

The Market System

Chapter 4 describes the major characteristics of the market system and offers a detailed explanation of how it works.

The first part of Chapter 4 describes the *ideological* and *institutional* characteristics of the market system. In this system, most of the resources are owned by citizens, who are free to use them as they wish in their own self-interest. Prices and markets express the self-interests of resource owners, consumers, and business firms. Competition regulates self-interest—to prevent the self-interest of any person or any group from working to the disadvantage of the economy and to make self-interests work for the benefit of the entire economy. Government plays an active, but limited, role in a market economy.

Three other characteristics are also found in a market economy. They are the employment of large amounts of *capital*, the development of *specialization*, and the *use of money*. Economies use capital and engage in specialization because this is a more efficient use of their resources; it results in larger total output and the greater satisfaction of wants. When workers, business firms, and regions within an economy specialize, they become dependent on each other for the goods and services they do not produce for themselves. To obtain these goods and services they must engage in trade. Trade is made more convenient by using money as a medium of exchange.

The second part of Chapter 4 describes the operation of the market system. There are *Four Fundamental Questions* that any economic system must answer in its attempt to use its scarce resources to satisfy its material wants. The four questions or problems are: (1) What will be produced? (2) How will the output be produced? (3) Who is to receive the output? (4) Can the system adapt to change?

The explanation of how the market system finds answers to the Four Fundamental Questions is only an approximation—a simplified version or model—of the methods actually employed by the U.S. economy and other market economies. Yet this simple model, like all good models, contains enough realism to be truthful and is general enough to be understandable. If the aims of this chapter are accomplished, you can begin to understand the market system and methods our economy uses to solve the economizing problem presented in Chapter 2.

■ CHECKLIST

When you have studied this chapter you should be able to

- Identify the nine important characteristics of the market system.
- Describe the significance of property rights in the market system.
- Distinguish between freedom of enterprise and freedom of choice.
- Explain why self-interest is a driving force of the market system.
- Identify two features of competition.
- Explain the roles of markets and prices.
- Explain why the market system relies on technology and capital goods, and also why the production of capital goods entails roundabout production.
- Discuss how two types of specialization improve efficiency in the market system.
- Describe the advantages of money over barter for the exchange of goods and services in a market economy.
- Describe the size and role of government in the market system.
- List the Four Fundamental Questions to answer about the operation of a market economy.
- Explain how a market system determines what goods and services will be produced.
- Distinguish between normal profit and economic profit.
- Predict what will happen to the price charged by and the output of an expanding and a declining industry, and explain why these events will occur.
- Explain how consumer sovereignty and dollar votes work in a market economy.
- Describe market restraints on economic freedom.
- Explain how goods and services will be produced in a market system.
- Find the least costly combination of resources needed for production when given the technological data and the prices of the resources.
- Explain how a market system determines who will get the goods and services it produces.
- Describe the guiding function of prices to accommodate change in the market system.

- Explain how the market system initiates change by fostering technological advances and capital accumulation.
- State how the "invisible hand" in the market system tends to promote public or social interests.
- List three virtues of the market system.

■ CHAPTER OUTLINE

1. The market system has the following nine characteristics:

- a. Private individuals and organizations own and control their property resources by means of the institution of private property.
- b. These individuals and organizations possess both the freedom of enterprise and the freedom of choice.
- c. Each of them is motivated largely by self-interest.
- d. Competition is based on the independent actions of buyers and sellers. They have the freedom to enter or leave markets. This competition spreads economic power and limits its potential abuse.
- e. Markets and prices are used to communicate and coordinate the decisions of buyers and sellers.
- f. The market system employs complicated and advanced methods of production, new technology, and large amounts of capital equipment to produce goods and services efficiently.
- g. It is a highly specialized economy. Human and geographic specialization increases the productive efficiency of the economy.
- h. It uses money exclusively to facilitate trade and specialization.
- i. Government has an active but limited role.

2. The system of prices and markets and households' and business firms' choices furnish the market economy with answers to **Four Fundamental Questions**.

- a. *What goods and services will be produced?* The demands of consumers for products and the desires of business firms to maximize their profits determine what and how much of each product is produced and its price.
- b. *How will the goods and services be produced?* The desires of business firms to maximize profits by keeping their costs of production as low as possible guide them to use the most efficient techniques of production and determine their demands for various resources; competition forces them to use the most efficient techniques and ensures that only the most efficient will be able to stay in business.
- c. *Who will get the goods and services that are produced?* With resource prices determined, the money income of each household is determined; and with product prices determined, the quantity of goods and services these money incomes will buy is determined.
- d. *How will the market system accommodate change?* The market system is able to accommodate itself to changes in consumer tastes, technology, and resource supplies.

