

***Essentials of Economics 4th edition Brue Solutions
Manual***

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Brue, McConnell, Flynn
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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 ($= \2×400).

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 billion) because household expenditures equal business revenues.

CHAPTER TWO

THE MARKET SYSTEM AND THE CIRCULAR FLOW

CHAPTER OVERVIEW

This chapter begins with a brief comparison of command and market systems, followed by a more detailed description of the characteristics of a market system: private property, freedom of enterprise and choice, the role of self-interest, competition, markets and prices, the reliance on technology and capital goods, specialization, use of money, and the active, but limited, role of government. The authors then introduce the Four Fundamental Questions faced by every economy, and explain how a market economy answers each one. Adam Smith's "invisible hand" is discussed, followed by an explanation as to why command systems have struggled to answer the Four Fundamental Questions in recent years. The chapter concludes by introducing the circular flow model, a graphical representation of a market economy.

WHAT'S NEW

- At the beginning of each chapter, the learning objectives have been modified to reflect tasks students should be able to complete.
- A short discussion about property rights and mutually agreeable transactions has been added.
- "Competition" and "Markets and Prices" sections have been shortened.
- The "Applying the Analysis" box called "McHits and McMisses" includes three more items introduced by McDonald's.
- The discussion of competition on a firm's profit, prices, and costs has been expanded.
- An updated example of consumer sovereignty has been included.
- "Resource Market" and "Products Market" sections have been deleted and in their place is information about households, businesses, and a shorter discussion of the products and resource markets.
- The data on business and household sectors in the United States has been updated.
- Global data has been updated.
- The following have been added at the end of the chapter to "Terms and Concepts": households, businesses, sole proprietor, partnership, and corporation.

LEARNING OBJECTIVES

After reading this chapter, students should be able to:

1. Differentiate between a command system and a market system (LO 2-1)
2. List main characteristics of the market system (LO 2-2)
3. Explain how the market system answers the four fundamental questions (LO 2-3)
4. Discuss how the market system adjusts to change and promotes progress (LO 2-4)
5. Describe the mechanics of the circular flow model. (LO 2-5)

COMMENTS AND TEACHING SUGGESTIONS

1. A surprising number of students do not really understand the characteristics of the market system (American or otherwise). Many students have no idea how prices are set and even after the chapter on supply and demand may still believe that most prices are determined by an external government agency or by producers arbitrarily.
2. In discussing the importance of private property, you may want to use the following Concept Illustration.

Concept Illustration—The “Berry Bikes” and Private Property

The following excerpt illustrates the importance of personal property rights to the “care and maintenance” of property. Where no such rights exist, property tends to get overused and abused.

The “Berry Bikes”: A Lesson in Private Property¹

Berry College is a private college located on a large campus adjacent to Rome, Georgia. In March 1998, the Berry College Student Government Association (SGA) used student activity funds to purchase 20 bicycles for student use on campus.

The bright red bicycles, each with an identifying plate reading, “Berry Bike,” were available to all students on a “first-come, first-served basis,” making them a common property resource. The rationale for spending student fees was that the distance between some buildings on campus made getting to class on time difficult. Several factors would seem to favor the plan. The campus is relatively self-contained; it is unlikely that townspeople would enter college property to use the bikes or that students would ride them off campus where they would be abandoned, lost, or stolen.

Moreover, the student body is relatively small. Anyone who abused a bicycle could be readily identified, and the students harmed by having bicycles mistreated would not be strangers. These factors would presumably deter would-be vandals.

Unfortunately, the results of the Berry bike project were dismal. It took little time for the misuse of the bicycles to become evident. Writing in the April 2, 1998, *Campus Carrier*, student Liz Hill reported that “Chains have been broken, tires punctured, handlebars bent, and seats torn” after “only a couple of weeks.” Recognizing the underlying cause of mistreatment, Hill implored students to “treat the bikes as if they were your own property.” Evidently, her column spurred little change.

On April 21, SGA President M. Lynsey Morris e-mailed all students that “It has come to our attention here in the SGA office that many students are failing to take care of the Berry Bikes. . . . These bicycles are top quality and should not be bending and breaking the way they are. The [SGA] officers and other students have seen many people riding the bikes at absurd speeds, doing tricks, and just abusing the bicycles in general.” She too requested that students “treat [the bikes] as you would your personal property.” Morris’s appeal [also] apparently met with little success; a survey at the end of the semester revealed that four of the 20 bikes were lost or stolen and 11 were in a state of disrepair.

Undeterred, the SGA had the bicycles repaired over the summer recess and resumed the program in the fall. It soon became apparent that the abuse would continue. The September 10 *Campus Carrier* editorialized about “mangled corpses of twisted red metal that lie about campus” and concluded that “Perhaps SGA put too much trust in human nature and Berry students’ respect for property.” Was that the problem? Or was it that the SGA did not understand the role of incentives? Only a month into the new semester, the SGA suspended the program with the intention of leasing the remaining bicycles to students on a semester-by-semester basis, thereby alleviating the problems associated with common-property resources.

¹ This anecdote is abridged from Daniel L. Alban and E. Frank Stephenson, “The ‘Berry Bikes’: A Lesson in Private Property,” *The Freeman*, October 1999, pp. 8–9. Reprinted with permission.

