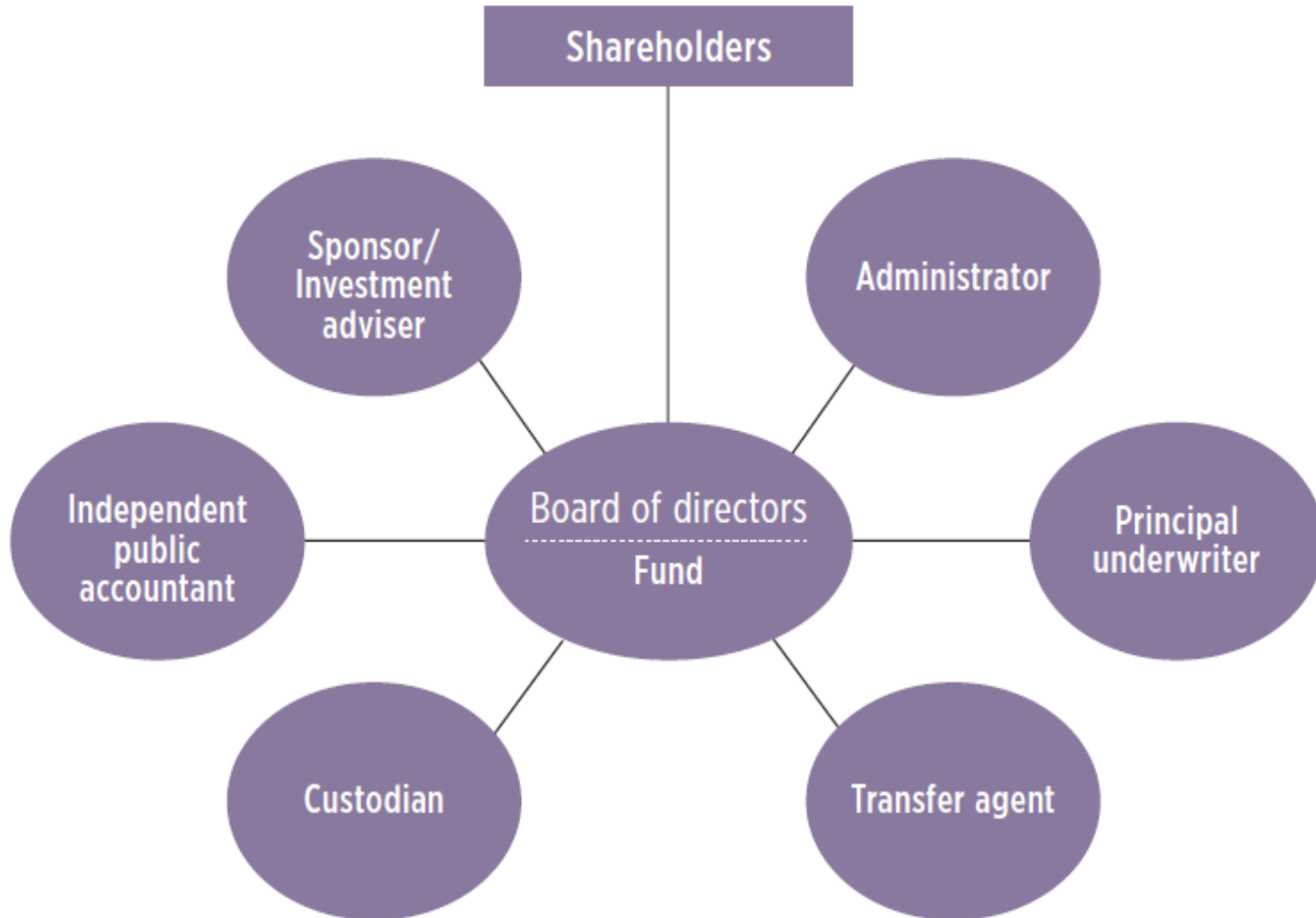
Mutual Fund Structure: the Organization

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





Mutual Fund Structure: the Organization





Mutual Fund Structure: the Organization

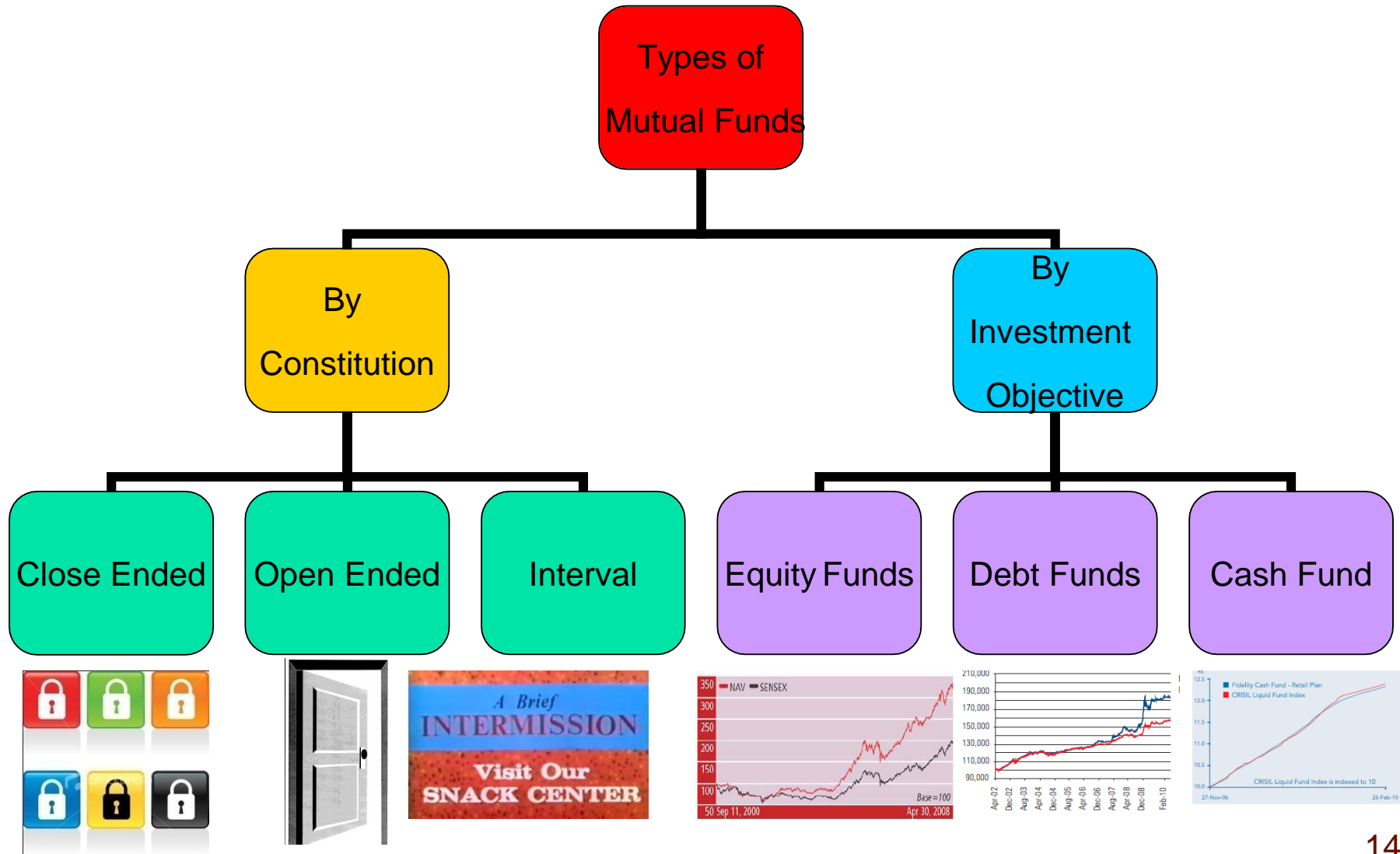
- In theory, the board can fire the fund manager and hire anyone they choose. For instance, the board for the Fidelity Magellan Fund can fire Fidelity. Of course, if the board hires a non-Fidelity management team, the fund will probably lose its name, and possibly its reputation along with it.



Mutual Fund Structure

- 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.

Types of Mutual Funds





MF Constitution

- Closed-End Fund: a fixed number of non-redeemable 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.



Net asset Value



- NAV: per share value of a mutual fund's investment holding.

$$\text{NAV} = \frac{\text{Market Value of Assets} - \text{Portfolio Liabilities}}{\text{\# of Shares Outstanding}}$$

Example

A mutual fund has \$100 mil in assets and \$3 mil in short term liabilities. 10,765 mil shares outstanding. What is the NAV?

