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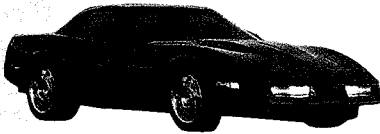
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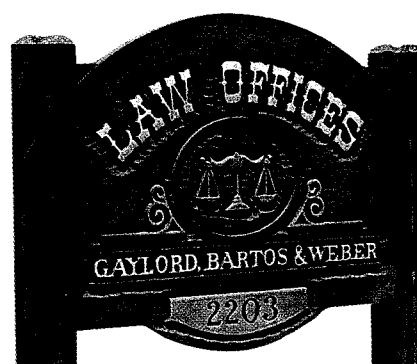


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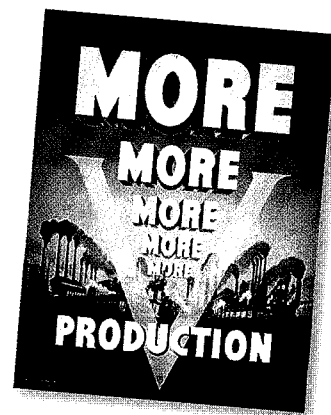
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The New York foreign exchange rates below are for the trading session ending at 5 p.m. Eastern and are subject to change. Rates for the London session are shown in the right column. Rates for the Tokyo session are shown in the left column.

Country	Unit	Rate	Unit	Rate
Canada	100 Canadian Dollars	70.85	100 Canadian Dollars	70.85
France	100 French Francs	166.63	100 French Francs	166.63
Germany	100 German Marks	1.93	100 German Marks	1.93
Italy	100 Italian Lira	2036.26	100 Italian Lira	2036.26
Japan	100 Japanese Yen	146.08	100 Japanese Yen	146.08
Switzerland	100 Swiss Francs	1.48	100 Swiss Francs	1.48
United Kingdom	100 British Pounds	1.64	100 British Pounds	1.64
United States	100 U.S. Dollars	1.00	100 U.S. Dollars	1.00



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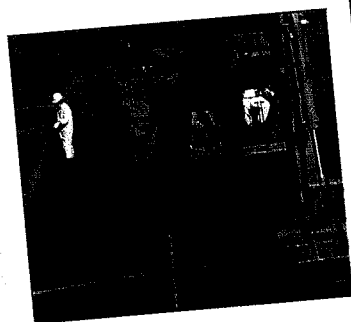
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Studying Economics: Principles in Action

Economics is the study of the choices and decisions people make about how to use the world's resources. Understanding economics will help you make informed decisions for yourself and assess the decisions made by others. A number of features in this book are designed to help you understand key economic principles and to show you those principles *in action* in the real world.

Content Standards in Economics

To help guide you in your study of economics, this book incorporates the Voluntary National Content Standards in Economics developed by the National Council on Economic Education. The standards are built around the twenty key concepts listed below.

Building Key Concepts

Each of the graphs, charts, and tables in this textbook includes a question based on one of these twenty key concepts.

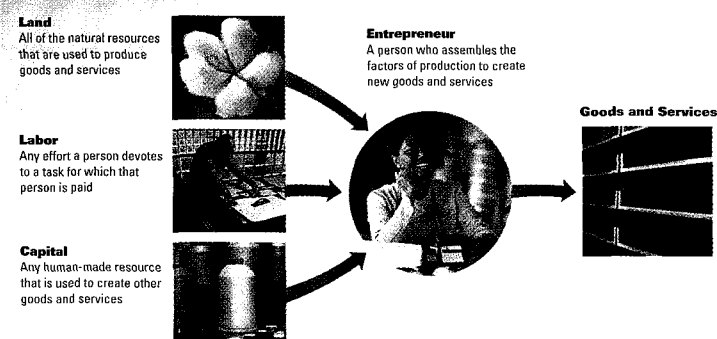
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Specialization
Markets and Prices
Supply and Demand
Competition
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Money

Interest Rates
Income
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Standard of Living
Government
Public Policy
Gross Domestic Product
Unemployment and Inflation
Monetary and Fiscal Policy

Learning Key Terms

Your study of economics will involve learning the vocabulary economists use. In this book, key terms are listed in each section opener and are clearly defined in the text and in the margins to help you understand the content of each chapter.

Figure 1.1 The Factors of Production



Land, labor, and capital, also known as the factors of production, are the "inputs," or resources, used to create all goods and services.

Entrepreneurs What role do entrepreneurs play in producing goods and services?

Answering the Three Economic Questions

Preview

Objectives

After studying this section you will be able to:

1. Identify the three key economic questions of what to produce, how to produce, and who consumes what is produced.
2. Summarize the basic economic goals societies share.
3. Compare and contrast the four economic systems: traditional economy, market economy, centrally planned economy, and mixed economy.

Section Focus

All societies must answer the key economic questions about the production and consumption of goods and services. How a society answers these questions depends on how much it values different economic goals. Four different economic systems have developed in response to these three questions.

Key Terms

economic system
factor payments
safety net
standard of living
traditional economy
market economy
centrally planned economy
mixed economy

In Chapter 1, you read about the economic concept of scarcity—that we cannot have all that we want or need. Indeed, in some places in the world, people cannot even meet their basic needs for food, clothing, and shelter because their resources are too scarce. Scarcity forces societies and nations to answer some hard economic questions. Different economic systems have evolved to cope with the problem of scarcity. An economic system is the method used by a society to produce and distribute goods and services. Which economic system a society employs depends on that society's goals and values.

What Goods and Services Should Be Produced?

Each society must decide what to produce in order to satisfy its needs and wants. In today's complex societies, it is often difficult to distinguish between needs and wants. While it may be obvious that we need food and shelter, modern societies face additional important considerations. How much of our resources should we devote to national defense, education, public health and welfare, or consumer goods? Which consumer goods should we produce? Recall the guns-and-butter trade-off described in Chapter 1. Because of our limited resources, each production decision that a society makes comes at an opportunity cost.

How Should Goods and Services Be Produced?

The next question we face is how to use our resources to produce goods and services. For example, should we produce electricity with oil, solar power, or nuclear power? Should teachers have classes of 20 students or 30 students? Should we produce food on large corporate farms or small family farms?

Three Key Economic Questions

Because economic resources are limited, every society must answer three key economic questions:

- What goods and services should be produced?
- How should these goods and services be produced?
- Who consumes these goods and services?

Debating Current Issues

Debating Current Issues features in every unit provide thought-provoking excerpts from *Wall Street Journal Classroom Edition* articles on some of the most controversial economic topics of our day.

THE WALL STREET JOURNAL. CLASSROOM EDITION

In the News As this excerpt from a Wall Street Journal Classroom Edition article shows, a nonprofit program called *Mother and Daughter Entrepreneurs in Teams* teaches mother and daughter partners how to start a business. Participants earn money to help pay the daughter's college tuition.

"At the Gibson home, the burden of saving for a 13-year-old daughter's college education begins this year. But the funds won't come from the salaries of Megan's parents. Mary Gibson, the girl's mother, plans to pay for tuition with profits from the business she and her daughter just founded. . . . During their venture's first full year of operations, the Gibsons forecast net income of \$4,700."

In the News

Excerpts from *Wall Street Journal Classroom Edition* articles appear throughout the book to help you see the connections between economic principles and everyday life.

THE WALL STREET JOURNAL.

CLASSROOM EDITION

DEBATING CURRENT ISSUES: *The Minimum Wage*

In 1938, President Franklin D. Roosevelt signed into law a bill that established a federal minimum wage of 25 cents an hour. This wage initially applied to employees involved in interstate commerce or production of goods for interstate commerce. Later it was extended to include employees of companies doing at least \$500,000 in business a year and also to employees of government agencies, hospitals, and schools.

Congress and the President have raised the minimum wage over time to reflect changes in the cost of living. Here are two excerpts from *The Wall Street Journal Classroom Edition*. One, written by Clinton administration officials, supports an increase; the other, written by a restaurant manager, argues against it.

YES Should the Minimum Wage Be Increased?

By ROBERT E. RICH, RONALD BROWN, ROBERT B. RICH, JOSEPH E. SHELUTE, and LAURA D'AMORCA TOSCH

STAGNANT WAGES ARE a 20-year problem that won't be solved overnight. Addressing this long-term challenge will require a persistent and comprehensive economic-growth agenda.

One action we can take right now is to insist that the minimum wage be a living wage. Every member of the president's economic team believes this step will increase wages without costing jobs.

The president has proposed a 90-cent increase in the minimum wage, to \$5.15 from \$4.25, spread over two years. This is the same plan that won overwhelming bipartisan support when Congress voted to raise the minimum wage in 1959.

Indeed, the first 45 cents of the new increase wouldn't even restore the buying power the minimum wage has lost since the last increase five years ago. And if we don't act this year, it will fall to a 40-year low in terms of purchasing power.

Of the 10 million workers who would benefit from Mr. Clinton's minimum-wage increase, 69% are age 20 and older. The average minimum-wage worker brings

home half of the family's earnings. And, according to the Bureau of Labor Statistics, 59% are women—many of whom shoulder most of the burden at home.

A minimum-wage increase can make a real difference. For a full-time minimum-wage worker, it means an additional \$1,800 in earnings—enough to buy seven months of groceries or several months of child care.



According to proponents of a minimum wage hike, people with few job skills—such as this worker—would benefit most from an increase.

Real-life Case Studies

Case Studies in every chapter provide dramatic examples of economic principles in action in the real world.

Real-life Case Study

What Makes a Person an Entrepreneur?

Entrepreneurs come in all shapes and sizes. Some have become very wealthy and well known, such as Andrew Carnegie who built a successful steel company in the 1800s, and Mary Kay Ash who founded Mary Kay Cosmetics. Most entrepreneurs, however, are involved in much smaller ventures, but all entrepreneurs have many things in common.

Traits Entrepreneurs have the ability to see a business opportunity where others do not. In other words, they recognize an existing or potential demand for which there is no supply. Most of all, entrepreneurs possess a willingness to take risks and an ability to learn from the mistakes that they make.

Vision A classic story of entrepreneurial success is that of Charles Darrow. In 1933, Darrow found himself out of work. To support his family, he took whatever odd jobs he could find, but he had a brilliant business idea. He wanted to create a compelling board game in which people could live the fantasy of acquiring land, houses, and hotels which they could rent or sell to fellow players. Recalling a vacation he had once taken in Atlantic City, New Jersey, Darrow named the real estate featured in his game after places in that city. He called the game Monopoly®.

Persistence Although many people told him he was wasting his time, Darrow spent months developing Monopoly. He then took his game to Parker Brothers, a leading board game company, which rejected the game because it found 52 flaws in it. Undaunted, Darrow corrected every one of the flaws. Then, with help from a friend who was a printer, he produced several Monopoly sets, which he tried to sell to local stores.

Finally, after weeks of pounding the pavement, a Philadelphia department store agreed to buy 5,000 of the Monopoly sets. The store sold all of the games so quickly that Parker Brothers reconsidered and agreed to produce the game. Within a year, more than 800,000 sets were sold, and soon Charles Darrow became a millionaire. Since that time, some 100 million sets of Monopoly have been sold worldwide.

Applying Economic Ideas

1. What entrepreneurial traits did Darrow use to make Monopoly a success?
2. For Darrow, what were the benefits and drawbacks of being an entrepreneur?



A vacation spent strolling the Boardwalk in Atlantic City gave Charles Darrow the idea for a game.

Take It to the Net

Internet activities in every section of the book help you apply what you've learned in economics. Links for completing these activities are provided at www.phschool.com in the Social Studies area.



Take It to the NET

A high degree of economic freedom is a characteristic of a free market system. Which countries exhibit the most economic freedom? Where are most of these countries located? Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

UNIT

1

Introduction to Economics



Chapters in This Unit

1. *What Is Economics?*
2. *Economic Systems*
3. *American Free Enterprise*

You have to make a decision . . .

Your favorite band is giving a concert in town, and you really want to go! The tickets are expensive though, and there are so many things you could do with that money. You could buy a concert ticket or . . .

- Use the money to see five movies
- Use the money to buy the band's new CD plus a pair of jeans
- Save the money for your vacation

The choice you will make is rooted in economics. At its core, economics is the study of how people choose to use their limited resources. In this unit you'll read more about the tools that economics offers to help you make decisions as a buyer, seller, worker, and citizen.

Focus Activity

When you hear the word *economics*, what are the first ten words that you think of? Compare your list with those of your classmates. Do the words on your lists fall into any obvious categories?

Chapter

1

What Is Economics?

Which CD to buy? How many hours to study? Which movie to see? If you're like most people, you constantly face decisions because you don't have enough time and money to do everything. At its most basic level, economics is the study of how people make choices when they face a limited supply of resources. In this chapter you will begin your study of economics by investigating two basic economic ideas: scarcity and trade-offs.

Economics Journal

Quickly jot down three decisions you made within the last 24 hours. For each decision, list two choices you decided against when you made the decision.



Keep It Current

Items marked with this logo are periodically updated on the Internet. Keep up-to-date with what's in the news. To get current information that answers the question "What is economics?" go to www.phschool.com



Scarcity and the Factors of Production

Preview

Objectives

After studying this section you will be able to:

1. **Explain** why scarcity and choice are basic problems of economics.
2. **Identify** land, labor, and capital as the three factors of production, and identify the two types of capital.
3. **Explain** the role of entrepreneurs.
4. **Explain** why economists say all resources are scarce.

Section Focus

People, businesses, and governments must choose among limited or scarce resources. Economics describes how people seek to satisfy their needs and wants by choosing among many alternatives.

Key Terms

need
want
economics
goods
services
scarcity
shortage
factors of production

land
labor
capital
physical capital
human capital
entrepreneur

As you begin your study of economics, consider three scenes: In the first scene, members of a household work together to do the laundry, purchase groceries, make meals, earn money, decide how to spend their money, and decide who gets to hold the TV remote.

In the second scene, the leaders of a large corporation sit at a table for their monthly meeting. They discuss whether to add a new product to their product line and advertising options on television and the Internet.

In the third scene, senators in the United States Congress gather to debate the important issues of the day: How can we ensure that people are well fed and have access to health care? What limits should the government place on businesses and international trade? Who gets to control the Internet? Economists look at the decisions made in each of these scenes and study those decisions in greater detail.

but that is not essential to survival. Because people cannot have everything they need or want, they must consider their options and decide which choice will fill their needs best.

To look at the world economically, we can focus on the decisions that people make. You, for example, have to decide what to do with your time—go to a movie or study for a test. Businesses have to decide how many people to employ and how much to produce. A city government may have to decide whether to spend its budget to build a school or a park.

Economics is the study of how people seek to satisfy their needs and wants by making choices. Because people act individually, in groups (such as businesses), and through governments, economists study each of these groups. But why must people make such choices? The reason is scarcity.

Scarcity

Living in a relatively wealthy country, many Americans may find it hard to understand the idea of scarcity. Store shelves brim with goods. **Goods** are physical objects such as shoes and shirts. We have access to countless services. **Services** are actions or activities that one person performs for another. Haircuts, dental checkups, and tutoring are

need something like air, food, or shelter that is necessary for survival

want an item that we desire but that is not essential to survival

economics the study of how people seek to satisfy their needs and wants by making choices

goods physical objects such as clothes or shoes

services actions or activities that one person performs for another

Scarcity and Choice

The study of economics begins with the idea that people cannot have everything they **need** and **want**. A need is something like air, food, or shelter that is necessary for survival. A want is an item that we desire

scarcity *limited quantities of resources to meet unlimited wants*

shortage *a situation in which a good or service is unavailable*

factors of production *land, labor, and capital; the three groups of resources that are used to make all goods and services*

land *natural resources that are used to make goods and services*

labor *the effort that people devote to a task for which they are paid*

capital *any human-made resource that is used to create other goods and services*

physical capital *all human-made goods that are used to produce other goods and services; tools and buildings*

all services. Indeed, we see ads everywhere urging us to purchase goods and services. Yet scarcity exists in all places, at all times.

Defining Scarcity

All of the goods and services we produce are scarce. **Scarcity** implies limited quantities of resources to meet unlimited wants. While one person might be able to buy hundreds of basketballs or pencils or pianos, no one can have an endless supply of everything. Sooner or later, a limit is always reached. At its core, economics is about solving the problem of scarcity.

Scarcity Versus Shortages

Scarcity is not the same as a **shortage**. A shortage occurs when producers will not or cannot offer goods or services at the current prices. Shortages can be temporary or long-term. During the holiday season, a customer may see an empty shelf on Tuesday, but return on Friday to find that same shelf filled to overflowing. Wars and droughts can also create shortages that last for many years.

Scarcity, in contrast, always exists because our needs and wants are always greater than our resource supply. Goods and services are scarce because they are all made from resources that are scarce.

Land

Economists call the resources that are used to make all goods and services the **factors of production**, or factor resources. The factors of production are land, labor, and capital.

Economists use the term **land** to refer to all natural resources used to produce goods and services. Natural resources are materials found in nature. They include fertile land for farming and products that are in or on the land, such as coal, water, and forests.

Labor

Another factor of production is **labor**. Labor is the effort that a person devotes to a task for which that person is paid. Labor includes the medical aid provided by a doctor and the tightening of a clamp by an assembly line worker. It is an artist's creation of a painting or the repair of a television.

Capital

Capital is any human-made resource that is used to produce other goods and services. The two categories of capital are physical capital and human capital.

Physical Capital

Human-made objects used to create other goods and services are called **physical capital**. (The term *capital goods* is a synonym for *physical capital*.) Physical capital includes buildings and tools. A shoe factory building and all of the sewing machines and other specialized machinery for making shoes make up part of the shoe company's physical capital.

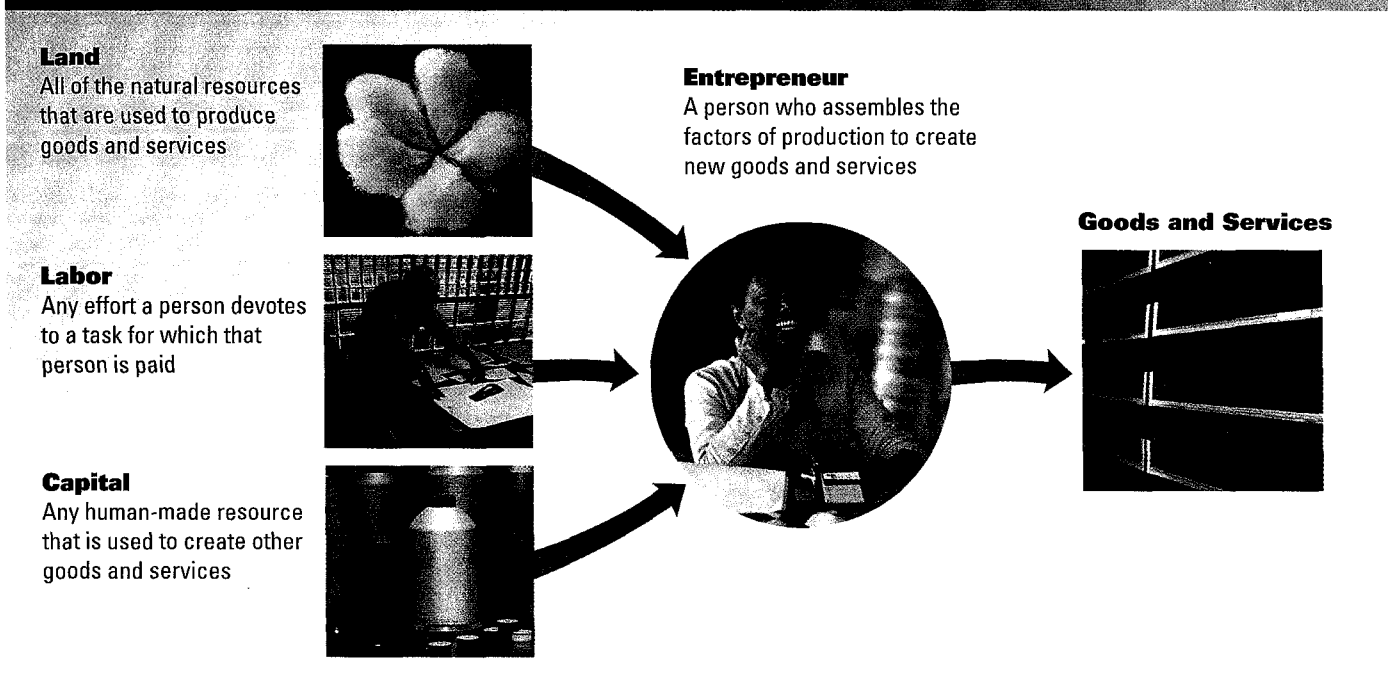
Physical capital is an important factor of production because it can save people and companies a great deal of time and money. A building is physical capital because it helps workers do their work by providing protection and space. Similarly, tools such as tractors, conveyor belts, and pencils are physical capital because they, too, help workers produce a good or a service.

When we create or buy physical capital to accomplish a job, we usually become more productive. Suppose that your family of 6



▲ While people's needs and wants are unlimited, the resources available to meet those wants are limited, or scarce. Which scarce resources were used to produce the fruits and vegetables shown here?

Figure 1.1 The Factors of Production



Land, labor, and capital, also known as the factors of production, are the “inputs,” or resources, used to create all goods and services.
Entrepreneurs What role do entrepreneurs play in producing goods and services?

people washes dishes by hand every day after every meal—breakfast, lunch, and dinner—for a total of 21 meals per week. It takes 30 minutes per meal for 2 family members working together to scrape, stack, wash, rinse, dry, and put away the dishes. That’s 21 hours per week that could have been spent on other more productive activities.

Now, suppose that your family decides to buy a dishwasher that costs \$400. Using the dishwasher, it will take 15 minutes for a single family member to clean up after each meal. At this rate, it will take the entire family only $5\frac{1}{4}$ hours per week to handle this chore. The benefits that your family reaps from the free time will cover the cost of the new dishwasher, which provides the typical benefits of physical capital:

1. *Extra time* Your family no longer has to spend 21 hours per week doing the dishes. Instead, the family gains $15\frac{3}{4}$ hours each week to use for other activities.

2. *More knowledge* By learning how to wash the dishes by machine, family members learn more about using household appliances in general. They can apply that

knowledge to the use of other labor-saving devices, such as washing machines, dryers, and microwaves.

3. *More productivity* Because family members now have extra time and extra knowledge, they can use their resources and labor to do additional chores or other activities that are beneficial to the family.

Human Capital

In addition to producing physical capital, people can invest in themselves. **Human capital** is the knowledge and skills a worker gains through education and experience.

An economy requires both physical and human capital to produce goods and services. Doctors use stethoscopes and their medical school training to provide their services. Assembly-line workers use equipment and skills acquired through training and practice to produce goods.

human capital the skills and knowledge gained by a worker through education and experience

THE WALL STREET JOURNAL. CLASSROOM EDITION

In the News As this excerpt from a Wall Street Journal Classroom Edition article shows, the experience that a successful worker needs can start with a basic summer job.

“Cornell entrepreneurship professor Deborah Streeter notes that being a waitress, for example, ‘really teaches you to deal with people. . . . An entrepreneur needs to know what the marketplace wants. A really good waitress knows what her marketplace wants.’”

FAST FACT

After fishing in sub-zero temperatures in Labrador during 1912, a man named Clarence Birdseye was astounded that his frozen fish was tasty when he thawed and cooked it weeks later. This **entrepreneur** soon patented a "quick-freeze machine" and started his own seafood company. The result? An entire frozen foods industry was born.

Entrepreneurs

If land, labor, and capital are the essential ingredients for creating all goods and services, who pulls these resources together? The answer is entrepreneurs. **Entrepreneurs** are ambitious leaders who decide how to combine land, labor, and capital resources to create new goods and services. They are the individuals who take

risks to develop original ideas, start businesses, create new industries, and fuel economic growth.

You need not be Bill Gates of Microsoft or Henry Ford to be considered an entrepreneur. An individual who opens a corner food store and transforms it into a 10-store supermarket chain is an entrepreneur.

Scarce Resources

Economists say that all goods and services are scarce because the land, labor, and capital used to create them are scarce. Consider French fries. A typical portion of French fries started as a potato in a field in

Idaho. Seven and one-half gallons of water irrigated the half-foot plot where the potato grew. Nurtured with fertilizers and protected by pesticides, the potato was harvested, processed, frozen, and then transported to Seattle. In Seattle, it was fried in corn oil from Nebraska, sprinkled with salt from Louisiana, and eaten in a restaurant.

All of the economic resources, or factors of production, that were used to create the French fries are scarce. First, the quantity of the land and water available for growing potatoes is limited. Second, the labor available to grow the crop and to process and transport the potatoes is limited by the size, time, age, and energy of a population. Finally, because land and labor are limited, the amount of physical capital available to create the French fries, such as farm equipment, is also limited.

While we have been talking about French fries, we could easily have been talking about a pair of blue jeans or a new space shuttle. No matter what good or service we were to look at, we would discover that the supplies of land, labor, and capital used to produce it are scarce, and that each resource has many alternative uses.

entrepreneur
ambitious leader who combines land, labor, and capital to create and market new goods and services

Section 1 Assessment

Key Terms and Main Ideas

1. What is the difference between a **good** and a **service**?
2. Why is the idea of **scarcity** a starting point for thinking economically?
3. How is **scarcity** different from **shortages**?
4. Describe the three **factors of production**.
5. What special advantages does **physical capital** offer?
6. What role do **entrepreneurs** play in the economy?

Applying Economic Concepts

7. **Critical Thinking** Why might an economist look at hundreds of cars moving along an assembly line and say, "There is an example of scarcity"?

8. **Decision Making** Which factor of production is represented by each of the following? (a) an office building (b) an assembly line worker (c) a tree used to make paper (d) unused soil (e) an artist (f) a student
9. **Try This** Leaving class today, you decide to start an economics tutoring business. Your first step is to get the two categories of capital. Next you need to obtain the other factors of production. Specifically, what do you need in terms of land, labor, and capital?
10. **Critical Thinking** Do you agree or disagree with the following statement? *Creating capital is like depositing money in a savings account. You save now in order to have more in the future.*



Take It to the NET

Read about the patents of some potential entrepreneurs, and then write or draw a summary of one of the patent ideas. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Profile

Gary Becker (b. 1930)

Nobel Prize-winning economist Gary Becker looks at daily life and sees economics at work in all we do. Becker even sees marriage as an economic decision that many people make based on opportunity costs. To understand how Becker arrived at this intriguing conclusion, you have to look at how he came to see the world.



Economics and Social Issues

Like many high school seniors, Becker knew what he was good at—mathematics—but wanted some practical way to apply it. Leaving his small Pennsylvania hometown, Becker went to Princeton University and decided to pursue economics. But he lost interest in the subject because it didn't "deal with important social problems."

Becker briefly considered a degree in sociology, but found the subject "too difficult." Later, as a graduate student at the University of Chicago, he realized that economics could indeed help answer social questions. His first book, based on his studies at Chicago, was an economic analysis of racial discrimination.

"It started me down the path of applying economics to social issues," states Becker, "a path that I have continued to follow." In 1992, that path led to the Nobel Prize in economics, which Becker received for using economic analysis to study a wide range of human behavior. "Economy is the art of making the most of life," he says.