3. If you haven't already talked about Adam Smith and his role in economics, this may be a good time to introduce the "father of economics." His emphasis on the role of self-interest in motivating economic activity is especially relevant here. You might place copies of the *Wealth of Nations* on reserve at the library to encourage students to sample the original work. You could use short excerpts as the basis for discussion or essays. "Adam Smith and the Wealth of Nations," a 28-minute video/film, is an excellent supplement. Check with your Federal Reserve District Bank's public information office or your nearest Center for Economic Education for availability.
4. When discussing the role of markets, remember that students have not yet been introduced to supply and demand. You might tell the story as follows: "Markets coordinate economic activity and changes in prices (products and resources) signal that changes have occurred within particular markets. Suppose that Mabel sells canned fruits and knitted scarves at the local Saturday market, and that they are equally profitable for Mabel. Now suppose that word spreads among the regular customers at the market that Mabel's canned fruits are the best around. As a result, consumers choose to spend more of their income (assumed to be held constant) on Mabel's canned fruits. This increase in demand encourages Mabel to raise the price, earning her greater profits for her canned fruits. Because her canned fruits are now more profitable than scarves, she decides to increase canned fruit production and reduce scarf production. In resource markets, this will cause the demand for fruit and canning equipment to also rise, and the demand for knitting material to fall. The market allocation of resources has changed in response to consumer action and producer reaction to the changes in demand; no government intervention was needed to accomplish what consumers wanted. This is an example of the 'invisible hand' in action."
5. This is a good time to reintroduce the concept of goods for the future from Chapter 1. In discussing the importance of producing goods for the future for the market system, remind the students of the impact upon the production of consumption goods in the present.
6. In discussing the use of money, the following Concept Illustration may be useful.

Concept Illustration

Imagine a worker producing alternators for automobiles. At the end of the week, instead of receiving a piece of paper signed by the company, or a few pieces of paper engraved in green and black, the worker's pay consists of ten alternators. With no desire to hoard alternators, the worker ventures into the business district to spend this income on groceries, clothing, and a movie.

Obviously, the worker is faced with some inconvenient and time-consuming trading, and may not be able to negotiate any exchanges at all. Finding an owner of a clothing store who needs an alternator can be a formidable task. And if the clothing does not trade evenly for the alternators, how do the parties "make change"?

It is fair to say that money is one of the great social inventions of civilization.

7. The four fundamental questions must be answered by all types of economic systems. Although the emphasis of this chapter is on the American market system, recent economic changes in Russia and China and areas of the developing world can be discussed to illustrate how different types of economics answer these questions differently. Students tend to be fascinated with the contrasts between the former Soviet and American systems; the contrasts seem to make students more aware of aspects of capitalism that may have been taken for granted. In any case, the instructor may want to supplement the chapter by assigning students to find current news items on the economies of the

transitional economic systems of the former Eastern bloc countries. This helps to point out that the economizing problem and four fundamental questions are common to all societies, not just to capitalist systems.

8. The “Applying the Analysis” piece on McDonald’s product innovations that have thrived or failed is an effective way to reinforce consumer sovereignty and its importance to the question of “What will be produced?”
9. Some may challenge the notion of consumer sovereignty, arguing that sellers manipulate the dollar votes through advertising. You may want to take the opportunity to tell students that preferences can be influenced by many factors, including information, genetics, and social circumstances.
10. When discussing the first two of the fundamental questions, ask who in the market economy are most responsible for answering each of the questions. Explain that the “Who will get the goods and services?” question is an income distribution question and is determined by the distribution and productivity of the resources and the demand for the resources. Discuss how differing demand and supply conditions in the market for fast food workers and computer system workers determine the differences in the workers’ wages and incomes. Alternatively, come back to this question after the students have learned more about supply and demand in Chapter 3.
11. The circular flow diagram provides a very useful overview of the market system because it clarifies the interaction between product and resource markets. Follow each of the streams starting with the households, owners of the factors of production, providing the resource services to businesses. The role of business is to combine the inputs and to produce output that then moves through the product markets to the households. The student can then be asked: “Why do they work?” The answer is: to receive a portion of what they have helped to produce. The movement through the money stream starts with the households receiving money income that gives them the ability to purchase goods and services from the product markets. It can be shown that those same dollars are given different names as they move through the economy, i.e., money income becomes consumption expenditures and then business revenue followed by the costs of production, and finally money income again. Also, there can be a discussion about what happens in an economy if one part of the two streams does not function, such as in Russia. The circular flow diagram provides a visual perspective that helps many students.

STUDENT STUMBLING BLOCKS

1. Given the treatment in the chapter and preexisting biases, students may wonder how it is that command economies lasted as long as they did and/or how it is that people would choose to live under such an ineffective system for so long. Without belaboring the point, it may be useful to point out to students that there are many factors that will influence what type of economic system a society chooses. Beyond the obvious political factors, there are underlying historical and cultural factors that might lead a society to choose one system over another. There are also areas in which command economies may be more effective, such as achieving a more equal distribution of income. For some, a more equal distribution of a smaller income is preferable to a less equal distribution of a greater income. This may be a good time to discuss normative versus positive economics.
2. If you extend the discussion of property rights, it may be useful to remind students that even in the most capitalistic system, private property rights are not unlimited. In discussing land use issues, some will argue, “If it’s my property, I can do whatever I want with it.” That is analogous to

claiming, “It’s my fist, I can swing it wherever I want.” In the public interest, government restricts the use of property, and all but the most extreme want some restriction on their neighbor’s use of property. For most the question isn’t really about whether such restrictions should exist, but rather how extensively government should be involved (versus the market).

3. When introducing businesses and households as the two groups of private decision makers in the circular flow model, you may want to also mention that governments also play a critical role in the product and resource markets. Although the government is not shown explicitly, it does collect taxes from both businesses and households, among other things. The government will be introduced in a later chapter. For now, reinforce to the students that the circular flow model is an economic model that simplifies the understanding of market activities and does not capture everything that can happen in the real world. However, it is a useful model to help visualize the flows between firms and consumers sans governments.