Solution

$$(\$100 \text{ mil} - \$3 \text{ mil}) / 10,765 \text{ mil} = \$9.0107 \text{ per share}$$

$$\text{Offer price} = \text{NAV} + \text{sales commission}$$



Calculating a Mutual Fund's 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

Stocks	\$35,000,000
Bonds	\$15,000,000
Cash	<u>\$3,000,000</u>
Total value of assets	\$53,000,000
Liabilities	<u>-\$800,000</u>
Net worth	<u>\$52,200,000</u>
Outstanding shares	15 million

$$NAV = \$52,200,000 / 15,000,000 = \$3.48$$

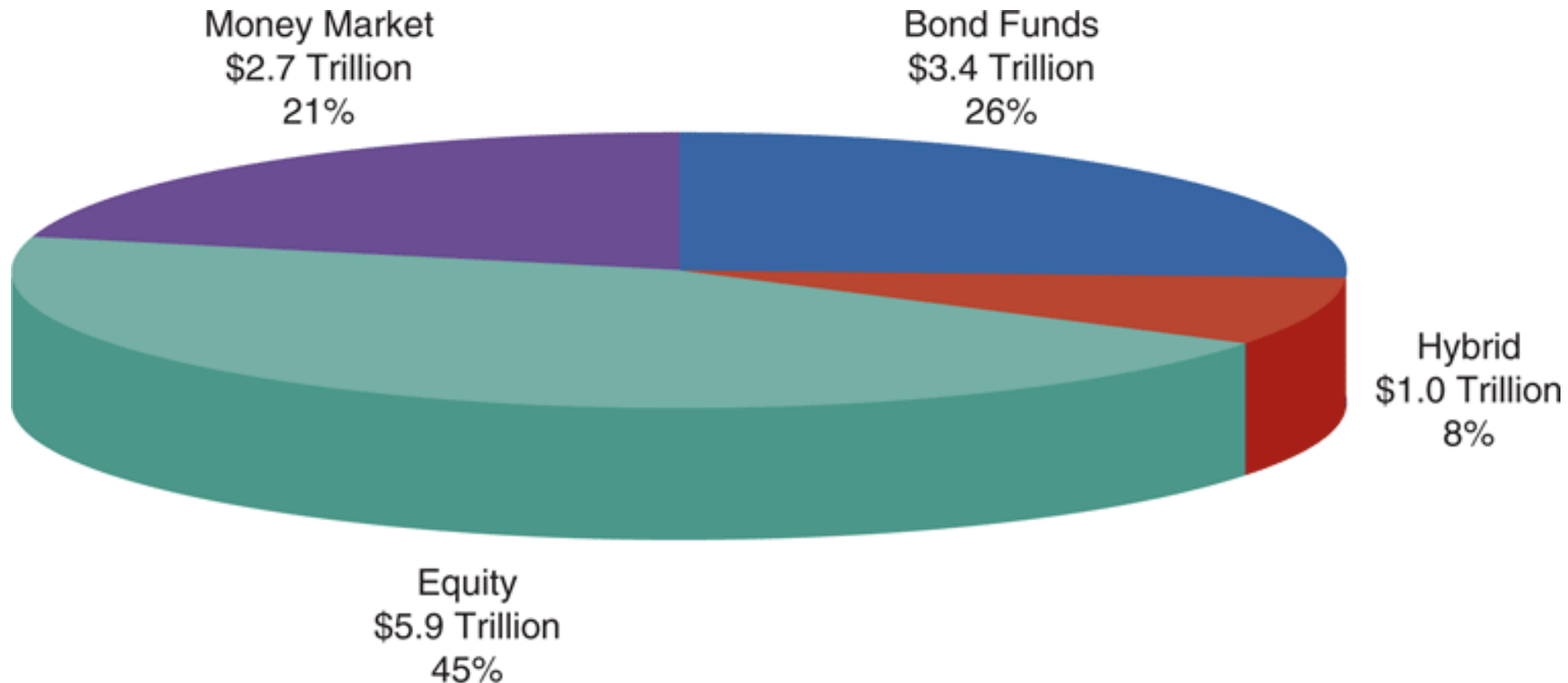


Investment Objectives

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



Distribution of Assets Among Types of Mutual Funds



Source: Investment Company Institute, *2012 Investment Company Fact Book*, 53rd ed. (Washington, DC: ICI), http://www.icifactbook.org/fb_data.html#section1.