(1) The desires of business firms for maximum profits and competition lead the economy to make the appropriate adjustments in the way it uses its resources.

(2) Competition and the desire to increase profits promotes better techniques of production and capital accumulation.

3. Competition in the economy compels firms seeking to promote their own interests to promote (as though led by an "invisible hand") the best interests of society as a whole.

a. Competition results in an allocation of resources appropriate to consumer wants, production by the most efficient means, and the lowest possible prices.

b. Three noteworthy merits of the market system are

- (1) The *efficient* use of resources
- (2) The *incentive* the system provides for productive activity
- (3) The personal *freedom* allowed participants as consumers, producers, workers, or investors.

■ HINTS AND TIPS

1. The first section of the chapter describes nine characteristics and institutions of a market system. After reading the section, check your understanding by listing the nine points and writing a short explanation of each one.

2. The section on the "Market System at Work" is both the most important and the most difficult part of the chapter. A market economy must answer *Four Fundamental Questions*. Detailed answers to the four questions are given in this section of the chapter. If you examine each one individually and in the order in which it is presented, you will more easily understand how the market system works. (Actually, the market system finds the answers simultaneously, but make your learning easier for now by considering them one by one.)

3. Be sure to understand the *importance* and *role* of each of the following in the operation of the market system: (1) the guiding function of prices, (2) the profit motive of business firms, (3) the entry into and exodus of firms from industries, (4) the meaning of competition, and (5) consumer sovereignty.

■ IMPORTANT TERMS

private property

freedom of choice

freedom of enterprise

self-interest

competition

roundabout production

specialization

division of labor

medium of exchange

barter

money

Four Fundamental Questions

economic cost

normal profit

economic profit

expanding industry

declining industry

consumer sovereignty

dollar votes

derived demand

guiding function of prices

creative destruction

"invisible hand"

SELF-TEST

■ **FILL-IN QUESTIONS**

1. The ownership of property resources by private individuals and organizations is the institution of private (resources, property) _____. The freedom of private businesses to obtain resources and use them to produce goods and services is the freedom of (choice, enterprise) _____, while the freedom to dispose of property or money as a person sees fit is the freedom of _____.

2. Self-interest means that each economic unit attempts to do what is best for itself, but this might lead to an abuse of power in a market economy if it were not directed and constrained by (government, competition) _____. Self-interest and selfishness (are, are not) _____ the same thing in a market economy.

3. Broadly defined, competition is present if two conditions prevail; these two conditions are

- a. _____
- b. _____

4. In a capitalist economy, individual buyers communicate their demands and individual sellers communicate their supplies in the system of (markets, prices) _____, and the outcomes from economic decisions are a set of product and resource _____ that are determined by demand and supply.

5. Market economies make extensive use of capital goods and engage in roundabout production because it is more (efficient, inefficient) _____ than direct production; they practice specialization and the division of labor because the self-sufficient producer or worker tends to be an _____ one.

6. In market economies money functions chiefly as a medium of (commerce, exchange) _____. Barter between two individuals will take place only if there is a coincidence of (resources, wants) _____.

7. In a market system, government is active, but is assigned (a limited, an extensive) _____ role.

8. List the Four Fundamental Questions every economy must answer.

- a. _____
- b. _____

- c. _____
- d. _____

9. A **normal profit** (is, is not) _____ an economic cost because it is a payment that (must, need not) _____ be paid to (workers, entrepreneurs) _____, but an **economic profit** (is, is not) _____ an economic cost because it (must, need not) _____ be paid to them to secure and retain the resources needed by the firm.

10. Pure or economic profit is equal to the total (revenue, cost) _____ of a firm less its total _____.

11. Business firms tend to produce those products from which they can obtain at least a(n) (economic, normal) _____ profit and a maximum _____ profit.

12. If firms in an industry are obtaining economic profits, firms will (enter, leave) _____ the industry; the price of the industry's product will (rise, fall) _____; the industry will employ (more, fewer) _____ resources and produce a (larger, smaller) _____ output; and the industry's economic profits will (increase, decrease) _____ until they are equal to (zero, infinity) _____.

13. Consumers vote with their dollars for the production of a good or service when they (sell, buy) _____ it, and because of this, consumers are said to be (dependent, sovereign) _____ in a market economy. The buying decisions of consumers (restrain, expand) _____ the freedom of firms and resource suppliers.

14. Firms are interested in obtaining the largest economic profits possible, so they try to produce a product in the (most, least) _____ costly way. The most efficient production techniques depend on the available (income, technology) _____ and the (prices, quotas) _____ of needed resources.

