

Chapter 8 - *Saving, Investment, and the Financial System*

- *The Financial System*
 - The group of institutions that help to match one person's saving with another person's investment
 - The financial system moves the economy's scarce resources from savers to borrowers
- *Financial Institutions in the Canadian Economy*
 - **Financial Markets:** institutions through which savers can directly provide funds to borrowers
 - *Bond Market*
 - A certificate of indebtedness that specifies obligations of borrowers to the holder of the bond
 - Characteristics:
 - **Term:** length until the bond matures
 - **Credit Risk:** probability that the borrower will fail to pay some of the interest or principal
 - *Stock Market*
 - Stock represents a claim to partial ownership in a firm and is therefore, a claim to the profits that the firm makes
 - Sales of stock to raise money - **equity financing**
 - Compared to bonds, stocks offer both higher risk and potentially higher returns
 - Most important stock exchange in Canada is the Toronto Stock Exchange (*TSX*)
 - Most important stock exchanges in the United States are the New York Stock Exchange, the American Stock Exchange, and NASDAQ.
 - Stock tables provide information on:
 - Price per share
 - Volume of shares
 - Dividends (*profit paid to stockholders*)
 - Price-earnings ratio
 - **The Stock Index**
 - Available to monitor the overall level of stock prices
 - Computed as an average of a group of stock prices
 - The best-known and closely watched stock index in Canada is TSX 300
 - Most famous stock index is the Dow Jones Industrial Average
 - Financial markets also link the present to the future:
 - They enable savers to convert current income into future purchasing power, and borrowers to acquire capital to produce goods and services in the future

- *Financial Institutions*
 - **Financial Intermediaries**
 - Institutions through which savers can indirectly provide funds to borrowers
 - **Banks**
 - Take deposits from savers and use the deposits to make loans to borrowers
 - Pay depositors interest on their deposits and charge borrowers higher interest on their loans
 - Banks help create a medium of exchange by allowing people to write cheques against their deposits
 - Medium of exchange: item that people can easily use to engage in transactions
 - This facilitates the purchases of goods and services
 - **Mutual Funds**
 - 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
- *Saving and Investment in the National Income Accounts*
 - GDP is both total income in an economy and total expenditure on the economy's output of goods and services

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

- In a closed economy

$$Y = C + I + G$$

- Therefore,

$$Y - C - G = I$$

- The total income in an economy after paying for consumption and government purchases and is called national savings (**S**)

$$S = I = Y - C - G$$

$$S = (Y - T - C) + (T - G)$$

- *The Meaning of Saving and Investment*
 - **Public Saving**
 - The amount of tax revenue that the government has left after paying for its spending

$$\text{Public Saving} = (T - G)$$

- **Private Saving**
 - portion of the households income that is not used for consumption or paying taxes

$$\text{Private Saving} = Y - T(\text{tax net for transfers}) - C$$

- **National Saving** = private saving + public saving

$$\begin{aligned} S &= (Y - T - C) + (T - G) \\ &= Y - C - G \end{aligned}$$

- *Budget Deficits and Surpluses*

- **Budget Surplus**
 - An excess of tax revenue

$$\text{Budget Surplus} = (T - G) = \text{Public Saving}$$

- **Budget Deficit**
 - A shortfall of tax revenue from government spending

$$\text{Budget Deficit} = (G - T) = -(\text{Public Saving})$$

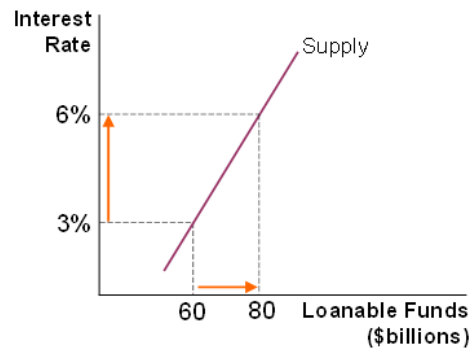
- *Market for Loanable Funds*

- Financial markets coordinate the economy's saving and investment in the market for loanable funds
- **Market for Loanable Funds:** the market in which those who want to save supply funds and those who want to borrow [to invest] demand funds
- Government policies can affect saving, investment, and the interest rate
- **Loanable Funds:** all income that people save and lend out, rather than use their own consumption
- Supply of loanable funds comes from people who have extra income they want to save and lend out
- Demand for loanable funds comes from households and firms that wish to borrow to make investments

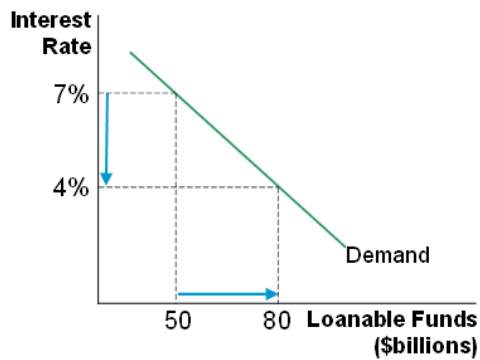
- *Supply and Demand for Loanable Funds*