Investment Objective Classes

- Stock/Equity 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.

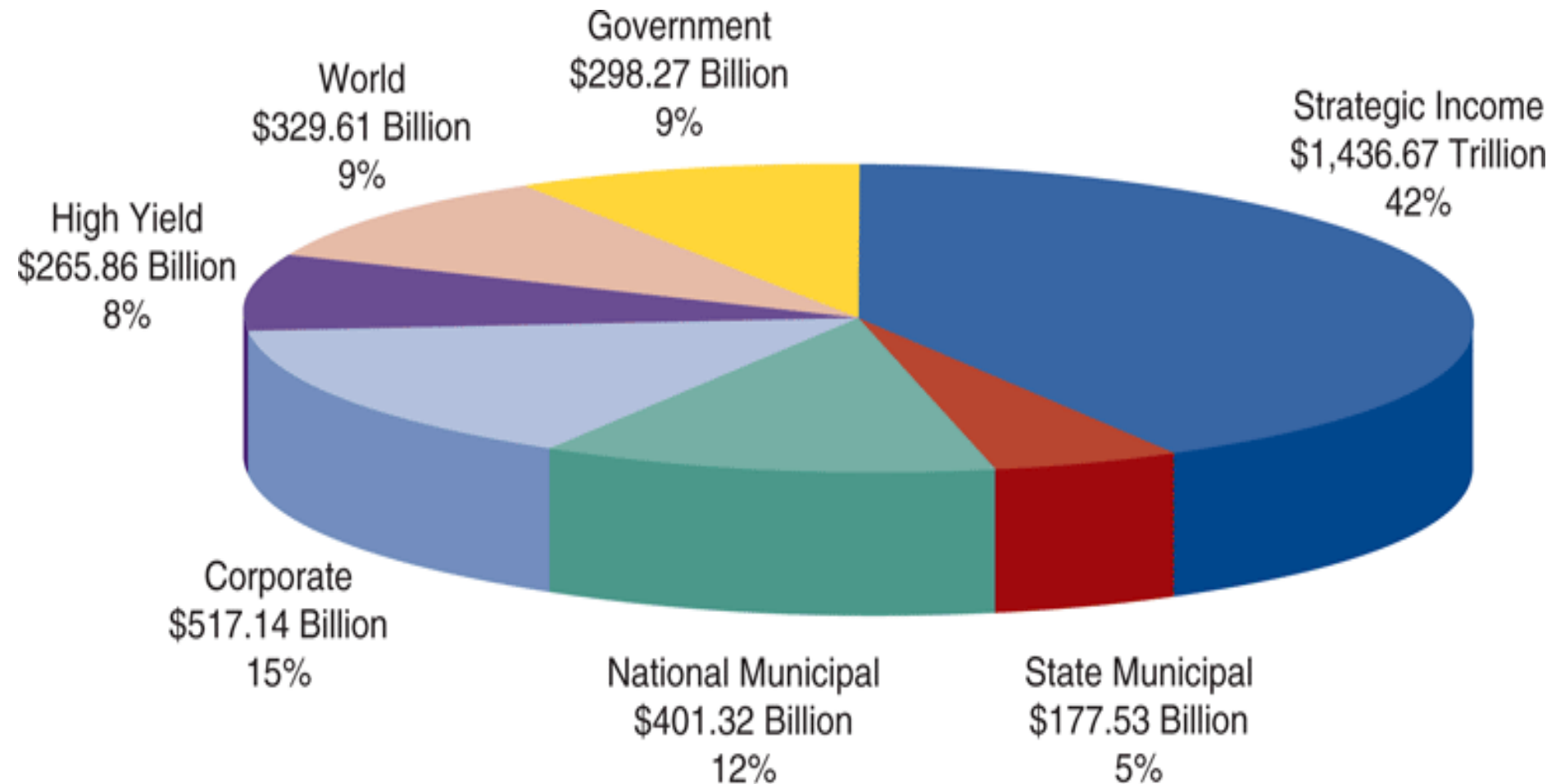


Investment Objective Classes

- 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.



