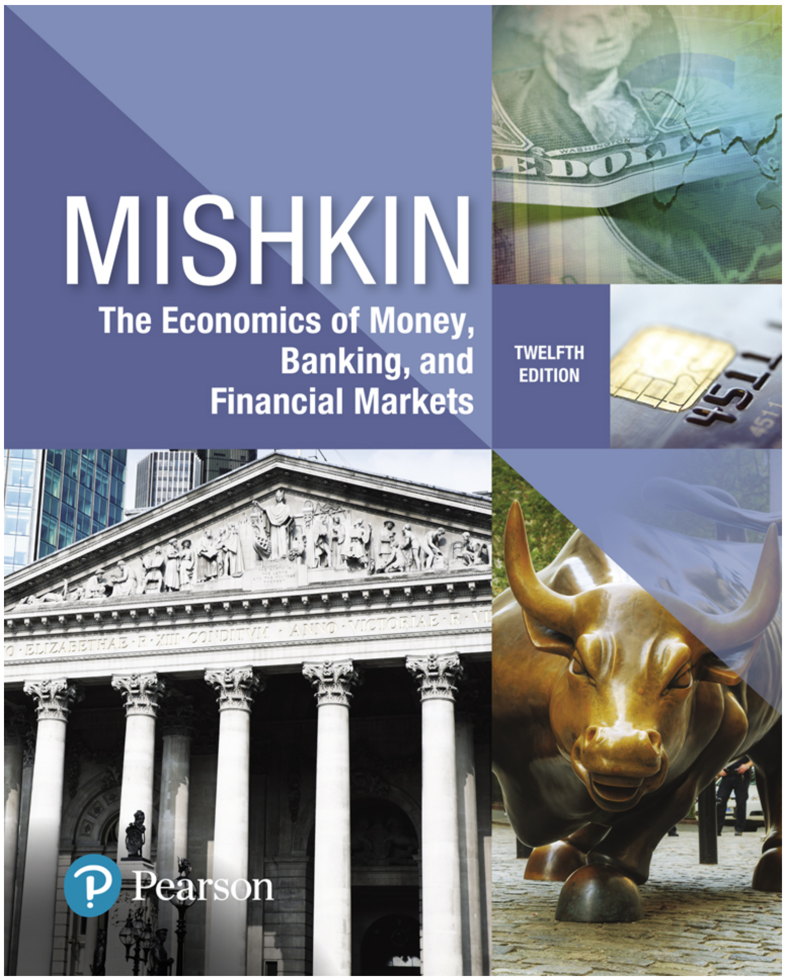
# The Economics of Money, Banking, and Financial Markets

Twelfth Edition




## Chapter 2

An Overview of the Financial System

# Preview

- This chapter presents an overview of the study of financial markets and institutions.

# Learning Objectives (1 of 2)

- Compare and contrast direct and indirect finance.
- Identify the structure and components of financial markets.
- List and describe the different types of financial market instruments.
- Recognize the international dimensions of financial markets.

# Learning Objectives (2 of 2)

- Summarize the roles of transaction costs, risk sharing, and information costs as they relate to financial intermediaries.
- List and describe the different types of financial intermediaries.
- Identify the reasons for and list the types of financial market regulations.

