The Basics

When thinking of economics, you should be aware of one simple synonym—choices. **Economics** is a social science involving the study of choices and what necessitates those choices. **Macroeconomics** is the branch of economics that examines the behavior of the whole economy at once. **Microeconomics** is the branch of economics that examines the choices and interactions of individuals producing and consuming one product, in one firm or industry.

When making a choice, you automatically have created a cost and a benefit. The **cost** is what has been relinquished, and the **benefit** is what has been gained. The term **opportunity cost** refers to the next best alternative. For example, if you have $500 and you go to the mall and see a stereo, a jacket, and a television each costing $500, which would you choose? If you rank the stereo as your first choice, the jacket as your second, and the TV as your third choice, which would be the opportunity cost? The jacket is the opportunity cost because it is your next best alternative. Note that the jacket and T.V. together are *not* the opportunity cost because there can only be one opportunity cost.

All participants in an economy must make choices. The basic economic problem that necessitates choices is **scarcity**, which occurs when limited resources are not sufficient to meet demand. Scarcity forces individuals, firms, and other members of society to decide how to use the three factors of production: land, labor, and capital. **Land** represents natural resources, such as oil and coal. **Labor** represents human resources, like manual work. And **capital** represents anything that can help produce these resources, such as education and machines. If a farmer has ten acres of land, she must decide how to use those ten acres. If a factory owner has three workers, then she must decide how to use her workers. If you have a hundred dollars in your pocket, you have to decide how to use these resources.

Some people confuse **capital** with **money**. In economics, **capital** is an economic resource, and **money** is a medium of exchange. What allows countries to produce more in the long run is an increase in their factors of production, not necessarily an increase in money. Increasing the factors of production allows a country to expand its production possibilities, which then allows that country's economy to grow for its population. It is important to note that a country can't afford to become satisfied with their goods and services—they must continually grow to meet the demands of the population. In economics there is no such thing as stagnant. Wants and needs are always growing; therefore, if an economy is not expanding then it is contracting.

Economic Systems

Every economic system has the following goals: efficiency, equity, security, freedom, and incentives. These goals are a present fixture in every economy; however, each economy may rank these goals differently. The ranking of these goals and the way in which each economy answers the three economic questions reveal what kind of economic system the country has.

Due to the concept of scarcity, every economy must address three main questions: What to make? How to make it? And for whom should it be made? Economic systems are categorized by how these questions are answered.

In a **command** economy, these questions are answered by a central government made up of an individual or individuals. **Traditional** economies rely on customs and rituals. **Market** economies rely on the forces of supply and demand to answer the three questions. The idea of allowing self-interest to guide prices and supply was introduced by Adam Smith in his book *The Wealth of Nations*, published in 1776.

Product and Factor Markets

Goods and services must be allocated between firms and households. When you go to the grocery store to buy your favorite cereal, you are part of a **product market.** In a product market, the monetary flow goes from households to firms, and the physical flow of goods and services goes from firms to households. In a **factor market**, the monetary flow goes from firms to households and, in exchange, the households give the firms the physical flow of goods and services. Labor is an example of a factor market because the physical flow (labor) is being given to the firms and the firms give the monetary flow (wages) to the households. This circular flow of goods, services, and money can be seen in Figure 1-1.