LECTURE NOTES

I. Economic Systems

- A. Economic systems differ in two important ways: who owns the factors of production and the method used to coordinate economic activity.
- B. Command economy, socialism or communism:
 1. There is public (state) ownership of resources.
 2. Economic activity is coordinated by central planning.
- C. The market system:
 1. There is private ownership of resources.
 2. Markets and prices coordinate and direct economic activity.
 3. Each participant acts in his or her own self-interest.
 4. In pure capitalism the government plays a very limited role (*laissez-faire*).
 5. In the U.S. version of capitalism, the government plays a substantial role.
- D. The Two Koreas in Global Snapshot 2.1 depicts a good example of command versus market economies and the economic outcomes of the two systems.

II. Characteristics of the Market System

- A. Private individuals and firms own most of the property (land and capital).
 1. Private property, coupled with the freedom to negotiate binding legal contracts, enables individuals and businesses to obtain, control, use, and dispose of this property.
 2. Private property rights spur mutually agreeable transactions.
 3. Private property rights encourage investment, innovation, exchange of assets, maintenance of property, and economic growth.
 4. Property rights extend to intellectual property through patents, copyrights, and trademarks.
- B. Freedom of enterprise and choice
 1. Freedom of enterprise means that entrepreneurs and businesses have the freedom to obtain and use resources, to produce products of their choice, and to sell these products in the markets of their choice.
 2. Freedom of choice means:
 - a. Owners of property and money resources can use resources as they choose.
 - b. Workers can choose the training, occupations, and job of their choice.
 - c. Consumers are free to spend their income in such a way as to best satisfy their wants (consumer sovereignty).
 3. Global Snapshot 2.2—Index of Economic Freedom
- C. Self-interest

1. Self-interest is one of the driving forces in a market system. Entrepreneurs try to maximize profits or minimize losses; resource suppliers try to maximize income; consumers maximize satisfaction.
 2. As each tries to maximize profits, income, and satisfaction, the economy will benefit if competition is present.
- D. Competition among buyers and sellers is a controlling mechanism.
1. Large numbers of independently acting sellers mean that no single producer or seller can control the price or market supply.
 2. Large number of independently acting buyers means that no single consumer or employer can control the price or market demand.
 3. Producers can enter or leave the industry easily in response to market conditions.
- E. Markets and prices
1. A market system conveys the decisions of the many buyers and sellers of the product and resource markets.
 2. A market is an institution or organizing mechanism that brings buyers and sellers into contact.
 3. Individual decisions by buyers and sellers in the market determine the product and resource prices that, in turn, guide further decisions by resource owners, producers, and consumers.
 4. Those who respond to the market signals will be rewarded with profits and income.
- F. Reliance on technology and capital goods
1. Competition, freedom of choice, self-interest, and the potential of profits provide the incentive for capital accumulation (investment).
 2. Advanced technology and capital goods use the more efficient roundabout method of technology.
- G. Specialization
1. Specialization is using resources to produce one or few goods or services, rather than the entire range. It is doing what one does relatively best, and buying the rest.
 2. Division of labor allows workers to specialize.
 - a. People can take advantage of differences in abilities and skills.
 - b. People with identical skills may still benefit from specialization and improving certain skills (learning by doing).
 - c. Specialization saves time involved in shifting from one task to another.
 3. Geographic specialization: Regional and international specialization take advantage of localized resources.
- H. Use of money as a medium of exchange
1. Money substitutes for barter, which requires a coincidence of wants. (I may want what you produce, but you may not want to exchange for what I have.)
 2. Willingness to accept money in place of goods permits three-way trades (or multilateral trades). See Figure 2.1 and examples in text.
 - a. Floridians give money to Nebraskans for wheat, who give money to Idahoans for potatoes, who give money to Florida for oranges.
 - b. Foreign exchange markets permit people living in other countries to complete international exchanges of goods and services.
- I. Active, but limited government
1. Although the market system promotes efficiency, it has certain shortcomings (overproduction of goods with social costs, underproduction of goods with social benefits, tendency for business to increase monopoly power, macro instability).

2. Chapter 5 deals with how the government can increase the overall effectiveness of the market system.

III. Four Fundamental Questions

- A. There are four fundamental questions that must be answered by all economic systems.
 1. What goods and services will be produced?
 2. How will the goods and services be produced?
 3. Who will get the goods and services?
 4. How will the system promote progress?
- B. What will be produced?
 1. In order to be profitable, businesses must respond to consumers' (individuals, other businesses, and the government) wants and desires.
 2. When businesses allocate resources in a way that is responsive, businesses will be profitable.
 3. In economics, the return to the entrepreneur is treated just like the return to the worker, i.e., it is an economic cost and must be received if the entrepreneur is going to continue to produce in that industry.
 4. If producers in an industry are receiving economic profits ($TR > TC$), additional producers will move into the industry.
 5. If producers in an industry are experiencing economic losses, some of these producers will exit the industry.
 6. Consumer sovereignty
 - a. Consumer sovereignty is the key to determining the types and quantities of the various products that will be produced. "Dollar votes" for a product when purchases are made and "dollar votes" against a product when products are ignored will determine which industries continue to exist and which individual products survive or fail.
 - b. **Applying the Analysis: McHits and McMisses**
In an effort to stimulate demand and respond to market trends and conditions, McDonald's has introduced a number of new menu items over the years. The success and failure of these new items illustrates the important role of the consumer in determining what will be produced.
 - c. Businesses are not really "free" to produce what they wish. They must match their production choices with consumer choices or face losses and eventual bankruptcy. Profit-seeking firms must consider the allocation of the "dollar votes" when they make their production decisions.
- C. How will the goods and services be produced?
 1. The market system encourages and rewards those producers who are achieving productive efficiency, i.e., least-cost production per unit.
 2. Firms wish to maximize profits and make great efforts to minimize production costs. Least-cost production techniques include locating firms in the optimum location considering resource prices, resource productivity, and transportation costs; available technology; and resource prices in general.
 3. The most efficient technique will be the one that produces a given amount of output with the smallest input of scarce resources when both inputs and outputs are measured in monetary terms.
 4. Competition intensifies the need for least-cost production and, eventually, eliminates high cost producers.
- D. Who will get the output?

