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***Essentials of Economics 3e***  
**Chapter 2**

**The Market System and the Circular Flow**

**QUESTIONS**

**Question 1**

Contrast how a market system and a command economy try to cope with economic scarcity.

**Answer**

A market system allows for the private ownership of resources and coordinates economic activity through market prices. Participants act in their own self-interest and seek to maximize satisfaction or profit through their own decisions regarding consumption or production. Goods and services are produced and resources are supplied by whoever is willing to do so. The result is competition and widely dispersed economic power.

The command economy is characterized by public ownership of nearly all property resources and economic decisions are made through central planning. The planning board, appointed by the government, determines production goals for each enterprise. The division of output between capital and consumer goods is centrally decided based on the board's long-term priorities.

**Question 2**

How does self-interest help achieve society's economic goals? Why is there such a wide variety of desired goods and services in a market system? In what way are entrepreneurs and businesses at the helm of the economy but commanded by consumers?

**Answer**

The motive of self-interest gives direction and consistency to the economy. The primary driving force of the market system is self-interest. Entrepreneurs try to maximize their profits; property owners want the highest price for their resources; workers choose the job with the best wages, fringe benefits, and working conditions. Consumers apportion their expenditures to maximize their utility while seeking the lowest possible prices. As individuals express their free choice, the economy is directed to produce the most-wanted goods at the lowest possible cost.

Each individual consumer will choose a variety of goods and services that in combination will maximize his/her satisfaction (utility). There are a wide variety because individual wants are diverse. To maximize profits, producers must respond to the desires of the individual consumer.

Although producers are free to choose what products they will produce, if the producers are to maximize profits, these goods and services must be what consumers desire. Entrepreneurs can drive the economic ship where they want (at least for a while), but the ship will run aground (businesses will fail) if entrepreneurs at the helm don't listen to the consumers that command them.

### **Question 3**

Why is private property, and the protection of property rights, so critical to the success of the market system? How do property rights encourage cooperation?

#### **Answer**

The ownership of private property and the protection of property rights encourages investment, innovation, and, therefore, economic growth. Property rights encourage the maintaining of the property and they facilitate the exchange of the property. However, the most important consequence of property rights is that they encourage people to cooperate by helping to ensure that only mutually agreeable economic transactions take place.

### **Question 4**

What are the advantages of using capital in the production process? What is meant by the term "division of labor"? What are the advantages of specialization in the use of human and material resources? Explain why exchange is the necessary consequence of specialization.

#### **Answer**

Capital goods enable producers to operate more efficiently and to produce more output.

"Division of labor" means that workers perform those tasks that are best suited to their individual abilities and skills.

The advantages of specialization for workers are that they can choose work according to their natural aptitudes, have the opportunity to perfect those skills, and save time in not having to shift continually from one task to another. Material resources will be developed and adapted for a specific use. On a regional basis, each region will produce those products for which it is best suited. By specializing in its comparative advantage, each region or set of human and material resources is being used to maximize efficiency.

When resources are specialized, they are no longer self-sufficient. To obtain the goods and services one needs, exchange is necessary. Also, specialization will result in a surplus of a specific good being produced. The surplus of one good will be exchanged for the surplus production of other goods.

### **Question 5**

What problem does barter entail? Indicate the economic significance of money as a medium of exchange. What is meant by the statement “We want money only to part with it”?

### **Answer**

Barter requires the “double coincidence of wants.” If someone wants something, he/she will have to find someone who wishes to part with that good and at the same time wishes to exchange the good for something that the first party wishes to part with.

With money as a medium of exchange, one knows the purchase price of the item to be purchased and its relative price to other items. Money is a very convenient common denominator, a common measure of value that is also used as a medium of exchange. Money also encourages specialization. Without money, workers and other resources could not be paid except in the output produced. All those who participated in the production of the good would have to collectively exchange it for all the goods and service desired by the resource owners.

Money itself has value only in relation to the resources, goods, and services that can be obtained with it. When people say that they want money, they really mean that they want the things that money can buy. In this sense, money imparts value only when someone parts with it.

### Question 6

Evaluate and explain the following statements:

- a. The market system is a profit-and-loss system.
- b. Competition is the disciplinarian of the market economy.

### Answer

**a.** The quotation is accurate. In a market system, producer decisions are motivated by the attempt to earn profits. Those products that enable a firm to earn at least a normal profit (minimum compensation for the entrepreneur for his/her time and talents) will be produced. If the product cannot be produced for a profit—in other words, if losses are involved in production—the capitalist firm will respond by seeking lower-cost production methods and may halt the production of goods completely. Because profits and/or losses are the motivation behind the fundamental decisions made in a market system, it could be called a “profit and loss economy.”