Investment Objective Classes





Investment Objective Classes

- Money Market Mutual Funds (MMMFs)
 - Open-end funds that invest only in money market securities.
 - Offer check-writing privileges.
 - Net assets have grown dramatically.
 - Although MMFs offer higher returns than bank deposits, the funds are not federally insured.
 - The next slide shows the distribution of assets in MMMFs, which are relatively safe assets.



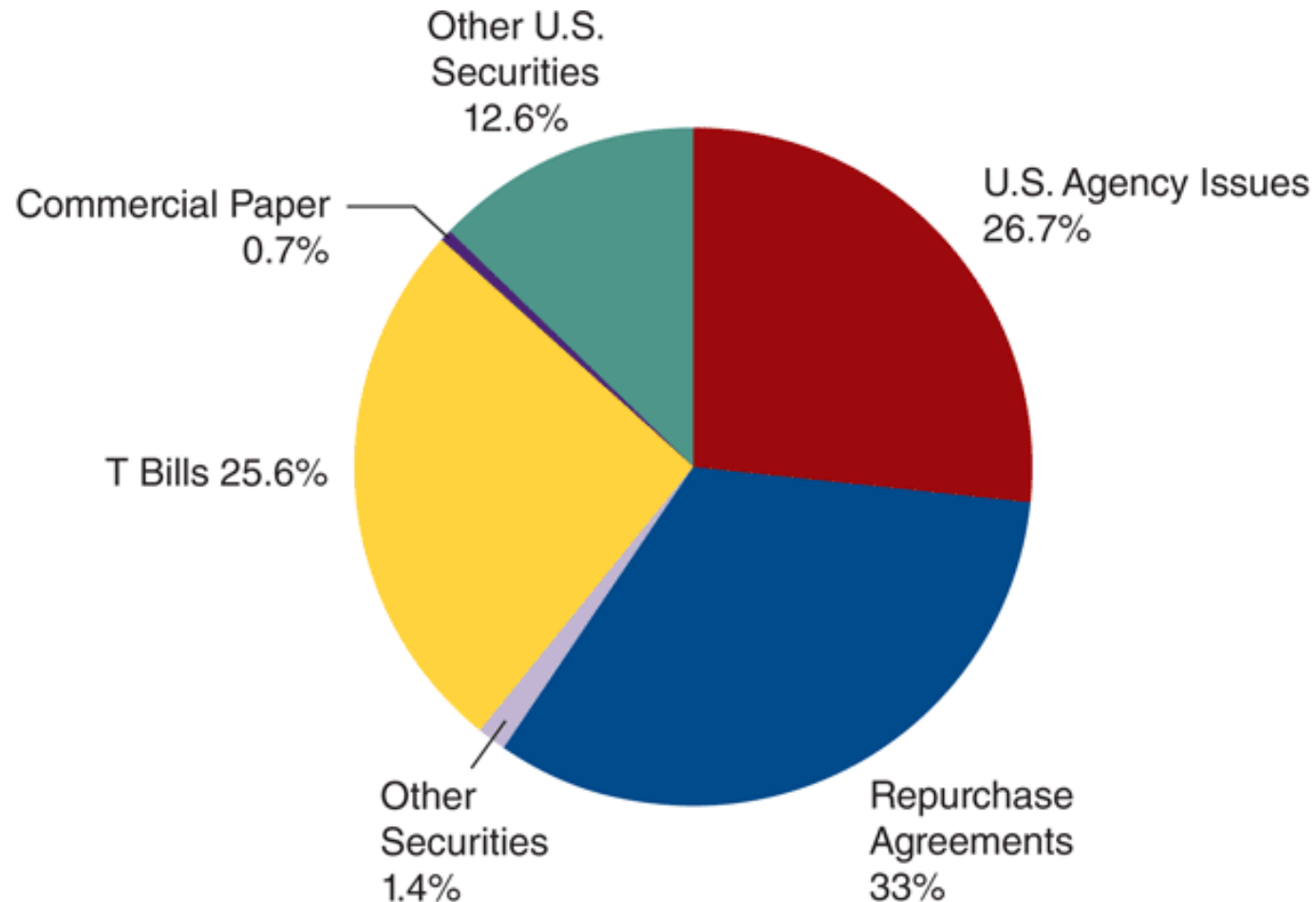
Investment Objective Classes

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



Investment Objective Classes

Figure 20.7 Average Distribution of Money Market Fund Assets, 2012



Source: Investment Company Institute, *2012 Investment Company Fact Book*, 53rd ed. (Washington, DC: ICI), http://www.icifactbook.org/pdf/13_fb_table43.pdf.