1. The answer to this question is directly related to how the income is distributed among the individuals and the households and the tastes and preferences of consumers.
 2. Products go to those who are willing and able to pay for them.
 3. Consumers' ability to pay (income) depends on (1) the property and human resources they supply to the market and (2) the prices these resources command in the market.
 4. The resource markets, which determine income, are linked to this decision.
- E. How will the system promote progress?
1. The market system promotes technological improvements.
 - a. An entrepreneur or firm that introduces a popular new product will be rewarded with increased revenue and profits.
 - b. New technologies that reduce production costs, and thus product price, will spread throughout the industry as a result of competition.
 - c. Creative destruction occurs when new products and production methods destroy the market positions of firms that are not able or willing to adjust.
 2. Technological advancements promote accumulation of capital goods.
 - a. Dollar votes for consumer goods become dollar votes for capital goods as well.
 - b. Entrepreneurs use profits to "vote" for additional capital goods, and are further encouraged by technological advancements expected to make that capital more profitable.
- F. **Applying the Analysis: The "Invisible Hand"**
1. Adam Smith talked of the "invisible hand," which promotes public interest through a highly competitive market system where the primary motivation is self-interest. By attempting to maximize profits, firms will also be producing the goods and services most wanted by society.
 2. The "invisible hand" implies a harmony rather than a conflict of interests. The pursuit of individual self-interest, rather than opposing the public interest, supports it, though quite unintentionally.
- G. **Applying the Analysis: The Demise of the Command Systems**
1. Command economies in the Soviet Union, Eastern Europe, and prereform China failed to answer adequately the four fundamental questions.
 2. Command economies suffered from coordination problems.
 - a. Planners had to correctly coordinate the millions of consumer and business decisions to ensure that producers had the necessary inputs to deliver the right amount of goods to consumers.
 - b. The interdependency of production processes meant that failure in any industry would set off a chain reaction that would disrupt activity in many industries.
 - c. Increased size and complexity of an economic system exacerbates coordination problems.
 - d. The ambiguity of plan objectives led to output distortions.
 3. Command economies also suffered from incentive problems.
 - a. Producer rewards were based on meeting production goals; there was no incentive (in fact there was disincentive) to exceed plan goals.
 - b. There were no price signals to encourage changes in the mix of goods produced.
 - c. There were no rewards for entrepreneurial activity that could have spurred innovation and enterprise. Greater rewards were to be found through political advancement.
- IV. **The Circular Flow Model** (Figure 2.2)
- A. In the diagram, we group this economy's decision makers into businesses and households (no government yet). We group this economy's markets into the product market and the resource market.

1. The market system coordinates these decisions in a series of continuous, repetitive flows of goods and services, resources, and money.
 2. Households
 - a. One or more persons occupying a housing unit that provides resources to the economy and uses income received to purchase goods and services that satisfy economic wants.
 - b. All of the income in an economy (all wages, rents, interest, and profit) flow to households because they are the owners of land, labor, capital, and entrepreneurial ability.
 3. Businesses
 - a. Businesses are firms that purchase resources and provide goods and services to the economy.
 4. What happens in the resource markets?
 - a. Households sell resources directly or indirectly (through ownership of corporations).
 - b. Businesses buy resources in order to produce goods and services.
 - c. Flow of payments from businesses for the resources constitutes business costs and resource owners' incomes.
 - d. Resources flow from households to businesses; money flows from businesses to households.
 5. What happens in the product markets?
 - a. Households are on the buying side of these markets, purchasing goods and services.
 - b. Businesses are on the selling side of these markets, offering products for sale.
 - c. Sellers adjust their production based on what is profitable.
 - d. Flow of consumer expenditures constitutes sales receipts for businesses.
 - e. Products flow from businesses to households; money flows from households to businesses.
 6. Circular flow model illustrates this complex web of decision making and economic activity that give rise to the real and money flows.
- B. Applying the Analysis: Some Facts about U.S. Businesses**
1. The business sector is incredibly diverse, including both large corporations and single-person enterprises.
 2. There are three main legal business forms: sole proprietorships, partnerships, and corporations.
 - a. Sole proprietorships have a single owner, account for 72 percent of all U.S. firms, but receive only 4 percent of total revenue.
 - b. Partnerships are owned and operated by two or more individuals, account for 10 percent of all U.S. firms, and receive 14 percent of total revenue.
 - c. Corporations are legal entities owned by shareholders with limited liability, account for only 18 percent of all U.S. firms, but receive 82 percent of total revenue.
- C. Global Snapshot 2.3—The World's 10 Largest Corporations**
- D. Applying the Analysis: Some Facts about U.S. Households**
1. There are approximately 125 million households in the U.S. economy.
 2. Income is divided between wages, rent, interest, and profits (Figure 2.4a).
 - a. Wages and salaries are paid to workers (labor), and constitute 67.6 percent of total earned income in the United States.
 - b. Rental income is received for providing buildings and natural resources, and comprises about 4.6 percent of total earned income.
 - c. Interest income includes payments to bond holders and savings accounts, comprising around 3.7 percent of total earned income.

- d. Profit income consists of payments to both corporate and noncorporate businesses, and accounts for approximately 24.2 percent of total earned income.
 - i. Corporate shareholders receive their share of profits as dividends.
 - ii. Owners of unincorporated businesses receive proprietors' income, although it is often difficult to disentangle how much of the payment is for "labor" and how much is for "entrepreneurship."
- 3. Income is used to buy, save, and pay taxes.
 - a. Consumption spending is divided into three broad categories of goods and services: consumer durables, nondurables, and services (Figure 2.4b).
 - b. Consumer durables are goods expected to last three years or longer and represent 11 percent of consumer expenditures.
 - c. Nondurables, or goods expected to last less than three years, represent 22 percent of consumer expenditures.
 - d. 67 percent of consumer spending is on services; for this reason, the U.S. economy is known as a service-oriented economy.