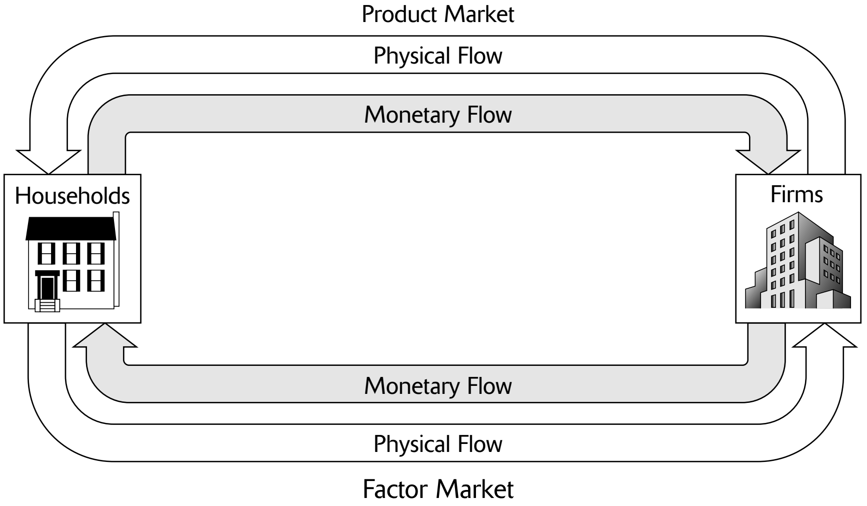

Figure 1-1

Opportunity Cost and Production Possibilities

By making the decision to take the AP exam in economics, you have decided to allocate time to studying. When you are studying for this exam, you are making a choice and thereby creating a benefit and an opportunity cost. The benefit is being better prepared for the exam, and the opportunity cost is your next best alternative (sleeping or eating, for example). Remember that the opportunity cost is the value of the next best alternative that is being given up.

In economics, countries, firms, and individuals have to make choices as to how to allocate (use) resources. Suppose a country has to make a decision on how to use steel. Its two choices are automobiles and chairs. When the country makes chairs, it cannot use the same resources to make autos. The choices an economy faces and the opportunity cost of making one good rather than another can be illustrated using a **production possibilities frontier (PPF)**. Figure 1-2 illustrates a PPF for a simplified economy that can use its resources to produce either autos or chairs.

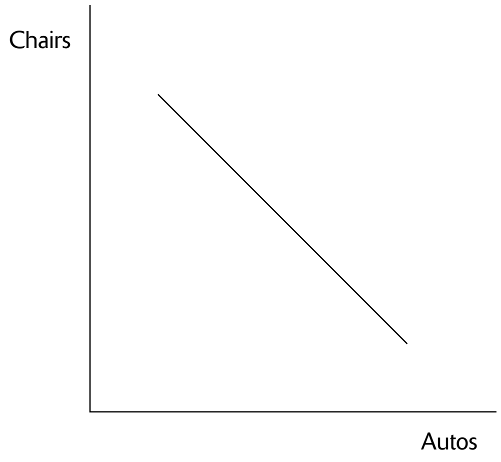

Figure 1-2

The curve, or frontier, symbolizes efficiency, and it represents all of the possible combinations of autos and chairs that could be produced using the country's available steel. For example, the economy could produce ten autos and 0 chairs, or ten chairs and 0 autos. Anything that appears outside the production possibilities curve is considered to be unattainable unless the economy has additional resources.

Specialization and Comparative Advantage

Because the goal of economies is centered on efficiency, specialization becomes an important focus for firms and countries. To **specialize** is to concentrate on what an entity is relatively good at to enhance productivity. This approach is more efficient than equally employing all resources. The basic idea is that instead of working on improving what you do poorly, dedicate all resources to improving something you already do well.

When looking at advantages, economists focus on two particular types of advantages. When a country or entity can produce a good or service using fewer resources per unit of output than any other country or entity, economists say this country has an **absolute advantage.** When a country or entity can produce a good or service at a lower opportunity cost than any other country or entity, that country has a **comparative advantage**.

Let's take Michael Jordan, for example. We already know that he is one of the best basketball players of all time; however, what if he were the second-fastest typist in the world? Should he split his time equally between typing and playing basketball? Or should he choose to specialize? We can assume safely for the purpose of this example that Michael Jordan has an absolute advantage over anyone in basketball. But does he have an absolute advantage over everyone in typing? The answer is no because he is only the second-fastest typist in the world; the fastest typist in the world has an absolute advantage over Jordan in typing. When you're looking at comparative advantage, the story gets a little more complex. If when Jordan plays basketball he is giving up virtually nothing to play the sport, we can say that he has a comparative advantage in playing basketball. But if Jordan chose to type instead of playing basketball he would almost certainly not have a comparative advantage in typing—chances are other typists would not have an opportunity cost as high as Jordan's.

Let's take a closer look at how comparative and absolute advantage can relate to trade. Consider Mexico and Colombia and the production of butter and coffee. Figure 1-3 illustrates the hypothetical PPFs for the two countries, simplified to form straight lines.