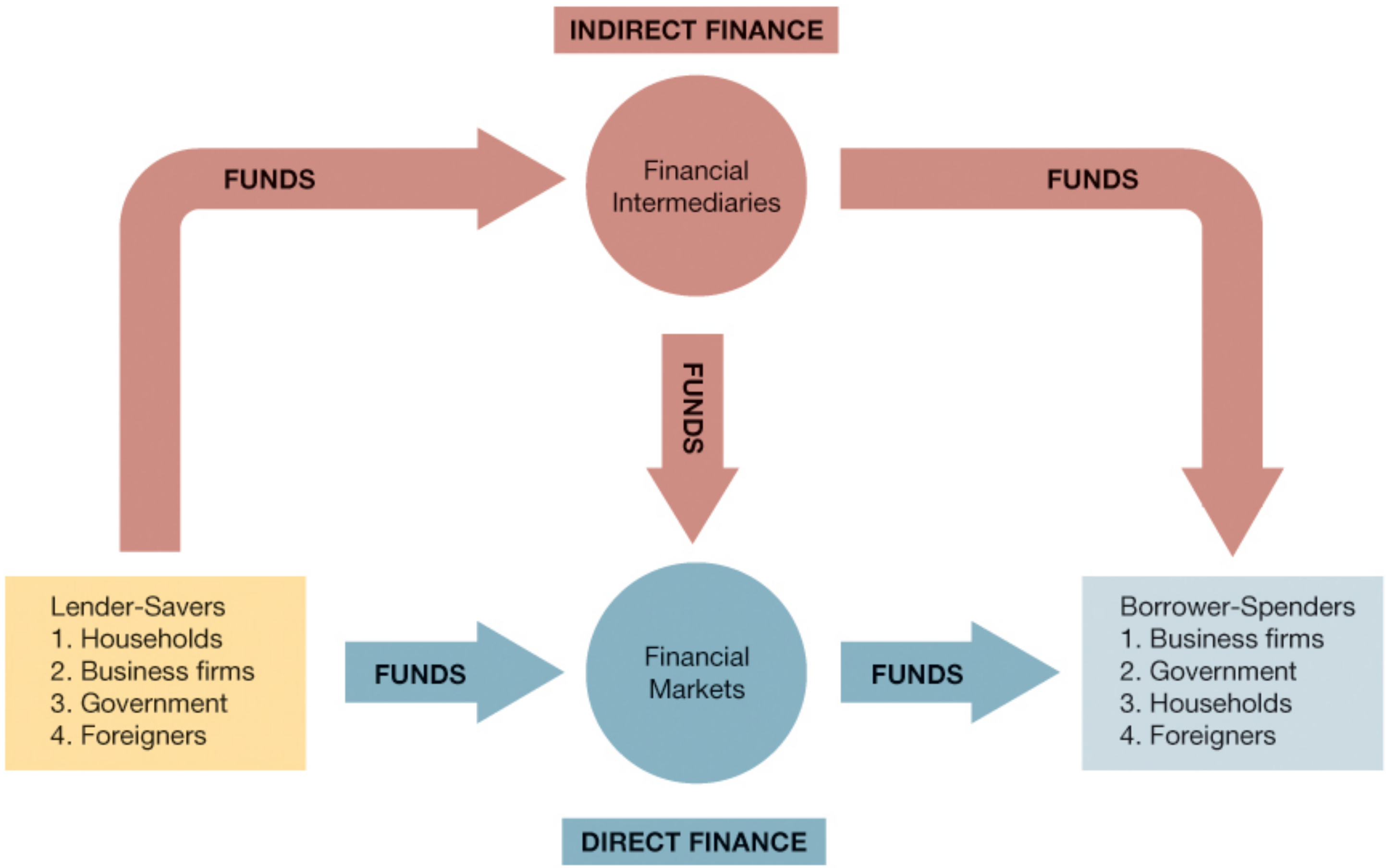
# Function of Financial Markets (1 of 2)

- Performs the essential function of channeling funds from economic players that have saved surplus funds to those that have a shortage of funds
- **Direct finance**: borrowers borrow funds directly from lenders in financial markets by selling them securities

# Function of Financial Markets (2 of 2)

- Promotes economic efficiency by producing an efficient allocation of **capital**, which increases production
- Directly improve the well-being of consumers by allowing them to time purchases better

# Figure 1 Flows of Funds Through the Financial System



# Structure of Financial Markets (1 of 2)

- Debt and Equity Markets
  - Debt instruments (**maturity**)
  - **Equities** (**dividends**)
- Primary and Secondary Markets
  - **Investment banks *underwrite*** securities in **primary markets**.
  - **Brokers** and **dealers** work in **secondary markets**.