- The interest rate
 - Is the price of the loan
 - Represents the amount that borrowers pay for loans and the amount that lenders receive on their payments
- Financial markets work like other markets in the economy
 - The equilibrium of supply and demand for loanable funds determines the real interest rate

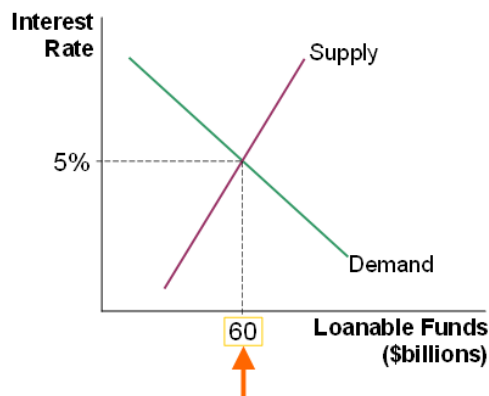
- **Supply Curve for Loanable Funds**
 - An increase in interest rates making saving more attractive
 - Increases the quantity of loanable funds supplied



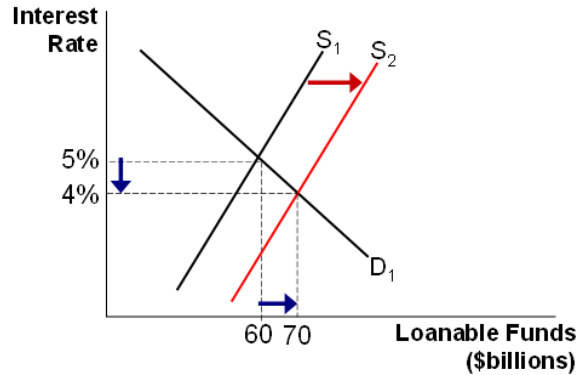
- **Demand Curve for Loanable Funds**
 - A fall in the interest rate reduces the cost of borrowing
 - Increases the quantity of loanable funds demanded



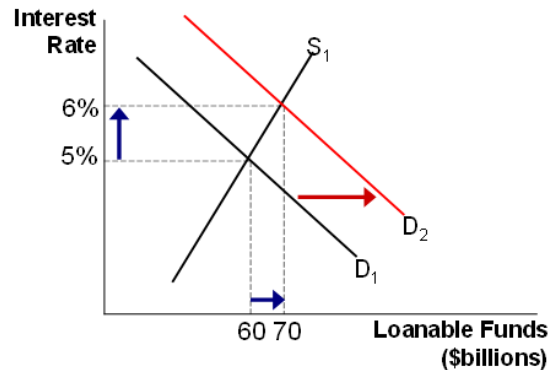
- **Equilibrium**
 - The interest rate adjusts to equate supply and demand
 - The equilibrium quantity of loanable funds equals equilibrium investment and equilibrium saving



- **Policy 1: Saving Incentives**
 - Increases supply of loanable funds
 - Reduces the equilibrium interest rate
 - Increases the quantity of equilibrium loanable funds

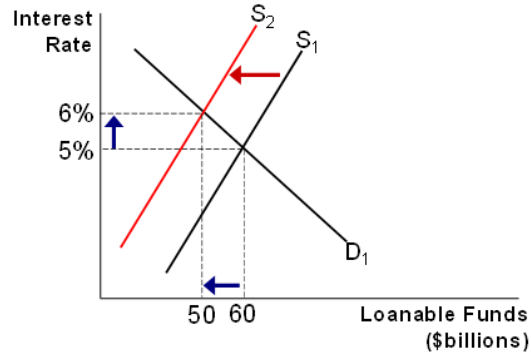


- **Policy 2: Investment Incentives**
 - An investment tax credit increases the demand for loanable funds
 - Raises the equilibrium interest rate
 - Increases the equilibrium quantity of loanable funds



- **Budget Deficits, Crowding Out, and Long-Run Growth**
 - Government borrowing to finance its budget deficit reduces the supply of loanable funds available to finance investment by households and firms
 - The fall in investment is called **crowding out**

- **Policy 3: Government Budget Deficits**
 - A budget deficit reduces national saving and the supply of loanable funds
 - Increases the equilibrium interest rate and decreases the equilibrium quantity of loanable funds



- *Is Balanced Budget the Answer?*
 - **Recession**
 - Reduce Y and C lead to reduce T and increase G (EI), therefore a deficit
 - If correct this, then increase T and reduce G, further reduces Y
 - **Strong Economy**
 - Increased Y and C leads to increase T and reduced G (EI) and therefore a surplus
 - If correct this, then increase G and reduce T, further increases Y
 - **Annual balanced budgets are “pro-cyclical” and worsen economy volatility**
 - **Balanced budget over “cycle”**