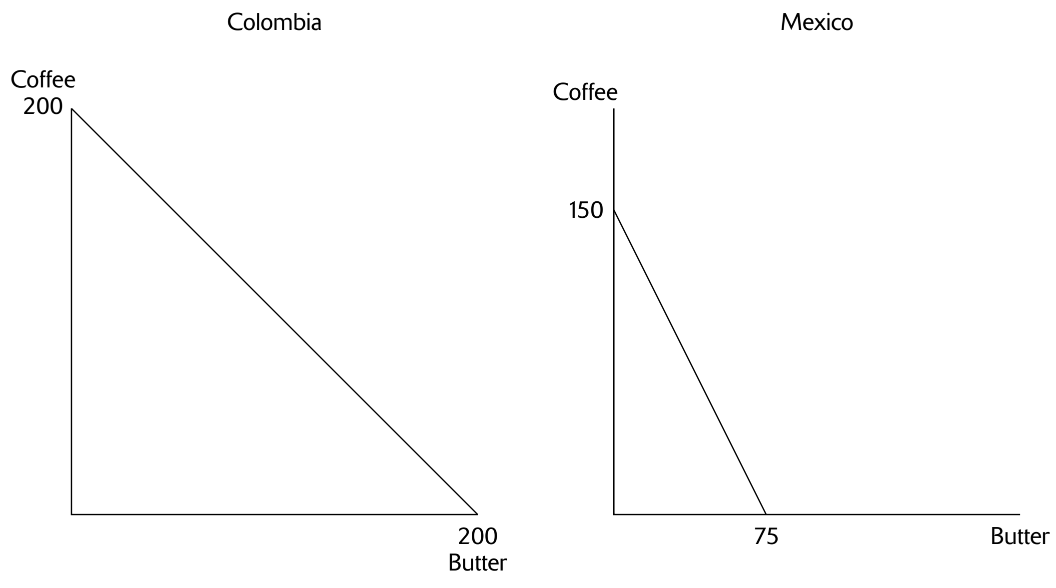

Figure 1-3

Assuming that the two countries have identical resources, the PPFs show that Colombia has an absolute advantage in both coffee and butter because it can produce more of each good with the same resources. When we look at comparative advantage, we must first examine the opportunity costs for each nation. When Colombia switches from producing 200 units of butter to 200 units of coffee, it is giving up one unit of butter for one unit of coffee. When Mexico decides to allocate all its resources to producing coffee, it is giving up 75 units of butter. In essence, Mexico is giving up one-half as much butter to produce coffee, so the opportunity cost of coffee in terms of butter is one half. So who has the comparative advantage in producing coffee? The answer is Mexico, because each unit of coffee costs Mexico one half as much as it does Colombia, which is giving up one whole unit of butter for one whole unit of coffee. On the other hand, Colombia has a comparative advantage in the production of butter, because each unit of butter costs Colombia one unit of coffee, which is less than the opportunity cost of two units of coffee per unit of butter in Mexico.

These two countries can certainly benefit from trade because production costs differ. Once a trade agreement can be reached, each country can specialize in the area in which it enjoys a comparative advantage. Mexico can allocate its resources to making coffee, thereby becoming Colombia's coffee supplier. On the other hand, Colombia can specialize in making butter, thereby becoming Mexico's butter supplier. In the end, each country enjoys more through trade.

Chapter Review Questions

1. Which one of the following is a factor of production?

   A. Money
   B. Government
   C. Land
   D. Checkable deposits
   E. None of the above

2. What is opportunity cost?

   A. The value of your choice
   B. The dollar value of all your choices combined
   C. The dollar and non-dollar value of all your choices
   D. The value of your next best alternative
   E. The value of all your alternatives

3. When a country or entity has a comparative advantage, which of the following is true?

   A. It has a higher opportunity cost when producing a good or service than any other country or entity.
   B. The country can produce more of that good than its competitor.
   C. The country can produce more of a particular good at a lower opportunity cost than any other country or entity.
   D. The country produces less of a particular good or service than any other country.

4. Which of the following factors of production would a machine belong to?

   A. Land
   B. Labor
   C. Capital
   D. Money
   E. Technology

5. If a country's production possibilities curve shifts outward, which one of the following is true?

- **A.** The country has underemployed its resources.
- **B.** The country has decreased its production.
- **C.** The country has increased its technology.
- **D.** The country is experiencing inflation.

6. What is the basic economic problem?

- **A.** Scarcity is a result of limited wants and unlimited resources.
- **B.** Scarcity results from the fact that prices are too high.
- **C.** Scarcity exists because there aren't enough people in the world.
- **D.** Scarcity results from the fact that if prices are too high people want less.
- **E.** Scarcity is caused by unlimited wants and limited resources.