Economics and Personal Decisions

Becker maintains that economics guides even life's most personal decisions. He sees the process of dating as part of a

"marriage market." Most people do not marry the first prospect they meet, he notes. The opportunity cost of such a marriage would be high because better prospects are likely to exist. Instead, people try to search for better prospects.

Considering Costs and Benefits

An extended search for a mate, however, consumes time, effort, and other resources. It involves expenditures on personal appearance, in social situations, for education, and for other things that help attract a mate. A person decides to marry, Becker says, when the cost of searching exceeds the possible benefits of finding a better mate.

People measure the benefits of a potential spouse by criteria such as job, appearance, education, and family, Becker says, and they try to judge other traits by these factors. For example, the probability that a person is honest and good-natured may be judged by looking at the person's family. Intelligence is gauged by the person's education. Becker maintains that this process causes people to marry on the basis of imperfect information. Not until later do they truly learn about their partner's personality and compatibility, qualities that take longer to assess.

CHECK FOR UNDERSTANDING

1. Source Reading Interpret the following passage from an article by Becker that appeared in *BusinessWeek*: "Human capital is as much a part of the wealth of nations as are factories, housing, machinery, and other physical capital."

2. Critical Thinking How does what you've read in this introductory chapter on economics support or conflict with Becker's idea that "economy is the art of making the most of life"?

3. Decision Making Do you agree or disagree with Becker's idea that economics guides even life's most personal decisions? Support your position with two or three examples of your own.



Opportunity Cost

Preview

Objectives

After studying this section you will be able to:

1. **Describe** why every decision involves trade-offs.
2. **Explain** the concept of opportunity cost.
3. **Explain** how people make decisions by thinking at the margin.

Section Focus

All human decisions involve trade-offs. The next best alternative to any choice is called an opportunity cost. Decision-making grids can make it easier to identify the trade-offs and opportunity cost of a decision.

Key Terms

trade-off
guns or butter
opportunity cost
thinking at the margin

trade-off *an alternative that we sacrifice when we make a decision*

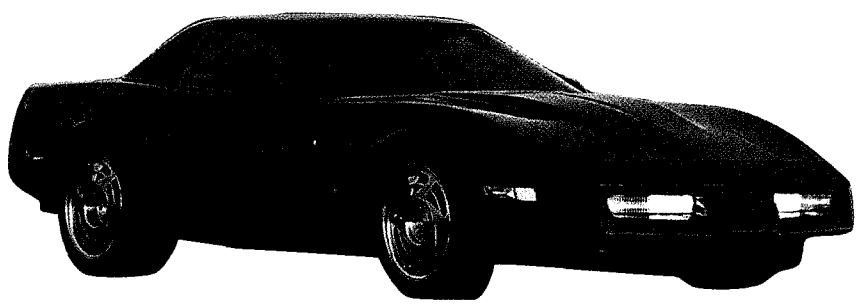
guns or butter *a phrase that refers to the trade-offs that nations face when choosing whether to produce more or less military or consumer goods*

Several years ago, a few hotels in Washington, D.C., offered a special service to their guests. A popular art exhibit was in town, but the only way to get tickets was to wait in line for several hours. Many of the hotel's guests were unable or unwilling to do this. Instead, the hotels hired people to stand in line to purchase the \$5 tickets. The hotels then sold the tickets to guests for \$50 apiece. These guests spent money rather than time in order to get their exhibit tickets. Similarly, when we decide on one alternative, we gain one thing but lose something else.

Trade-Offs

Economists point out that all individuals, businesses, and large groups of people—even governments—make decisions that involve **trade-offs**. Trade-offs are all the alternatives that we give up whenever we choose one course of action over another.

What are some of the trade-offs of buying a car? ▼



Individuals and Trade-Offs

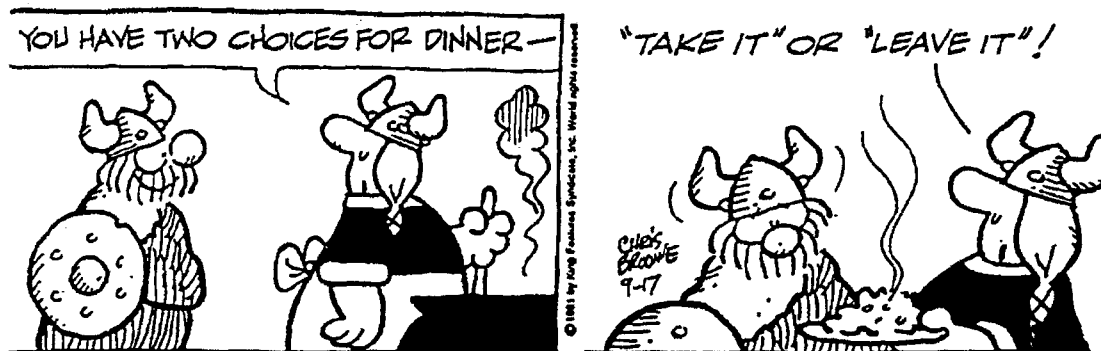
Every decision we make involves trade-offs. For example, if you choose to spend more time at work, you give up watching a movie or going to a baseball game. Choosing to play soccer might prevent you from working on the yearbook or having a part-time job.

Businesses and Trade-Offs

The decisions that businesspeople make about how to use land, labor, and capital resources also create trade-offs. Farmers who plant broccoli cannot use the same land at the same time to grow cauliflower. A manufacturer who decides to use all her equipment to build chairs eliminates the possibility of building tables or desks at that same time.

Society and Trade-Offs

Countries also make decisions that involve trade-offs. Economists simplify their explanations of the trade-offs countries face by using the example of **guns or butter**. In short, a country that decides to produce more military goods ("guns") has fewer resources to devote to consumer goods ("butter") and vice versa. (Remember, resources are limited!) The steel used to make a tank is no longer available for building the dairy equipment needed to make butter.



◀ Because decisions are not always as clear-cut as the one in this cartoon, economists encourage us to consider the trade-offs and opportunity cost of a decision before we make it.

Defining Opportunity Cost

Whenever individuals, businesses, or governments decide on a course of action, they face many trade-offs. One alternative, though, is usually more desirable than all the others. The most desirable alternative given up as the result of a decision is called the **opportunity cost**.

If a family buys a computer, family members cannot use the same money to pay for their second choice, going on a trip. The trip, then, is the opportunity cost of buying the computer. The farmer who chose to grow broccoli instead of cauliflower experienced the opportunity cost of planting cauliflower. If a government decides to produce more “guns,” then having less “butter” is the opportunity cost.

Similarly, every ordinary decision that we make every day involves an opportunity cost. For each of the following choices, which alternative would you choose?

- Sleep late or wake up early for a ski trip?
- Sleep late or wake up early to eat your breakfast?
- Sleep late or wake up early to study for a test?

Most likely, you did not choose “sleep late” for all three decisions. Your decision depended on the specific opportunity cost—whatever you were willing to sacrifice.

Using a Decision-Making Grid

At times, a decision’s opportunity cost may be unclear or complicated. Using a decision-making grid like the one in Figure 1.2 can help you determine whether you are willing

to accept the opportunity cost of a choice you are about to make. In this particular grid, Karen is trying to decide whether to sleep late or get up early to study for a test. Karen likes to sleep. Getting up early is tough. However, getting up early to study would probably improve her test score.

Karen knows that she is choosing between her two top alternatives: sleeping late and waking up early to study. Because of scarcity, she cannot do both. The time can only be occupied in one way.

To help her decide, Karen lists the benefits of each alternative on the grid. Waking up early to study will probably result in a better grade. Also, she will receive teacher and parental approval and experience the personal satisfaction that comes with doing well on a test. However, she knows she would enjoy sleeping later and that the extra sleep would give her more energy during the day.

opportunity cost *the most desirable alternative given up as the result of a decision*

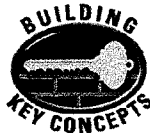


Global Connections

Global Trade-Offs The same decision made in two different countries can have vastly different opportunity costs. Malaysia bought two warships in 1992, paying a price equal to the cost of providing safe drinking water for the 5 million Malaysians lacking it. In other words, the opportunity cost of the warships was safe drinking water for 5 million people. The opportunity cost of building warships in wealthier countries is not nearly so high. However, there are still costs to consider. In the United States, the number of people employed by the military decreased dramatically following the end of the cold war. In response, the Pentagon developed a new program, “Troops to Teachers,” to help former soldiers get jobs teaching in schools. The switch from army duty to teaching reminds us that the opportunity cost of a soldier may be a teacher and vice versa. **Why does the opportunity cost of a decision vary from one situation to another?**

Figure 1.2 Karen's Decision-Making Grid

	Alternatives	
	Sleep late	Wake up early to study
Benefits	<ul style="list-style-type: none"> • Enjoy more sleep • Have more energy during the day 	<ul style="list-style-type: none"> • Better grade on test • Teacher and parental approval • Personal satisfaction
Decision	Sleep late	Wake up early to study for test
Opportunity cost	Extra study time	Extra sleep time
Benefits forgone	<ul style="list-style-type: none"> • Better grade on test • Teacher and parental approval • Personal satisfaction 	<ul style="list-style-type: none"> • Enjoy more sleep • Have more energy during the day



Using a decision-making grid can help us see what we gain and lose when we have to choose between alternatives.

Opportunity Cost What benefits will Karen forgo if she chooses to sleep later?

thinking at the margin
deciding whether to do
or use one additional
unit of some resource

Making the Decision

Karen is a practical person. After considering the opportunity cost, she decides that waking up early to study offers the most desirable benefits. She is willing to accept the opportunity cost: extra sleep time. She knows that she is giving up the benefits of sleeping late, namely the pleasure of more sleep and the extra energy it provides.

Karen might have made a different decision when choosing between sleeping and breakfast or sleeping and getting up early to study on a Saturday. With each new situation, the opportunity costs and benefits change.

We always face an opportunity cost, though. When we select one alternative, we have to sacrifice at least one alternative and forgo its benefits. By recognizing what we are sacrificing, we can decide whether the decision is worth it. An economist might say, "Choosing is refusing."

Thinking at the Margin

When economists look at decisions, they point out one more characteristic in addition to opportunity cost. Many decisions involve adding one unit or subtracting

one unit, such as one minute or one dollar. From an economist's point of view, when you decide how much more or less to do, you are **thinking at the margin**.

To understand what it means to think at the margin, you might picture a piece of paper with a line drawn down the left side. That line separates the space used for writing from extra space on the paper. You could use some of that extra space or you could leave it blank. Similarly, thinking at the margin means you are thinking about using one additional unit.

Making a Decision at the Margin

When deciding whether or not to study, Karen used the "all or nothing" approach as shown in Figure 1.2. She was either going to wake up early to study or sleep late and not study at all that morning.

In reality, Karen could have decided from among several options rather than just two. She could have decided to get up one, two, or three hours earlier to study or to sleep instead. She could have made her decision by looking specifically at how many extra hours to study that morning. Making a decision about each extra hour would mean that she was thinking at the margin.

To make a decision at the margin, Karen should look at the opportunity cost of each extra hour of studying and compare it to the benefit. In Figure 1.3, we can see that one hour of studying means an opportunity cost of an hour of sleep and a benefit of probably passing the test with a C. Two hours of studying “cost” two hours of sleep and perhaps getting a B. Three hours of studying mean sacrificing three hours of sleep and probably getting only a slightly higher grade of B+.

What should Karen decide? At three hours, the cost is no longer worth the benefit to Karen because her grade will improve only slightly. Thus, Karen decides to awaken two hours earlier.

Cost and Benefit at the Margin

Comparing opportunity costs and benefits at the margin enabled Karen to decide how many hours to study. Likewise, such a comparison could help someone decide how much money to spend on a car, how many hours to work, and how much time to spend watching television. Employers think at the margin when they decide how many extra workers to hire. Legislators

Figure 1.3 Decision Making at the Margin

Options	Benefit	Opportunity cost
1st hour of extra study time	Grade of C on test	One hour of sleep
2nd hour of extra study time	Grade of B on test	2 hours of sleep
3rd hour of extra study time	Grade of B+ on test	3 hours of sleep



This person has to decide how many extra hours to study. By comparing the opportunity cost to the benefit of each extra hour, she can decide how much is the right amount. **Opportunity Cost** At what point is this person paying an added cost with little extra benefit?

think at the margin when deciding if a government program should include more or less of a particular benefit.

Deciding by thinking at the margin is just like making any other decision. Decision makers just have to compare the opportunity costs and the benefits—what they will sacrifice and what they will gain. Once the opportunity cost outweighs the benefits, then no more units should be added.

Section 2 Assessment

Key Terms and Main Ideas

1. Present three examples that illustrate how all decisions involve **trade-offs**.
2. Why must the **opportunity cost** of a decision always be something desirable?
3. How do economists use the phrase “**guns or butter**”?
4. What does it mean to “**think at the margin**”?

Applying Economic Concepts

5. **Problem Solving** Suppose that you can save \$50 by buying your car in a different city. If the trip requires only \$10 in gasoline, is the trip worthwhile? Why or why not?
6. **Decision Making** Determine an opportunity cost for each of the following. (a) eating pizza (b) going to see a movie on a Tuesday (c) going to see a movie on a Saturday (d) watching television
7. **Try This** Create a decision-making grid like the one in Figure 1.2 to defend a decision you will make today.
8. **Critical Thinking** Decide whether to work 2, 4, or 6 hours at an after-school job by comparing the opportunity cost and benefit of each alternative.
9. **Decision Making** Which factors would an employer consider if he or she were trying to decide whether to hire an additional worker?



Take It to the NET

Brainstorm a list of the trade-offs of (a) continuing your education beyond high school and (b) not continuing your education beyond high school. Use the links provided in the Social Studies area at the following Web site for help in completing this activity.
www.phschool.com

Interpreting Line Graphs

Line graphs easily and clearly present a large quantity of statistical data. Economists use line graphs to illustrate patterns or trends over time and to explain the relationship between two or more variables. A variable is a factor with a value that can change. Use the following steps to read and interpret the line graph below.

1. Identify the type of information presented on the graph. Before you can begin to interpret the information on a graph, you must identify specifically what is being shown. The graph title and the axes' labels indicate the meanings of the points and lines on the graph. Answer the following questions. (a) What do the numbers on the horizontal axis (across) represent? (b) What do the numbers on the vertical axis (up and down) represent? (c) What relationship does the line graph describe?

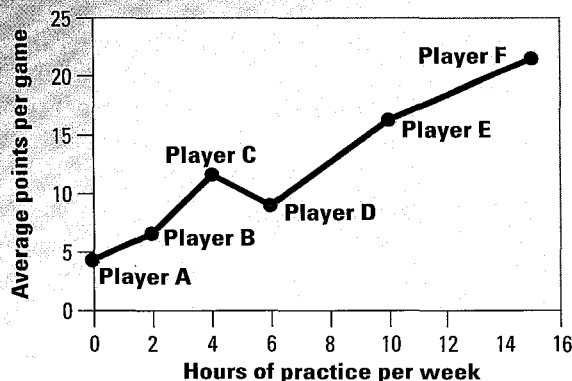
2. Read the data shown on the graph. Study the graph's axes carefully. Before studying the overall patterns, look carefully at specific points on the graph.

Answer the following questions.

(a) What is the maximum number of points per game that can be shown on the graph? (b) How many hours a week did Player B practice? (c) How many points per game did Player E average?

3. Study the data shown on the graph to look for relationships or draw conclusions about a topic. Use the graph below to draw conclusions about the relationship between time spent practicing and the number of points scored per game. What could you conclude from the information on the line graph about the relationship between practice and points per game?

Hours of Practice vs. Points Scored



Additional Practice

Note that the points on the graph do not form a perfectly straight line. For example, Player D did not score as many points per game as Player C, although Player D practiced more hours each week. Why might this be so? What does this information say about the conclusions we can draw from line graphs?

Production Possibilities Curves

Preview

Objectives

After studying this section you will be able to:

1. **Interpret** a production possibilities curve.
2. **Demonstrate** how production possibilities curves show efficiency, growth, and cost.
3. **Understand** that a country's production possibilities depend on its available resources and technology.

Section Focus

Decisions about which goods and services to produce affect each of us every day. Production possibilities graphs can help us examine the opportunity cost of these decisions.

Key Terms

production possibilities curve
production possibilities frontier
efficiency
underutilization
cost
law of increasing costs

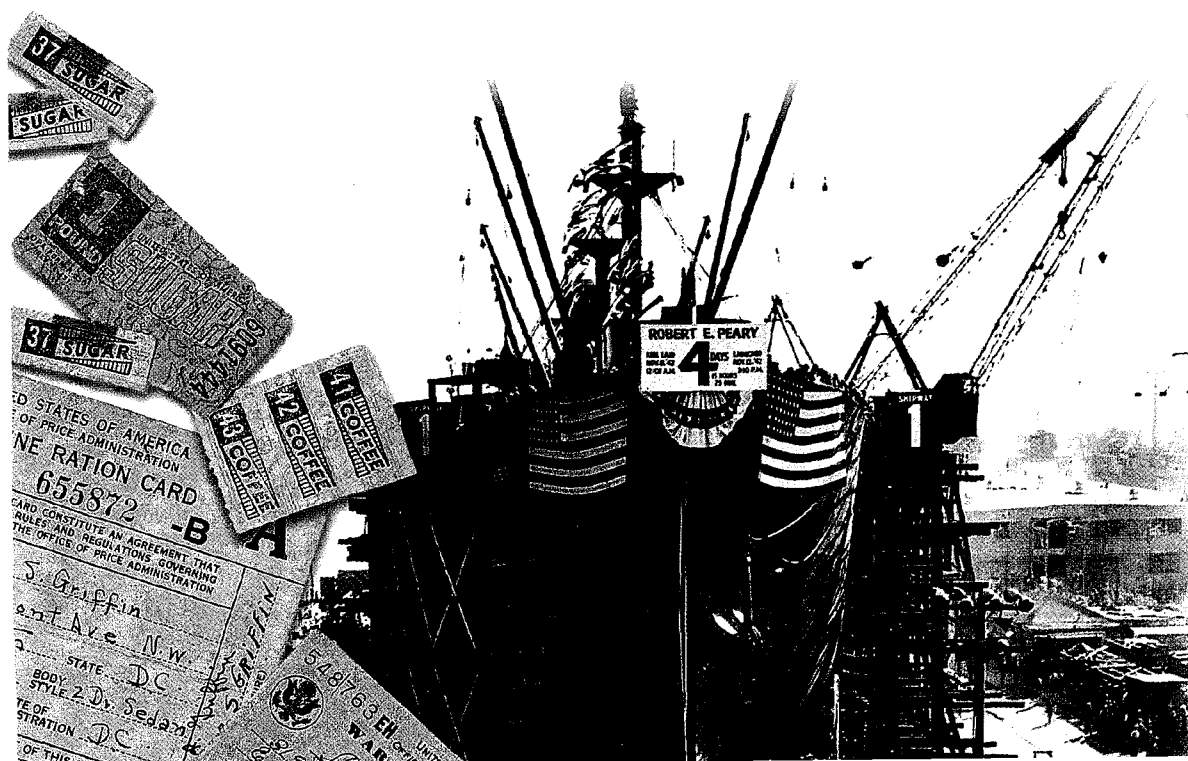
As the United States entered World War II in 1941, it faced an urgent task: create the weapons and equipment needed to win the war or face defeat. Government agencies took the lead in switching the output of America's factories, farms, and mines from the production of consumer products to the production of military products.

Whether at war or not, nations must choose what to produce. In 1999, farmers in the United States grew over 2 million tons of watermelons. Could they have produced more? If they had, what would have been the opportunity cost?

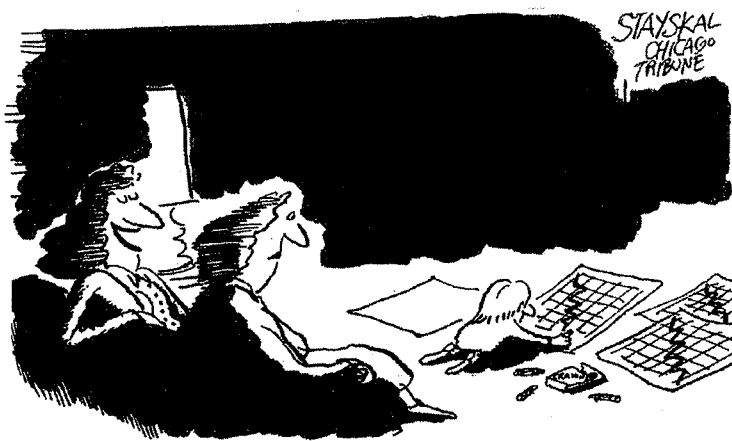
Production Possibilities

Economists often use graphs to analyze the choices and trade-offs that people make. Why? Because graphs help us see how one value relates to another value. A **production possibilities curve**, or graph, shows alternative ways to use an economy's resources. The axes of the graph can show categories of goods and services, such as farm goods and factory goods or capital goods and consumer goods. The axes can also display any pair of specific goods or services, such as hats on one axis and shoes on the other.

production possibilities curve a graph that shows alternative ways to use an economy's resources



◀ During World War II, consumer goods were in short supply as the nation shifted resources to increase production of planes, ships, artillery, and ammunition. Ration coupons (far left) were used to ensure that civilians got a fair share of consumer goods.



"We feel he's either going to be an artist or an economist."

▲ Why do economists use graphs?

production possibilities frontier the line on a production possibilities graph that shows the maximum possible output

Drawing a Production Possibilities Curve

To draw a production possibilities curve, an economist begins by deciding which goods or services to examine; for example, farm goods and factory goods. In this example shoes and watermelons become the values shown on the two axes of the graph. If the vertical axis in Graphs A and B in Figure 1.4 represents shoes, Graph A indicates that this fictional country,

Capeland, could produce 15 million pairs of shoes if it used all of its resources to produce only shoes.

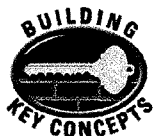
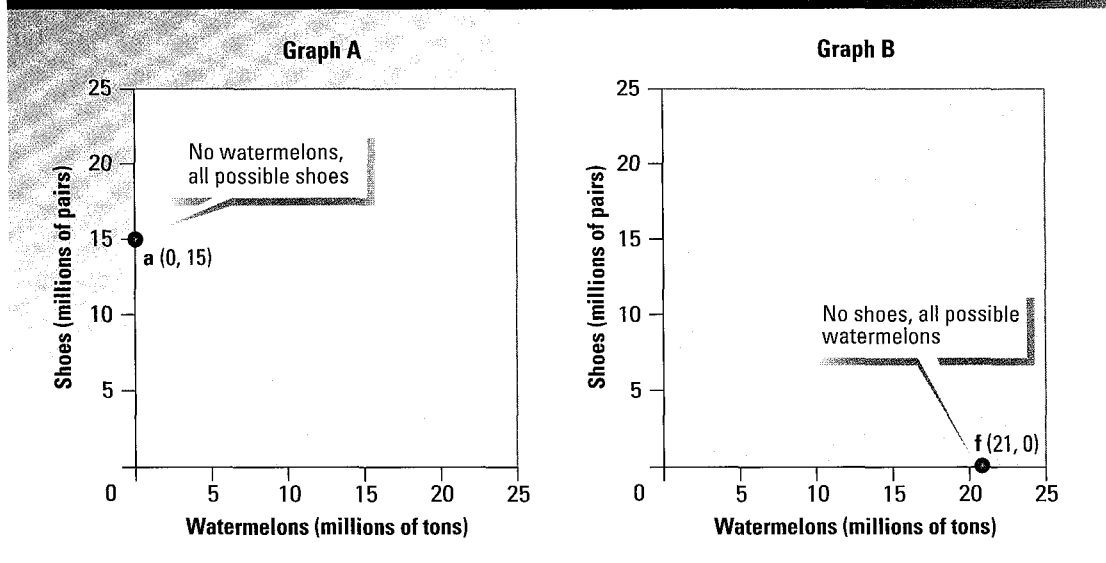
The horizontal axis represents watermelons. Graph B indicates that Capeland could produce 21 million tons of watermelons if that's the only product it chose to produce. So Capeland can produce a maximum of:

15 million pairs of shoes
OR

21 million tons of watermelons

A third, more likely, alternative appears in Figure 1.5. The citizens of Capeland could also produce both shoes and watermelons, and this range of choices appears in the table and graph in that figure. It shows six different ways that Capelanders could use their resources to produce watermelons and shoes. Using the made-up data from the table, we can plot points on the graph and then connect them to draw the line shown in Figure 1.5. This line that we can draw, called the **production possibilities frontier**, shows combinations of the production of both shoes and watermelons. Any spot on

Figure 1.4 Production Possibilities Curve Step 1

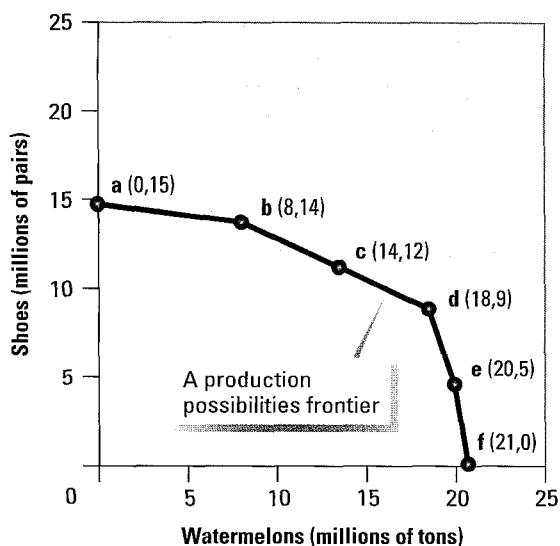


You can begin to build a production possibilities curve by plotting two of the production choices on a grid. Graph A reflects a decision to produce 15 million pairs of shoes. Graph B reflects a decision to produce 21 million tons of watermelons.

Opportunity Cost What is the opportunity cost of the decision shown in Graph A?

Figure 1.5 Production Possibilities Curve Step 2

Watermelons (millions of tons)	Shoes (millions of pairs)
0	15
8	14
14	12
18	9
20	5
21	0



The table above shows six different combinations of watermelon and shoes that Capeland could produce using all of its factor resources. Each combination of numbers in the table is drawn as a point on the graph. Connecting the points forms a line known as the production possibilities frontier.

Opportunity Cost What is the opportunity cost of choosing to produce the combination of goods shown at point c instead of that shown at point d?

that line represents a point at which Capeland is using all of its resources to produce a maximum combination of those two products.

Trade-Offs

Each point in Figure 1.5 reflects a trade-off. Near the top of the curve (points a and b), shoe factories produce more shoes, but farms grow fewer watermelons. Moving down the curve, farms grow more watermelons, but factories make fewer shoes. Why? Because land, labor, and capital are scarce. Using the factors of production to make one product means that fewer resources are left to make something else.

Efficiency, Growth, and Cost

Production possibilities graphs tell us important information. They can show how efficient an economy is, whether an economy has grown or shrunk, and the opportunity cost of a decision to produce more of one good or service.