QUIZ

1. Which statement best describes a command economy?
 - A. The production of goods and services is determined primarily by markets, but the allocation of goods and services is determined primarily by government.
 - B. The production of goods and services is determined primarily by government, but the allocation of goods and services is determined primarily by markets.
 - C. The production and allocation of goods and services is determined primarily through markets.
 - D. The production and allocation of goods and services is determined primarily through government.

Answer: D

2. Which statement is correct?
 - A. Freedom of choice and enterprise are essential elements of the market system.
 - B. Producers are "kings" in a market economy because they determine what is produced.
 - C. The market system is efficient at allocation of resources but not consumer goods to their most valued uses.
 - D. The operation of a market system eventually results in an equal distribution of income.

Answer: A

3. In a competitive economy, prices:
 - A. Influence consumers in their purchases of goods and services.
 - B. Influence businesses in their purchases of economic resources.
 - C. Influence workers in making occupational choices.
 - D. Do all of these.

Answer: D

4. The competitive market system:
 - A. Encourages innovation because government provides tax breaks and subsidies to those who develop new products or new productive techniques.
 - B. Discourages innovation because it is difficult to acquire additional capital in the form of new machinery and equipment.

- C. Discourages innovation because firms want to get all the profits possible from existing machinery and equipment.
 - D. Encourages innovation because successful innovators are rewarded with economic profits.
- Answer: D

5. Which is *not* one of the Four Fundamental Questions?
- A. How will the goods and services be produced?
 - B. How will the system promote progress?
 - C. Who is to receive the output of the system?
 - D. What goods and services should be produced by government?
- Answer: D

6. The idea that firms and resource suppliers in seeking to further their own self-interests in a competitive market economy also simultaneously promote the public or social interest is a description of:
- A. The guiding function of prices.
 - B. Capital accumulation.
 - C. The “invisible hand.”
 - D. “Dollar votes.”
- Answer: C

7. Which of the following is a limitation of the simple circular flow model?
- A. Product markets are ignored.
 - B. Resource markets are ignored.
 - C. The determination of product and resource prices is not explained.
 - D. Households are included, but not businesses.
- Answer: C

8. Households and businesses are:
- A. Both buyers in the resource market.
 - B. Both sellers in the product market.
 - C. Sellers in the resource and product markets respectively.
 - D. Sellers in the product and resource markets respectively.
- Answer: C

9. The influential book written by Adam Smith was:
- A. *The Worldly Philosophers*.
 - B. *The Wealth of Nations*.
 - C. *The Age of the Economist*.
 - D. *The Affluent Society*.
- Answer: B

10. The circular flow model:
- A. Assumes that central planning is taking place.
 - B. Illustrates how natural resources are created.
 - C. Illustrates how money is created by the banking system.
 - D. Illustrates the interdependence of businesses and consumers.
- Answer: D

Chapter 2

The Market System and the Circular Flow





Economic Systems

- Set of institutional arrangements
- Coordinating mechanism
- Differences in systems exist by:
 - *Who owns the factors of production*
 - *What method is used to motivate, coordinate, and direct economic activity*



The Command System

- Known as socialism or communism
- Government ownership
- Decisions made by a central planning board
- North Korea and Cuba are last remaining examples of large centrally planned economies



Global Snapshot

The Two Koreas

	North Korea	South Korea
GDP	\$40 billion*	\$1.6 trillion*
GDP per capita	\$1800*	\$35,700*
Exports	\$4.4 billion	\$638 billion
Imports	\$5.6 billion	\$524.1 billion
Agriculture as % of GDP	37 percent	2.3 percent



The Market System

- Known as capitalism
- Private ownership of resources
- Decisions based on markets
- Varied role of government



Characteristics of the Market System

- Private property
- Freedom of enterprise and choice
- Self-interest
- Competition
- Markets and prices



The Market System (continued)