**b.** Competition provides discipline in two ways. First, it forces firms to seek the least-cost production methods or face being driven out of business by their rivals. Second, it prevents successful producers from charging whatever the market will bear. Competition keeps prices at a level where total revenue will just cover the total cost of production including a normal profit, but no more in the long run. If sellers try to charge a price that will earn them economic profits, new firms will enter the industry, increasing supply, and lowering prices until the economic profits are eliminated. Competition is indispensable in this role because otherwise some other method would have to be found to direct firms to use the least-cost production technique and to charge a price that provides only a normal return. Where competition does not exist, such as in natural monopolies like public utility companies, regulators or publicly owned companies must assume the role of disciplinarian. Experience has shown that this is a difficult process and does not achieve the same results as easily as a competitive market situation.

### Question 7

In the 1990s thousands of “dot-com” companies emerged with great fanfare to take advantage of the Internet and new information technologies. A few, like Google, eBay, and Amazon, have generally thrived and prospered, but many others struggled and eventually failed. Explain these varied outcomes in terms of how the market system answers the question “What goods and services will be produced?”

**Answer**

The expectation of economic profits lured many new firms into the “dot-com” industries. However, because of a lack of information and a market unable to sustain so many firms, many failed to realize even a normal profit and failed. [Technically, many of the early dot-coms were not earning economic profits, but their shareholders were reaping huge windfalls from the stock market speculation.] When these new firms found that they could not profitably produce in this industry, they dropped out and the industry declined. The problem was not so much one of consumer sovereignty—consumers demonstrated an interest in these services. The heavy competition of so many firms trying to establish themselves in the market led to prices that were insufficient to cover economic costs. In a few cases, most notably Napster (an Internet company that allowed users to download music at little or no cost), government restrictions on activities (copyright infringement in Napster’s case) led to firm failure (at least for a time).

**Question 8**

Some large hardware stores such as Home Depot boast of carrying as many as 20,000 different products in each store. What motivated the producers of those individual products to make them and offer them for sale? How did the producers decide on the best combinations of resources to use? Who made those resources available, and why? Who decides whether these particular hardware products should continue to be produced and offered for sale?

**Answer**

The quest for profit led firms to produce these goods. Producers looked for and found the least-cost combination of resources in producing their output. Resource suppliers, seeking income, made these resources available. Consumers, through their dollar votes, ultimately decide on what will continue to be produced.

**Question 9**

What is meant by the term “creative destruction”? How does the emergence of MP3 (or iPod) technology relate to this idea?

**Answer**

Creative destruction refers to the process by which the creation of new products and production techniques destroys the market positions of firms committed to producing only existing products or using outdated methods. The ability to download and store a large number of songs and the superior quality of MP3 are causing a decline in the CD industry, just as CDs once replaced cassette tapes, which had previously replaced phonographs (records).

**Question 10**

In a sentence, describe the meaning of the phrase “invisible hand.”

**Answer**

Market prices act as an “invisible hand,” coordinating an economy by rationing what is scarce, and providing incentives to produce the most desired goods and services.

**Question 11**

Distinguish between the resource market and the product market in the circular flow model. In what way are businesses and households both sellers and buyers in this model? What are the flows in the circular flow model?

**Answer**

The resource markets are where the owners of the resources (the households) sell their resources to the buyers of the resources (businesses). In the product markets, businesses sell the goods and services they have produced to the buyers of the goods and services, the households.

Households (individuals) either own all economic resources directly or own them indirectly through their ownership of business corporations. These households are willing to sell their resources to businesses because attractive prices draw them into specific resource markets. Businesses buy resources because they are necessary for producing goods and services. The interaction of the buyers and sellers establishes the price of each resource.

In the product market, businesses are the sellers and householders are the buyers; their role in the market has been reversed. Each group of economic units both buys and sells.

**Question 12**

What are the three major legal forms of business enterprises? Which form is the most prevalent in terms of numbers? Which form is dominant in terms of total sales revenues?

**Answer**

The three legal forms of business organizations are sole proprietorship, partnership, and corporation. Proprietorships are the most prevalent (72 percent). They are easy to start (relatively low cost), often don't require a large customer base to be profitable, and provide maximum freedom for the proprietor to do what she/he thinks best.

Corporations are dominant in terms of total sales revenues (84 percent). They can access large amounts of money by issuing stocks and bonds; their limited liability is attractive to potential owners; their size and broader ownership base help ensure continuity that helps to build a large customer base and gain cost advantages (a preview for economies of scale).

**Question 13**

What are the major forms of household income? Contrast the wage and salary share to the profit share in terms of relative size. Distinguish between a durable consumer good and a nondurable consumer good. How does the combined spending on both types of consumer goods compare to the spending on services?

**Answer**

The major forms of household income, from largest to smallest, are wages and salaries (71 percent), corporate profits (14 percent), proprietors' income (9 percent), interest income (5 percent), and rents (1 percent). Wages and salaries generate three times more income than profits (corporate and noncorporate profits combined).

Durable goods (cars, appliances, personal computers) are expected to live three years or longer. Nondurables (food, clothing, gasoline) are expected to last less than three years. Combined spending on goods is less than total spending on services (60 percent of consumer expenditures).