Efficiency

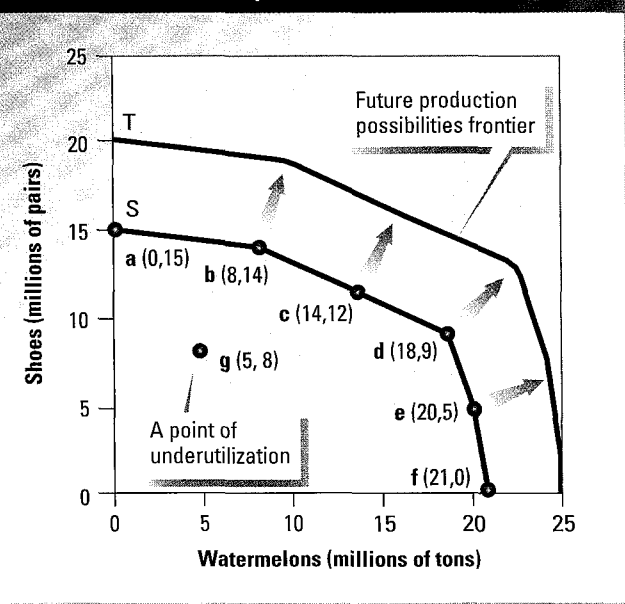
A production possibilities frontier represents an economy working at its most efficient level of production. **Efficiency** means using resources in such a way as to maximize the production or output of goods and services. However, sometimes economies operate inefficiently. For example, what would happen if some farmers and factory workers were laid off? The farms and factories where they worked would produce fewer goods. This trade-off is represented by drawing a point inside the production possibilities frontier.

Any point inside the line indicates an **underutilization** of resources. Underutilization means using fewer resources than the economy is capable of using. Point g in Figure 1.6 shows that Capeland is harvesting 5 million tons of watermelons and manufacturing 8 million pairs of shoes—much less than the maximum possible production.

efficiency using resources in such a way as to maximize the production of goods and services

underutilization using fewer resources than an economy is capable of using

Figure 1.6 Production Possibilities Curve Step 3



At point g on this graph, not all factor resources are being used, and the output of farm and factory goods is less than what is possible. Line S represents the economy's current production possibilities.

Line T represents future production possibilities if more land, labor, or capital resources become available.

Investment How does a society benefit when it invests money in the development of new technologies?

cost to an economist, the alternative that is given up because of a decision

Growth

A production possibilities curve reflects the country's current production possibilities as if the country's resources were frozen in time. In the real world, however, the quantity of resources a country has is constantly changing. If the quantity or quality of available land, labor, or capital changes, then the production possibilities curve will move. For example, if immigrants pour into a country, then more labor becomes available. In this way, the maximum amount of goods the nation can produce increases. Likewise, new inventions can change existing technology and allow workers to produce more goods and services at lower

costs. When an economy grows, economists say that the entire production possibilities curve has "shifted to the right." Line T in Figure 1.6 shows such a shift.

By contrast, when a country's production capacity decreases, the curve shifts to the left. A decrease could occur, for example, when a country goes to war and loses part of its land as a result. Likewise, if a country's population ages, or becomes less healthy or less educated, the supply of labor and human capital would decrease, and the curve would shift to the left.

Cost

Speaking economically, note that cost is not necessarily money. Rather, to an economist, **cost** is the alternative we give up when we choose one option over the other. This statement should sound familiar. To an economist, cost always means *opportunity cost*. We can use production possibilities graphs to see the opportunity cost involved in a decision.

Looking at the table in Figure 1.5, we can see that the cost of moving from producing no watermelons to producing 8 million tons of watermelons is 1 million pairs of shoes. In other words, we had to sacrifice 1 million pairs of shoes to produce 8 million tons of watermelons. In the same way, if we decide to produce 14 million tons of watermelons—an increase of only 6 million tons—it costs 2 million pairs of shoes. In the first step, those 8 million tons of watermelons cost 1 million pairs of shoes. In the second step, an increase of only 6 million tons of watermelons cost an additional 2 million pairs of shoes. This amounts to 3 million pairs of shoes for 14 million tons of watermelons.

Everyone would agree that switching from shoes to watermelons costs something. An economist looking at Capeland's economy would say that the switch has *increasing costs*. Each time we grow more watermelons, the sacrifice in terms of shoes increases. Finally, at the bottom of the table, it costs an *additional* 5 million pairs of shoes to increase watermelon production by only 1 million tons.

THE WALL STREET JOURNAL. CLASSROOM EDITION

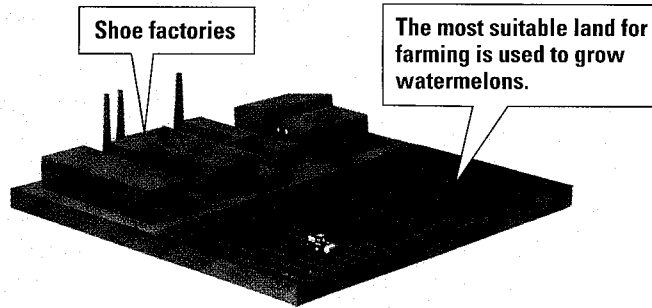
In the News Technological innovations like this one mentioned in a Wall Street Journal Classroom Edition article allow the **production possibilities frontier** to shift to the right.

"Several large companies have recently thrown their weight behind the technology of electronic paper, which aims to display electronic text on thin, flexible sheets filled with millions of microscopic capsules."

Figure 1.7 The Law of Increasing Costs

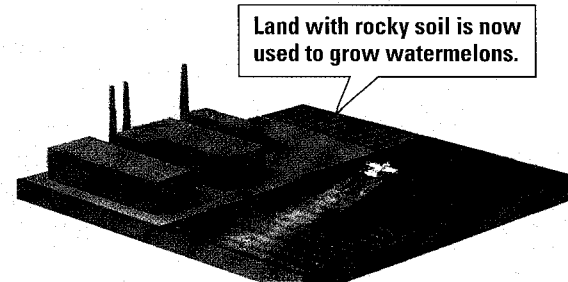
STEP 1

Initially, resources are used efficiently to make a balance of watermelons and shoes.



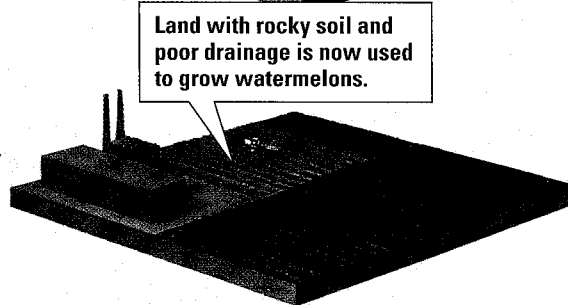
STEP 2

A decision is made to grow more watermelons. Less suitable resources are shifted to farm production. Farm production increases. Shoe production decreases.



STEP 3

A decision is made to grow even more watermelons, and more resources are shifted to farm production. Because the added land is less productive, a greater amount of it must be cultivated. Farm output increases. Shoe output decreases by an even greater amount.



The law of increasing costs states that as production shifts from one item to another, in this case from shoes to watermelons, more and more resources are necessary to increase production of the second item, in this case, watermelons. **Opportunity Cost** According to this diagram, what is the cost of increasing watermelon production?

Economists explain these increasingly expensive trade-offs with the **law of increasing costs**. This law states that as production switches from one item to another (for example, from shoes to watermelons), more and more resources are necessary to increase production of the second item (watermelons). Therefore, the opportunity cost increases.

Why does the cost increase? In this example it is because some resources are better suited for use in farming, while others are more appropriate for manufacturing. Moving resources from factory to farm production means that farmers must

use resources that are not as suitable for farming. For example, say that at first this economy used its most fertile land for growing watermelons. After the best land was used up, farmers had to use poorer land that could produce less per acre than the fertile land could. To increase output on the poorer land, farmers had to use more land and other resources.

The law of increasing costs explains why production possibilities frontiers, such as the one in Figure 1.5, usually curve. As we move along the curve, we trade off more and more to get less and less additional output.

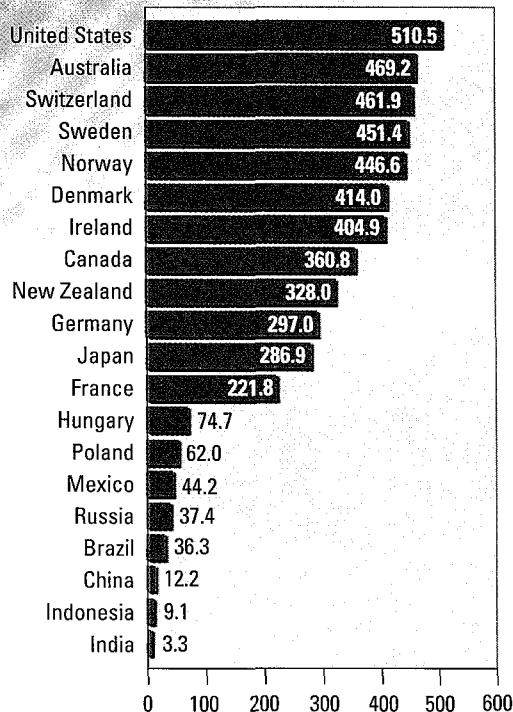
law of increasing costs
law that states that as we shift factors of production from making one good or service to another, the cost of producing the second item increases



The United States and Western Europe are the heaviest computer-using regions of the world.

Opportunity Cost
What opportunity cost might a poorer country face if it chose to purchase or produce more computers?

Figure 1.8 Personal Computers per 1,000 People, 1999



Source: World Bank, 2001 World Development Indicators

Resources and Technology

When economists collect data to create production possibility curves, they must first determine which goods and services a country can produce, given its current resources. A country's resources include its land and natural resources, its work force, and its physical and human capital. Both human and physical capital reflect a vital ingredient—technology. At any time, countries have different ways to produce shoes or watermelons or any of the thousands of products in the world. Each production method uses different technology, or know-how, to create products. So economists also must assess each country's level of technological know-how: whether Capeland makes shoes and plants watermelons by hand or whether they have machines to help. A country's production possibilities depend on both its technological level and the resources it has available.

Section 3 Assessment

Key Terms and Main Ideas

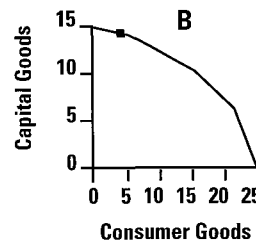
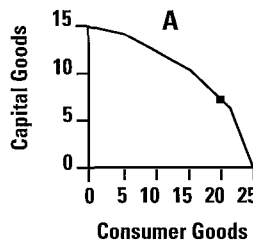
1. How is **underutilization** depicted on a production possibilities frontier?
2. How does a **production possibilities curve** illustrate how efficient an economy is?
3. How does a production possibilities curve illustrate **opportunity cost**?

Applying Economic Concepts

4. **Using the Databank** Turn to the charts showing the number of farms and the average size of farms on page 535. If the number of farms has decreased since 1950, does this mean that the production possibilities for farm output have also decreased? Why or why not?
5. **Problem Solving** How would you illustrate the impact of each of the following events on a production possibilities curve for factory goods and farm goods? (a) the computer

is invented (b) 1 million farm workers remain unemployed for six months (c) a drought

6. **Critical Thinking** Describe a specific event that would make each of the following happen to a production possibilities curve. (a) a point moves down and to the left (b) the frontier shifts to the right
7. **Decision Making** Assume that graphs A and B below each represent a production trade-off made by a society for its economy. Write a brief description of each society. Include specific examples of what the society is producing.



Take It to the NET

Changes in technology have had a great impact on the economy of the United States. Read about technological inventions and describe the impact of one or more on the nation's production possibilities frontier. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Real-life Case Study

Opportunity Cost

Safety at Any Cost?

When you buy a car, you face trade-offs: Do you buy the new subcompact that may not have enough room for your gear or the larger used sedan that needs a paint job? The features that make a car safer may also involve trade-offs. Economists urge consumers to consider the trade-offs and opportunity costs of each of their purchase decisions. Most of these opportunity costs fall into one of three categories: cost and convenience, size, and personal freedom.

Safety Devices Versus Cost and Convenience Over 40,000 people are killed every year in crashes on our roads. Safety features like antilock brakes and dual-side air bags may save lives, but they also make cars more expensive. Some features like seatbelts are sometimes seen as an inconvenience, so consumers do not always use them. Manufacturers would like to produce safe cars, but they must sell them at a price that buyers are willing to pay. Safety features are defeated if travelers ignore or disable them.

Size Versus Pollution Heavier cars are generally safer cars—they tend to hold up better when there is an accident and provide passengers with more protection. SUVs have become increasingly popular because they are heavy and taller, giving the driver a better view of the road. On the other hand, they are also more expensive to buy and more costly to run because they have lower fuel efficiency.

Burning extra fuel also means increasing auto emissions. The U.S. currently generates more greenhouse gas emissions than any other country in the world, and the amount is growing. Also, “gas guzzlers” increase our dependence on foreign oil.

Safety Laws Versus Personal Freedom Many states have struggled with laws requiring the use of seatbelts in cars, carseats for infants and young children, or helmets for motorcyclists. There is considerable evidence that these safety precautions reduce the severity of injury if there is an accident. However, laws requiring people to use seatbelts or helmets also restrict individual freedom, so there is a trade-off between a national interest in keeping people safe and a personal interest in being able to make your own life choices.

Applying Economic Ideas

1. Suppose you are buying a car. How would the trade-offs discussed above affect your decision?
2. The table at the right shows the specific costs of various optional auto safety devices. On what basis would you decide which, if any, of these safety options to buy?



▲ Safety devices save lives but also involve some opportunity costs.

The Costs of Auto Safety

Cost of vehicle: \$10,000

Safety feature	Cost
Antilock brakes	\$400.00
Side impact air bags	\$350.00
Traction control	\$1,200.00

Cost of vehicle: \$14,205

Safety feature	Cost
Antilock brakes	\$645.00
Side impact air bags	\$295.00
Traction control	n/a

Cost of vehicle: \$19,175

Safety feature	Cost
Antilock brakes	\$600.00
Side impact air bags	\$390.00
Traction control	\$600.00

Chapter 1 Assessment

Chapter Summary

A summary of major ideas in Chapter 1 appears below. See also the **Guide to the Essentials of Economics**, which provides additional review and test practice of key concepts in Chapter 1.

Section 1 Scarcity and the Factors of Production (pp. 3–6)

Economics is the study of how people seek to satisfy their needs and wants by making choices. People, businesses, and governments must make choices because all resources are scarce. **Scarcity** means limited quantities of resources to meet unlimited needs or desires. Economists call the resources that are used to make all goods and services the factors of production. The three factors of production are land, labor, and capital. Entrepreneurs are leaders who combine the three factors of production to create new goods and services.

Section 2 Opportunity Cost (pp. 8–11)

Every decision involves **trade-offs**. Trade-offs are all the alternatives that we give up when we choose one course of action over another. The most desirable alternative given up as the result of a decision is called the **opportunity cost**. If a decision involves choosing one more or one fewer unit of an input, economists say we are **thinking at the margin**. Employers think at the margin to decide how many workers to hire.

Section 3 Production Possibilities Curves (pp. 13–18)

Economists draw curves or graphs in order to help them analyze the choices and trade-offs people make. A **production possibilities curve** shows the alternative ways in which an economy's resources can be used. The **production possibilities frontier** is the line or curve on the graph that represents the maximum amount that an economy can produce. Points inside the frontier reflect an **underutilization** of resources. If the amount of available land, labor, or capital increases, the entire curve can shift to the right. The **law of increasing costs** states that as production shifts from one item to a second item, more and more resources are necessary to increase production of the second item.

Key Terms

Complete each sentence by choosing the correct answer from the list of terms below. You will not use all of the terms.

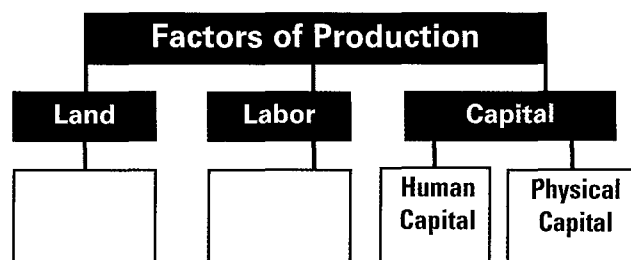
capital
entrepreneur
goods
“guns or butter”
land

opportunity cost
scarcity
trade-offs
underutilization
economics

1. Economists define _____ as “limited quantities to meet unlimited wants.”
2. All decisions involve _____ because we must give up some alternatives when we choose a certain course of action.
3. The term _____ refers to all natural resources that are used to produce goods and services.
4. Economists use the phrase _____ to describe the trade-offs a country is forced to make when choosing between military and consumer production.
5. A(n) _____ is the most important sacrifice that results from making a decision.
6. A person who starts a new business or develops an original idea is known as a(n) _____.
7. _____ of resources occurs when an economy uses fewer resources than it is capable of expending.

Using Graphic Organizers

8. On a separate sheet of paper, copy the tree map below to help you organize information about the factors of production. Complete the tree map by writing descriptions and examples for each of the headings shown.



Reviewing Main Ideas

9. Using examples of land, labor, and capital, explain why economists believe that all goods and services are scarce.
10. Explain how each of the following people would talk about scarcity and trade-offs. (a) the President of the United States (b) the leader of a developing nation (c) a U.S. citizen whose income is in the top one percent (d) a U.S. citizen whose income is in the bottom 5 percent
11. What three important pieces of information can we learn by reading a production possibilities graph?
12. Explain the law of increasing costs.

Critical Thinking

13. **Testing Conclusions** Review the typical benefits of physical capital described in Section 1. Give specific examples of how the first railroads in the United States created or did not create the benefits of physical capital.
14. **Predicting Consequences** Describe three services that the government provides to its citizens. Identify some of the opportunity costs of providing each of those services.
15. **Drawing Conclusions** Some economists consider entrepreneurship to be a fourth factor of production in addition to land, labor, and capital. Other economists consider entrepreneurship to be a special category of labor. Which group of economists do you agree with? Why?

Problem-Solving Activity

16. Suppose that you lent \$100 to a friend, and he or she paid you back one year later. What was the cost of lending your friend this money?

Economics Journal

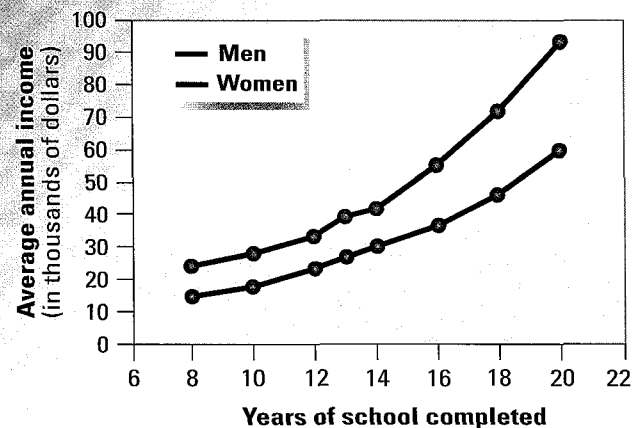
Essay Writing Review your Economics Journal entry for Chapter 1. Write a brief essay describing the opportunity cost for each of the three decisions that you noted in your journal.

Skills for Life

Interpreting Line Graphs Review the steps shown on page 12; then answer the following questions about the line graph shown below.

17. What relationship does the line graph describe?
18. What is the average annual income of men with 16 years of education?
19. How many years of schooling result in an average annual income of \$60,000 for women?
20. What could you conclude from the line graph about the relationship between income and education?
21. Use this graph to practice thinking at the margin. Suppose you have just completed grade 12. If you spend one more year in school, by how much will your lifetime income increase (assuming you work until age 65)?

Income and Education, 1998



Source: Bureau of the Census



Take It to the NET

Chapter 1 Self-Test As a final review activity, take the Economics Chapter 1 Self-Test in the Social Studies area at the Web site listed below and receive immediate feedback on your answers. The test consists of 20 multiple-choice questions designed to test your understanding of the chapter content.

www.phschool.com

Chapter

2

Economic Systems

A system is a way of doing something. The trains, tracks, platforms, routes, and schedules of a subway system move people around a city. Our education system teaches us reading, writing, and arithmetic. Economic systems enable societies to produce and distribute goods and services.

Economics Journal

Make a list of all the different systems you used yesterday. How would your day have been different without these systems?



Keep It Current

Items marked with this logo are periodically updated on the Internet. Keep up-to-date with what's in the news. To get current information on economic systems go to www.phschool.com



Answering the Three Economic Questions

Preview

Objectives

After studying this section you will be able to:

1. **Identify** the three key economic questions of what to produce, how to produce, and who consumes what is produced.
2. **Analyze** the societal values that determine how a country answers the three economic questions.
3. **Explain** the characteristics of traditional, command, and market economies and describe the societal values that influence them.

Section Focus

All societies must answer three key economic questions about the production and consumption of goods and services. How a society answers these questions depends on how much it values different economic goals. Four different economic systems have developed in response to these three questions.

Key Terms

economic system
factor payments
patriotism
safety net
standard of living
traditional economy
market economy
centrally planned economy
command economy
mixed economy

In Chapter 1, you read about the economic concept of scarcity—that we cannot have all that we want or need. Indeed, in some places in the world, people cannot even meet their basic needs for food, clothing, and shelter because their resources are too scarce. Scarcity forces societies and nations to answer some hard economic questions. Different economic systems have evolved in response to the problem of scarcity. An **economic system** is the method used by a society to produce and distribute goods and services. Which economic system a society employs depends on that society's goals and values.

Three Key Economic Questions

Because economic resources are limited, every society must answer three key economic questions:

- What goods and services should be produced?
- How should these goods and services be produced?
- Who consumes these goods and services?

What Goods and Services Should Be Produced?

Each society must decide what to produce in order to satisfy its needs and wants. In today's complex societies, it is often difficult to distinguish between needs and wants. While it may be obvious that we need food and shelter, modern societies face additional important considerations. How much of our resources should we devote to national defense, education, public health and welfare, or consumer goods? Which consumer goods should we produce?

Recall the guns-and-butter trade-off described in Chapter 1. Because of our limited resources, each production decision that a society makes comes at an opportunity cost.

How Should Goods and Services Be Produced?

The next question we face is how to use our resources to produce goods and services. For example, should we produce electricity with oil, solar power, or nuclear power? Should teachers have classes of 20 students or 50 students? Should we produce food on large corporate farms or on small family farms?

economic system *the method used by a society to produce and distribute goods and services*

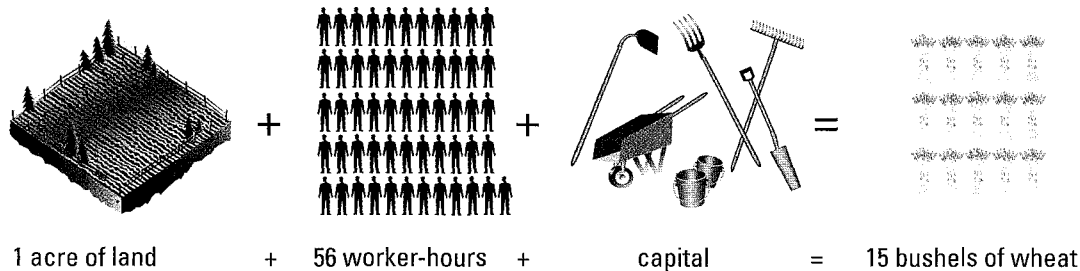


Today, capital—not labor—dominates the answer to how wheat is produced.

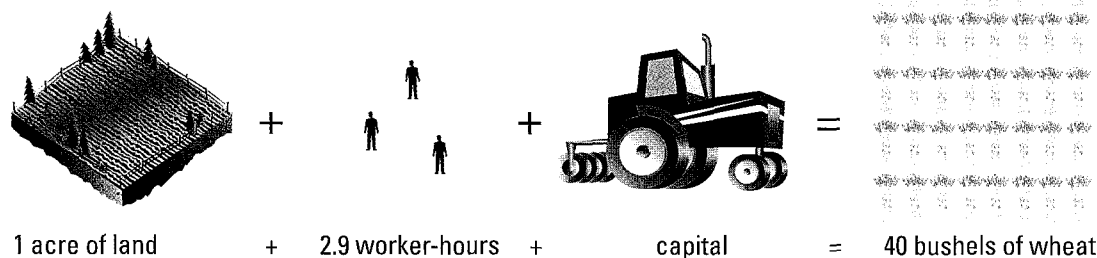
Opportunity Cost
Identify the opportunity costs of each method of farming.

Figure 2.1 Combining Factor Resources

Hand tools



Modern mechanical equipment



factor payments the income people receive for supplying factors of production, such as land, labor, or capital

Although there are countless ways to create all of the things we want and need, all require land, labor, and capital. These factors of production can be combined in different ways. For example, examine the chart above (Figure 2.1). Before the introduction of modern farming equipment, a typical combination of resources for producing 15 bushels of wheat was 56 hours of labor, 1 acre of land, and simple hand tools. With today's mechanical farming equipment, farming is much more efficient. Forty bushels of wheat can be harvested from one acre of land with just 2.9 worker-hours of labor.

Who Consumes Goods and Services?

By the end of the 1990s, the top 25 goods manufacturers in the United States were launching an average of 13 new products every day. Retail stores, which 50 years ago typically carried about 3,000 items, now offered about 30,000 different products. American farms produce 315 million metric tons of wheat, rice, and corn and maintain about 180 million head of livestock. Despite this staggering output, quantities are not unlimited.

How does this abundance get divided up? Who gets to drive a new luxury car and who can only afford a subway pass? Who attends a concert and who stays home? Who eats a well-balanced diet and who eats nothing but hot dogs for every meal? Who gets access to a good education? Societies must decide how to distribute the available goods and services.

The answer to the question of distribution is determined by how societies choose to distribute income. **Factor payments** are the income people receive for supplying factors of production—land, labor, capital, or entrepreneurship. Landowners receive rent, workers receive wages, and those who lend money to build factories or buy machinery receive payments called interest. Entrepreneurs earn profits if their enterprises succeed.

How much should we pay the owners of the factors of production? How do we decide how much a particular piece of land is worth, how much teachers should earn versus how much doctors should earn, or what the interest rate should be?

The question of who gets to consume which goods and services lies at the very

heart of the differences between economic systems today. Each society answers the question of distribution based on its unique combination of social values and goals.

Economic Goals and Societal Values

Different societies answer the three economic questions based on the importance they attach to various economic goals. Figure 2.2 lists some general economic goals that most economic systems try to address. Bear in mind that societies pursue each of these goals, to some degree, at the expense of the others.

Economic Efficiency

Because resources are always scarce—that is, they always involve an opportunity cost—most societies try to maximize what they can get for the resources they have to work with. If a society can accurately assess what to produce, it increases its economic efficiency. A manufacturer would be wasting resources producing record albums if people prefer to buy CDs. Knowing the best way to produce a product cuts waste, too. Of course, in the end, products need to reach consumers. An economy that can't deliver goods isn't efficient.