FREE

1 Hong Kong

3 New Zealand

5 Switzerland

MOSTLY FREE

12 United States

20 Japan

28 Colombia

MOSTLY UNFREE

117 Brazil

128 India

143 Russia

REPRESSED

169 Argentina

171 Iran

178 North Korea

02-07

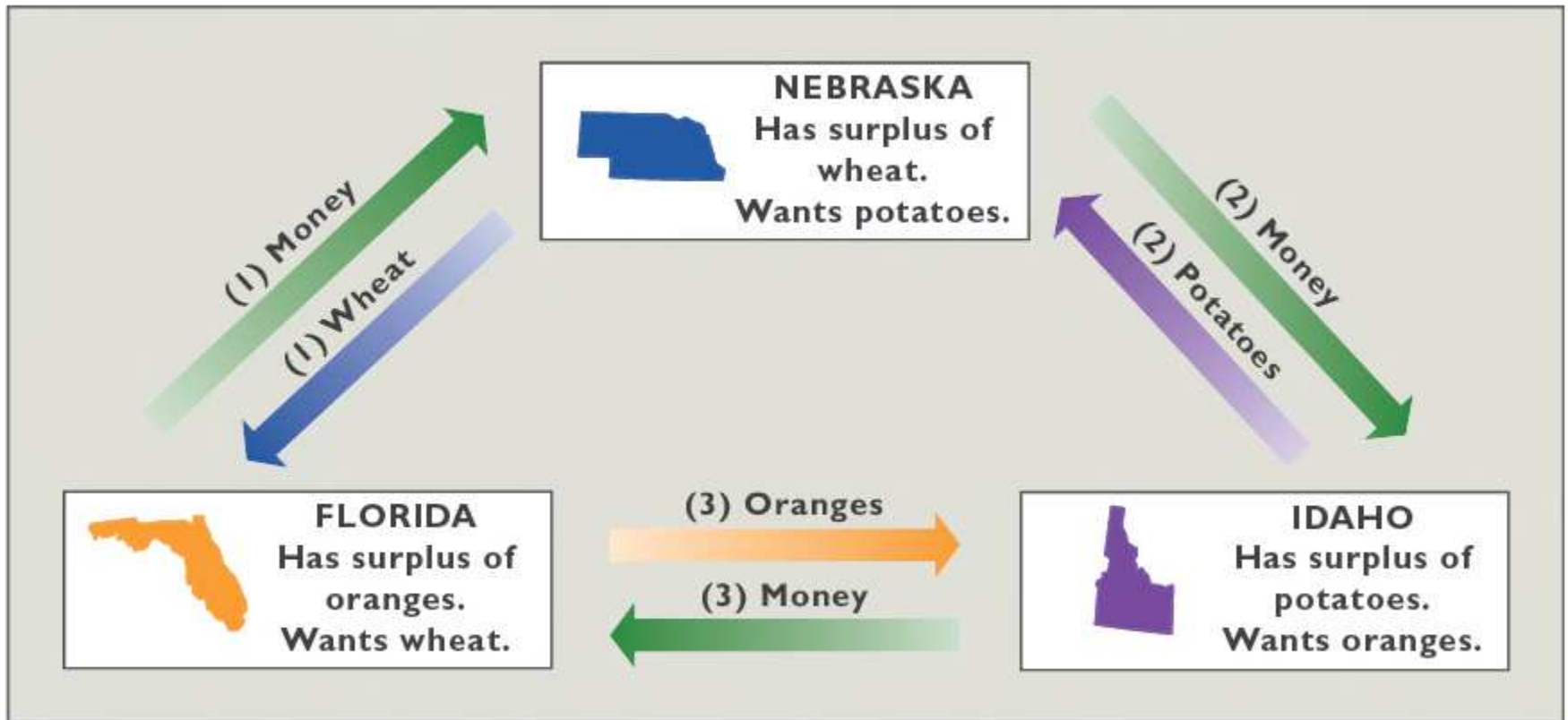


Technology and Capital Goods

- Advanced technology and capital goods are encouraged
- Specialization
 - *Division of labor*
 - *Geographic specialization*

Use of Money

- Makes trade easier



02-09



Active, but Limited Government

- Government may be needed to alleviate market failures
- Government can increase effectiveness of a market system



The Four Fundamental Questions

- What goods and services will be produced?
- How will the goods and services be produced?
- Who will get the goods and services?
- How will the system promote progress?



What Will Be Produced?

- Goods and services that create a profit
- “Dollar votes”
 - *Method for consumers to determine which goods will be produced*
 - *Determines which products and industries survive or fail*



How Will the Goods Be Produced?

- Minimize the cost per unit by using the most efficient techniques
 - *Technology*
 - *Prices of the necessary resources*



Who Will Get the Output?

- Consumers with the ability and willingness to pay will get the product
- Ability to pay depends on income



How Will the System Promote Progress?

- Technological advance
 - *Creative destruction*
- Capital accumulation



Invisible Hand

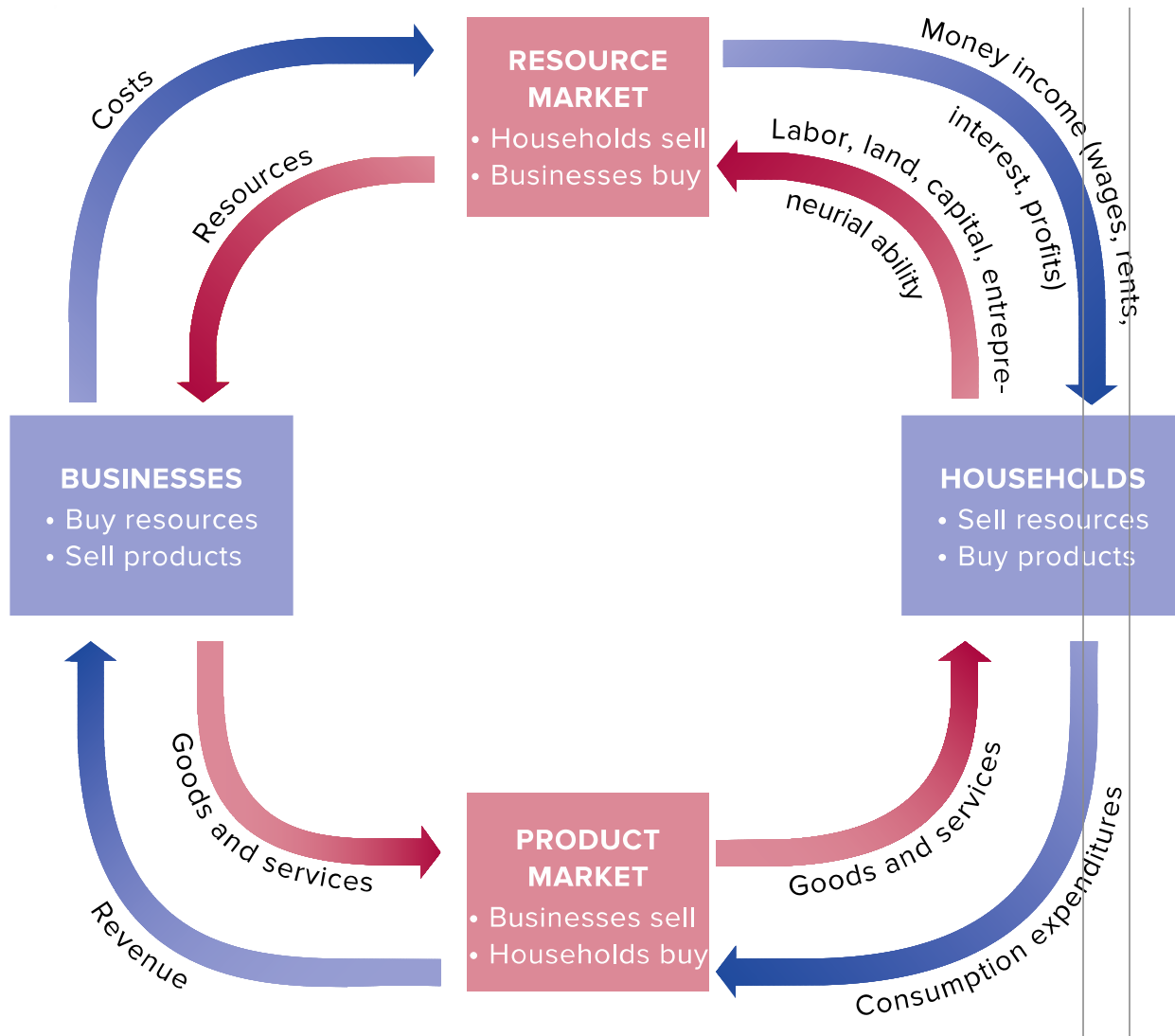
- 1776 *Wealth of Nations* by Adam Smith
 - *Unity of private and social interest*
- Virtues of the market system
 - *Efficiency*
 - *Incentives*
 - *Freedom*