15. The market system determines how the total output of the economy will be distributed among its households by determining the (incomes, expenditures) _____ of each household and by determining the (prices, quality) _____ for each good and service produced.

16. In market economies, change is almost continuous in consumer (preferences, resources)

_____, in the supplies of _____, and in technology. To make the appropriate adjustments to these changes, a market economy allows price to perform its (monopoly, guiding) _____ function.

17. The market system fosters technological change. The incentive for a firm to be the first to use a new and improved technique of production or to produce a new and better product is a greater economic (profit, loss) _____, and the incentive for other firms to follow its lead is the avoidance of _____.

18. Technological advance will require additional (capital, consumer) _____ goods, so the entrepreneur uses profit obtained from the sale of _____ goods to acquire (capital, consumer) _____ goods.

19. A market system promotes (unity, disunity) _____ between private and public interests. Firms and resource suppliers seem to be guided by (a visible, an invisible) _____ hand to allocate the economy's resources efficiently.

20. The two *economic* arguments for a market system are that it promotes (public, efficient) _____ use of resources and that it uses (incentives, government) _____ for directing economic activity. The major *noneconomic* argument for the market system is that it allows for personal (wealth, freedom) _____.

■ TRUE-FALSE QUESTIONS

Circle T if the statement is true, F if it is false.

1. In a market system, the government owns most of the property resources (land and capital). T F
2. Property rights encourage investment, innovation, exchange, maintenance of property, and economic growth. T F
3. The freedom of business firms to produce a particular consumer good is always limited by the desires of consumers for that good. T F
4. The pursuit of economic self-interest is the same thing as selfishness. T F
5. When a market is competitive, the individual sellers of a product are unable to reduce the supply of the product and control its price. T F
6. The market system is also a communication system. T F
7. The employment of capital to produce goods and services requires that there be "roundabout" production and it is more efficient than "direct" production. T F

8. Increasing the amount of specialization in an economy generally leads to the more efficient use of its resources. T F

9. One way human specialization can be achieved is through a division of labor in productive activity. T F

10. Money is a device for facilitating the exchange of goods and services. T F

11. "Coincidence of wants" means that two persons want to acquire the same good or service. T F

12. Shells may serve as money if sellers are generally willing to accept them as money. T F

13. One of the Four Fundamental Questions is who will control the output. T F

14. Business firms try to maximize their normal profits. T F

15. Industries in which economic profits are earned by the firms in the industry will attract the entry of new firms. T F

16. If firms have sufficient time to enter industries, the economic profits of an industry will tend to disappear. T F

17. Business firms are only free to produce whatever they want in any way they wish if they do not want to maximize profits or to minimize losses. T F

18. The derived demand of a resource depends on the demands for the products the resource produces. T F

19. Resources will tend to be used in those industries capable of earning normal or economic profits. T F

20. Economic efficiency requires that a given output of a good or service be produced in the least costly way. T F

21. If the market price of resource A decreases, firms will tend to employ smaller quantities of resource A. T F

22. Changes in the tastes of consumers are reflected in changes in consumer demand for products. T F

23. The incentive that the market system provides to induce technological improvement is the opportunity for economic profits. T F

24. The tendency for individuals pursuing their own self-interests to bring about results that are in the best interest of society as a whole is often called the "invisible hand." T F

25. A basic economic argument for the market system is that it promotes an efficient use of resources. T F

■ MULTIPLE-CHOICE QUESTIONS

Circle the letter that corresponds to the best answer.