Economic Freedom

Most of us value the opportunity to make our own choices. How do you feel about laws that keep you from earning an income? What about laws that forbid you to make certain purchases or possess certain items? The economic systems of different nations allow different degrees of economic freedoms. In general, however, people all over the world face limitations on economic freedom.

In the United States, the economic freedoms that we as Americans enjoy are an important reason for our patriotism. **Patriotism** is the love of one's country—the passion that inspires a person to serve his or her country, either in defending it from invasion or protecting its rights and maintaining its laws and institutions. The freedoms that allow any American who so chooses to become an entrepreneur, for example, are continuing sources of pride and patriotism.

Economic Security and Predictability

Most people don't like uncertainty. We want to know that we can get milk and bread every time we go to the grocery store, or that the gas pumps will be full when we

patriotism the love of one's country; the passion that inspires a person to serve his or her country



This family (left) will need to rebuild their home after a devastating hurricane. **Government** Which economic goal could help them recover from the storm?



Figure 2.2 Economic Goals

Economic efficiency	Making the most of resources
Economic freedom	Freedom from government intervention in the production and distribution of goods and services
Economic security and predictability	Assurance that goods and services will be available, payments will be made on time, and a safety net will protect individuals in times of economic disaster
Economic equity	Fair distribution of wealth
Economic growth and innovation	Innovation leads to economic growth, and economic growth leads to a higher standard of living.
Other goals	Societies pursue additional goals, such as environmental protection.

safety net *government programs that protect people experiencing unfavorable economic conditions*

standard of living *level of economic prosperity*

traditional economy *economic system that relies on habit, custom, or ritual to decide questions of production and consumption of goods and services*

▼ **The traditional economy of Guatemala's Quiché Maya includes regular market days.**

go to gas up our cars. We want to feel confident that we will get our paychecks every payday. Ideally, economic systems reassure people that goods and services will be available when they need them and that they can count on receiving expected payments on time.

We also want the security of knowing that help is available if we are elderly, poor, unemployed, or facing some other potential economic disadvantage. Most people feel that the government should provide some kind of **safety net**, or set of government programs that protect people experiencing unfavorable economic conditions. These include injuries, layoffs, natural disasters, or severe shortages. Most countries also believe in providing some sort of base income for retired persons to ensure that older people can support themselves after retirement.

Economic Equity

Each society must decide the best way to divide its economic pie. What constitutes a fair share? Should everyone get the same, or should one's consumption depend on how much one produces? How much should society provide for those who are unable or unwilling to produce?

Many people believe in equal pay for equal work, but society does not value all jobs equally. Most lawyers earn more than most nurses. Most computer programmers

earn more than most truck drivers. Not everyone is able to work. How should we provide for the ill and infirm?

Economic Growth and Innovation

A nation's economy must grow for a nation to improve its **standard of living**, or level of economic prosperity. This is especially true if a country's population is growing. The economy also must grow to provide new jobs and income for people.

Innovation plays a huge role in economic growth. Think of the changes brought about by the shift from nomadism to agriculture, from the agricultural age to the industrial age, from the industrial age to the information age. Innovations in technology increase the efficiency of production and usher in new goods and services. In your lifetime, you are witnessing innovations in computer and networking technology that are changing the ways people work, shop, conduct business, locate information, and communicate.

Additional Goals

A society may value goals in addition to those described above. Environmental protection, full employment, universal medical care, and other important concerns may be among a nation's chief economic goals.

All nations must prioritize their economic goals, or arrange them in order of importance. No matter how a nation prioritizes its goals, one fact remains: achieving any economic goal comes only with some kind of economic trade-off.

Economies and Values

Four different economic systems have developed to address the three key economic questions. Each system reflects a different prioritization of economic goals. It also reflects the values of the societies in which these systems are present.

Traditional Economies

A **traditional economy** relies on habit, custom, or ritual to decide what to



produce, how to produce it, and to whom to distribute it. There is little room for innovation or change. The traditional economic system revolves around the family. Work tends to be divided along gender lines. Boys tend to take up the occupations of their fathers, while girls follow in the footsteps of their mothers.

Traditional economies are usually communities that tend to stay relatively small and close. Often these societies work to support entire groups, rather than just themselves or their immediate families. Agricultural and hunting practices usually lie at the very heart of the people's lives, laws, and religious beliefs.

Societies with traditional economies have few mechanisms in place to deal effectively with the effects of environmental disaster, such as a flood or drought. They also tend to remain stagnant, resisting change at both the individual and community level. They may be slow to adopt new technology or radical new ideas. They may not have access to goods you see every day at the grocery store. In most cases, these communities lack modern conveniences and have a low standard of living.

Market Economies

In a **market economy**, economic decisions are made by individuals and are based on exchange, or trade. The choices made by individuals determine what gets made and how, as well as who consumes the goods and services produced. Market economies are also called free markets, or capitalism. You will read about the free market in detail in Section 2.

Command Economies

In a **centrally planned economy**, the central government alone decides how to answer all three key economic questions. Centrally planned economies are sometimes called **command economies**, because a central authority is in command of the economy. Section 3 discusses the theories behind centrally planned economies.

Mixed Economies

Most modern economies are **mixed economies**—market-based economic systems in which government plays a limited role. Section 4 describes the reasons for mixed economies and the various ways government is involved in such economies.

market economy
economic system in which decisions on production and consumption of goods and services are based on voluntary exchange in markets

centrally planned economy
economic system in which the central government makes all decisions on the production and consumption of goods and services

command economy
economic system in which a central authority is in command of the economy; a centrally planned economy

mixed economy
market-based economic system with limited government involvement

Section 1 Assessment

Key Terms and Main Ideas

1. What is an **economic system**?
2. How do a **traditional economy**, a **market economy**, a **command economy**, and a **mixed economy** differ?
3. Why aren't all people paid the same amount in **factor payments** for the resources they provide? Provide your own example of two unequal factor payments.
4. Why do governments provide **safety nets** for their citizens?
5. Give at least one example of a traditional, a command, and a market economic system.

Applying Economic Concepts

6. **Using the Databank** Examine the graph "Government Spending, by Category" on page 543. Based on the information in the graph, identify what you think are some economic goals of the United States.
7. **Critical Thinking** Create a chart in which you list the societal values of each of the four economic systems described in the section.
8. **Try This** You and your friends decide to earn money by washing cars. How are the three economic questions answered in this market?



Take It to the NET

Companies answer the three basic economic questions all the time. A company's "mission statement" usually contains the answers to most of these questions. Find a company you already are familiar with, and then identify its mission statement and how it does or does not answer the three basic questions. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Section 2

The Free Market

Preview

Objectives

After studying this section you will be able to:

1. **Explain** why markets exist.
2. **Analyze** a circular flow model of a free market economy.
3. **Understand** the self-regulating nature of the marketplace.
4. **Identify** the advantages of a free market economy.

Section Focus

Markets exist so that people can exchange what they have for what they want. A free market is a self-regulating economic system directed by individuals acting in their own self-interest.

Key Terms

market
specialization
household
firm
factor market
profit
product market

self-interest
incentive
competition
invisible hand
consumer
sovereignty

market *an arrangement that allows buyers and sellers to exchange things*

What do a farmers' market, a sporting goods store, the New York Stock Exchange, and the sign you posted on your community bulletin board advertising baby-sitting services have in common? All are examples of markets. A **market** is an arrangement that allows buyers and sellers to exchange things.

Why Markets Exist

Markets exist because no one is self-sufficient. In other words, none of us produces all we require to satisfy our needs and wants. You probably didn't grow the plants to make the fibers to weave the cloth to make the shirt you're wearing. Instead, you purchased your shirt at a store, which is an example of a market. Markets allow us to exchange the things we have for the things we want.

Specialization

Instead of being self-sufficient, each of us produces just one or a few products. A nurse specializes in caring for the sick. A



► This Thai spice stand, Brazilian stock exchange, and Indian barber shop (left to right) are all examples of markets.



marine mechanic specializes in repairing machinery aboard sea craft. A baker specializes in making breads, cakes, and cookies. **Specialization** is the concentration of the productive efforts of individuals and firms on a limited number of activities.

Specialization makes us more efficient. It is much easier to learn one task or a few tasks very well than to learn them all.

Buying and Selling

Because each of us specializes in producing just a few products, we need markets to sell what we have and to buy what we want. The typical person earns an income (specializing at a particular job) and uses this income to buy the products that he or she wants to consume. If each person were self-sufficient, producing everything he or she wanted to consume, there would be no need for markets.

Free Market Economy

Economic systems that are based on voluntary exchanges in markets are called free market economies. In a free market economy, individuals and businesses use markets to exchange money and products.

In a free market system, individuals and privately owned businesses own the factors of production, make what they want, and buy what they want. In other words, in a free market system, individuals answer the three key economic questions of what to

produce, how to produce it, and who consumes that which is produced. As you might guess, a free market economy functions best in an environment of decentralized decision-making such as enjoyed in the United States.

We can represent a free market economy in a special kind of drawing called a circular flow diagram, or model. A circular flow diagram shows at a glance how individuals and businesses exchange money, resources, and products in the marketplace. Figure 2.3 shows a circular flow diagram of a free market economy. The inner ring of the diagram represents the flow of resources and products. The outer ring represents the flow of money.

Households and Firms

The players in the free market economy are households and firms. A **household** is a person or group of people living in the same residence. Households own the factors of production—land, labor, and capital. Households are also the consumers of goods and services.

A business, or **firm**, is an organization that uses resources to produce a product, which it then sells. Firms transform “inputs,” or factors of production, into “outputs,” or products.

Factor Market

As you can see from the lower half of the circular flow diagram in Figure 2.3, firms purchase factors of production from households. This arena of exchange is called the **factor market**. Firms purchase or rent land (natural resources). They hire workers, paying them wages or salaries for their labor. They also borrow money from households to purchase capital, paying households interest or profits in return. **Profit** is the financial gain made in a transaction.

Product Market

Take a close look at the top half of the circular flow diagram in

specialization the concentration of the productive efforts of individuals and firms on a limited number of activities

household a person or group of people living in the same residence

firm an organization that uses resources to produce a product, which it then sells

factor market market in which firms purchase the factors of production from households

profit the financial gain made in a transaction

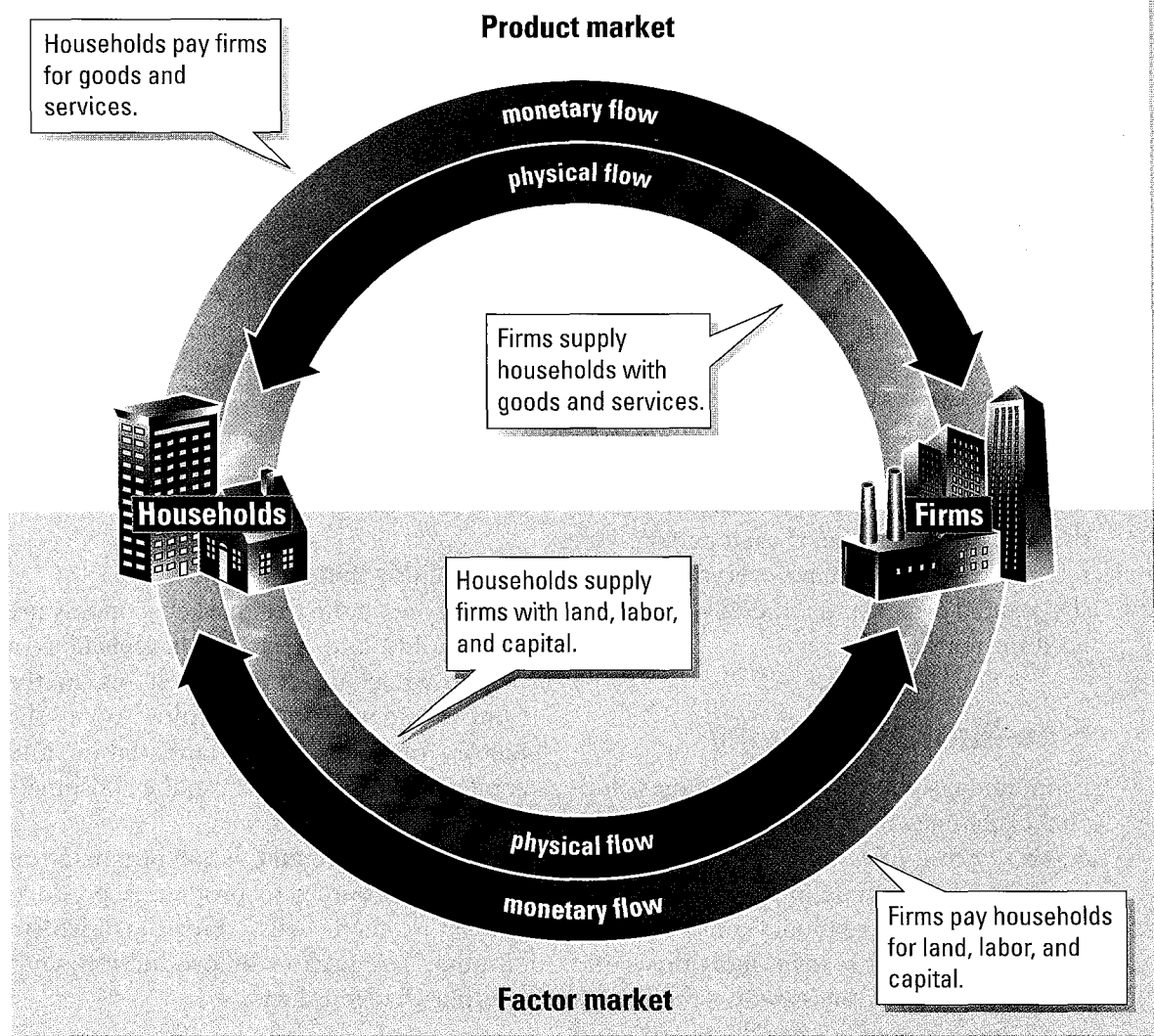




A circular flow model shows the interactions between households and businesses in the free market.

Economic Systems
What is exchanged in the factor market? In the product market?

Figure 2.3 Circular Flow Model of a Market Economy



product market
the market in which households purchase the goods and services that firms produce

Figure 2.3. You can see that the goods and services that firms produce are purchased by households in the **product market**.

If you follow the rings of the diagram, you will see that households purchase the products made by firms with the money they received from firms in the factor market. The flow between the factor market and the product market is truly circular.

The Self-Regulating Nature of the Marketplace

How is it that firms and households cooperate to give each other what they want—factor resources, in the case of firms, and

products, in the case of households? As anyone knows who has tried out for the track team, a part in a play, or has applied for a job or to a college, we live in a competitive society. According to Adam Smith, it is, in fact, competition and our own self-interest that keep the marketplace functioning.

Self-Interest

Adam Smith was a Scottish social philosopher who, in 1776, published a book titled *The Wealth of Nations*, in which he described how the market functions. Smith observed that an economy is made up of countless individual transactions. In each transaction, the buyer and seller consider

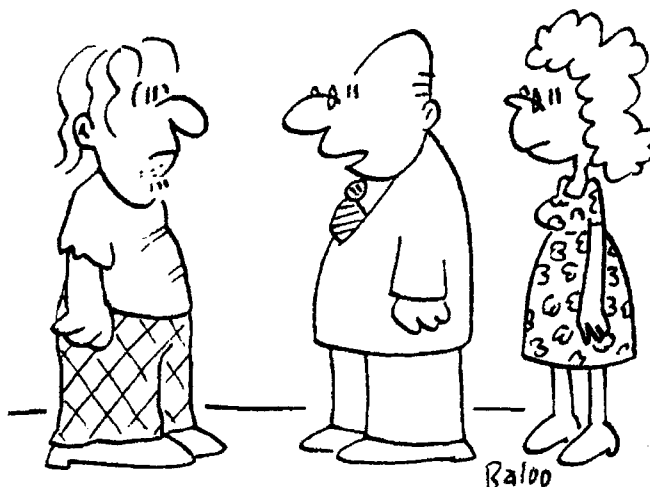
only their **self-interest**, or their own personal gain. Self-interest, in other words, is the motivating force in the free market.

Competition

Consumers (households), in pursuit of their self-interest, have the incentive to look for lower prices. An **incentive** is the hope of reward or the fear of punishment that encourages a person to behave in a certain way. Adam Smith observed that people respond predictably to both positive and negative incentives. As for consumers, we can predict that they will respond to the positive incentive of lower prices. This makes sense, because spending less money on a good lowers the opportunity cost of the purchase.

Firms, meanwhile, seek to make greater profits by increasing sales. Let's take, for example, a shirt manufacturer. The manufacturer produces and sells polka-dotted shirts and striped shirts. The striped shirts are far outselling the polka-dotted shirts. The manufacturer has the incentive—from more potential sales and profits—to produce more striped shirts. Other manufacturers, observing consumers' desire for striped shirts, also have the incentive to sell striped shirts. With all these manufacturers in the market, consumers have all the striped shirts they want.

Manufacturers also have a second incentive—to make the most profit in selling striped shirts. What keeps manufacturers' pursuit of profit from causing prices to



"Son, your mother and I have decided to let the free market take care of you."

skyrocket? If one manufacturer begins charging \$30.00 for a striped shirt, another manufacturer can come along and sell striped shirts for \$25.00. If the first manufacturer wants to sell any more striped shirts, he or she had better drop the selling price. Consumers, pursuing their self-interest, will buy the lower-priced shirt. Economists call this struggle among producers for the dollars of consumers **competition**. While self-interest is the motivating force behind the free market, competition is the regulating force.

The Invisible Hand

Self-interest and competition work together to regulate the marketplace. Self-interest spurs consumers to purchase certain goods

▲ How could the free market take care of this young man?

self-interest one's own personal gain

incentive an expectation that encourages people to behave in a certain way

competition the struggle among producers for the dollars of consumers



◀ Competing businesses scream for the attention of consumers.

FAST FACT

Self-interest and the **free market** will provide social services—if there's a **profit** to be gained. One large temporary employee agency recruits and trains workers from the ranks of the urban poor. Bypassing the social-welfare agencies that are charged with getting people off public assistance, it finds work for individuals and employees for businesses, and makes a **profit** for itself.

and services and firms to produce them. Competition causes more production and moderates firms' quests for higher prices. The overall result is that consumers get the products they want at prices that closely reflect the cost of producing them. All of this happens without any central plan or direction. Adam Smith called this phenomenon "the **invisible hand** of the marketplace."

economic freedom of any system. This includes the freedom of workers to work where they want, of firms to produce what they want, and of individuals to consume what they want.

3. **Economic growth** Because competition encourages innovation, free markets encourage growth. Entrepreneurs are always seeking profitable opportunities, contributing new ideas and innovations.
4. **Additional goals** Free markets offer a wider variety of goods and services than any other system, because producers have incentives to meet consumers' desires. Consumers, in essence, decide what gets produced. This is called **consumer sovereignty**.

Advantages of the Free Market

Competition and the pursuit of self-interest serve the public interest. The free market, on its own, meets many economic goals.

1. **Economic efficiency** Because it is self-regulating, a free market economy responds efficiently to rapidly changing conditions. Producers make only what consumers want, when they want it, and generally at prices they are willing to pay.
2. **Economic freedom** Free market economies have the highest degree of

Despite its advantages, no pure market economy exists on any meaningful scale. The same features that make free markets attractive also represent the weaknesses of the free market. The goals of economic equity and economic security are difficult to achieve in a pure market system. In Section 4, you will read about how the free market system has been modified by various nations in order to better meet the entire array of economic goals.

invisible hand term economists use to describe the self-regulating nature of the marketplace

consumer sovereignty the power of consumers to decide what gets produced

Section 2 Assessment

Key Terms and Main Ideas

1. How does **specialization** make us more efficient?
2. What is the difference between the **factor market** and the **product market**?
3. What is **profit**?
4. What are the roles of **households** and **firms** in a market economy?
5. How does **competition** among firms benefit consumers?
6. Explain what Adam Smith meant by "the **invisible hand** of the marketplace."
7. What is the connection between **incentives** and **consumer sovereignty** in a free market economy?

Applying Economic Concepts

8. **Critical Thinking** Why is economic equity difficult to achieve in a free market economy?
9. **Try This** You will need a stack of paper and two staplers. You and a friend create "fold-its" by folding each sheet of paper in thirds and stapling both ends. How many fold-its can you make in two minutes? Next, try specializing: one of you folds while the other staples. Now how many fold-its can you make in two minutes?
10. **Critical Thinking** Provide at least three real-world examples to illustrate the circular flow model of a market economy.



Take It to the NET

A high degree of economic freedom is a characteristic of a free market system. Which countries exhibit the most economic freedom? Where are most of these countries located? Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Profile

Adam Smith (1723–1790)

One of the first people to offer an explanation of how a market economy works was the Scottish philosopher Adam Smith.

Beginning in his early twenties, Smith enjoyed a long career teaching at universities in Scotland. Although more than a little absent-minded, Smith was adored by his students and respected by his fellow professors. More importantly, his ideas won him fame and influence across Britain.



The Wealth of Nations

Today, we most remember Adam Smith for the theories expressed in his book *The Wealth of Nations*. Published in 1776, *The Wealth of Nations* still stands as an authoritative description of how a market system can flourish.

In the book, Smith identifies land, labor, and capital as the factors of production that generate a nation's wealth. When the production of goods is divided into many steps, and workers specialize in only one step, productivity increases. Higher productivity increases the overall wealth of the nation.

Laissez Faire

Adam Smith also called for restricting the role of government in the economy. Smith insisted that government must leave individuals as free as possible to pursue their own interests if a market economy is to run smoothly. This policy is known as *laissez faire*, which means "let them do (as they please)." In Smith's view, individuals left alone to try to better themselves will produce a multiplication of riches: more jobs and more goods and services.

The Invisible Hand and Self-Interest

Adam Smith also noticed that businesses could provide the goods and services that consumers needed without the help of a central plan telling them what to do. How do they do it? Smith gave credit to an invisible hand.

In Smith's view, the invisible hand guides a nation's resources to their most productive use. One of the invisible hand's tools is self-interest. Individuals, each pursuing what is best for him or her, make decisions that ultimately benefit the nation.

For example, consumers can satisfy their self-interest by buying goods. Business people satisfy their self-interest by making the goods consumers want and selling them for a profit. As sales increase, businesses can raise prices. At this point the invisible hand takes over. Another person sees the profits and starts a competing business, charging a slightly lower price. Other businesses must follow if they want to keep their customers, and balance is restored to the market.

CHECK FOR UNDERSTANDING

1. Source Reading Rewrite the following passage from *The Wealth of Nations* in your own words: "It is not from the benevolence [kindness] of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest."

2. Critical Thinking What are the forces that together comprise the invisible hand?

3. Learn More Conduct further research and describe the similarities between two 1776 publications: *The Wealth of Nations* and the Declaration of Independence.

Section 3

Centrally Planned Economies

Preview

Objectives

After studying this section you will be able to:

1. **Describe** how a centrally planned economy is organized.
2. **Analyze** the centrally planned economy of the former Soviet Union.
3. **Identify** the problems of a centrally planned economy.

Section Focus

In a centrally planned, or command, economy, the central government controls the economy. Central planning has limitations and disadvantages not found in market economies.

Key Terms

socialism
communism
authoritarian
collective
heavy industry

Centrally planned economies operate in direct contrast to free market systems. Centrally planned economies oppose private property, free market pricing, competition, and consumer choice.

How Is a Centrally Planned Economy Organized?

In a centrally planned economy, the central government, rather than individual producers and consumers in markets,

answers the key economic questions of production and consumption. A central bureaucracy makes all the decisions about what items to produce, how to produce them, and who gets them. After collecting information, bureaucrats tell each firm what and how much to produce. It is up to the bureaucrats to ensure that each firm has enough raw materials and workers to meet its production goals.

Government Control of Factor Resources and Production

In a centrally planned economy, the government owns both land and capital. In a sense it owns labor, too, by controlling

► Government posters in Cuba (left) and Cambodia (right) try to inspire worker productivity in these centrally planned economies.



where individuals work and what wages they are paid. The government decides what to produce, how much to produce, and how much to charge. Each year, it directs workers to produce a certain number of trucks, so many yards of cotton fabric, a certain amount of glass, and so on. Farmers are told what to plant, how to plant, and where to send their crops. The free market forces of self-interest and competition are absent from the system.

For example, let's follow the decision-making process for the production of military uniforms and a consumer product—sweaters.

1. The top planners decide that more military uniforms than sweaters will be made. They send this decision to the materials committee.
2. Knowing how much cotton is available, the materials committee decides how many sweaters and how many military uniforms will be made. They send their decision to the cotton makers, the button makers, and the elastic makers.
3. The cotton, the buttons, and the elastic arrive at sweater factories and uniform factories where they are manufactured into sweaters and uniforms.

As you can see, decisions on what to produce and how much to produce are not determined by consumers. Chances are that many citizens living under this economy would still need new sweaters. This lack of consumer voice in production and distribution shows that under centrally planned economies, consumers do not have consumer sovereignty.

Socialism and Communism

The words most often associated with centrally planned economies are *socialism* and *communism*. They are often used interchangeably, but we need to make a distinction between the two terms.

Socialism is a social and political philosophy based on the belief that democratic means should be used to distribute wealth evenly throughout a society. Real equality, socialists argue, can only exist when



▲ How would you describe production in this Romanian factory?

political equality is coupled with economic equality. Economic equality is possible only if the public controls the centers of economic power. Although socialist nations may be democracies, socialism requires a high degree of central planning to achieve economic equality.

In socialist countries the government often owns major industries, such as utilities. Socialism, as you will see in Section 4, exists to varying degrees in different nations throughout the world.

Communism is a political system that arose out of the philosophy of socialism. **Communism** is characterized by a centrally planned economy with all economic and political power resting in the hands of the central government.

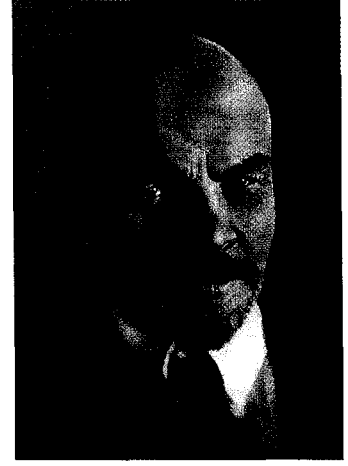
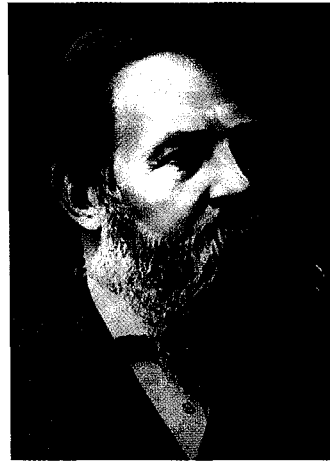
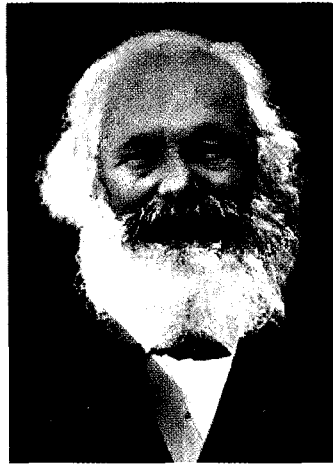
Unlike socialists, however, communists believed that a socialist society can only come about after a violent revolution. While socialist economies can still allow for democracy, communist governments are **authoritarian**. Authoritarian governments exact strict obedience from their citizens and do not allow individuals freedom of judgment and action. Throughout history, communist nations have been dominated by a single political

socialism a social and political philosophy based on the belief that democratic means should be used to evenly distribute wealth throughout a society

communism a political system characterized by a centrally planned economy with all economic and political power resting in the hands of the central government

authoritarian requiring strict obedience to an authority, such as a dictator

► Karl Marx (left) and Friedrich Engels (center) introduced their socialist philosophy in *The Communist Manifesto* in 1848. The term *communist* was adopted by the Bolsheviks who, led by Vladimir Lenin (right), took control of Russia in 1917.



collective large farm leased from the state to groups of peasant farmers

party or dictator. The former Soviet Union was a communist nation that provides us with a good case study of how a centrally planned economy works—and doesn't work.