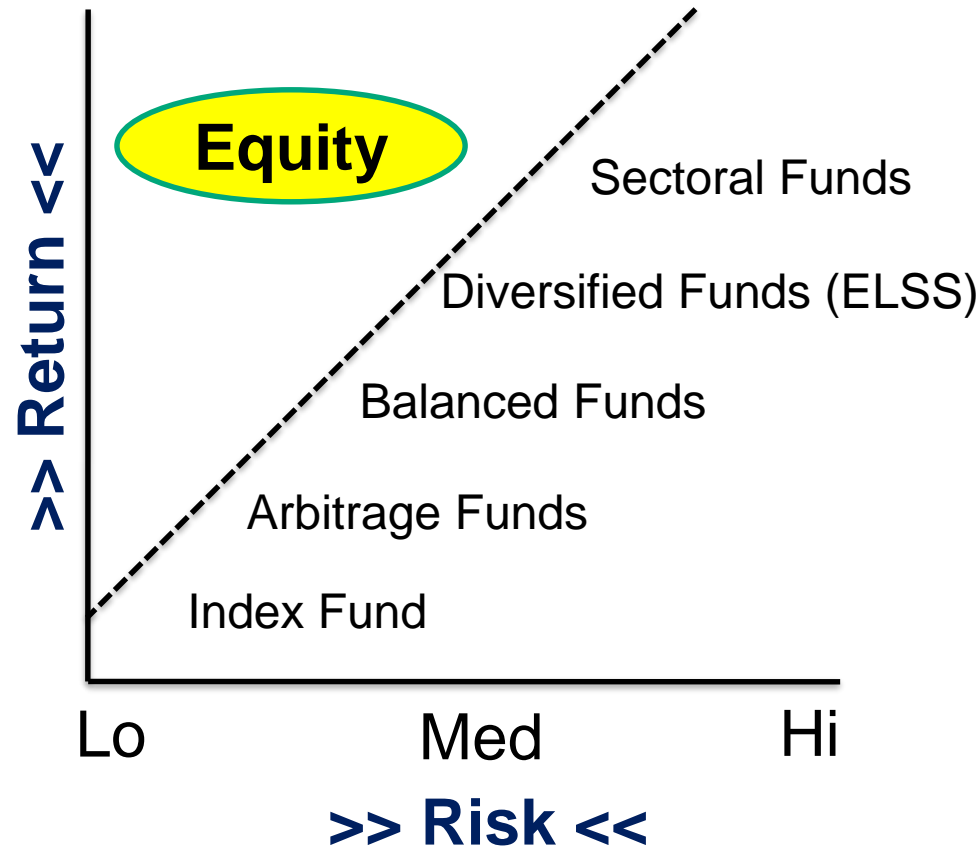
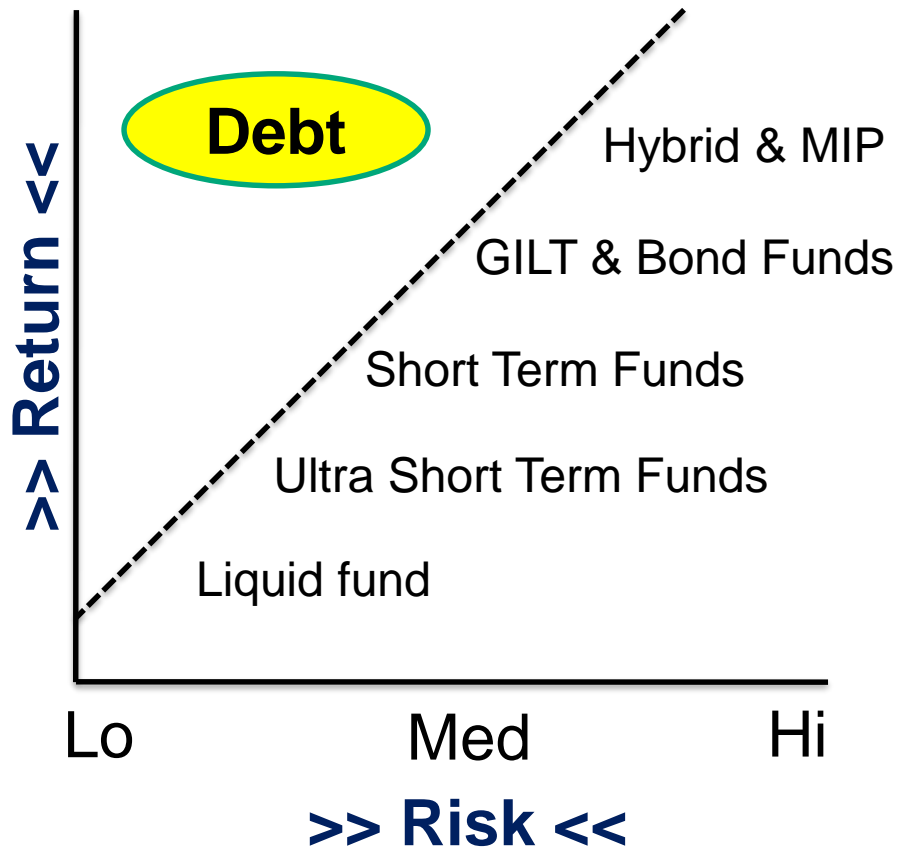
Investment Objective Classes