1. Which is one of the main characteristics of the market system?
 - (a) central economic planning

- (b) limits on freedom of choice
 (c) the right to own private property
 (d) an expanded role for government in the economy
2. In the market system, freedom of enterprise means that
- (a) businesses are free to produce products that consumers want
 (b) consumers are free to buy goods and services that they want
 (c) resources are distributed freely to businesses that want them
 (d) government is free to direct the actions of businesses
3. The maximization of profit tends to be the driving force in the economic decision making of
- (a) entrepreneurs
 (b) workers
 (c) consumers
 (d) legislators
4. How do consumers typically express self-interest?
- (a) by minimizing their economic losses
 (b) by maximizing their economic profits
 (c) by seeking the lowest price for a product
 (d) by seeking jobs with the highest wages and benefits
5. Which is a characteristic of competition as economists see it?
- (a) a few sellers of all products
 (b) the widespread diffusion of economic power
 (c) a small number of buyers in product markets
 (d) the relatively difficult entry into and exit from industries by producers
6. To decide how to use its scarce resources to satisfy economic wants, capitalism relies on
- (a) central planning
 (b) monopoly control
 (c) markets and prices
 (d) barter
7. What is roundabout production?
- (a) the division of labor that results from specialization in the production of a good or service
 (b) the production and use of capital goods to help make consumer goods
 (c) the production of a good and service and the payment for it with money
 (d) the production of a consumer good and its sale to consumers
8. When workers specialize in various tasks to produce a commodity, the situation is referred to as
- (a) a coincidence of wants
 (b) roundabout production
 (c) freedom of choice
 (d) division of labor
9. In what way does human specialization contribute to an economy's output?
- (a) It serves as consumer sovereignty.
 (b) It is a process of creative destruction.
 (c) It acts like an "invisible hand."
 (d) It fosters learning by doing.
10. In the market system, the role of government is best described as
- (a) nonexistent
 (b) significant
 (c) extensive
 (d) limited
11. Which is a prerequisite of specialization?
- (a) having a convenient means of exchanging goods
 (b) letting government create a plan for the economy
 (c) deciding who will get the goods and services in an economy
 (d) market restraints on freedom
12. The market system is a method of
- (a) communicating and coordinating the decisions of consumers, producers, and resource suppliers
 (b) making economic decisions by central planning
 (c) promoting productive efficiency, but not allocative efficiency
 (d) promoting allocative efficiency, but not productive efficiency
13. Which best defines economic costs?
- (a) the difference between economic profit and normal profit
 (b) total payments made to secure and retain needed resources
 (c) the demand for resources minus the supply of resources
 (d) the total revenue plus the total losses of the firm
14. If a business's total economic cost of producing 10,000 units of a product is \$750,000 and this output is sold to consumers for \$1,000,000, then the firm would earn
- (a) a normal profit of \$750,000
 (b) an economic profit of \$750,000
 (c) an economic profit of \$250,000
 (d) a normal profit of \$1,750,000
15. If less-than-normal profits are being earned by the firms in an industry, the consequences will be that
- (a) lower-priced resources will be drawn into the industry
 (b) firms will leave the industry, causing the price of the industry's product to fall
 (c) firms will leave the industry, causing the price of the industry's product to rise
 (d) the price of the industry's product will fall and thereby cause the demand for the product to increase
16. Which would necessarily result, sooner or later, from a decrease in consumer demand for a product?
- (a) a decrease in the profits of firms in the industry
 (b) an increase in the output of the industry
 (c) an increase in the supply of the product
 (d) an increase in the prices of resources employed by the firms in the industry

17. The demand for resources is
- (a) increased when the price of resources falls
 - (b) most influenced by the size of government in a capitalist economy
 - (c) derived from the demand for the products made with the resources
 - (d) decreased when the product that the resources produce becomes popular

Answer Questions 18, 19, and 20 on the basis of the following information.

Suppose 50 units of product X can be produced by employing just labor and capital in the four ways shown below. Assume the prices of labor and capital are \$5 and \$4, respectively.

	A	B	C	D
Labor	1	2	3	4
Capital	5	3	2	1

18. Which technique is economically most efficient in producing product X?

- (a) A
- (b) B
- (c) C
- (d) D

19. If the price of product X is \$1, the firm will realize

- (a) an economic profit of \$28
- (b) an economic profit of \$27
- (c) an economic profit of \$26
- (d) an economic profit of \$25

20. Now assume that the price of labor falls to \$3 and the price of capital rises to \$5. Which technique is economically most efficient in producing product X?

- (a) A
- (b) B
- (c) C
- (d) D

21. Which is the primary factor determining the share of the total output of the economy received by a household?

- (a) the tastes of the household
- (b) the medium of exchange used by the household
- (c) the prices at which the household sells its resources
- (d) ethical considerations in the operation of a market economy

22. If an increase in the demand for a product and a rise in its price cause an increase in the quantity supplied, the size of the industry, and the resources used for production, price is successfully performing its

- (a) guiding function
- (b) roundabout function
- (c) division-of-labor function
- (d) medium-of-exchange function

23. The advent of personal computers and word processing software that eliminated the market for electric typewriters would be an example of:

- (a) creative destruction
- (b) the "invisible hand"
- (c) derived demand
- (d) specialization

24. In the market system, if one firm introduces a new and better method of production that enhances the firm's economic profits, other firms will be forced to adopt the new method to:

- (a) increase derived demand
- (b) follow rules for roundabout production
- (c) avoid economic losses or bankruptcy
- (d) specialize and divide the labor in an efficient way

25. The chief economic virtue of the competitive market system is that it

- (a) allows extensive personal freedom
- (b) efficiently allocates resources
- (c) provides an equitable distribution of income
- (d) eliminates the need for decision making