Demise of Command Systems

- Soviet Union, Eastern Europe, and China
- System was a failure
- The coordination problem
 - *Set output targets for all goods*
- The incentive problem
 - *No adjustments for surplus or shortage*

The Circular Flow System

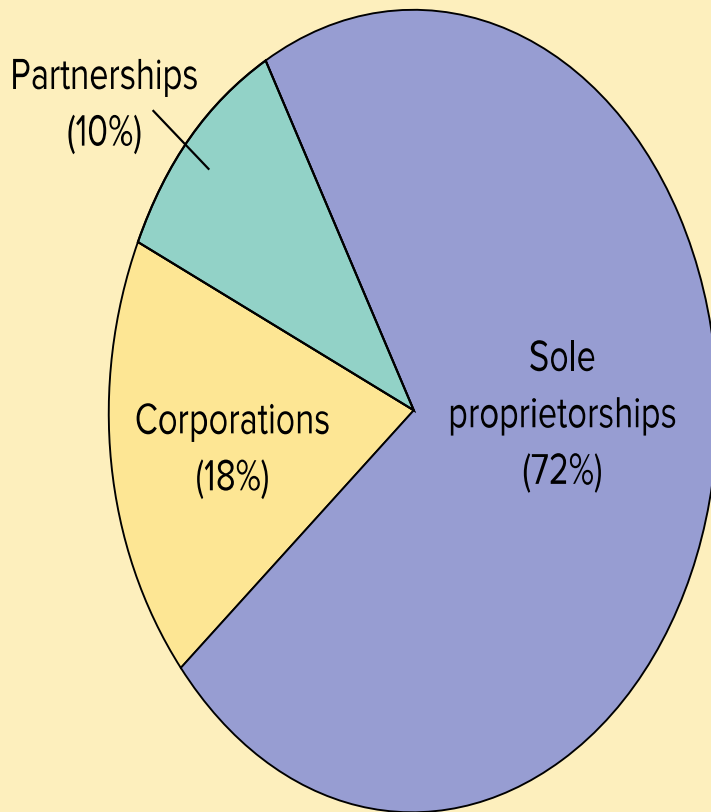




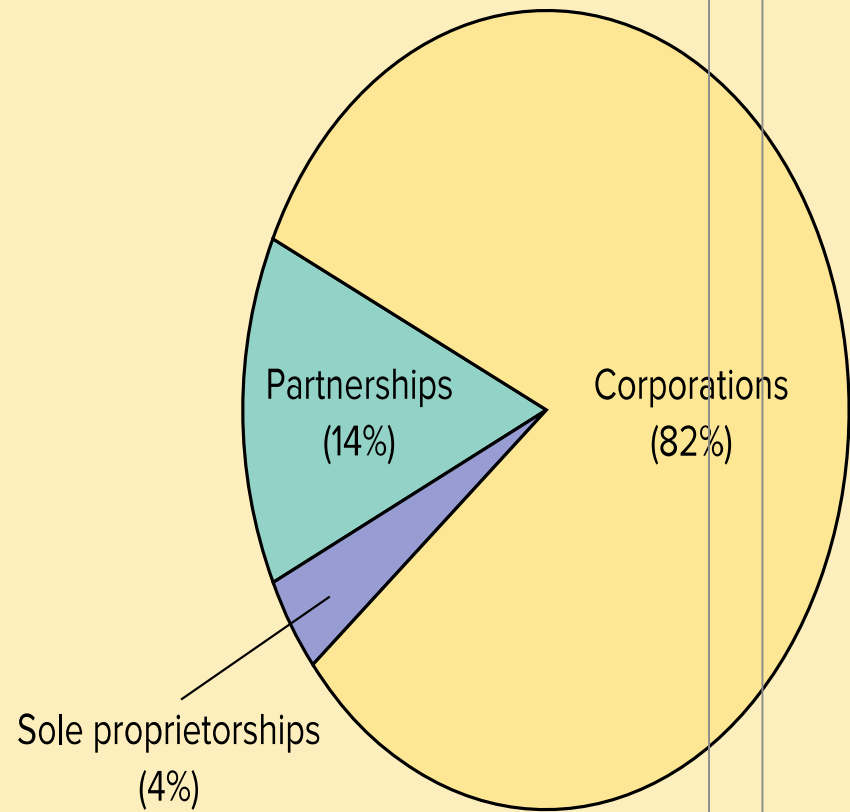
Businesses

- Three main categories of businesses:
 - *Sole proprietorship*
 - *Partnership*
 - *Corporation*