The Former Soviet Union

The Soviet Union arose out of a pair of revolutions in Russia in 1917. In March, imperial rule in Russia came to an end when Czar Nicholas II was forced from the throne. A provisional republican government was set up, but by November it, too, was toppled. It was taken over by the Bolsheviks, revolutionary socialists led by Vladimir Lenin. Once in power, they renamed themselves communists. Under the control of the Communist party, central planning was introduced during the 1920s and continued to operate until the breakup of the Soviet Union in 1991.

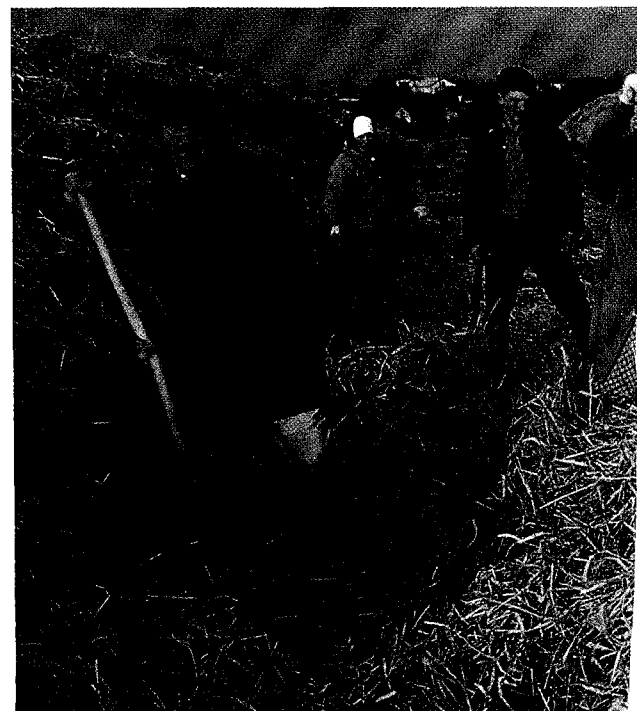
Soviet planners were most concerned with building national power and prestige in the international community. As a result, they allocated the best land, labor, and capital to the armed forces, space program, and production of capital goods such as farm equipment and factories. The committees that ran the system were responsible for deciding the quantity, production process, and distribution of 24 million different goods and services.

Soviet Agriculture

In the Soviet Union, the central government created large state-owned farms and collectives for most of the country's agricultural production. On state-run farms, the state provided farmers with all equipment, seed, and fertilizer. Farmers worked for daily wages set by economic planners.

Collectives were large farms leased from the state to groups of peasant farmers. Farmers managed operation of the collectives, though they still were required to produce what the government instructed them to. Farmers either received a share of what they produced or income from its sale.

Agricultural workers were guaranteed employment and income, and the govern-



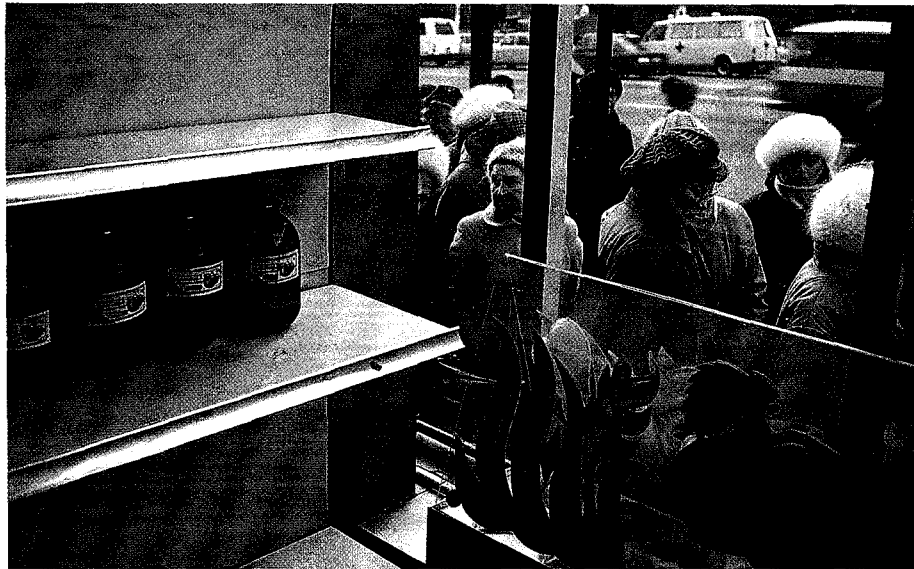
► How would you describe the farming techniques shown in this photo of a Soviet collective?

ment established quotas and distribution. Under such a system, individuals had few incentives to produce more or better crops. While Russia had been a major exporter of wheat until 1913, before long the Soviet Union could not keep its own people fed. Soviet agriculture bore much of the opportunity cost of Soviet central planning decisions.

Soviet Industry

Soviet factories also were state-owned. Planners favored the defense industry, the space program, and **heavy industry**. (Heavy industry requires a large capital investment to produce items used in other industries. Chemical, steel, and heavy machinery manufacturing are heavy industries.) The makers of consumer goods and services paid the opportunity cost of this concentration of resources. They were stuck with leftover, lower-quality resources with which to create their products.

Like agriculture, industry was characterized by a lack of incentives. Jobs were guaranteed, and wages were set by the government. Once a production quota was met, there was no reason to produce more goods. Workers had little incentive to work harder or to innovate. In fact, it was illegal for workers to exhibit entrepreneurial behavior.



▲ Shifting from communism to a free market economy has been a difficult transition. Consumers often waited hours in long lines only to discover nearly empty store shelves.

Soviet Consumers

Consumers, too, experienced the opportunity cost of central planners' decisions. Consumer goods were scarce and usually of poor quality. Manufacturers had the incentive to focus on quantity, not quality. For example, a manufacturer assigned to produce a certain number of suits could loosely stitch the buttons and forget the buttonholes and mismatch coats and trousers. Still, the state store had to accept delivery of the suits. Consumers would be left with no alternatives.

Consumers often had difficulty getting goods, too. They wasted countless hours waiting in line to purchase goods and services. Luxuries such as meat were made affordable by government price setting, but they were rarely available. Housing shortages forced people to live in crowded and poorly constructed apartments. Because of the long waiting list for apartments, it was not unusual to find a family living in just two rooms.

heavy industry industry that requires a large capital investment and that produces items used in other industries

THE WALL STREET JOURNAL. CLASSROOM EDITION

In the News When Alexander Lukashenko became president of Belarus in 1994, the former Soviet republic retreated to a **centrally planned economy**. As this excerpt from a Wall Street Journal Classroom Edition article shows, entrepreneurship was discouraged.

City authorities in Minsk "threw the book at Patio Pizza's pasta. Inspectors from the Public Nutrition Department, or Obshepit, decreed the restaurant's menu wasn't in keeping with the official Belarussian cookbook, a 200-page tome designed to guarantee that national dishes are prepared exactly the same way throughout Minsk. For this and [various] other violations, including unauthorized ice levels in [drinks], the city closed the restaurant."



▲ Statues of Lenin were toppled after the collapse of communism in the Soviet Union in 1991.

Problems of Centrally Planned Economies

Central planning can be used to jumpstart selected industries and guarantee jobs and income. The other side of the coin, however, is poor quality, serious shortages of non-priority goods and services, and diminishing production.

In theory, centrally planned economies can work effectively toward explicitly stated goals. For example, in 1928, Soviet leader Joseph Stalin instituted the first of

several five-year plans to boost production. While a disaster in terms of agriculture, Stalin had some success in increasing output in heavy industries.

Perhaps the greatest disadvantage of centrally planned economies is that their performance almost always falls far short of the ideals upon which the system is built. In addition, such systems generally cannot meet consumers' needs or wants. Since the government owns all production factors, workers lack any incentive to work hard. These systems also do not reward innovation, actively discouraging any kind of change. The large, expensive bureaucracy necessary to make the thousands of production and distribution decisions to run the economy lacks the flexibility to adjust to consumer demands. Decisions become overly complicated. Finally, command economies sacrifice individual freedoms in order to pursue societal goals.

Many areas of the world, especially less developed countries, have experimented with centrally planned economies, but most of these experiments have failed. Instead, most of these nations have moved toward mixed economies over the past twenty years. In the next section, you will read about today's mixed economies.

Section 3 Assessment

Key Terms and Main Ideas

1. How do **socialism** and **communism** differ?
2. What characterizes an **authoritarian** government?
3. Why did Soviet **collectives** offer little incentive to farmers?
4. In the Soviet Union, what was the opportunity cost of the emphasis on **heavy industry**?

Applying Economic Concepts

5. **Critical Thinking** Why do centrally planned economies have difficulty meeting consumer needs?
6. **Decision Making** Which of the following economic goals are difficult to achieve in a centrally planned economy?
(a) economic efficiency (b) economic security and predictability (c) economic equity (d) economic growth and innovation



Take It to the NET

Russia, the dominant republic of the former Soviet Union, is now an example of a nation trying to make the transition from a centrally planned economy to a market economy. Identify and describe at least two actions taken to create a freer economy there. How well are these reforms working? Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Real-life Case Study

Economic Systems

Russia in Crisis

In 1991, when the Communist system in Russia collapsed, many Russians rejoiced at the prospect of living under a freer political and economic system. Many specifically looked forward to living in a Western-style free market economy.

During the next decade, Russians experienced an economic crisis. Although economists had predicted that switching to a free enterprise system would be difficult, few predicted how traumatic it would be.

Corruption The confusion caused by the sudden upheaval of both the political and economic systems opened the door for crime and corruption on an enormous scale. Some businessmen and politicians took advantage of the nation's inexperience with a market economy and abused their power by robbing the nation's assets.

Financial Problems Russia's gross domestic product has shrunk nearly every year since the collapse of the Soviet Union. The nation has had to devalue its currency and postpone making payments on the loans it received from Western nations.

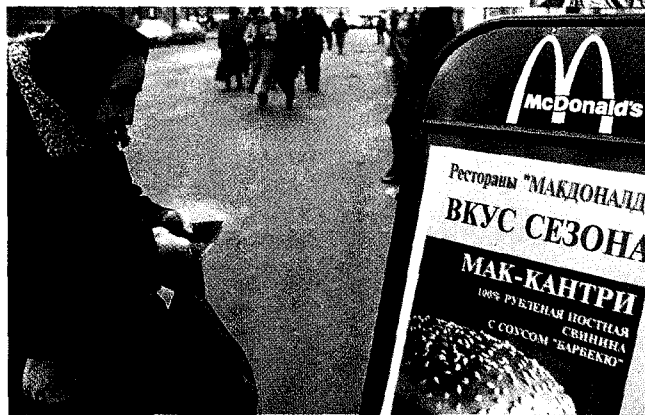
Hardest hit of all have been Russia's citizens. Some 40 million people live below the poverty line—defined as about \$30 a month. They have suffered through severe food shortages, and many workers have gone months without being paid.

Success Stories Although Russia's problems have been severe, it is possible for a nation to make the transition successfully. Poland, for example, has done so. In the years since the collapse of the Communist regime, Poland has become one of Europe's fastest-growing economies. Poland encourages small start-up companies and refuses to subsidize insolvent firms. Russia, on the other hand, actively discourages start-ups by requiring licensing and imposing other regulations. In Russia, insolvent businesses can still stay afloat because of the elaborate system of bartering among suppliers. This discourages Russian businesses from becoming more efficient.

It is now obvious that Russia's problems in making the transition were seriously underestimated. As this painful process continues, Russians continue to ask whether the nation will have the staying power to overcome these problems and make a free market economy a reality.

Applying Economic Ideas

1. What problems has Russia experienced in switching from a state-controlled to a free market economy?
2. Why might Western nations be willing to make loans to troubled Russia?



▲ Many Western businesses saw the collapse of Communism as a business opportunity.

Section 4

Modern Economies

Preview

Objectives

After studying this section you will be able to:

1. **Explain** the rise of mixed economic systems.
2. **Interpret** a circular flow model of a mixed economy.
3. **Compare** the mixed economies of various nations along a continuum between centrally planned and free market systems.
4. **Understand** the role of free enterprise in the economy of the United States.

Section Focus

It is doubtful that any nation can exist successfully under a pure centrally planned economy or a pure market economy. Most modern economies mix features of both systems. The economy of the United States is based on the principles of the free market.

Key Terms

laissez faire
private property
free enterprise
continuum
transition
privatize

You cannot find today any economic system that relies exclusively on central planning or the individual initiative of the free market. Instead, most economies are a mixture of economic systems. Most contemporary mixed economies blend the market with government intervention, or involvement, in the marketplace.

The Rise of Mixed Economies

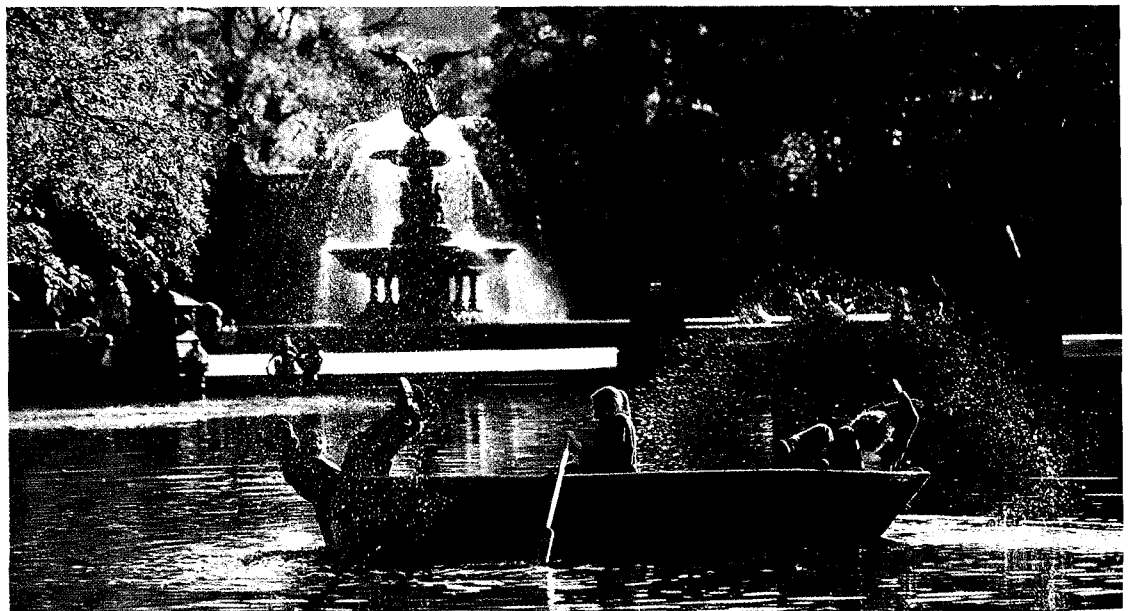
No single economic system has all the answers. Centrally planned economies are

cumbersome, do not adequately meet consumer needs, and limit freedom. Traditional economies have little potential for growth or change. Even market economies, with all their advantages, have certain drawbacks.

The Limits of Laissez Faire

Adam Smith and other early free market philosophers believed that, left to its own devices, the free market system would provide the greatest benefit for consumers and raise the standard of living. They

► Most public parks rely on government dollars for support.



preached ***laissez faire***, the doctrine that government generally should not intervene in the marketplace. (See the Profile of Adam Smith on page 33.) Even Smith acknowledged, however, the need for a certain limited degree of government intervention in the economy.

As market economies have evolved since Smith's time, government intervention has become greater because some needs and wants of modern society are difficult to answer in the marketplace. How well, for example, could the marketplace provide for national defense or for roads and highway systems?

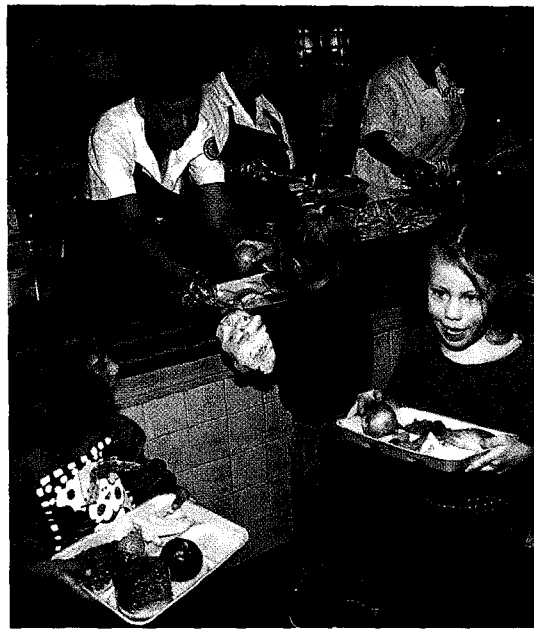
Some needs that markets could meet fall to governments so that all members of society can participate. Education is one example. Other needs that could fall into this category are health care, employment, and mass transit.

Governments create laws protecting property rights and enforcing contracts. There would be little incentive to develop new products without property rights or patent laws (laws that give the inventor of a new product the exclusive right to sell it for a certain period of time). Without laws insisting on competition, many people fear that some firms would dominate others in their industry and be able to charge consumers any price.

You will recall from your study of American history that the 5th and 14th amendments to the Constitution declare that no person may be deprived of "Life, liberty, or property, without due process of law." The 5th Amendment also says that "just compensation" must be paid to owners when private property is taken for public use. **Private property** is property that is owned by individuals or companies, not by the government or the people as a whole. The Framers of the Constitution ensured that the United States government would protect this fundamental right.

Balancing Control and Freedom

A society must assess its values and prioritize its economic goals. Some goals are



◀ These kindergarten students in this school lunch program are enjoying a benefit of government intervention.

better met by the open market and others are better met by government action. In addition, societies must evaluate the opportunity cost of pursuing each goal.

Each nation decides what it is willing to give up to meet its goals. What are you willing to give up? Are you willing to pay taxes to fund the army? To give money to people without jobs? To give all people an education? To subsidize farms? Should the government establish job-safety guidelines or a minimum wage?

laissez faire the doctrine that states that government generally should not intervene in the marketplace

private property property owned by individuals or companies, not by the government or the people as a whole



Global Connections

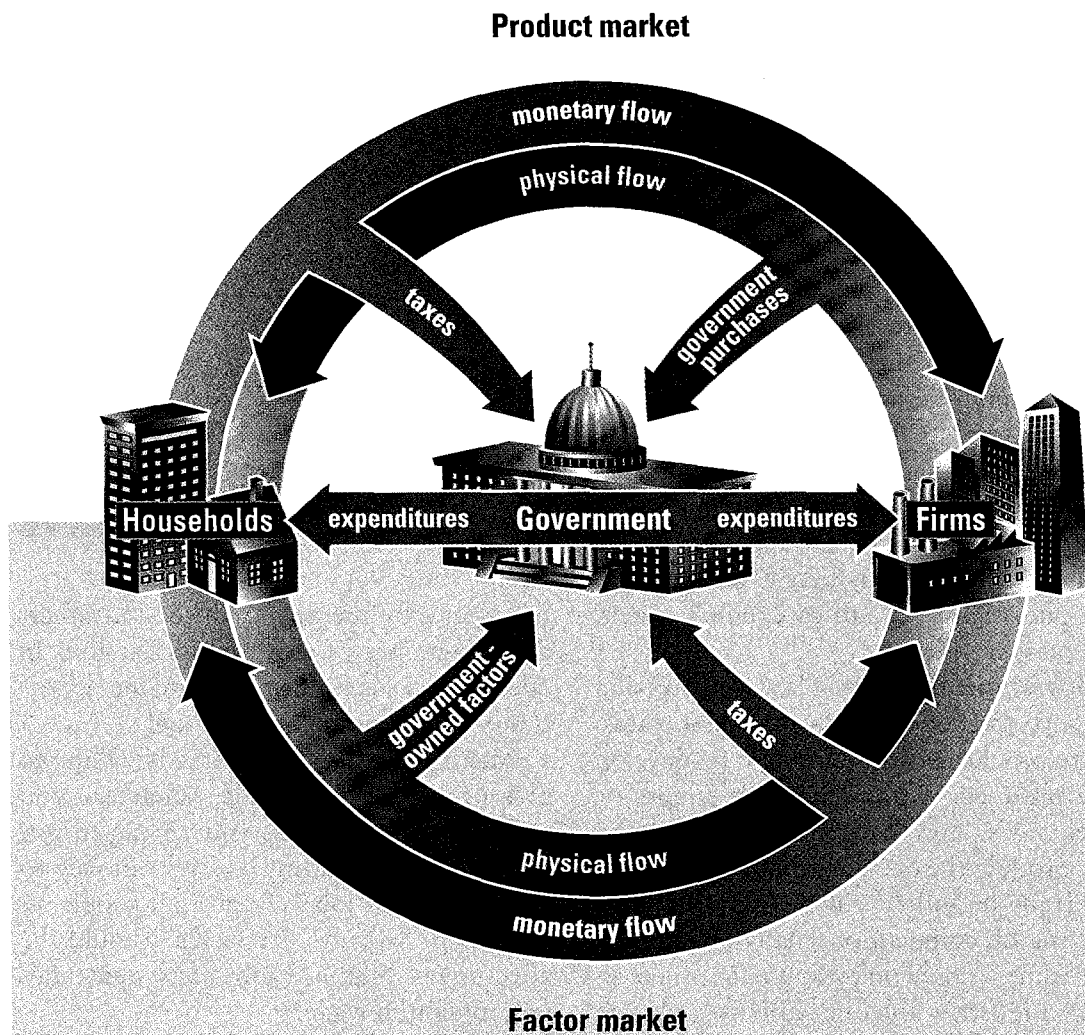
Sweden's Mixed Economy Sweden's mixed economy has mixed benefits for the Swedish people. The Swedish government redistributes more than half of Sweden's wealth through social benefit programs. When a child is born, his or her parents are entitled to a combined 450 days of parental leave, with three quarters of their base salary paid by the government. Swedish patients never pay more than 1,300 Swedish kronor (about \$170) per year for prescriptions. If you were a teen in Sweden, your new braces would be free. Employers are required to give employees a minimum of 30 days vacation. The trade-off for these benefits is the second-highest tax burden of any industrialized country. Swedes pay around 56 percent of their incomes in taxes, compared to only 32 percent in the United States. **How would you describe the level of government involvement in Sweden's economy?**



Figure 2.4 Circular Flow Model of a Mixed Economy

This circular flow model shows how government typically interacts with households and businesses in the marketplace.

Economic Systems
Explain how government actions affect the circular flow model in a mixed economy.



A Circular Flow Model of a Mixed Economy

To illustrate the structure of most modern economies accurately, we need to add government to our picture of the circular flow of economic activity. Figure 2.4 illustrates the government's role in the marketplace in a mixed economy. The government can enter the circular flow of economic activity in many ways.

Government in the Factor Market

Just like businesses, the government purchases land, labor, and capital from

households in the factor market. For example, the United States government pays 2.8 million employees \$9.7 billion a year for their labor.

Government in the Product Market

Governments purchase goods and services in the product market. They need buildings and office supplies, telephones, computers, and fax machines, for example.

Governments also provide certain goods and services through the factor resources that they combine. The federal, state, and local governments in the United States, for example, provide 4 million miles of roads.

Transferring Money

As you can see from the outer ring of Figure 2.4, governments collect taxes from both households and businesses. Governments then transfer the money they collect to businesses and individuals for a variety of reasons ranging from worker disability to the survival of an industry. The greatest expenditure of the United States government is Social Security.

Comparing Mixed Economies

The foundation of the United States economy is the free market. An economic system characterized by private or corporate ownership of capital goods is called **free enterprise**. In a free enterprise system investments are determined in a free market by private decision rather than by state control. Figure 2.5 below shows a continuum of mixed economies. A **continuum** is a range with no clear divisions. On one end of the scale is the centrally planned economy. On the opposite end is the free market economy.

Mixed Economies Where Government Intervention Dominates

Reflecting an economy almost totally dominated by the government, North Korea occupies one end of the scale.

Government owns all the property and all economic output. State-owned industries produce 95 percent of North Korea's goods. Almost all imports are banned, and production of goods and services by foreign companies is forbidden.

In China, where the economy is dominated by government, one quarter of all enterprises are at least partly owned by individuals. China, like many nations that have relied heavily on central planning in the past, is in **transition**, a period of change in which an economy moves away from central planning toward a market-based system. To make the transition, state firms must be **privatized**, or sold to individuals, and then allowed to compete with one another in the marketplace. As you will read in Chapter 18, economic transition is a difficult, and often painful, process.

Mixed Economies Where the Market System Dominates

At the other end of the scale, with one of the world's freest markets, is Hong Kong. Hong Kong, once administered by Great Britain, is now a special administrative region of China. It continues, at the beginning of the twenty-

FAST FACT

In competition with foreign fast-food restaurant chains, Chinese entrepreneur Shen Qing started his own restaurant chain—the Baked Pig Face restaurants. The seasoned pigs' heads, served in a modern setting, are wildly popular. Mr. Shen benefits by receiving profits, and consumers benefit by being able to choose a traditional Chinese dish over Western-style fast food.