- 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.



Mutual Fund Products – Risk / Return Graph





Fee Structure of Investment Funds

- **Load** funds (class A shares) charge an upfront fee (front-end loads) for buying the shares.
- **Deferred load** (class B shares) funds charge a fee (back-end loads / redemption fee) when the shares are redeemed.
- **No-load** funds do not charge this fee. No-load funds charge no front or back end fees and are referred to as class C shares.



Other fees charges by mutual funds

- Contingent deferred sales charge: a back end fee that may disappear altogether after a specific period.
- 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.



Operating Expense Ratio

- Total of investment advisory fees and costs of legal and accounting services, etc., expressed as a percentage of the fund's average net assets (range from 0.2% to 2%)
 - Lowest for money market mutual fund and highest for international stock funds
 - Tend to be lowest for large, liquid funds

Typical fees

	Fund A	Fund B	Fund C
Shareholder Transaction Expenses			
Sales load imposed on purchases	None	None	4.75%
Sales load imposed on reinvested dividends	None	None	4.75
Redemption fees	None	None	None
Exchange fees	None	None	None
Annual Fund Operating Expenses			
Management and administrative expenses	0.22%	0.60%	0.70%
Investment advisory expenses	0.02	—	—
12b-1 marketing fees	—	0.30	—
Marketing and distribution costs	0.02	—	—
Miscellaneous expenses	0.03	0.32	0.26
Total Operating Expenses	0.29%	1.22%	0.96%
Expenses on a \$10,000 Investment			
1 year	\$ 30	\$ 124	\$ 587
3 years	93	387	823
5 years	163	670	1,077
10 years	368	1,477	1,805



Sources of Investment Returns

- Total Return: dividend and interest income and realized and unrealized appreciation
- Income distribution: interest and dividend income after expenses.
- Capital gains unrealized until the fund sells the shares (Unrealized capital gains)
- The realized capital gains are paid out to shareholders at the end of the year (capital gains distributions)



Regulation of Mutual Funds

- Mutual funds are regulated by four primary laws in the U.S.:
 - 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

- Mutual funds are the only companies in the U.S. 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



Exchange-Trade Funds (ETFs)