Businesses



(a)
Percentage of firms



(b)
Percentage of sales revenue



The World's 10 Largest Corporations

Walmart (USA) \$482 billion

State Grid (China) \$330 billion

China National Petroleum (China) \$299 billion

Sinopec (China) \$294 billion

Royal Dutch Shell (Netherlands) \$272 billion

ExxonMobil (USA) \$355 billion

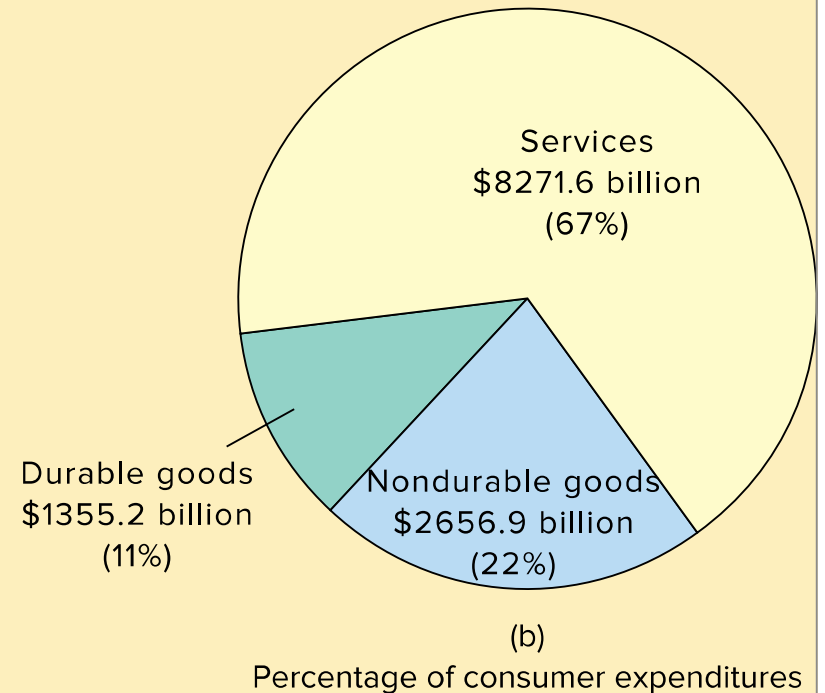
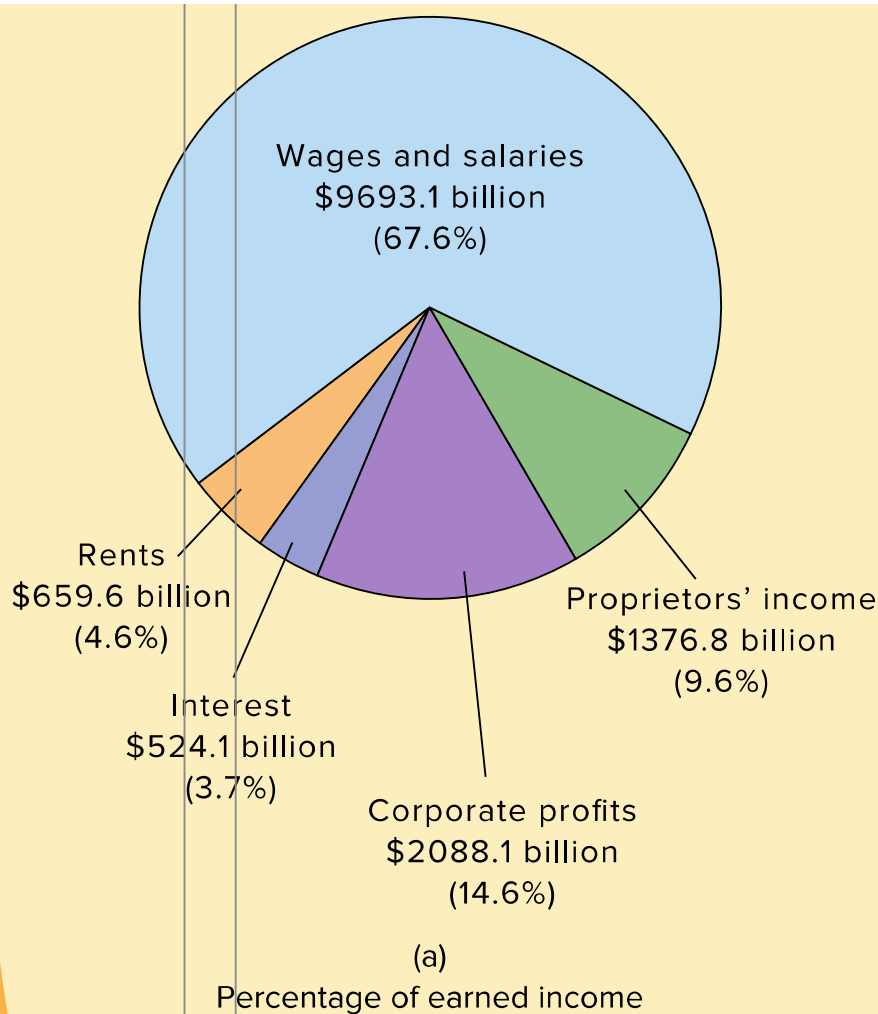
Volkswagen (Germany) \$237 billion

Toyota Motor (Japan) \$237 billion

Apple (USA) \$234 billion

BP (Britain) \$226 billion

U.S. Households





Household Incomes & Expenditures

- Ultimate suppliers of resources
 - *Income from wages, rents, interest and profits*
- Major spenders in the economy
- Durable Goods
 - Expected lives of 3 years or longer
- Nondurable Goods
- Services