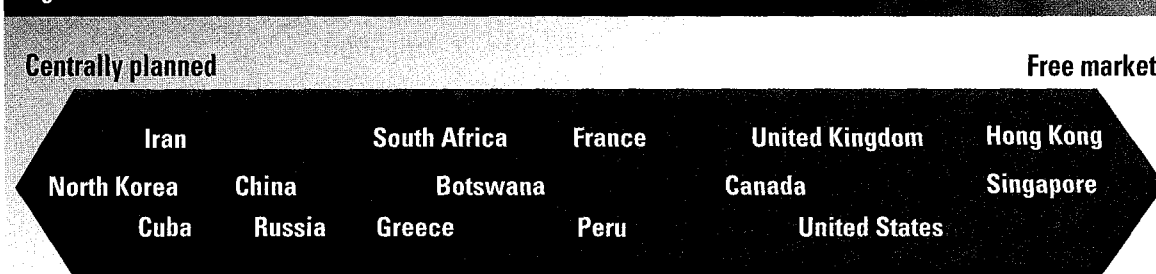
free enterprise an economic system characterized by private or corporate ownership of capital goods; investments that are determined by private decision rather than by state control; and determined in a free market

continuum a range with no clear divisions

transition period of change in which an economy moves away from a centrally planned economy toward a market-based system

privatize to sell state-run firms to individuals

Figure 2.5 Continuum of Mixed Economies

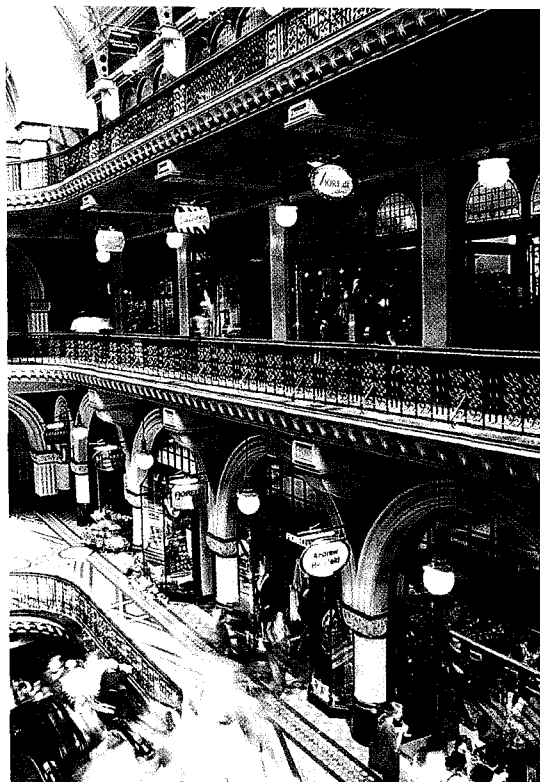


Source: 1999 Index of Economic Freedom, Bryan T. Johnson, Kim R. Holmes, and Melanie Kirkpatrick



The degree of government intervention in the marketplace varies among nations. **Economic Systems** How would you explain China's position on this continuum? Why is Hong Kong, technically part of China, so far to the right on this diagram?

► What type of economic system do you see reflected in this busy mall?



first century, largely under the free economic system it enjoyed under British rule.

In Hong Kong, the private sector rules. The government protects private property and rarely interferes in the free market, aside from establishing wage and price controls on rent and some public services. It is highly receptive to foreign investment and imposes virtually no barriers on

foreign trade. Banks in Hong Kong operate independently of the government, and foreign-owned banks have nearly all the same rights as domestic ones.

The United States Economy

The United States has a free enterprise economy. Still, the government intervenes to keep order, provide vital services, and to promote the general welfare. Some people argue for more government services, while others say that the government already intervenes too much in the economy. Nevertheless, the United States enjoys a high level of economic freedom.

United States law protects private property. The marketplace operates with a low level of government regulation. Foreign investment is encouraged. So, too, is free trade, although the United States does protect some domestic industries and does retaliate against trade restrictions imposed by other nations. The banking industry operates under relatively few restrictions, and foreign-owned banks have few additional restrictions. In the next chapter, you will read in detail about the government and the free enterprise economy of the United States.

Section 4 Assessment

Key Terms and Main Ideas

1. What is **laissez faire**?
2. Why have some nations begun a **transition to free enterprise**?
3. Why are nations with centrally planned economies sometimes slow to succeed when they **privatize** industry?
4. Compare the U.S. free enterprise system with other economic systems you have read about in this chapter.

Applying Economic Concepts

5. **Critical Thinking** What benefits might citizens of a centrally planned economy derive from a move toward a market-based system?
6. **Try This** Survey newspapers and magazines to find articles describing life in different economic systems. Construct a bulletin board of the continuum of economies in Fig. 2.5. Place each article on the appropriate location on the continuum.



Take It to the NET

Identify four agencies or organizations in the United States government that play a direct role in the nation's economy. Write down each agency's name and purpose. What are the advantages and disadvantages of this government intervention in the marketplace? Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Skills for LIFE

Critical Thinking

Graphs and Charts

Social Studies

Technology

Building Flowcharts

A flowchart is a visual guide to a process that breaks the process down into individual steps. Arrows often indicate the order and relationships among the steps. In economics, flowcharts help people visualize the ways goods are produced, how money flows through the economy, and how decisions can affect many people. Use the following steps to analyze the flowchart below.

- 1. Identify the steps of the process.** Read the labels in the boxes to familiarize yourself with the process of writing an article. (a) What does Laura do

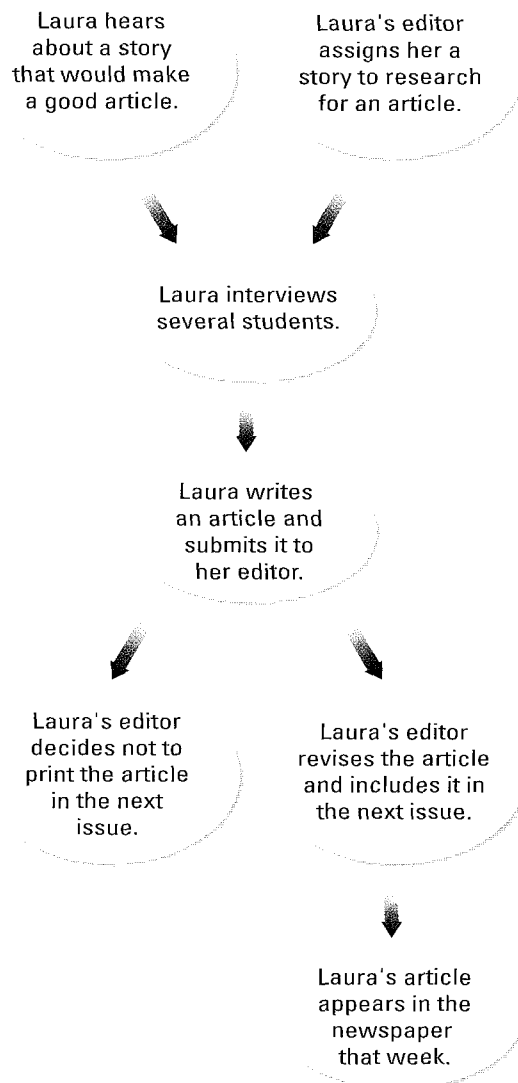
after she interviews people for the article? (b) What are the two choices for step one of the process?

- 2. Analyze the relationships among steps.**

A flowchart shows a series of actions and decisions. (a) According to this particular chart, who can make a decision that directly affects the flow? (b) Why does the path split into two new paths after Laura submits the article to her editor?

- 3. Predict possible future developments.**

New arrows and steps can be added anywhere along the flowchart, not just at the ends. Picture how different decisions and actions might change the look of Laura's flowchart. (a) Where else might the flowchart split into two new paths? (b) Give an example of a new step that could be added to start a new path.



Additional Practice

Construct a flowchart to show the steps that you could take to offer a new product for sale in your small food store.

Chapter 2 Assessment

Chapter Summary

A summary of the major ideas in Chapter 2 appears below. See also the **Guide to the Essentials of Economics**, which provides additional review and test practice of key concepts in Chapter 2.

Section 1 Answering the Three Economic Questions (pp. 23–27)

The three basic economic questions societies ask are (1) What goods and services should be produced? (2) How should these goods and services be produced? and (3) Who consumes these goods and services? An **economic system** is the way a society decides to answer these three economic questions. There are four general types of economic systems: **traditional economies**, **market economies**, **centrally planned** (or **command**) **economies**, and **mixed economies**.

Section 2 The Free Market (pp. 28–32)

A free market is a self-regulating economic system powered by individuals acting in their own **self-interest**. In a free market economy, the factors of production are privately owned, and individuals decide how to answer the three economic questions.

Section 3 Centrally Planned Economies (pp. 34–38)

In a **centrally planned economy** the central government controls the factors of production and answers the three basic economic questions for all of society. Two systems often mentioned when centrally planned economies are discussed are **socialism** and **communism**.

Section 4 Modern Economies (pp. 40–44)

Most of the economic systems in the world today are mixed economies. These systems use a combination of government involvement and free markets. Throughout the world there are different levels of government intervention in mixed economies.

Key Terms

Match the following terms with the definitions listed below. You will not use all of the terms.

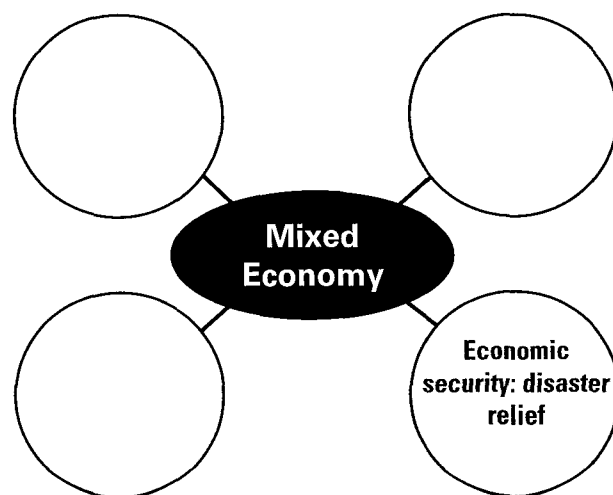
competition
socialism
mixed economy
self-interest
command economy

laissez faire
privatize
consumer
sovereignty
market economy

1. System that combines the free market with some government intervention
2. One's own personal gain
3. The doctrine that states that government generally should not intervene in the marketplace
4. System in which the central government makes all decisions on the production and consumption of goods and services
5. The struggle among producers for the dollars of consumers
6. System in which decisions on production and consumption of goods and services are based entirely on exchange, or trade

Using Graphic Organizers

7. On a separate sheet of paper, copy the web map below showing the advantages and values of a mixed economy. Complete the web map with examples from your knowledge or experience.



Reviewing Main Ideas

8. Think of a business in your local area. Describe its operation in terms of factor markets and product markets.
9. Explain how a factory assembly line is an example of specialization.
10. Why are there no pure free market economies in the world?
11. Compare the circular flow diagrams of a free market and a mixed economy. Describe how they differ, and why.

Critical Thinking

12. **Synthesizing Information** Suppose that your household is its own society. How are the three key economic questions answered?
13. **Predicting Consequences** Think of three ways your life would change if the United States began using a pure free market system or a pure centrally planned system instead of the free enterprise system.
14. **Analyzing Information** Review the advantages and disadvantages of both free market economies and centrally planned economies. Assess the way each system values economic freedom and economic equity.

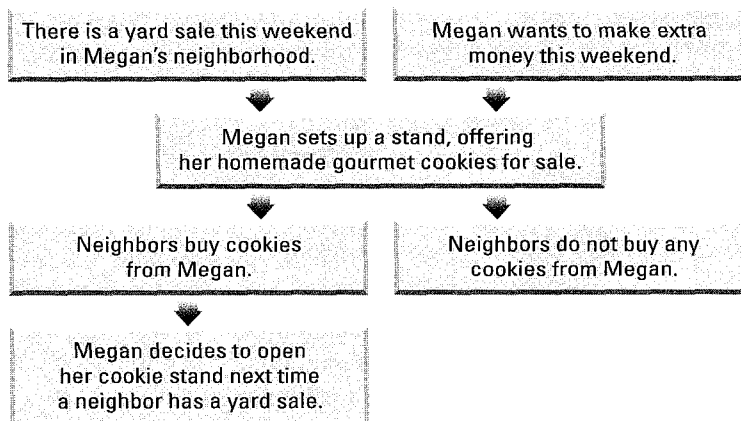
Problem-Solving Activity

15. Suppose that you are opening a new music store in your town. What resources would you need from the factor market? What would you offer in the product market? How would the government affect your business?

Skills for Life

Building Flowcharts Review the steps on page 45; then answer the following questions using the flowchart below.

16. What does Megan do to try to make extra money this weekend?
17. Why does the flowchart split into two paths after Megan sets up her stand?
18. What step does Megan take if the neighbors like her cookies?
19. If the neighbors do not like cookies, where could a step or steps be added so Megan could succeed next time?
20. Organize a flowchart for yourself depicting a goal that you did not achieve. (a) Take a close look at the steps you took. (b) What errors did you make? (c) Decide which steps you can change so you can succeed in the future.



Economics Journal

Organizing Ideas Review your personal list of systems. Rewrite your list in two columns. In one column, list the systems that are more influenced by central planning. In the other column, list the ones that are more influenced by the free market. Add to each list other systems you use on a regular basis.



Take It to the NET

Chapter 2 Self-Test As a final review activity, take the Economics Chapter 2 Self-Test in the Social Studies area at the Web site listed below, and receive immediate feedback on your answers. The test consists of 20 multiple-choice questions designed to test your understanding of the chapter content.

www.phschool.com

Economics Simulation

Designing an Economic System

Most people live and work within an established economic system. Sometimes government economic policy decisions bring gradual shifts or changes to an established system.

For example, in the United States during the Great Depression, many new federal programs—notably Social Security—changed the role of government in the American economy. Occasionally, a revolution overthrows an established economic system and puts in place a new one, as you read in Chapter 2.

What if you could design an economic system from scratch? Suppose that you are part of a group of people who have inherited an uninhabited island. As the first settlers on this island, one of your tasks will be to establish an economic system.

Materials

Notebook paper

Box or paper bag

Preparing the Simulation

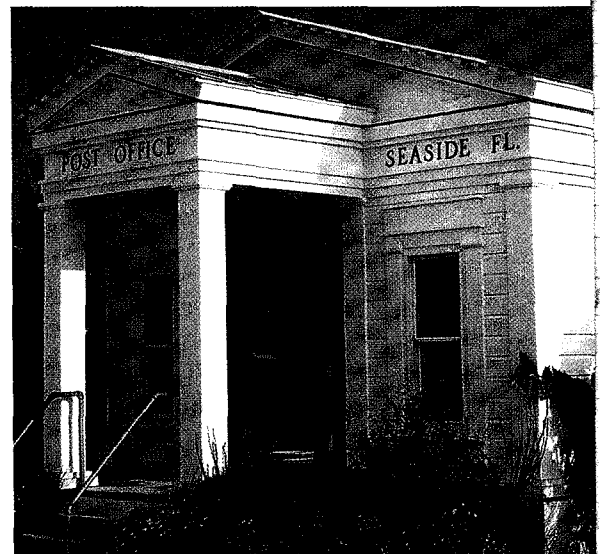
In this simulation, your group will play the role of an island's first settlers. Your goal is to plan an economic system. Each group has members who represent the major economic systems—free market and centrally planned economies. As the founders of a new community, you may choose either of those systems or you may take elements from different systems and create a new one.

Step 1: The teacher or several student volunteers should prepare one slip of paper for each student in the class, as follows:

One half labeled **"Free Market Economy (Capitalist, Democratic)"**

One half labeled **"Centrally Planned Economy (Socialist, Authoritarian)"**

Step 2: Place the slips in a box or paper bag. Form groups of six to eight people,



▲ Will services such as postal delivery be provided by the government or by private companies?

representing Island A, Island B, Island C, and so on. When the groups are set, each member should draw one of the labeled slips of paper, which will determine the economic system that member argues for in the discussion.

Be aware that the groups will probably not be evenly balanced between both economies. (If any group has representatives of only one system, redo the drawing.)

Step 3: Review the basics of the economic system that you represent. You will be advocating this system, so play your role as if this is the system you grew up in and are most familiar with.

Conducting the Simulation

This simulation will consist of four phases. Each group will identify and discuss its options, reach an agreement, and present its plan to the class.

Presentation of Options: Within your group, determine the options for your island economy. Delegates for each of the economic systems represented in the group should present the benefits of their systems in a persuasive manner.

Discussion: After the benefits of both systems have been explained, each group should debate the benefits and drawbacks of each economic system. You may want to make a decision-making grid to see the trade-offs.

Negotiation: Then your group should decide whether you wish to accept one of the systems as a whole or create a new system using elements of both systems.

You should answer these questions:

- Who decides how resources will be allocated?
 - Who owns the factors of production?
 - Who determines what goods and services will be produced?
 - Who determines prices?
 - How is income distributed?
 - Must all members contribute equally?
 - What social benefits does the system supply?
 - What is the role of government in the economy?
- Create a chart like the one on this page to summarize the structure of your island's economy.

Class Presentation: Each group should choose a speaker to present the system to the class. After each presentation, class members may ask questions about the system, so the spokesperson should be ready to defend the group's decisions.

Feature of Economic System	How Defined in Island Economy
Role of Government	
Ownership of Land and Capital	
Decision Makers for Production and Pricing	
Income Distribution	
Social Benefits	

Simulation Analysis

After listening to each group's speaker present the group's conclusions, answer the following questions:

- Did the systems your class created closely resemble the systems of any specific countries? If so, which ones?
- How much did the roles of group members influence the economic decisions you made?
- What was the most problematic issue for each group?
- Making Comparisons** How does living in a free market economy affect your view of another economic system?

Chapter

3

American Free Enterprise

In the United States, economic opportunity is abundantly evident, from corporate headquarters in gleaming cities like Miami, shown here, to neighborhood mom-and-pop businesses, to drive-through franchises in suburban strip malls. This chapter examines the benefits of American free enterprise and the factors that make it so prosperous, adaptive, and enduring.

Economics Journal

In what ways do the benefits of free enterprise affect your daily life? List as many examples as you can. Consider neighborhood businesses, jobs you have held, and other ways in which you benefit from our nation's prosperity.



Keep It Current

Items marked with this logo are periodically updated on the Internet. Keep up-to-date with what's in the news. To get current information on American free enterprise go to www.phschool.com

Benefits of Free Enterprise

Preview

Objectives

After studying this section you will be able to:

1. **Describe** the tradition of free enterprise in the United States and the constitutional protections that underlie it.
2. **Explain** the basic principles of the U.S. free enterprise system.
3. **Identify** the role of the consumer in the U.S. free enterprise system.
4. **Describe** the role of the government in the U.S. free enterprise system.

Section Focus

American free enterprise is based on the principles of profit motive, voluntary exchange, private property rights, competition, and freedom for producers and consumers. The U.S. Constitution supports the free enterprise system by guaranteeing private property rights, the right to make contracts, and freedom from unfair taxation.

Key Terms

profit motive
open opportunity
private property rights
free contract
voluntary exchange
competition
interest group
public disclosure laws
public interest

Some of the most famous Americans have not been politicians, sports figures, or actors. Do you recognize names like John D. Rockefeller, founder of Standard Oil of New Jersey, or Andrew Carnegie, who started Carnegie Steel Company, or Bill Gates, the founder of Microsoft? Each of these people started with an idea and through persistence, vision, and effort built that idea into a huge business success. They made themselves into the richest people of their time, helped fuel the economy, and contributed vast sums of money to programs and charities for the public good.

Although immigrants no longer expect to find streets paved with gold, this country does offer special opportunities that have allowed business people to be so successful and have contributed to our overall economic prosperity.

Why has America been such an economic success? Certainly the open land, natural resources, and uninterrupted flow of immigrants with different backgrounds and experiences all contribute. But a key factor has also been the American tradition of free enterprise—the social and political commitment to giving people the freedom

▼ How does this photo represent the American free enterprise system?

A Tradition of Free Enterprise

Today there are over 18 million unincorporated businesses in America, including about 3 million minority-owned businesses. Many of these were started by a single entrepreneur or a small group of friends or family members hoping to earn a living and, perhaps, become successful or even wealthy.

For centuries, people have considered America to be a “land of opportunity”—a place where anyone from any background could achieve success through hard work.

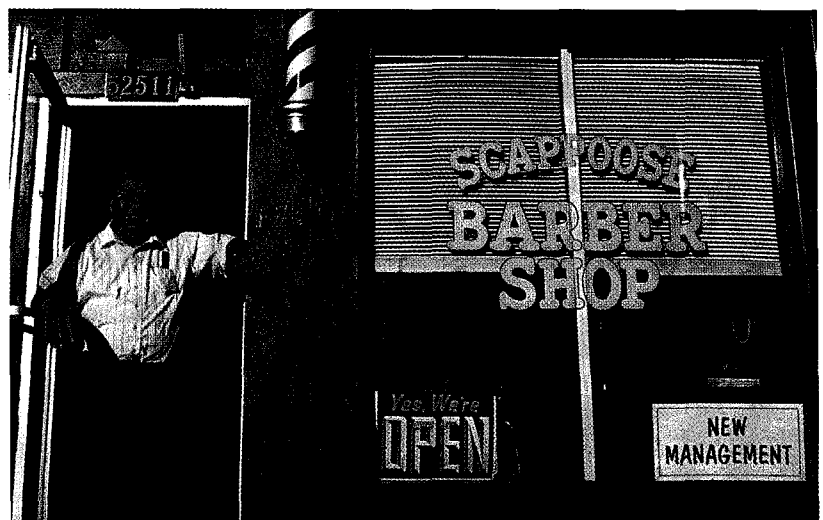
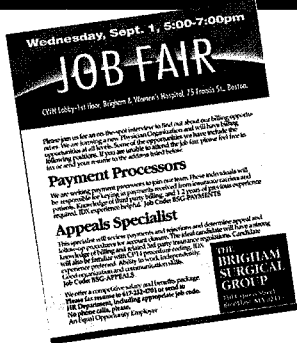


Figure 3.1 Features of American Free Enterprise

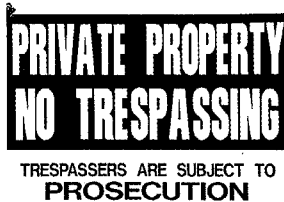


Economic Freedom *In the United States, individuals have the right to choose their occupations and to work wherever they can find jobs. Businesses can make their own decisions on whom to hire, what to produce, how much to produce, and how much to charge for their products and services. The government generally does not interfere in these decisions.*

Competition *Producers have the right to engage in rivalries to gain business. Competing producers have an incentive to create new and better products. This gives consumers more economic choices.*



Private Property *Individuals and businesses have the right to buy and sell as much property as they want. Property owners may prohibit others from using their property.*



Contracts *Individuals and businesses have the right to make agreements to buy and sell goods. Such contracts may be written or oral. They are legally binding.*

Self-Interest *Consumers and producers may make decisions on the basis of their own benefit. Their decisions do not have to benefit or please the government or other consumers and producers.*

Voluntary Exchange *Consumers and producers may freely buy and sell goods when the opportunity costs of such exchanges are worthwhile. In a voluntary exchange, both parties expect to gain from the transaction.*



Profit Motive *American free enterprise is driven by the desire for profit, the gain that occurs during financial dealings. Profit is a powerful incentive that leads entrepreneurs and businesses to accept the risk of business failure.*



Free enterprise in America is founded on ideas so basic to our culture that we tend to take them for granted.
Government Choose one of these features and give an example from your own daily life.



and flexibility to try out their business ideas and compete in the marketplace.

Constitutional Protections

The Bill of Rights to the United States Constitution guarantees certain individual freedoms, such as freedom of speech and freedom of religion. The Constitution also guarantees important rights that allow people to engage in business activities.

Property Rights

The most important of these is the constitutional recognition of property rights. In many other countries, even in modern times, the king or other ruler has had the power to take people's property for his own use. Early American statesmen wanted to protect against this, so they included property as a protected right under the Fifth Amendment. It is a right just as important as the other individual rights. The Fifth Amendment states that no person shall

"be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation."

Since the Fifth Amendment applies only to actions by the federal government, the Fourteenth Amendment, ratified in 1868, also includes a due process clause extending the same limitation to the state governments. These due process clauses prevent the government from taking property away from an individual except when there is a public reason—and even then the government must pay the person the fair value of the property that has been taken. These rights apply to corporations as well, so businesses get the same protection from government seizure that individuals enjoy.

Taxation

The Constitution also contains the basic rules for the ways in which the government can tax individuals and businesses. Congress can only tax in the ways the Constitution allows. Article I gives Congress the power to levy taxes, but Sections 2 and 9 require that

direct taxes be apportioned according to population so that everyone will pay the same amount. The Sixteenth Amendment, ratified in 1913, first gave Congress the clear right to set taxes based on income.

Finally, the Constitution guarantees people and businesses the right to make binding contracts. Article I, Section 10 prohibits the states from passing any “Law impairing the Obligation of Contracts.” This means that individuals or businesses cannot use the political process to get excused from their contracts. No legislature can pass a law changing the terms of someone’s business agreement.

Basic Principles of Free Enterprise

Our free enterprise economy has several key characteristics. These include profit motive, open opportunity, legal equality, private property rights, free contract, voluntary exchange, and competition.

Profit Motive

The American economy rests on a recognition of the importance of the **profit motive**—the force that encourages people and organizations to improve their material well-being. Under other economic systems, the government may control business activities, deciding what companies will be formed and how they will be run. In a free enterprise system, business owners and managers make these choices themselves, operating in ways they believe will maximize their profits. This approach forces management to exercise financial discipline because it makes people economically responsible for their own success or failure. It rewards innovation by letting creative companies grow, and it improves productivity by allowing more efficient companies to make more money.

Open Opportunity

The United States economy also benefits from a strong tradition of **open opportunity**, the concept that everyone can compete in

the marketplace. We accept that different people and different companies will have different economic outcomes, depending on their success in the marketplace. This allows economic mobility up or down: no matter how much money you start out with, you can end up wealthier or poorer depending on how well your business performs.

Economic Rights

We also have a commitment to **legal equality**—by giving everyone the same legal rights, we allow everyone to compete in the economic marketplace. Countries that restrict the legal rights of women or minorities lose the productive potential of a large portion of their society. Legal equality maximizes a country’s use of its human capital.

Another essential component of the American free enterprise system are **private property rights**, the concept that people have the right and privilege to control their possessions as they wish. The free enterprise system allows people to make their own decisions about their own property.

The right of **free contract** allows people to decide what agreements they want to enter into. The right of **voluntary exchange** allows people to decide what and when they want to buy and sell, rather than forcing them to buy or sell at particular times or at specific prices. Because of all these rights, we have extensive **competition**, the rivalry among sellers to attract customers while lowering costs. Competition provides consumers with a larger variety of goods, most of which are sold at reasonable prices.

The Role of the Consumer

A fundamental purpose of the free enterprise system is to give consumers the freedom to make their own economic choices. Consumers make their desires known through their economic dealings with producers. When consumers buy

THE WALL STREET JOURNAL.

CLASSROOM EDITION

In the News As this excerpt from a Wall Street Journal Classroom Edition editorial shows, the nations with the greatest economic freedom are also the most prosperous.

“The upshot is that a nation’s level of economic freedom directly correlates with its economic performance. The more economic freedom a country has, the better its economy performs and [the] better off its people are. Economic liberty and prosperity go hand in hand.”

profit motive the force that encourages people and organizations to improve their material well-being

open opportunity the concept that everyone can compete in the marketplace

legal equality the concept of giving everyone the same legal rights

private property rights the concept that people have the right and privilege to control their possessions as they wish

free contract the concept that people may decide what agreements they want to enter into

voluntary exchange the concept that people may decide what and when they want to buy and sell

competition the rivalry among sellers to attract customers while lowering costs



▲ From what aspects of the free enterprise system are these students benefiting?

interest group a private organization that tries to persuade public officials to act or vote according to group members' interests

public disclosure laws laws requiring companies to provide full information about their products

public interest the concerns of the public as a whole

products, they signal to producers what to produce and how much to make.

