Overview of the Financial System

This set of slides was developed based on the reference books as listed in the course document.

Function of Financial Markets

- **Channels funds** from person or business without investment opportunities (i.e., “**Lender-Savers**”) to one who has them (i.e., “**Borrower-Spenders**”)
- Improves economic efficiency

Financial Markets Funds Transferees

<u>Lender-Savers</u>

1. Households
2. Business firms
3. Government
4. Foreigners

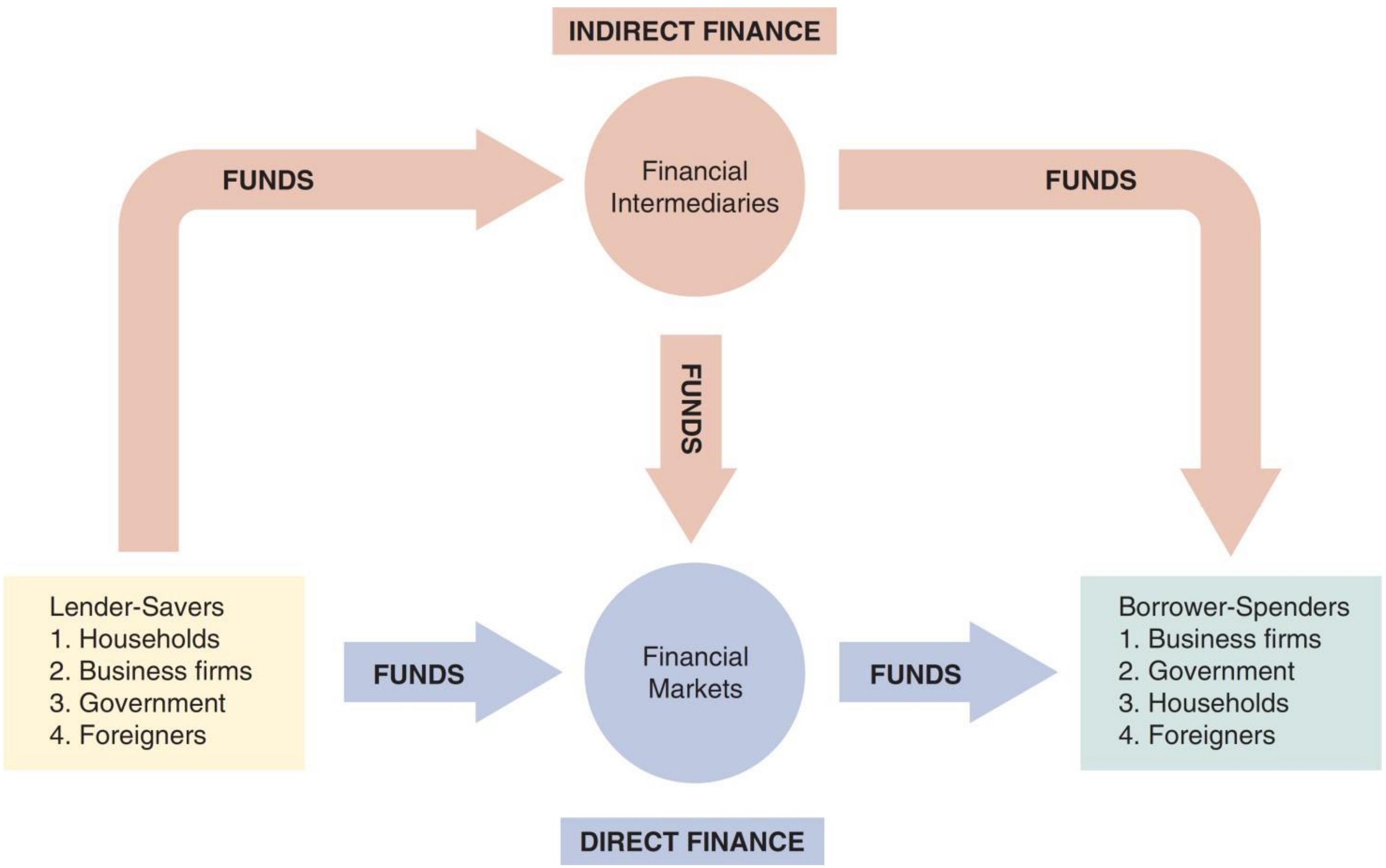
<u>Borrower-Spenders</u>

1. Business firms
2. Government
3. Households
4. Foreigners

Segments of Financial Markets

1. Direct Finance
   – **Borrowers borrow directly from lenders** in financial markets by selling financial instruments which are claims on the borrower's future income or assets
2. Indirect Finance
   – **Borrowers borrow indirectly from lenders via *financial intermediaries*** (established to source both loanable funds and loan opportunities) by issuing financial instruments which are claims on the borrower's future income or assets

Figure 2.1 Flows of Funds Through the Financial System



Importance of Financial Markets (1 of 2)

- This is important. For example, if you save $10,000, but there are no financial markets, then you can earn no return on this - might as well put the money under your mattress.
- However, if a small company could use that money to buy a new name card printer (increasing her productivity), then she is willing to pay you some interest for the use of the funds.

Importance of Financial Markets (2 of 2)

- Financial markets are critical for producing an efficient allocation of capital, allowing *funds to move from people who lack productive investment opportunities to people who have them*.
