

### 2-3 Outline how economies function as production systems

5. (*Shape of the PPF*) Suppose a production possibilities frontier includes the following combinations:

Cars	Washing Machines
0	1,000
100	600
200	0

- Graph the PPF, assuming that it has no curved segments.
  - What is the cost of producing an additional car when 50 cars are being produced?
  - What is the cost of producing an additional car when 150 cars are being produced?
  - What is the cost of producing an additional washing machine when 50 cars are being produced? When 150 cars are being produced?
  - What do your answers tell you about opportunity costs?
6. (*Production Possibilities*) Suppose an economy uses two resources (labor and capital) to produce two goods (wheat and cloth). Capital is relatively more useful in producing cloth, and labor is relatively more useful in producing wheat. If the supply of capital falls by 10 percent and the supply of labor increases by 10 percent, how will the PPF for wheat and cloth change?
7. (*Production Possibilities*) There's no reason why a production possibilities frontier could not be used to represent the situation facing an individual. Imagine your own PPF. Right now—today—you have certain resources—your time, your skills, perhaps some capital. And you can produce various outputs. Suppose you can produce combinations of two outputs, call them studying and partying.
- Draw your PPF for studying and partying. Be sure to label the axes of the diagram appropriately. Label the points where the PPF intersects the axes, as well as several other points along the frontier.
  - Explain what it would mean for you to move upward and to the left along your personal PPF. What kinds of adjustments would you have to make in your life to make such a movement along the frontier?
  - Under what circumstances would your personal PPF shift outward? Do you think the shift would be a "parallel" one? Why, or why not?
8. (*Shifting Production Possibilities*) Determine whether each of the following would cause the national economy's PPF to shift inward, outward, or not at all:
- An increase in average length of annual vacations
  - An increase in immigration
  - A decrease in the average retirement age
  - The migration of skilled workers to other countries

### 2-4 Describe different economic systems and the decision-making rules that define them

9. (*Economic Systems*) The United States is best described as having a mixed economy. What are some elements of command in the U.S. economy? What are some market elements? What are some traditional elements?

## CHAPTER 3

### 3-1 Describe the major sources of income and expenditures for households

- (*Evolution of the Household*) Determine whether each of the following would increase or decrease the opportunity costs for mothers who choose not to work outside the home. Explain your answers.
  - Higher levels of education for women
  - Higher unemployment rates for women
  - Higher average pay levels for women
  - Lower demand for labor in industries that traditionally employ large numbers of women
- (*Household Production*) Many households supplement their food budget by cultivating small vegetable gardens. Explain how each of the following might influence this kind of household production:
  - Both husband and wife are professionals who earn high salaries.
  - The household is located in a city rather than in a rural area.
  - The household is located in a region where there is a high sales tax on food purchases.
  - The household is located in a region that has a high property tax rate.
- (*Household Production*) What factors does a householder consider when deciding whether to produce a good or service at home versus buy it in the marketplace?
- (*Objectives of the Economic Decision Makers*) In economic analysis, what are the assumed objectives of households, firms, and the government?

### 3-2 Outline the evolution of production over the centuries from the household to the modern corporation

- (*Corporations*) How did the institution of the firm get a boost from the advent of the Industrial Revolution? What type of business organization existed before this?
- (*Sole Proprietorships*) What are the disadvantages of the sole proprietorship form of business?
- (*Cooperatives*) How do cooperatives differ from typical businesses?
- (*Evolution of the Firm*) Explain how production after the Industrial Revolution differed from production under the cottage industry system.

### 3-3 Summarize the seven roles of government in an economy

9. (*Government*) Complete each of the following sentences:
- When the private operation of a market leads to overproduction or underproduction of some good, this is known as a(n) \_\_\_\_\_.
  - Goods that are nonrival and nonexcludable are known as \_\_\_\_\_.
  - \_\_\_\_\_ are cash or in-kind benefits given to individuals as outright grants from the government.
  - A(n) \_\_\_\_\_ confers an external benefit on third parties that are not directly involved in the market transaction.
  - \_\_\_\_\_ refers to the government's pursuit of full employment and price stability through variations in taxes and government spending.