Consumers can also make their wishes known by joining an **interest group**, which is a private organization that tries to persuade public officials to act or vote according to the interests of the group's members. Interest groups have formed around many economic issues, such as taxation, aid for farmers, and land use.

The Role of the Government

We expect the government to carry out its constitutional responsibilities to protect property rights, contracts, and other business activities in our free enterprise system. Americans have also come to expect protection from problems that affect us all, such as air pollution or unsafe foods or drugs.

Information and Free Enterprise

In a free market system, consumer buying habits determine what goods get produced. But consumers will not be able to make informed choices if they cannot get basic information about the products they are buying. In other words, educated consumers will make the free market system work more efficiently. Because of this, one of the government's important roles in the economy is to make sure that producers provide consumers with information.

Consumers use government information to protect themselves from dangerous products and fraudulent claims. **Public disclosure laws** require companies to give consumers important information about their products. Often this information will be attached to the product when it is offered for sale in stores. You may have seen fuel efficiency labels on new cars, or energy efficiency tags on refrigerators or air conditioners. Using this information, consumers can evaluate some important aspects of the products they are considering buying.

Protecting Health, Safety, and Well-Being

Federal and state agencies regulate industries whose goods and services affect the well-being of the public. (See Figure 3.2.) Although the government does not get involved in running private businesses, it does impose some basic restrictions.

Businesses must follow certain environmental protection rules. Gas stations, for example, must dispose of used motor oil properly and ensure that gas tanks cannot leak into surrounding soil. Both individuals and businesses are subject to local zoning laws. These laws may forbid homeowners from running businesses out of their homes.

In addition, until the mid-1900s, manufacturers of cars, food, medicine, and other products affecting people's health and well-being were largely unregulated. Starting in the 1960s, however, the federal government and many states became actively involved in economic matters of **public interest**, the concerns of the public as a whole.



Global Connections

New Business in Russia Starting a new business in Russia is no easy task. The average new business applicant has to deal with 20 to 30 agencies and needs from 50 to as many as 90 approved registration forms. In addition, many businesses have to pay bribes to government officials for start-up licenses. Because the Russian economy is unreliable, banks are reluctant to lend to new businesses. Taxes are often unpredictable and can be very high. There are a vast number of different taxes that apply to almost every aspect of business life, and filling out the tax forms can be time consuming and expensive. As a final roadblock, a few large companies often control virtually an entire industry, making it difficult for new businesses to break in.

A key part of this new government activity was consumer protection. To this end the government sets manufacturing standards, requires that drugs be safe and effective, and supervises the sanitary conditions in which foods are produced. Labels on consumer packages must include information about safe operation of equipment or expiration dates for perishables.

Negative Effects of Regulation

Government regulation, however, can have negative effects on both businesses and consumers. During the 1960s and 1970s, popular demand for government protection of consumers and of the environment resulted in the creation of new governmental agencies and regulations. Businesses pointed out that the rules were costly to implement, cutting into profits, slowing growth, and forcing them to charge unnecessarily high prices. Highly regulated industries, such as the airlines and telephone companies, pointed out that government rules and regulations stifled competition, resulting in prices that were arbitrarily high. The growth in government oversight of industry also raised government spending.

In the 1980s and 1990s, public pressure for leaner, less costly government resulted in budget cuts that curtailed some government regulation of industry. President George W.

Figure 3.2 Major Federal Regulatory Agencies

Agency and Date Created	Role
1906 Food and Drug Administration (FDA)	Sets and enforces standards for food, drugs, and cosmetic products
1914 Federal Trade Commission (FTC)	Enacts and enforces antitrust laws to protect consumers
1934 Federal Communications Commission (FCC)	Regulates interstate and international communications by radio, television, wire, satellite, and cable
1958 Federal Aviation Administration (FAA)	Regulates civil aviation, air-traffic and piloting standards, and air commerce
1964 Equal Employment Opportunity Commission (EEOC)	Promotes equal job opportunity through enforcement of civil rights laws, education, and other programs
1970 Environmental Protection Agency (EPA)	Enacts policies to protect human health and the natural environment
1970 Occupational Safety and Health Administration (OSHA)	Enacts policies to save lives, prevent injuries, and protect the health of workers
1972 Consumer Product Safety Commission (CPSC)	Enacts policies for reducing risks of harm from consumer products
1974 Nuclear Regulatory Commission (NRC)	Regulates civilian use of nuclear products



This table shows a few of the many federal regulatory agencies. **Government Might the free market fulfill the mission of any of these agencies? Give an example.**

Bush's administration promised to be more sensitive to the economic considerations raised by businesses.

Section 1 Assessment

Key Terms and Main Ideas

1. Explain the importance of the following terms in the U.S. free enterprise system: (a) **profit motive**, (b) **voluntary exchange**, (c) **private property rights**, and (d) **competition**.
2. What constitutional guarantees underlie the American free enterprise system?
3. Explain at least three benefits of the free enterprise system.

Applying Economic Concepts

4. **Critical Thinking** What are some opportunity costs of a greater government role in the economy?
5. **Decision Making** Explain how the decisions you make as a consumer influence the economy.
6. **Critical Thinking** What is the impact of economic concepts in the U.S. Constitution on contemporary economic issues and policies? Use specific examples from the chapter to support your conclusions.



Take It to the NET

Read more about the restrictions that the government places on the use of business and individual property. Then identify three examples and evaluate their costs and benefits to businesses and individuals. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Profile

Alice Rivlin (b. 1931)

During the 1994 congressional election campaign, debate raged about how to reduce government spending. Clinton-appointed economist Alice Rivlin recommended controversial cuts in government programs. When the Republicans, who had called for tax cuts instead, gained many seats in the election, the president's political advisors urged that Rivlin be fired.

Principles and Politics

Such controversy was nothing new for Alice Rivlin, who by 1994 had already built a long and distinguished career in Washington. Rivlin's opinions about the role of government in the nation's economy had gained her a reputation as a tough, nonpolitical economic analyst. "I am a fanatical, card-carrying middle-of-the-roader," Rivlin has stated. A former director of the Congressional Budget Office agreed. "She is someone who's called the shots straight," he said.

A Career in Public Service

As a teenager, Alice Rivlin wanted to be a diplomat. After taking an economics course in college, however, she decided on that field instead. Rivlin's talent for analyzing government policy emerged in 1957, when she worked at the Brookings Institution, a Washington "think tank" that researches social issues. In the 1960s, she helped plan President Johnson's "Great Society," a series of government programs aimed at reducing poverty.

In 1975, Rivlin became the first head of the Congressional Budget Office, a federal

agency created to help Congress better understand government spending issues. When Bill Clinton became president in 1993, he called Rivlin to serve as Director of the Office of Management and Budget (OMB). In 1996, Clinton appointed her to the Federal Reserve Board, where she served until 1999. Today, Rivlin is chair of the Center on Urban and Metropolitan Policy at the Brookings Institution.

Rethinking Government's Role

Rivlin shuns both direct federal spending and tax policy as ways to stimulate economic growth. Instead, she prefers programs that increase overall productivity. Rivlin also argues that spending on technology, transportation, communications, and education is a better approach to growth than cutting taxes.

Rivlin also questions, in general, the federal government's role in the business sector. She argues that programs to aid business should be at the state level, where a better grasp of specific needs exists. Rivlin favors federal involvement only in areas such as environmental protection, whose effects can be felt across state lines.

CHECK FOR UNDERSTANDING

- 1. Source Reading** In her call for program cuts to reduce government spending, Alice Rivlin wrote: "Everyone looks for ways of accomplishing ambitious goals without effort—lose weight without dieting, learn French while you sleep." Explain what she meant.
- 2. Critical Thinking** Would Alice Rivlin be more likely to favor tax breaks to encourage companies to hire unemployed workers or creating a new government-funded training program to teach workers useful job skills? Explain your answer.
- 3. Decision Making** Do you agree or disagree with Rivlin's opinion that lowering taxes does not effectively raise living standards?



Promoting Growth and Stability

Preview

Objectives

After studying this section you will be able to:

1. **Explain** how the government tracks and seeks to influence business cycles.
2. **Analyze** how the government promotes economic strength.
3. **Analyze** the effect of technology on productivity.

Section Focus

The government attempts to stabilize business cycles, aids the growth of the economy, and encourages technological innovation.

Key Terms

macroeconomics
microeconomics
gross domestic product (GDP)
business cycle
work ethic
technology

America's economy is big—very big. It consists of roughly 104 million households of about 273 million people who work at some 139 million jobs and earn more than \$8 trillion a year. They make savings deposits of \$28 billion or so in about 71,000 banks. They buy close to 880,000 homes and 3.3 million cars a year.

In Washington, armies of economists use the latest computer and other technologies to try to predict whether this massive economy will grow or shrink. Economic policymakers pull in the reins when the economy bolts at breakneck speed, and attempt to kick start it when it gets slow and unproductive.

Tracking Business Cycles

In this section we'll examine how the United States government affects macroeconomic trends. **Macroeconomics** is the study of the behavior and decision making of entire economies. This branch of economics examines major trends for the economy as a whole. **Microeconomics**, in contrast, is the study of the economic behavior and decision making of small units, such as individuals, families, and businesses. (*Macro* means "large," while *micro* means "small.")

One way economists measure economic well-being is by calculating the nation's

gross domestic product (GDP), the total value of all final goods and services produced in an economy. Economists follow the country's GDP and other key statistics to predict business cycles. A **business cycle** is a period of macroeconomic expansion followed by a period of contraction, or decline. These economic cycles are major fluctuations, unlike the day-to-day ups and downs of the stock market. We are always at some point in the business cycle. Cycles may last less than a year or continue for many years.

Free enterprise systems are subject to business cycles because economic decisions about factors such as prices, production, and consumption are made by individuals and businesses acting in their own self-interest. In America's free enterprise system, the government plays a role in attempting to prevent wild swings in economic behavior.

Where we are in a given business cycle affects our lives every day. If the economy doesn't create enough jobs, high school graduates have trouble finding work. If prices rise, but incomes don't, our ability to buy what we need declines.

Promoting Economic Strength

Because the market is vulnerable to business cycles, the government creates

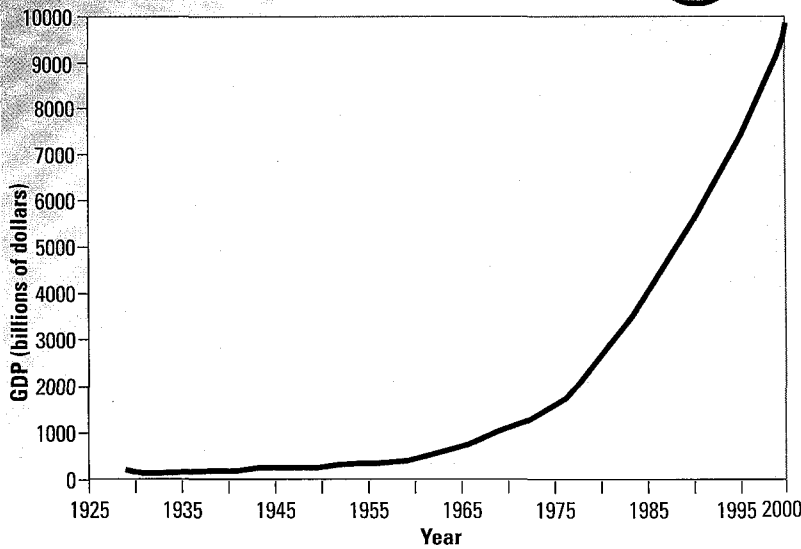
macroeconomics *the study of the behavior and decision making of entire economies*

microeconomics *the study of the economic behavior and decision making of small units, such as individuals, families, and businesses*

gross domestic product (GDP) *the total value of all final goods and services produced in a particular economy*

business cycle *a period of macroeconomic expansion followed by a period of contraction*

Figure 3.3 Gross Domestic Product, 1929–2000



Source: Bureau of Economic Analysis



U.S. economic growth soared in the 1990s.

Economic Systems How does the growth of GDP reflect the strengths of the free enterprise system?

public policies that aim to stabilize the economy. Policymakers pursue three main outcomes as they seek to stabilize the economy: high employment, steady growth, and stable prices.

Employment

One aim of federal economic policy is to provide jobs for everyone who is able to work. In the United States, many economists consider an unemployment rate of between 4 percent and 6 percent to be desirable. In the last half of the twentieth century, the jobless rate ranged between 3 percent and 11 percent.

Growth

Part of the American Dream has always been for each generation to enjoy a higher standard of living than that of previous generations. For each generation to do better, the economy must grow to provide additional goods and services to succeeding generations. GDP is a measure of such growth.

Stability

Another macroeconomic task that the government pursues is keeping the economy stable and secure. Stability gives consumers, producers, and investors confidence in the economy and in our financial institutions, promoting economic freedom and growth.

One indicator of economic stability is general price levels. The government's aim is to help prevent sudden, drastic shifts in prices. A surge in overall prices puts a strain on consumers, especially people on fixed incomes. When prices sink, producers and consumers feel the pain. A jump in the price of milk, for example, is hard on families with children, while a plunge in milk prices hurts dairy farmers. In either direction, major fluctuations in price levels can cause a macroeconomic chain reaction that policymakers seek to avoid.

Another sign of economic stability is the health of the nation's financial institutions. None of us wants to go to the bank and find it boarded up and empty. When we make a bank deposit or a stock purchase, we want to know that our money will be protected from fraud or mismanagement and shielded from the damaging effects of sudden economic downturns.

To provide such assurances, the federal government monitors and regulates American banks and other financial institutions. It produces hundreds of regulations, and it has the power to enforce them.

Federal banking regulations protect bank deposits and retirees' pensions. Federal regulators investigate fraud and manage interest rates and the flow of money through the economy. You'll learn more about these functions in later chapters.

Economic Citizenship

Achieving macroeconomic growth and stability is not easy. Through the way it spends money and influences other macroeconomic factors such as interest rates, the government helps to compensate for the typical swings of the business cycle in our economy.



▲ The inventions of a single man, Thomas Edison (right), brought a technological revolution to the United States and launched a new era of economic growth. Following that tradition of technological innovation, Charlie Matykiewicz (left) displays his automatic dog washer, a prize winner at the 1997 Invention Convention in Philadelphia.

Do you expect your generation to have a higher standard of living than that of past generations? As a voter, your elective choices will help guide government economic policy. That's why it's more important than ever for American citizens to understand the macroeconomic processes that shape our futures.

Technology and Productivity

The American economy maintains a far higher standard of living, in terms of GDP, than most of the world. You've read that one way to preserve that high standard is by increasing productivity—shifting the production possibilities frontier outward. How do we do that? One way is through the American **work ethic**, a commitment to the value of work and purposeful activity. Another way to increase productivity is through improved technology.

Technological Progress

Technology is the process used to produce a good or service. Improvements in technology allow an economy to produce more output from the same or a smaller quantity of inputs, or resources. Technological progress allows the United States economy to operate more efficiently and productively, increasing GDP and giving U.S. businesses a competitive advantage in the world.

American history is full of innovations that improved productivity. Thomas Edison's invention of the light bulb in 1879 made possible a longer workday. From weaving looms to tractors to computers, machines have allowed us to generate more goods in a shorter amount of time with fewer raw materials.

In addition, although innovation makes some production processes and workers out-of-date, or obsolete, these resources can be used in other ways. For example, old indus-

work ethic a commitment to the value of work and purposeful activity

technology the process used to produce a good or service

FAST FACT

How can technology help ensure both our energy future and continuing economic growth? Resources that can be tapped today are "known (proven) reserves." Resources that can perhaps be tapped in the future using new technology are "ultimately recoverable reserves." Many scientists believe that we will be able to unlock these vast "ultimately recoverable reserves" as technology continues to improve. In addition, each unit of energy can be made more efficient through expanding technology.

trial buildings can be converted into stores or apartments. Old machines can be recycled and used to produce new machines.

The Government's Role

Inventions are the engine of the free enterprise system. They help us to build "more-better-faster," thus giving consumers more economic choices. Recognizing the need for innovation to maintain America's technological advantage, the government provides incentives for innovation.

Federal agencies fund scores of research and development projects at universities. The Morrill Acts of 1862 and 1890 created so-called land-grant colleges that received federal land and money to pursue the study of "agriculture and the mechanical arts." Land-grant schools from the Massachusetts Institute of Technology to Texas A&M University have been powerhouses of innovation.

The government's own research institutions also produce a steady stream of new technologies that make their way into the marketplace. Probably the best-known

example of such an institution is the National Aeronautics and Space Administration (NASA). Technology created by NASA to blast humans into space and to explore distant planets has produced amazing "spinoffs," products with commercial uses. NASA spinoffs include everything from a muscle stimulator for people with paralysis to a scanner that allows firefighters to see "invisible flames" given off by alcohol or hydrogen fires.

The government also plays a role in innovation by offering inventors the possibility of making huge profits in the free market. It does so by granting patents and copyrights.

A U.S. patent gives the inventor of a new product the exclusive right to produce and sell it for 20 years. A copyright grants an author exclusive rights to publish and sell his or her creative works.

The Framers of the Constitution foresaw the economic need to create incentives for innovation. Congressional authority to issue patents and copyrights is stated in Article 1, Section 8 of the Constitution. It gives Congress the power to "promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."

Section 2 Assessment

Key Terms and Main Ideas

1. Compare **macroeconomics** with **microeconomics**, and give an example of each.
2. How does **gross domestic product (GDP)** provide a means to analyze economic growth?
3. What does GDP tell economists about **business cycles**?
4. Give one example of a new **technology** that has resulted in greater productivity for the United States.
5. (a) How do patents and copyrights promote innovation?
(b) How does innovation help the economy?

6. Describe and analyze how economic stability is measured.

Applying Economic Concepts

7. **Decision Making** Are the macroeconomic goals of employment, growth, and stability best met by the public sector or by the private sector? Explain.
8. **Critical Thinking** Explain how scientific discoveries and technological innovations create the need for rules and regulations to protect individuals and businesses.



**Take It to
the NET**

At NASA's *Spinoff* site, find and describe two examples of products with commercial uses generated by NASA. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Analyzing Primary Sources

A primary source is information produced during or soon after an event, usually by a participant or observer. Although primary sources can convey a strong sense of an event or historical period, they may be inaccurate or biased. For that reason, you must analyze primary sources critically. Read the passage below, written during the early 1930s, and then practice analyzing primary sources by following these steps.

1. Identify the document. Read the passage for tone and authorship. (a) What sort of document is this? (b) Who is the author? How can you tell?

2. Interpret the contents of the document. Compare the details of this document to what you already know about the Great Depression. (a) How did the family live before the Depression?

(b) How did the Depression affect the family?

3. Analyze the document. Read critically to determine the importance of the selection. (a) What do you think the purpose of the story was when it was published in 1934? (b) Is this story consistent with the economic statistics below?

A Boy Tramp Tells of the "Big Trouble"

But we got along swell before the big trouble came even if there were seven of us kids. I shined shoes in a barber shop. Jim carried papers. And Marie took care of Mrs. Rolph's kids. Mother always did some sewing for the neighbors. We had a Chevvie and a radio and a piano. I even started to high school mornings, the year the big trouble came...

Dad got sick as usual but we never thought anything of it. When he comes to go back to work he can't get a job, and everybody all of a sudden-like seems to be hard up. I cut the price of shines to a nickel, but it didn't help much...

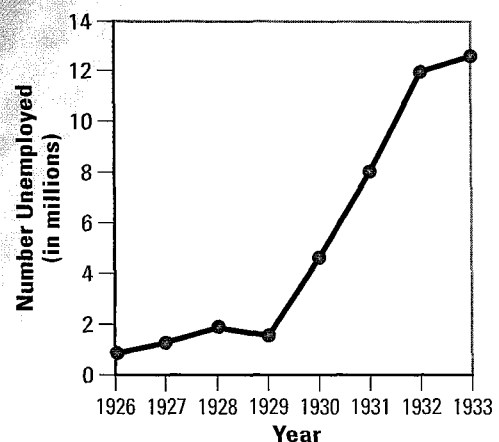
Mrs. Rolph's husband got a cut and she cans Marie. Jim had to quit the paper route because he lost all his cash customers, and the others never paid. Nobody wanted Mother to sew anything.

Source: Thomas Minehan, *Boy and Girl Tramps of America*, (New York: Holt, Rinehart & Winston, Inc., 1934).

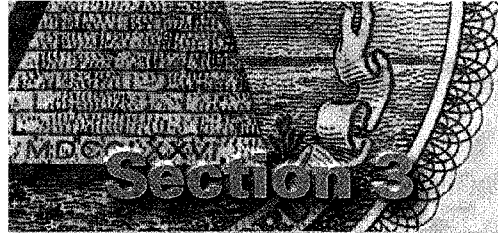
Additional Practice

Find a primary source document that concerns unemployment in a different period of the history of the United States. What similarities and differences do you notice?

Unemployment 1926–1933



Source: Historical Statistics of the United States: Colonial Times to 1970



Section 3

Providing Public Goods

Preview

Objectives

After studying this section you will be able to:

1. **Identify** examples of public goods.
2. **Analyze** market failures.
3. **Evaluate** how the government allocates some resources by managing externalities.

Section Focus

The government sometimes steps in to provide a shared good or resource when it would be impractical for consumers to pay individually.

Key Terms

public good
public sector
private sector
free rider
market failure
externality

What if the government decided to leave the business of road-building up to private citizens? If you wanted a road in front of your house, you'd have to pay a contractor to build it. Or you and your neighbors could chip in and hire someone to build you a small network of streets.

What problems might arise in this scenario? For one thing, single individuals could not afford to pay for a freeway. Construction companies would not get paid, so they would not work. And if you did pay to have your own little highway built, whom would you allow to use it? Would drivers have to stop and pay the owner of each road they drove on? There has to be a better way.

Public Goods

Roads are one of many examples in which the government provides a **public good**, a shared good or service for which it would be inefficient or impractical (1) to make consumers pay individually and (2) to exclude nonpayers. Dams are another example of public goods.

Let's look at the first feature, making consumers pay individually: How would you like to receive a bill in your mailbox for your share of launching a space shuttle or cleaning Mount Rushmore? To simplify the funding of government projects in the

public interest, the government collects taxes.

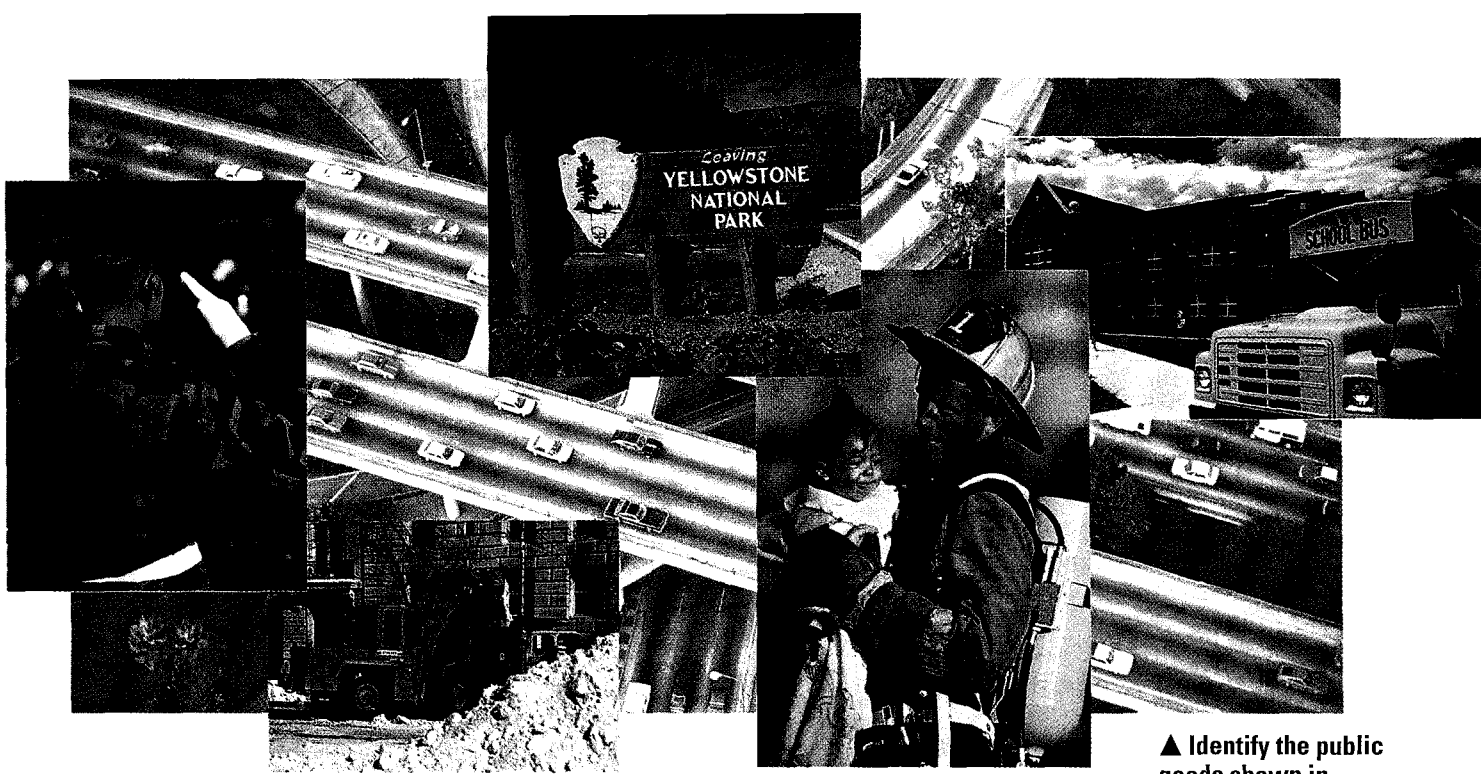
What about the second feature of a public good, excluding nonpayers? As a society, we believe that certain facilities or services should be available to all. Besides, excluding nonpayers from highways would be a nightmare.

Most goods are public simply because a private provider could not charge those who benefit or exclude nonpayers from benefiting. For example, in 1872, Congress created the nation's first national park, Yellowstone. The national park system ensured that the natural resources Americans value would be protected.

If a park were privately owned, the owner could charge an admission fee. Yet some benefits generated by the park, such as the preservation of wildlife, would be enjoyed by nonpayers as well as payers. The owner could neither charge people for that public benefit nor exclude them from it.

Public goods have other characteristics: Any number of consumers can use them without reducing the benefits to any single consumer. For the most part, increasing the number of consumers does not increase the cost of providing the public good. So if you're driving on a highway and eight other drivers come along, they do not significantly reduce the road's benefits to

public good *a shared good or service for which it would be impractical to make consumers pay individually and to exclude nonpayers*



▲ Identify the public goods shown in these photos.

you or increase the government's cost of providing it.