## PROBLEMS

### Problem 1

Suppose Natasha currently makes \$50,000 per year working as a manager at a cable TV company. She then develops two possible entrepreneurial business opportunities. In one, she will quit her job to start an organic soap company. In the other, she will try to develop an Internet-based competitor to the local cable company. For the soap-making opportunity, she anticipates annual revenue of \$465,000 and costs for the necessary land, labor, and capital of \$395,000 per year. For the Internet opportunity, she anticipates costs for land, labor, and capital of \$3,250,000 per year as compared to revenues of \$3,275,000 per year. (a) Should she quit her current job to become an entrepreneur? (b) If she does quit her current job, which opportunity would she pursue?

### Answer

Natasha should quit her job only if the net revenue from the entrepreneurial business opportunity exceeds that of her current wage (net revenue equals revenue minus cost. This could also be defined as accounting profit).

For example, consider the following values. Suppose Natasha currently makes \$50,000 per year working as a manager at a cable TV company. She then develops two possible entrepreneurial business opportunities. In one, she will quit her job to start a hand-made soap company. In the other, she will try to develop an Internet-based competitor to the cable company. For the soap-making opportunity, she anticipates annual revenue of \$465,000 and costs for the necessary land, labor, and capital of \$395,000 per year. For the WiFi opportunity, she anticipates costs for land, labor, and capital of \$3,250,000 per year as compared to revenues of \$3,275,000 per year.

Net revenue from the hand-made soap company equals \$465,000 (revenue) minus \$395,000 (cost). This net revenue of \$70,000 ( $= \$465,000 - \$395,000$ ) exceeds Natasha's current wage of \$50,000; thus, she should develop this company instead of working for the TV company.

The net revenue from the WiFi company equals \$3,275,000 (revenue) minus \$3,250,000 (cost). This net revenue of \$25,000 ( $= \$3,275,000 - \$3,250,000$ ) is less than Natasha's current wage of \$50,000; thus, she should not develop this company and should continue working for the TV company.

In summary, Natasha should quit her job and start the hand-made soap company.



## **Problem 2**

With current technology, suppose a firm is producing 400 loaves of banana bread daily. Also assume that the least-cost combination of resources in producing those loaves is 5 units of labor, 7 units of land, 2 units of capital, and 1 unit of entrepreneurial ability, selling at prices of \$40, \$60, \$60, and \$20, respectively. If the firm can sell these 400 loaves at \$2 per unit, what is its total revenue? Its total cost? Its profit or loss? Will it continue to produce banana bread? If this firm's situation is typical for the other makers of banana bread, will resources flow toward or away from this bakery good?

## **Answer**

Consider the following example. A firm is producing 400 loaves of banana bread daily. The least-cost combination of resources in producing those loaves is 5 units of labor, 7 units of land, 2 units of capital, and 1 unit of entrepreneurial ability, selling at prices of \$40, \$60, \$60, and \$20, respectively. The firm can sell these 400 loaves at \$2 per unit.

To calculate total profit, multiply the selling price by the number of units sold. For our example, total revenue equals \$2 (price) multiplied by 400 (loaves of bread sold). So, total revenue equals \$800 ( $= \$2 \times 400$ ).

To calculate total cost, multiply each input usage (number of units employed) by the price of the input and then add these values together. Total cost equals  $5 \times \$40$  (cost of labor) +  $7 \times \$60$  (cost of land) +  $2 \times \$60$  (cost of capital) +  $1 \times \$20$  (cost of entrepreneurial ability) = \$760.

The profit for this firm equals total revenue minus total cost. Here, profit equals \$800 (total revenue) minus \$760 (total cost) = \$40. If total cost happened to be greater than total revenue, this firm would have a loss.

Since the firm in our example is earning positive economic profit, it will continue to produce banana bread. However, if the firm were losing money (suffering a loss because total cost exceeds total revenue), the firm would stop producing banana bread.

Since the firm (again in our example) is earning positive economic profit, other firms or individuals will want to produce banana bread. Thus, resources will flow toward this bakery good. If the firm had been suffering from an economic loss, then resources would flow away from this bakery good as firms or individuals exited the market to avoid the loss.

**Problem 3**

Let's put dollar amounts on the flows in the circular flow diagram of Figure 2.2.

- a. Suppose that businesses buy a total of \$100 billion of the four resources (labor, land, capital, and entrepreneurial ability) from households. If households receive \$60 billion in wages, \$10 billion in rent, and \$20 billion in interest, how much are households paid for providing entrepreneurial ability?
- b. If households spend \$55 billion on goods and \$45 billion on services, how much in revenues do businesses receive in the product market?

**Answer**

- a. \$10 billion for entrepreneurial ability ( $= \$100 \text{ billion in total factor payments} - \$60 \text{ billion in wages} - \$10 \text{ billion in rent} - \$20 \text{ billion in interest}$ ).
- b. \$100 billion ( $= \$45 \text{ billion} + \$55 \text{ billion}$ ) because household expenditures equal business revenues.