- Financial markets also improve the well-being of consumers, allowing them to time their purchases better.

  e.g. young people may buy what they want earlier without forcing **them** to wait until they have saved up the entire **purchase** price.

Structure of Financial Markets (1 of 5)

It helps to define financial markets along a variety of dimensions (not necessarily mutually exclusive). For starters…

Structure of Financial Markets (2 of 5)

1. Debt Markets
   – Short-Term (maturity < 1 year)
   – Long-Term (maturity > 10 year)
   – Intermediate term (maturity in-between)
   – Represented $39.7 trillion at the end of 2015.
     - 1 trillion = 1 million x million = 10^{12}
2. Equity Markets (stock)
   – Pay dividends, in theory forever
   – Represents an ownership claim in the firm
   – Total value of all U.S. equity was $35.7 trillion at the end of 2015.

Structure of Financial Markets (3 of 5)

1. Primary Market
   – New security issues sold to initial buyers
   – Typically involves an investment bank who underwrites the offering
2. Secondary Market
   – Securities previously issued are bought and sold
   – Examples include the HKEX, NYSE and Nasdaq

Structure of Financial Markets (4 of 5)

Even though firms don't get any money from the secondary market, it serves two important functions:

- Provides liquidity, making it easy to buy and sell the securities of the companies
- Establishes a price for the securities (useful for company valuation)

Structure of Financial Markets (5 of 5)

We can further classify secondary markets as follows:

1. Exchanges
   – Trades conducted in central locations (e.g., New York Stock Exchange, CBT)
2. Over-the-Counter Markets
   – Dealers at different locations buy and sell
   – Best example is the market for Treasury Securities

Global Perspective: Relative Decline of U.S. Capital Markets (1 of 2)