■ PROBLEMS

1. Use the appropriate number to match the term with the phrase.

- | | |
|-------------------------------|--------------------------|
| 1. invisible hand | 5. consumer sovereignty |
| 2. coincidence of wants | 6. derived demand |
| 3. division of labor | 7. specialization |
| 4. guiding function of prices | 8. roundabout production |

- a. The construction and use of capital goods to aid in the production of consumer goods. _____

- b. The ability of price changes to bring about changes in the quantities of products and resources demanded and supplied. _____

- c. Using the resources of an individual, a firm, a region, or a nation to produce one (or a few) goods and services. _____

- d. The tendency of firms and resource suppliers seeking to further their own self-interest while also promoting the interests of society in a market economy. _____

- e. The demand for a resource that depends on the demand for the product it can be used to produce. _____

- f. Splitting the work required to produce a product into a number of different tasks that are performed by different workers. _____

- g. A situation in which the product the first trader wants to sell is the same as that the second trader wants to buy, and the product the second trader wants to sell is the same as the product the first trader wants to buy. _____

- h. Determination by consumers of the types and quantities of goods and services that will be produced in a market economy. _____

2. Assume that a firm can produce product A, product B, or product C with the resources it currently employs.

These resources cost the firm a total of \$50 per week. Assume, for the purposes of the problem, that the firm's employment of resources cannot be changed. Their market prices and the quantities of A, B, and C these resources will produce per week are given below. Compute the firm's profit when it produces A, B, or C, and enter these profits in the table below.

Product	Market price	Output	Economic profit
A	\$7.00	8	\$ _____
B	4.50	10	_____
C	.25	240	_____

- Which product will the firm produce? _____
- If the price of A rose to \$8, the firm would _____

(Hint: You will have to recompute the firm's profit from the production of A.)

- If the firm were producing A and selling it at a price of \$8, what would tend to happen to the number of firms producing A? _____

3. Suppose that a firm can produce 100 units of product X by combining labor, land, capital, and entrepreneurial ability in three different ways. If it can hire labor at \$2 per unit, land at \$3 per unit, capital at \$5 per unit, and entrepreneurship at \$10 per unit, and if the amounts of the resources required by the three methods of producing 100 units of product X are indicated in the table, answer the following questions.

Resource	Method		
	1	2	3
Labor	8	13	10
Land	4	3	3
Capital	4	2	4
Entrepreneurship	1	1	1

- Which method is the least expensive way of producing 100 units of X? _____
- If X sells for 70 cents per unit, what is the economic profit of the firm? \$ _____
- If the price of labor should rise from \$2 to \$3 per unit and if the price of X is 70 cents,
 - the firm's use of labor would change from _____ to _____
 - land would change from _____ to _____
 - capital would change from _____ to _____
 - entrepreneurship would not change
- the firm's economic profit would change from \$ _____ to \$ _____

■ SHORT ANSWER AND ESSAY QUESTIONS

- Explain the major characteristics — institutions and assumptions — embodied in a market system.
- What do each of the following seek if they pursue their own self-interest: consumers, resource owners, and business firms?
 - Explain what economists mean by competition. For a market to be competitive, why is it important that there be buyers and sellers and easy entry and exit?
 - What are the advantages of indirect or roundabout production?
 - How does an economy benefit from specialization and the division of labor?
 - Give an example of how specialization can benefit two separate and diversely endowed geographic regions.
 - What is money? What important function does it perform? Explain how money performs this function and how it overcomes the disadvantages associated with barter.
 - For an item to be useful as money, what is its necessary major characteristic? Can you think of other characteristics that might be favorable?
 - What are the Four Fundamental Questions?
- In what way do the desires of entrepreneurs to obtain economic profits and avoid losses make consumer sovereignty effective?
- Why is the ability of firms to enter industries that are prosperous important to the effective functioning of competition?
- Explain in detail how an increase in the consumer demand for a product will result in more of the product being produced and more resources being allocated to its production.
- To what extent are firms "free" to produce what they wish by methods that they choose? Do resource owners have freedom to use their resources as they wish?
- How can the market system adapt to change? How is it done?
- What is the guiding function of price? Explain how it works.
- Explain how the market system provides a strong incentive for technological advance.
- What is "creative destruction"? Give some examples of it.
- Households use the dollars obtained by selling resource services to "vote" for the production of consumer goods and services. Who "votes" for the production of capital goods, why do they "vote" for capital goods production, and where do they obtain the dollars needed to cast these "votes"?

19. An “invisible hand operates to identify private and public interests.” What are private interests and what is the public interest? What is it that leads the economy to operate as if it were directed by an invisible hand?

20. Describe three virtues of the market system.