# Structure of Financial Markets (2 of 2)

- Exchanges and Over-the-Counter (OTC) Markets:
  - **Exchanges**: NYSE, Chicago Board of Trade
  - **OTC markets**: Foreign exchange, Federal funds
- Money and Capital Markets:
  - **Money markets** deal in short-term debt instruments
  - **Capital markets** deal in longer-term debt and equity instruments

# Financial Market Instruments (1 of 2)

**Table 1** Principal Money Market Instruments

| | Amount ($ billions, end of year) | | | |
|---|---|---|---|---|
| **Type of Instrument** | **1990** | **2000** | **2010** | **2016** |
| U.S. Treasury bills | 527 | 647 | 1,767 | 1,816 |
| Negotiable bank certificates of deposit (large denominations) | 547 | 1,053 | 1,923 | 1,727 |
| Commercial paper | 558 | 1,602 | 1,058 | 885 |
| Federal funds and security repurchase agreements | 372 | 1,197 | 3,598 | 3,778 |

Source: Federal Reserve Flow of Funds Accounts; http://www.federalreserve.gov

# Financial Market Instruments (2 of 2)

**Table 2** Principal Capital Market Instruments

| | Amount ($ billions, end of year) | | | |
|---|---|---|---|---|
| **Type of Instrument** | **1990** | **2000** | **2010** | **2016** |
| Corporate stocks (market value) | 3,530 | 17,628 | 23,567 | 38,685 |
| Residential mortgages | 2,676 | 5,205 | 10,446 | 10,283 |
| Corporate bonds | 1,703 | 4,991 | 10,337 | 12,008 |
| U.S. government securities (marketable long-term) | 2,340 | 3,171 | 7,405 | 12,064 |
| U.S. government agency securities | 1,446 | 4,345 | 7,598 | 8,531 |
| State and local government bonds | 957 | 1,139 | 2,961 | 3,030 |
| Bank commercial loans | 818 | 1,497 | 2,001 | 3,360 |
| Consumer loans | 811 | 1,728 | 2,647 | 3,765 |
| Commercial and farm mortgages | 838 | 1,276 | 2,450 | 2,850 |

*Source:* Federal Reserve Flow of Funds Accounts; http://www.federalreserve.gov

# Internationalization of Financial Markets

- **Foreign Bonds**: sold in a foreign country and denominated in that country's currency
- **Eurobond**: bond denominated in a currency other than that of the country in which it is sold
- **Eurocurrencies**: foreign currencies deposited in banks outside the home country
  - **Eurodollars**: U.S. dollars deposited in foreign banks outside the United States or in foreign branches of U.S. banks
- **World Stock Markets**:
  - help finance corporations in the United States and the U.S. federal government

# Function of Financial Intermediaries: Indirect Finance (1 of 3)

- Lower transaction costs (time and money spent in carrying out financial transactions)
  - Economies of scale
  - Liquidity services
- Reduce the exposure of investors to risk
  - Risk sharing (asset transformation)
  - Diversification

# Function of Financial Intermediaries: Indirect Finance (2 of 3)

- Deal with asymmetric information problems:
  - **Adverse Selection** (before the transaction): try to avoid selecting the risky borrower by gathering information about them
  - **Moral Hazard** (after the transaction): ensure borrower will not engage in activities that will prevent him/her to repay the loan.
    - Sign a contract with restrictive covenants.

# Function of Financial Intermediaries: Indirect Finance (3 of 3)

- Conclusion:
  - Financial intermediaries allow “small” savers and borrowers to benefit from the existence of financial markets.

Pearson

# Types of Financial Intermediaries (1 of 5)

**Table 3** Primary Assets and Liabilities of Financial Intermediaries

| Type of Intermediary | Primary Liabilities (Sources of Funds) | Primary Assets (Uses of Funds) |
|---|---|---|
| **Depository institutions (banks)** | | |
| Commercial banks | Deposits | Business and consumer loans, mortgages, U.S. government securities, and municipal bonds |
| Savings and loan associations | Deposits | Mortgages |
| Mutual savings banks | Deposits | Mortgages |
| Credit unions | Deposits | Consumer loans |

# Types of Financial Intermediaries (2 of 5)

## [Table 3 Continued]

| Type of Intermediary | Primary Liabilities (Sources of Funds) | Primary Assets (Uses of Funds) |
|---|---|---|
| **Contractual savings institutions** | | |
| Life insurance companies | Premiums from policies | Corporate bonds and mortgages |
| Fire and casualty insurance companies | Premiums from policies | Municipal bonds, corporate bonds and stock, and U.S. government securities |
| Pension funds, government retirement funds | Employer and employee contributions | Corporate bonds and stock |