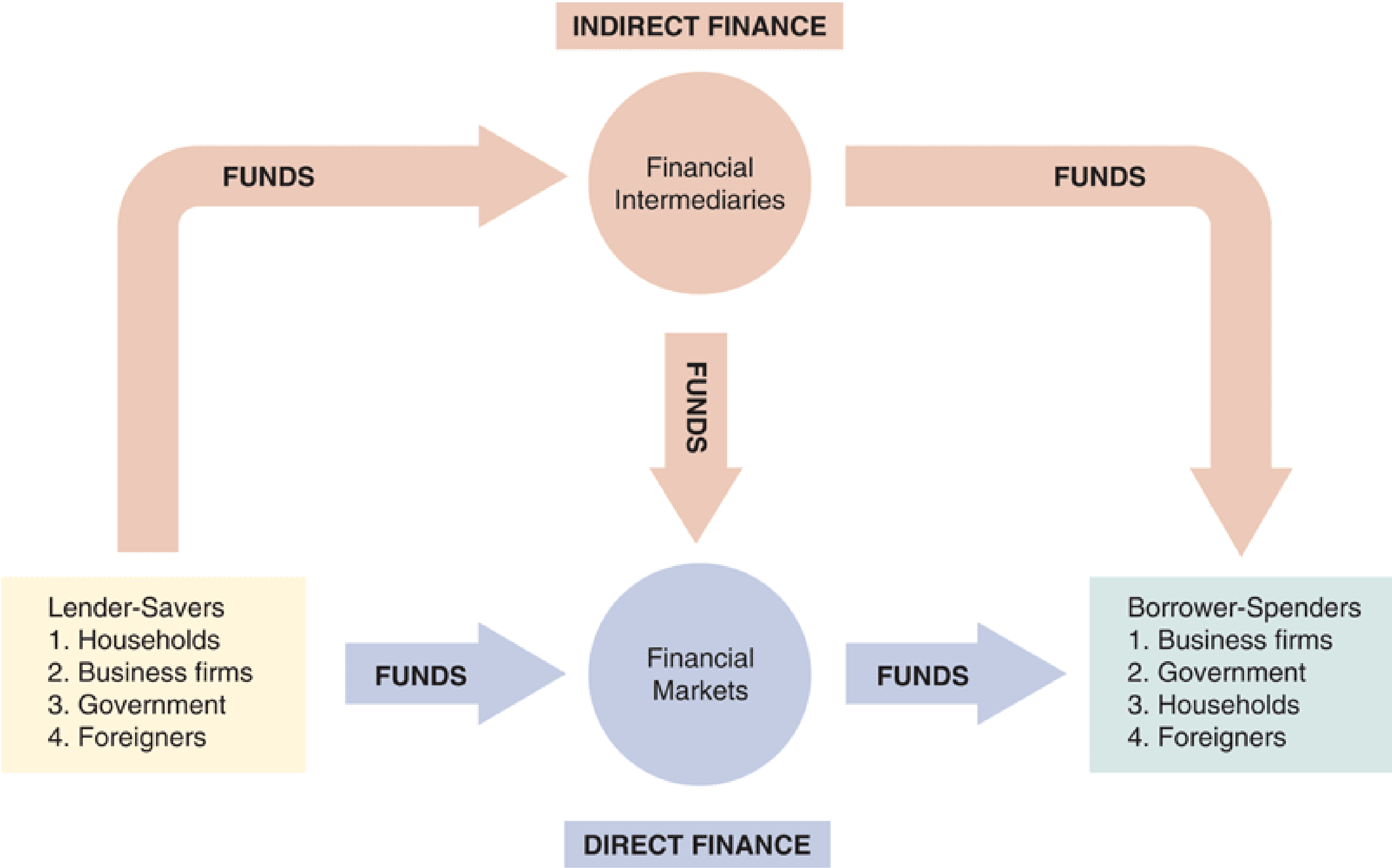
- The U.S. has lost its dominance in many industries: automobiles and consumer electronics, to name a few.
- A similar trend appears at work for U.S. financial markets, as London and Hong Kong compete. Indeed, many U.S. firms use these markets over the U.S.

Global Perspective: Relative Decline of U.S. Capital Markets (2 of 2)

Why?

1. New technology in foreign exchanges
2. 9–11 made U.S. regulations tighter
3. Greater risk of lawsuit in the U.S.
4. Sarbanes-Oxley (Act of 2002) has increased the cost of being a U.S.-listed public company

The top part of Figure 2.1—indirect finance.



The arrows show that funds flow from lender-savers to borrower-spenders via two routes: *direct finance*, in which borrowers borrow funds directly from financial markets by selling securities, and *indirect finance*, in which a financial intermediary borrows funds from lender-savers and then uses these funds to make loans to borrower-spenders.