7. Which of the following best describes the circular flow of economic activity?

- **A.** Firms earn money in exchange for goods and services in a factor market.
- **B.** Firms and households both lose money in a factor market.
- **C.** Households earn money in exchange for labor in a factor market.
- **D.** Households earn money in exchange for labor in a product market.
- **E.** None of the above.

8. What does every choice create?

- **A.** More choices
- **B.** An opportunity cost only
- **C.** An opportunity benefit only
- **D.** An opportunity cost and benefit
- **E.** A monetary cost

9. Suppose you can paint a room or walk backwards to the mall and back five times in two hours. Your friend Anup can paint a room in one hour. In order for him to have a comparative advantage in painting a room, how many times must he be able to walk to and from the mall backwards in two hours?

- **A.** More than five and fewer than ten
- **B.** More than five
- **C.** Fewer than ten
- **D.** Not enough information
- **E.** None of the above

10. Kelsey can eat 15 apples or peel 20 oranges in an hour. Ara can eat 30 apples or peel 25 oranges in an hour. Which of the following statements is true?

- **A.** Kelsey has a comparative advantage in eating apples.
- **B.** Ara has an absolute advantage in both activities.
- **C.** Kelsey has a comparative advantage in orange peeling.
- **D.** Kelsey has an absolute advantage in both activities.
- **E.** Ara isn't eating enough apples.

11. In which of the following economies does the government decide how to use the factors of production?

A. Market economy
B. Traditional economy
C. Command economy
D. Free-trade economy
E. Trade-restrictive economy

12. Which one of the following is not an economic goal?

A. Freedom
B. Incentives
C. Equity
D. Efficiency
E. Profit

13. Which one of the following is considered the regulating force of the market system?

A. Government
B. Government and firms
C. Firms and taxes
D. Suppliers and consumers
E. All of the above

14. What do the plot points on the production possibilities graph represent?

A. Taxes
B. Unemployment
C. Inflation
D. Trade-offs
E. Firms

15. Which one of the following is a factor of production?

A. Money
B. Revenue
C. Profit
D. Labor
E. Taxes

Answers to Review Questions

1. **C.** Land is a factor of production. Money is a medium of exchange, not a resource. To produce a good or service, the government has to use one of the factors of production.
2. **D.** Opportunity cost is the value, both monetary and non-monetary, of your next best alternative. There can be only one opportunity cost.
3. **C.** When analyzing comparative advantage, you must remember to examine the opportunity cost of the country or entity. The country or entity with the lowest opportunity cost has the comparative advantage. Whoever is giving up the least to make something has the advantage.
4. **C.** Machines are used to produce other goods and services; therefore, they are considered capital. There are two forms of capital: human and physical. Education is human capital, whereas machines are considered physical capital.

5. **C.** A change in technology can make a country's allocation of resources more efficient. When it becomes easier or less costly, or if new resources are discovered, a country can produce more, thereby increasing its production possibilities. This is shown with an outward or rightward shift in the production possibilities curve (PPC).
6. **E.** Scarcity is caused by unlimited wants and limited resources.
7. **C.** In a factor market, firms pay households for goods and services. In a product market, households pay firms for goods and services.
8. **D.** Every choice automatically creates a cost and a benefit. Choices don't necessarily create monetary benefits or costs.
9. **C.** If Anup has a comparative advantage in painting rooms, he has to give up fewer trips to the mall than you do in the same amount of time it takes you each to paint a room. When you paint a room, you give up the chance to go (backwards) to the mall five times. Anup can paint one room in one hour, so in two hours he can paint two rooms. For his opportunity cost to be less than yours, he has to be able to make fewer than five trips to the mall in an hour. So in two hours he has to be able to make fewer than ten trips to the mall.
10. **B.** Ara has the absolute advantage because he can eat more apples and peel more oranges than Kelsey. Absolute advantage does not consider opportunity cost.
11. **C.** In a command economy, the government decides what to produce, how to produce it, and for whom to produce it.
12. **E.** Although profit may be a company's goal, it is not an *economic* goal. Efficiency, equity, security, incentives, and freedom are all economic goals.
13. **D.** Suppliers and consumers create the forces of supply and demand. These forces are responsible for setting prices and for answering the three economic questions of what to produce, how to produce it, and for whom to produce it.
14. **D.** Each plot point on the production possibilities graph represents a trade-off. As economies move from one point to another, they are giving up or trading off one good for another.
15. **D.** Labor is one of the factors of production. Workers, along with land and capital, help produce goods and services.