# Types of Financial Intermediaries (3 of 5)

## [**Table 3** Continued]

| **Type of Intermediary** | **Primary Liabilities (Sources of Funds)** | **Primary Assets (Uses of Funds)** |
|---|---|---|
| **Investment intermediaries** | | |
| Finance companies | Commercial paper, stocks, bonds | Consumer and business loans |
| Mutual funds | Shares | Stocks, bonds |
| Money market mutual funds | Shares | Money market instruments |
| Hedge funds | Partnership participation | Stocks, bonds, loans, foreign currencies, and many other assets |

# Types of Financial Intermediaries (4 of 5)

**Table 4** Primary Financial Intermediaries and Value of Their Assets

| | Value of Assets ($ billions, end of year) | | | |
|---|---|---|---|---|
| **Type of Intermediary** | **1990** | **2000** | **2010** | **2016** |
| **Depository institutions (banks)** | | | | |
| Commercial banks, savings and loans, and mutual savings banks | 4,744 | 7,687 | 12,821 | 16,834 |
| Credit unions | 217 | 441 | 876 | 1,238 |
| **Contractual savings institutions** | | | | |
| Life insurance companies | 1,367 | 3,136 | 5,168 | 6,764 |
| Fire and casualty insurance companies | 533 | 866 | 1,361 | 1,908 |
| Pension funds (private) | 1,619 | 4,423 | 6,614 | 9,099 |
| State and local government retirement funds | 820 | 2,290 | 4,779 | 6,103 |

# Types of Financial Intermediaries (5 of 5)

## [**Table 4** Continued]

**Value of Assets ($ billions, end of year)**

| **Type of Intermediary** | **1990** | **2000** | **2010** | **2016** |
|---|---|---|---|---|
| **Investment intermediaries** | | | | |
| Finance companies | 612 | 1,140 | 1,589 | 1,385 |
| Mutual funds | 608 | 4,435 | 7,873 | 13,616 |
| Money market mutual funds | 493 | 1,812 | 2,755 | 2,728 |

*Source:* Federal Reserve Flow of Funds Accounts; https://www.federalreserve.gov/releases/z1/current/data.htm, Tables L110, L114, L115, L116, L118, L120, L121, L122, L127.

# Regulation of the Financial System (1 of 4)

- To increase the information available to investors:
  - Reduce adverse selection and moral hazard problems
  - Reduce insider trading (SEC)

# Regulation of the Financial System (2 of 4)

- To ensure the soundness of financial intermediaries:
  - Restrictions on entry (chartering process).
  - Disclosure of information.
  - Restrictions on assets and activities (control holding of risky assets).
  - Deposit Insurance (avoid bank runs).
  - Limits on competition (mostly in the past):
    - Branching
    - Restrictions on interest rates

# Regulation of the Financial System (3 of 4)

**Table 5** Principal Regulatory Agencies of the U.S. Financial System

| Regulatory Agency | Subject of Regulation | Nature of Regulations |
|---|---|---|
| Securities and Exchange Commission (SEC) | Organized exchanges and financial markets | Requires disclosure of information; restricts insider trading |
| Commodities Futures Trading Commission (CFTC) | Futures market exchanges | Regulates procedures for trading in futures markets |
| Office of the Comptroller of the Currency | Federally-chartered commercial banks and thrift institutions | Charters and examines the books of federally chartered commercial banks and thrift institutions; imposes restrictions on assets they can hold |
| National Credit Union Administration (NCUA) | Federally-chartered credit unions | Charters and examines the books of federally chartered credit unions and imposes restrictions on assets they can hold |

# Regulation of the Financial System (4 of 4)

## [**Table 5** Continued]

| **Regulatory Agency** | **Subject of Regulation** | **Nature of Regulations** |
|---|---|---|
| State banking and insurance commissions | State-chartered depository institutions and insurance companies | Charter and examine the books of state-chartered banks and insurance companies, impose restrictions on assets they can hold, and impose restrictions on branching |
| Federal Deposit Insurance Corporation (FDIC) | Commercial banks, mutual savings banks, savings and loan associations | Provides insurance of up to $250,000 for each depositor at a bank, examines the books of insured banks, and imposes restrictions on assets they can hold |
| Federal Reserve System | All depository institutions | Examines the books of commercial banks and systemically important financial institutions; sets reserve requirements for all banks |

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