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

Instead of savers lending/investing directly with borrowers, a **financial intermediary (such as a bank)** plays as the middleman:

- the intermediary obtains funds from savers
- the intermediary then makes loans/investments with borrowers

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

- This process, called **financial intermediation**, is actually the primary means of moving funds from lenders to borrowers.
- More important source of finance than securities markets (such as stocks)
- Needed because of transactions costs, risk sharing, and asymmetric information

  ➔what is asymmetric information?

  https://www.investopedia.com/terms/a/asymmetricinformation.asp

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

- Transactions Costs
  1. Financial intermediaries make profits by reducing transactions costs
  2. Reduce transactions costs by developing expertise and taking advantage of economies of scale

Contractual Savings Institutions (CSIs)

(1 of 2)

- All CSIs acquire funds from clients at periodic intervals on a contractual basis and have fairly predictable future payout requirements.
  - **Life Insurance Companies** receive funds from policy premiums, can invest in less liquid corporate securities and mortgages, since actual benefit pay outs are close to those predicted by actuarial analysis
  - **Fire and Casualty Insurance Companies** receive funds from policy premiums, must invest most in liquid government and corporate securities, since loss events are harder to predict

Contractual Savings Institutions (CSIs)

(2 of 2)

- All CSIs acquire funds from clients at periodic intervals on a contractual basis and have fairly predictable future payout requirements.
  - **Pension and Government Retirement Funds** hosted by corporations and state and local governments acquire funds through employee and employer payroll contributions, invest in corporate securities, and provide retirement income via annuities

Types of Financial Intermediaries (1 of 3)

- **Finance Companies** sell commercial paper (a short-term debt instrument) and issue bonds and stocks to raise funds to lend to consumers to buy durable goods, and to small businesses for operations.
- **Mutual Funds** acquire funds by selling shares to individual investors (many of whose shares are held in retirement accounts) and use the proceeds to purchase large, diversified portfolios of stocks and bonds.

Types of Financial Intermediaries (2 of 3)

- **Money Market Mutual Funds** acquire funds by selling checkable deposit-like shares to individual investors and use the proceeds to purchase highly liquid and safe short-term money market instruments.
- **Hedge Funds** are a type of mutual fund requiring large investments ($100,000 or more), long holding periods, and are subject to few regulations. These funds invest across almost all asset classes.

  ➔aggressive risk-seeking investment funds that typically use leverage to magnify returns

  ➔fund manager can get operational cost, performance fee

Types of Financial Intermediaries (3 of 3)

- **Investment Banks** advise companies on securities to issue, underwriting security offerings, offer Mergers and Acquisitions (M&A) assistance, and act as dealers in security markets.

Regulation of Financial Markets

Main Reasons for Regulation

1. Increase Information to Investors
2. Ensure the Soundness of Financial Intermediaries

Regulation Reason: Increase Investor Information (1 of 2)

- Asymmetric information in financial markets means that investors may be subject to adverse selection and moral hazard problems that may hinder the efficient operation of financial markets and may also keep investors away from financial markets.
- The Securities and Exchange Commission (SEC) requires corporations issuing securities to disclose certain information about their sales, assets, and earnings to the public and restricts trading by the largest stockholders (known as insiders) in the corporation.

Regulation Reason: Increase Investor Information (2 of 2)

- Such government regulation can reduce adverse selection and moral hazard problems in financial markets and increase their efficiency by increasing the amount of information available to investors. Indeed, the SEC has been particularly active recently in pursuing illegal insider trading.

Regulation Reason: Improve Monetary Control

- Because banks play a very important role in determining the supply of money (which in turn affects many aspects of the economy), regulation of these financial intermediaries is intended to improve control over the money supply
- One example is **reserve requirements,** which make it obligatory for all depository institutions to keep a certain fraction of their deposits in accounts with the Federal Reserve System (the Fed), the central bank in the United States
- Reserve requirements help the Fed exercise more precise control over the money supply