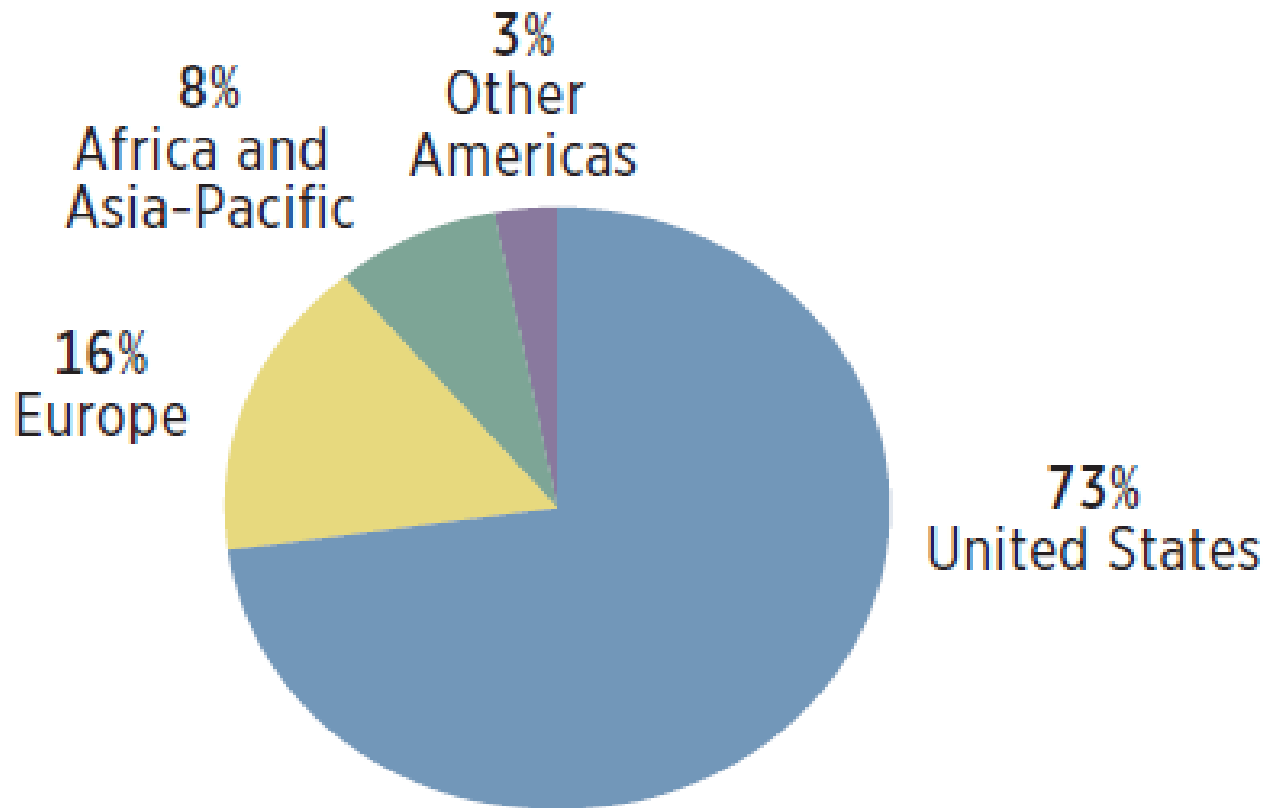
- Tradable shares in baskets of stocks that closely track broad market averages, market sectors, or major stock markets from around the world.



- Standard and Poor's Depository Receipts (SPDR), "spiders": closely track S&P 500 Index
- Diamonds (DIA): track Dow Jones Industrial Average
- QQQQ: track Nasdaq 100 Index
- Select Sector SPDRs: unbundled S&P Index to give investors ownership in a particular market sector or group of industries.
- Barclays Global Investors: offer "iShares" – internationally indexed



Global ETF Markets



Total worldwide ETF assets: \$2.7 trillion

Percentage of total net assets, year-end 2014

Source: ICI Investment Company Fact 2015



Benefits of Mutual Funds

1. Liquidity intermediation: investors can quickly convert investments into cash while still allowing the fund to invest for the long term.
2. Denomination intermediation: investors can participate in equity and debt offerings that, individually, require more capital than they possess.
3. Cost advantages: the mutual fund can negotiate lower transaction fees than would be available to the individual investor.
4. Managerial expertise: many investors prefer to rely on professional money managers to select their investments.



Benefits of Mutual Funds (Con't)

5. Diversification: investors immediately realize the benefits of diversification even for small investments.

- Diversified stock funds hold large and small company stocks broadly spread across industries and economic sectors
- Diversified bond funds hold bonds with different maturities, coupon, and credit quality

6. Investor convenience

- Many offer “fund family”



Mutual Fund Disadvantages

- Volatility can be significant
 - Diversification doesn't protect investors from the risk of loss from an overall decline in financial markets
 - Mutual fund regulation doesn't eliminate the risk of an investment falling in value
- High management fees and sales commissions



Last Topic

- Insurance Companies & Pension Funds
- Mishkin and Eakins (2015) Chapter 21