

# Saving, Investment, and the Financial System

- The financial system consists of the group of institutions in the economy that help to match one person's saving with another person's investment.
- It moves the economy's scarce resources from savers to borrowers.
- The *financial system* is made up of financial institutions that coordinate the actions of savers and borrowers.
- Financial institutions can be grouped into two different categories: financial markets and financial intermediaries.

# FINANCIAL INSTITUTIONS IN THE U.S. ECONOMY

- Financial Markets
  - Stock Market
  - Bond Market
- Financial Intermediaries
  - Banks
  - Mutual Funds

# FINANCIAL INSTITUTIONS IN THE U.S. ECONOMY

- *Financial markets* are the institutions through which savers can directly provide funds to borrowers.
- *Financial intermediaries* are financial institutions through which savers can indirectly provide funds to borrowers.

# Financial Markets

- The Bond Market
  - A *bond* is a certificate of indebtedness that specifies obligations of the borrower to the holder of the bond.
  - Characteristics of a Bond
    - *Term*: The length of time until the bond matures.
    - *Credit Risk*: The probability that the borrower will fail to pay some of the interest or principal.
    - *Tax Treatment*: The way in which the tax laws treat the interest on the bond.
      - Municipal bonds are federal tax exempt.

# Financial Markets

- The Stock Market
  - *Stock* represents a claim to partial ownership in a firm and is therefore, a claim to the profits that the firm makes.
  - The sale of stock to raise money is called *equity financing*.
    - Compared to bonds, stocks offer both higher risk and potentially higher returns.
  - The most important stock exchanges in the United States are the New York Stock Exchange, the American Stock Exchange, and NASDAQ.(National Association of Securities Dealers Automated Quotations)

# Financial Markets

- The Stock Market
  - Most newspaper stock tables provide the following information:
    - Price (of a share)
    - Volume (number of shares sold)
    - Dividend (profits paid to stockholders)
    - Price-earnings ratio

# Financial Intermediaries

- *Financial intermediaries* are financial institutions through which savers can indirectly provide funds to borrowers.
- Banks
  - take deposits from people who want to save and use the deposits to make loans to people who want to borrow.
  - pay depositors interest on their deposits and charge borrowers slightly higher interest on their loans.

# Financial Intermediaries

- Banks

- Banks help create a *medium of exchange* by allowing people to write checks against their deposits.
  - A medium of exchanges is an item that people can easily use to engage in transactions.
- This facilitates the purchases of goods and services.

- Mutual Funds

- A *mutual fund* is an institution that sells shares to the public and uses the proceeds to buy a portfolio, of various types of stocks, bonds, or both.
  - They allow people with small amounts of money to easily diversify.



# Financial Intermediaries

- Other Financial Institutions
  - Credit unions
  - Pension funds
  - Insurance companies
  - Loan sharks

# Some Important Identities

- Recall that GDP is both total income in an economy and total expenditure on the economy's output of goods and services:

$$Y = C + I + G + NX$$

- Assume a closed economy – one that does not engage in international trade:

$$Y = C + I + G$$

# Some Important Identities

- Now, subtract  $C$  and  $G$  from both sides of the equation:

$$Y - C - G = I$$

- The left side of the equation is the total income in the economy after paying for consumption and government purchases and is called *national saving*, or just *saving* ( $S$ ).
- Substituting  $S$  for  $Y - C - G$ , the equation can be written as:

$$S = I$$

# The Meaning of Saving and Investment

- National Saving

- *National saving* is the total income in the economy that remains after paying for consumption and government purchases.

- Private Saving

- *Private saving* is the amount of income that households have left after paying their taxes and paying for their consumption.

$$\textit{Private saving} = (Y - T - C)$$

- Public Saving

- *Public saving* is the amount of tax revenue that the government has left after paying for its spending.

$$\textit{Public saving} = (T - G)$$

# The Meaning of Saving and Investment

- Surplus and Deficit

- If  $T > G$ , the government runs a *budget surplus* because it receives more money than it spends.
- The surplus of  $T - G$  represents public saving.
- If  $G > T$ , the government runs a *budget deficit* because it spends more money than it receives in tax revenue.

# The Meaning of Saving and Investment

- For the economy as a whole, saving must be equal to investment.

$$S = I$$

# THE MARKET FOR LOANABLE FUNDS

- Financial markets coordinate the economy's saving and investment in the market for loanable funds.

# THE MARKET FOR LOANABLE FUNDS

- The *market for loanable funds* is the market in which those who want to save supply funds and those who want to borrow to invest demand funds.
- Loanable funds refers to all income that people have chosen to save and lend out, rather than use for their own consumption.



# Supply and Demand for Loanable Funds

- The supply of loanable funds comes from people who have extra income they want to save and lend out.
- The demand for loanable funds comes from households and firms that wish to borrow to make investments.

# Supply and Demand for Loanable Funds

- The interest rate is the price of the loan.
- It represents the amount that borrowers pay for loans and the amount that lenders receive on their saving.
- The interest rate in the market for loanable funds is the real interest rate.
- Financial markets work much like other markets in the economy.
  - The equilibrium of the supply and demand for loanable funds determines the *real interest rate*.

# Summary

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- National income accounting identities reveal some important relationships among macroeconomic variables.
- In particular, in a closed economy, national saving must equal investment.
- Financial institutions attempt to match one person's saving with another person's investment.

# Summary

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- The interest rate is determined by the supply and demand for loanable funds.
- The supply of loanable funds comes from households who want to save some of their income.
- The demand for loanable funds comes from households and firms who want to borrow for investment.