Costs and Benefits

As you read in Section 1, the federal government steps in to act in the public interest whenever it determines that the benefits of a policy outweigh the drawbacks. In road construction, the advantages are obvious. The drawback is the economic freedom we give up, since none of us individually gets to decide what roads will be built, and where. Still, in this example the advantages of public road construction outweigh the drawback. In other cases, weighing benefits against costs is more complicated and open to debate.

Cost is critical in determining whether something gets produced as a public good. When a good or service is public,

1. the benefit to each individual is less than the cost that each would have to pay if it were provided privately, and
2. the total benefits to society are greater than the total cost.

In such circumstances, the market would not provide the good; the government would have to, or else it wouldn't get done.

Study carefully Figure 3.4 on the next page. Does the dam-building project meet the two criteria for a public good?

Public goods are financed by the **public sector**, the part of the economy that involves the transactions of the government. The **private sector**, the part of the economy that involves transactions of individuals and businesses, would have little incentive to produce public goods.

Free-Rider Problem

A phenomenon associated with public goods is called the "free-rider problem." A **free rider** is someone who would not choose to pay for a certain good or service, but would get the benefits of it anyway if it were provided as a public good.

Would you voluntarily contribute, say, \$3,500 to buy army helmets—your portion of America's military cost this year? Perhaps not. Yet when the government provides a system of national defense, you benefit, whether you pay or not.

Try another example: Everyone on your street wants fire protection except one penny-pinching neighbor, who says it's not worth the money. Do you want him to have fire protection anyway? Yes. If his

public sector *the part of the economy that involves the transactions of the government*

private sector *the part of the economy that involves the transactions of individuals and businesses*

free rider *someone who would not choose to pay for a certain good or service, but who would get the benefits of it anyway if it were provided as a public good*

market failure a situation in which the market does not distribute resources efficiently

house catches fire, yours could ignite as well. So local taxes pay for firefighting services for all property in a given area, because all residents are better off if the government provides this service.

Returning to the example of roads, you might not be willing to pay for a new freeway in your area. But if it is built, you would use it. You would be a free rider.

Free riders consume what they do not pay for. The free-rider problem suggests that if the government stopped collecting taxes and relied on voluntary contributions, many public services would have to be eliminated.

Market Failures

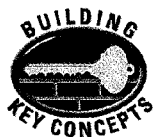
Free riders are examples of **market failure**, a situation in which the market, on its own, does not distribute resources efficiently. To understand market failure, recall how a successful free market operates: Choices

made by individuals determine what goods get made, how they get made, and who consumes the goods. Profit incentives attract producers, who, because of competition, provide goods and services that consumers need at a price they can afford.

In the road-building scenario, are these features of a free market present? No. An individual acting in his or her own self-interest would not build the roads or hire construction companies to do so. If a company did build a road, it could charge a high price for tolls because it would have no competition. This way of getting roads built would be highly impractical.

In this scenario, the criteria for a properly functioning market system do not exist. That's why economists consider this situation a market failure.

Note that public ownership can sometimes produce negative externalities, however. Some public lands, for example, might be more usefully managed if owned privately.



This diagram shows the process that determines whether a public good will be generated. **Opportunity Costs** If the farmers also wanted irrigation ditches built to carry the lake water to their fields, would the ditches be built as a public good? Explain.

Figure 3.4 The Creation of a Public Good

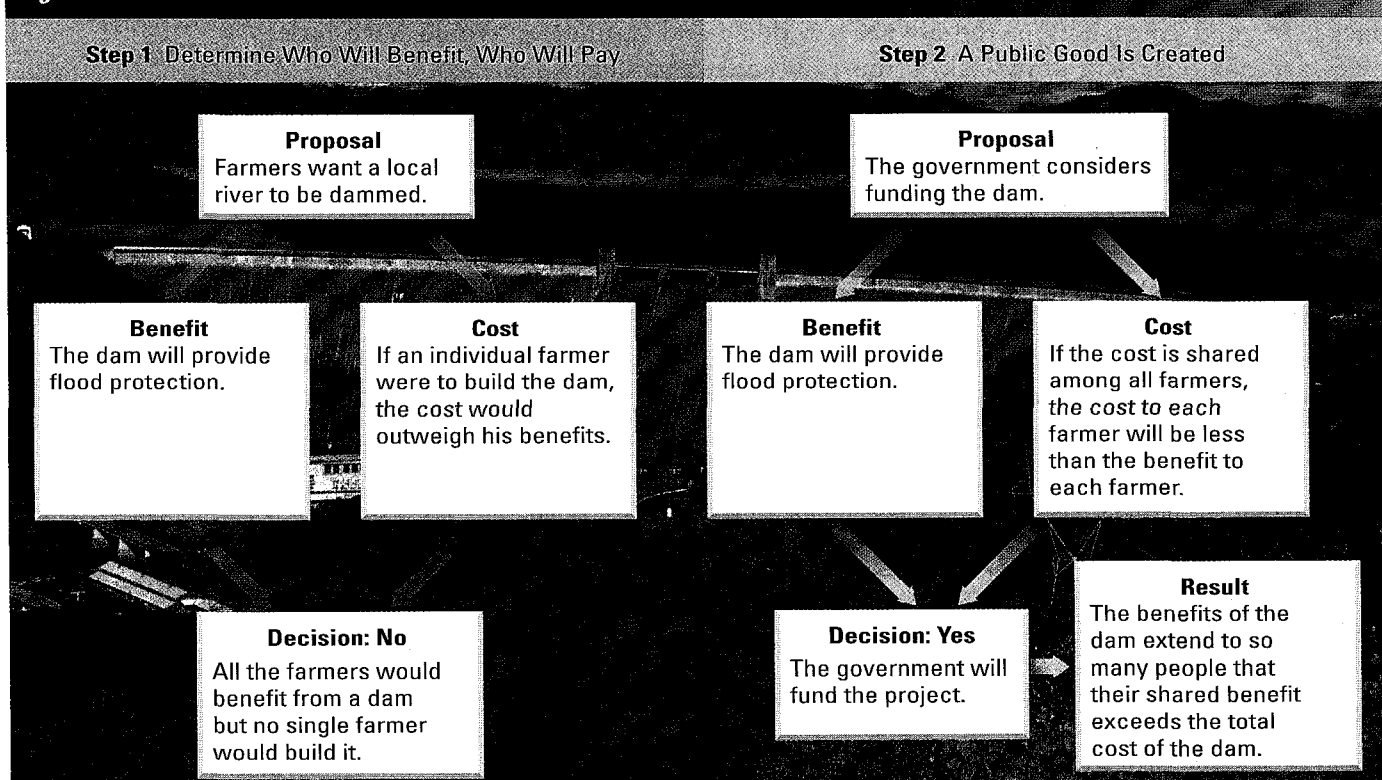
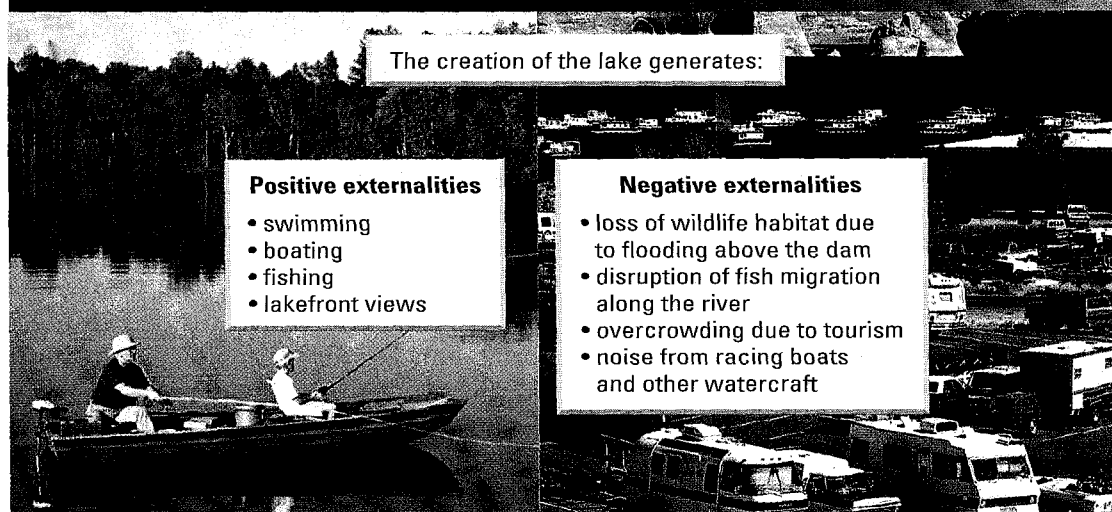


Figure 3.5 Positive and Negative Externalities



Construction of a new dam creates dozens of externalities, positive and negative, depending on your point of view. **Public Policy** What groups of people might feel the greatest economic impact from the new dam?

Externalities

All of the previous examples involve side effects of some sort. They illustrate what economists call externalities. An **externality** is an economic side effect of a good or service that generates benefits or costs to someone other than the person deciding how much to produce or consume. Externalities can be positive or negative, as follows.

Positive Externalities

We've said that public goods generate benefits to many people, not just those who pay for the goods. Such beneficial side effects are called *positive externalities*.

The private sector can create positive externalities, too. In fact, many experts believe that the private sector generates positive externalities more efficiently than the public sector can, and at less cost to taxpayers. For instance:

- Dynamo Computers hires underprivileged teenagers and trains them to be computer programmers. Those workers are then available to be hired by other companies, who benefit from the workers' skills without having paid for them.
- Mrs. Garland buys an old house that is an eyesore in the neighborhood. She

paints the house, cuts the grass, and plants flowers. Her neighbors were not involved in her economic decision. But they receive benefits from it, such as higher property values and a better view.

Whether private or public, positive externalities cause part of the benefit of a good to be gained by someone who did not purchase it. In the 1990s, several endangered species, including the bald eagle and the peregrine falcon, were saved from extinction. Protection of species critical to our ecosystem benefits us all.

Negative Externalities

Of course, some decisions to produce goods and services generate unintended costs, called *negative externalities*. Negative externalities cause part of the cost of producing a good or service to be paid for by someone other than the producer. For example:

- The Enchanted Forest Paper Mill dumps chemical wastes into a nearby river, making it unsafe for swimming. The downstream city of Tidyville is forced to install special equipment at its water-treatment plant to clean up the mess. If the treatment cost is \$20 per ton of paper

externality *an economic side effect of a good or service that generates benefits or costs to someone other than the person deciding how much to produce or consume*

FAST FACT

"Pollution permits" issued by the government can be used to limit the negative externalities of industrial production. Each permit allows a firm such as a paper mill to produce a certain amount of a given pollutant in a given time period. As long as the total amount of the pollutant remains within government limits, the mills may buy and sell permits among themselves. Some firms may make enough money from selling permits to offset the cost of extra reductions in waste. Over time, the paper industry will achieve the same reduction in waste at a lower cost per gallon.

produced, and the mill's production cost is \$100 (the cost of all the materials, labor, and machinery required to produce it), the full, or social, cost of a ton of paper is \$120. The community, not the polluter, winds up paying that \$20.

- Your next-door neighbor, Mr. Fogler, takes up the accordion and holds Friday night polka parties in his backyard. Unfortunately, you hate polka music.

population. This is because educated workers are generally more productive.

Next, the government aims to limit negative externalities, such as acid rain. Pollutants from coal-burning power plants and auto emissions can drift high into the atmosphere and come down in the form of acid rain, which causes ecological damage. Why is acid rain a negative externality? It is part of the cost of producing power and driving cars, but for decades that cost was being imposed upon people other than the producers of this pollution. The cost was damaged trees, lakes, and wildlife.

To help address this negative externality, the federal government now requires all new cars to have an expensive antipollution device called a catalytic converter. In addition, the Environmental Protection Agency offers incentives to power-plant operators to put "scrubbers" on their smokestacks to cut emissions. These actions transfer the costs of pollution back to its producers.

See the Fast Fact on this page for an explanation of pollution permits. These are another way to help eliminate this negative externality.

Government's Goals

When externalities are present, we have a market failure, because the costs or benefits of a good or service are not assigned properly. Understanding externalities helps us see how the government functions in the American economy.

First, the government encourages the creation of positive externalities. Education, for example, benefits students, yet society as a whole also benefits from an educated

Section 3 Assessment

Key Terms and Main Ideas

1. Explain this sentence: Most **public goods** generate positive **externalities**.
2. Why is a **free rider** a type of **market failure**?
3. What is the difference between the **public sector** and the **private sector**? Give examples of each.

Applying Economic Concepts

4. **Critical Thinking** How does the government attempt to encourage positive externalities and limit negative externalities? Give two examples of each.

5. **Critical Thinking** Is the criminal justice system (police and the courts) a public good? Explain.
6. **Decision Making** A city has a shortage of parking spaces near downtown businesses. Should the city build a new parking garage or leave it to the private sector? Explain your reasoning.
7. **Problem Solving** Explain why this statement is true or false: *Government steps in to allocate resources efficiently so that the country is operating on its production possibilities curve instead of under it.*



Take It to the NET

The United States has abundant natural resources. Managing them is a huge task. Find three ways in which the federal government tries to ensure that our natural resources are best used. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. **www.phschool.com**

Providing a Safety Net

Preview

Objectives

After studying this section you will be able to:

1. **Summarize** the U.S. political debate on ways to fight poverty.
2. **Describe** the main programs through which the government redistributes income.

Section Focus

Sometimes the United States government has to step in to create programs to aid poor, disabled, and elderly people.

Key Terms

poverty threshold
welfare
cash transfers
in-kind benefits

Prosperity is a hazy memory in East St. Louis. Tumble-down buildings and weed-covered lots scar the urban landscape. Poverty and unemployment are constant companions in this Illinois city of 40,000 or so residents.

The city hugs the banks of the Mississippi River across from its prosperous big brother, St. Louis, Missouri, a city of more than 330,000 people. At one time, both cities profited from their locations on the busy river. But in the 1970s the firms of East St. Louis packed up and fled, having found better business opportunities elsewhere. With few businesses to tax and a jobless population, the city edged toward bankruptcy, unable to provide even the most basic services, like garbage collection and police and fire protection. At the end of the twentieth century, while much of the United States enjoyed economic growth, East St. Louis struggled merely to exist.

single parent under age 65, with one child, was \$11,869. For a four-person family with two children, it was \$17,463. In East St. Louis, the majority of families live below the poverty line. The median household income is a little over \$12,000 a year.

The Government's Role

The opportunities that the free market offers can lift the working poor into the middle class. Yet, in poor areas from East St. Louis to rural Appalachia to south-central Los

poverty threshold
an income level below that which is needed to support families or households



▲ Members of the East St. Louis Action Research Project, founded in 1990, help rehabilitate an economically depressed neighborhood.

The Poverty Problem

While the free market has proven better at generating wealth than has any other economic system, that wealth is spread unevenly throughout society. This leaves some people below the **poverty threshold**, an income level below that which is needed to support families or households. The poverty threshold is a relative figure determined by the federal government and adjusted periodically. In 2000, the poverty threshold for a

welfare government aid to the poor



Throughout the 1900s, federal spending on social programs grew to include more and more people in need. **Opportunity Costs** What are some of the trade-offs involved in spending on social programs?

Angeles, economic opportunities are limited because of factors such as a lack of local jobs and few educational opportunities.

As a society, we recognize some responsibilities to the very young, the very old, the sick, the poor, and the disabled. For these people, the government tries to provide a safety net. Various federal, state, and local government programs help to raise people's standard of living, their level of economic well-being as measured by the ability to purchase the goods and services they need and want.

Yet, in a society that prefers limited government activity in the economy, poverty poses tough questions: What can the government do to combat poverty? What should it do? Is government regulation the best way to help the poor?

The Welfare System

Since the 1930s, the main government effort to ease poverty has been to collect taxes from individuals and redistribute some of those funds in the form of welfare.

Welfare is a general term that refers to government aid for the poor. It includes many types of redistribution programs.

The nation's welfare system began under President Franklin Delano Roosevelt,

following the Great Depression. Welfare spending increased considerably in the 1960s under President Lyndon B. Johnson's "War on Poverty."

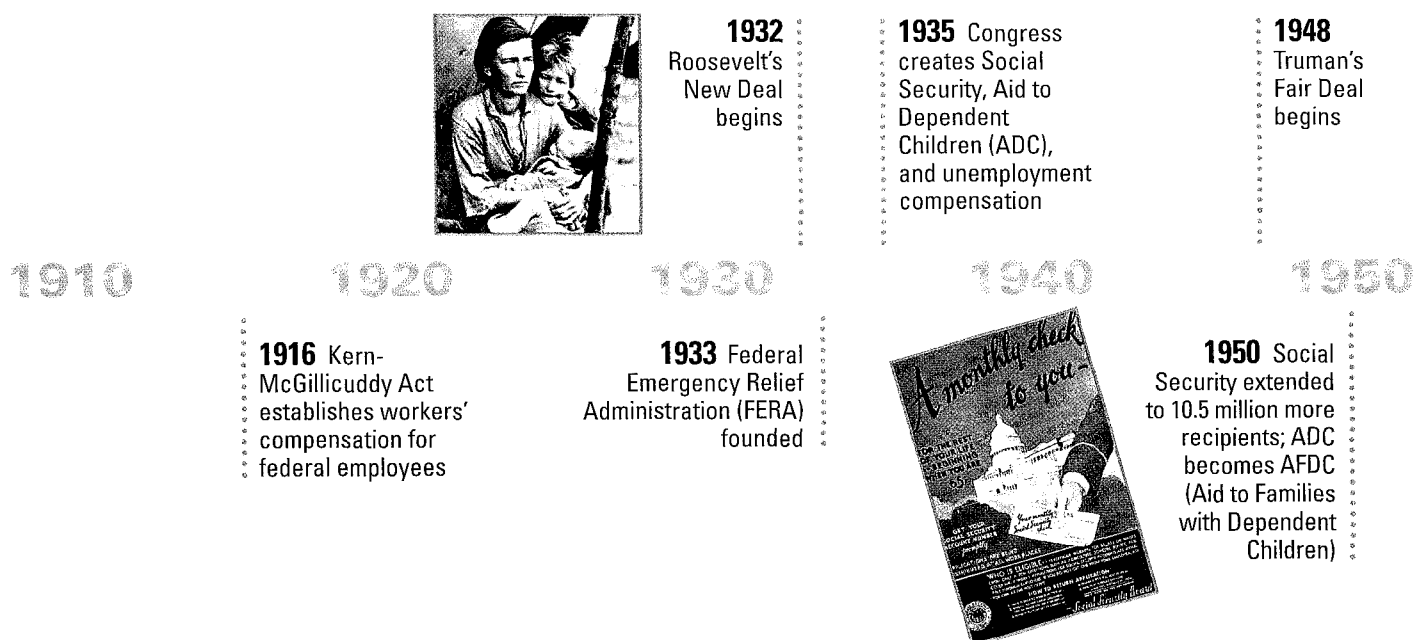
Welfare payments soared in the 1970s and 1980s. In the 1990s, critics of welfare voiced increasing concern about people becoming dependent on welfare and being unable or unwilling to get off it. Some also pointed out that income redistribution discourages productivity, thus actually aggravating poverty. In 1996, Congress made sweeping changes in the welfare system.

Redistribution Programs

Income data are gathered by the U.S. Bureau of the Census, an agency within the Labor Department. The Census Bureau conducts monthly surveys of households to track key economic data. Using the data, the Census Bureau estimates how many people are living in poverty.

Chapter 13 will treat the causes of poverty in detail. In the meantime, here is an overview of the major types of redistribution programs through which the federal government helps the poor and the elderly.

Figure 3.6 A Century of Federal Programs to Help Those in Need



Cash Transfers

State and federal governments provide **cash transfers**, direct payments of money to poor, disabled, and retired people. The following programs distribute direct cash transfers:

1. *Temporary Assistance for Needy Families (TANF)* This program grew out of the 1990s debate about how to ease poverty while decreasing government payments to the poor. TANF replaced the earlier welfare program, Aid to Families with Dependent Children (AFDC). Critics of AFDC said that the program made people dependent on welfare and did not encourage recipients to take responsibility for their lives.

Launched in 1996 as part of comprehensive welfare reform, TANF discontinues direct federal welfare payments to recipients. Instead, federal money goes to the states, which design and run their own welfare programs. States must adhere to federal rules that create work incentives and establish a lifetime limit for benefits. The reform aims to move people from welfare dependence to the work force.

2. *Social Security* The Social Security program was created in 1935, during the depths of the Great Depression, when

many of the elderly lost their life savings and had no income. Social Security provides direct cash transfers of retirement income to the elderly and living expenses to the disabled. The program collects payroll taxes from current workers and redistributes that money to current recipients.

3. *Unemployment insurance* Another cash transfer is the unemployment insurance program, which is funded jointly by federal and state governments. Unemployment compensation provides money to eligible workers who have lost their jobs. Workers must show that they have made efforts to get work during each week that they receive benefits.

4. *Workers' compensation* This program provides a cash transfer of state funds to workers injured on the job. Most employers must pay workers' compensation insurance to cover any future claims their employees might make. This insurance has become more and more expensive as medical expenses and the number of reported on-the-job injuries have increased.

THE WALL STREET JOURNAL.

CLASSROOM EDITION

In the News As this excerpt from The Wall Street Journal Classroom Edition notes, putting people to work makes good economic sense in both the short and the long term.

"Put simply, the longer people work, the more they get used to work, and work becomes part of their lives. That, in turn, should keep the U.S. unemployment rate relatively low for long periods."

cash transfers direct payments of money to eligible poor people



1965 Medical Care Act creates Medicare (for retirees and the disabled) and Medicaid (for the poor)

1974 Food Stamp program extended nationwide



1960

1970

1980

1990

2000

1964 Johnson's Great Society program expands welfare with new programs such as Head Start preschool education



1996 AFDC changed to Temporary Assistance for Needy Families (TANF)

In-Kind Benefits

The government also provides poor people with **in-kind benefits**, goods and services provided for free or at greatly reduced prices. The most common in-kind benefits include food giveaways, food stamps, subsidized housing, and legal aid.

Medical Benefits

Another social service that the U.S. government provides is health insurance for the elderly, the disabled, and the poor. Medicare covers Americans over age 65 as well as the disabled. Medicaid covers some poor people who are unemployed or not covered by their employer's insurance plans. Administered under the Social Security program, Medicare and Medicaid are enormously expensive programs. We will examine them further in Chapter 14.

Education

Federal, state, and local governments all provide educational opportunities to the poor. The federal government funds programs from preschool to college. State and local programs aid students with learning disabilities.

Education programs add to the nation's human capital and labor productivity. As

you saw in Chapter 1, improved education and technology can make an entire economy more productive by shifting the production possibilities frontier outward.

Faith-Based Initiatives

In 2001, President George W. Bush announced an initiative to rely on non-governmental support for people in need. His administration "will look first to faith-based organizations, charities, and community groups that have shown the ability to save and change lives."

The President believes that religious organizations have frequently been among the most successful groups delivering social services. These groups not only spend money to solve problems, but also provide a special compassion. He therefore proposed as a next step in welfare reform that faith-based organizations be allowed to compete for federal funds. Under the Bush plan, all public service organizations—including religious ones—will be eligible to receive public funding for charitable activities.

Mr. Bush established an Office of Faith-Based and Community Initiatives to help faith-based groups work more effectively with the federal government. He also encouraged the states to create state offices of faith-based action.

in-kind benefits *goods and services provided for free or at greatly reduced prices*

Section 4 Assessment

Key Terms and Main Ideas

1. How does **welfare** attempt to raise poor people's standard of living?
2. Why does poverty exist in a free market economy?
3. What is the difference between **cash transfers** and **in-kind benefits**?
4. How is Social Security an example of income redistribution?

Applying Economic Concepts

5. **Math Practice** Assume that the poverty threshold is \$8,480 for an individual and \$11,235 for a two-person household. Based on a 40-hour work week, how much would you need to earn per hour in order to be above the poverty threshold for (a) an individual and (b) a two-person household?
6. **Critical Thinking** An old adage states, "Give a person a fish, feed him for a day; teach a person how to fish, feed him for a lifetime." Do any of the government programs in this section reflect this saying? Explain your answer.



Take It to the NET

Research and make a plan for getting good quality, affordable health care for an elderly American. Use the links provided in the Social Studies area at the following Web site for help in completing this activity. www.phschool.com

Government and the Interstate Highway System

The United States did not always have a good network of roads. In the 19th century, when horse-drawn vehicles were the most common form of transportation, almost all roads were unpaved. Many of them became rutted and uneven, making travel difficult, slow, and uncomfortable. The push to build a network of smoother roads began in the 1880s—through the efforts of a bicycle club.

Early Efforts In 1886, a bicycling craze was sweeping the nation. Many American cyclists belonged to the League of American Wheelmen, an organization that wanted smoother roads for cycling. This club was the first to convince Congress to consider building a national highway system. As motor vehicles later became more common, automobile manufacturers, road builders, and gasoline companies took up the crusade for better roads.

State Highways By the early 1900s, Congress began to provide funding to the states to build highways. Each state, however, focused on building highways within its own borders with its own numbering and sign systems—and the highways did not always connect at state borders. Travelers leaving one state often had to drive over slower roads and streets before connecting up with the next highway.

Federal Highways In 1921, the Federal Highway Act got the U.S. government directly involved in highway construction by setting up a system of major highways that connected from state to state, so that drivers could travel between states without ever having to leave a high-speed highway. The government then created a simple system of numbering and marking these interstate highways, to make navigating the system easy. In 1956, the Federal Aid-Highway Act authorized the construction of 41,000 miles of highways to tie the nation together, creating the interstate highway system we know today.

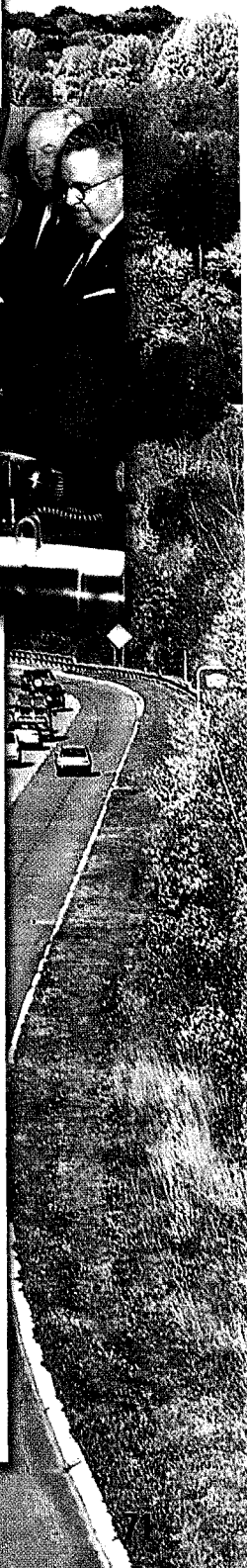
Today, America's interstate highway system is one of the most important features of the country's infrastructure. It allows people and goods to travel quickly from one part of the country to another, reducing transportation costs and speeding up commerce.

Applying Economic Ideas

1. Why was it inefficient to leave highway construction to individual states?
2. Why do you think it took Congress so long to authorize funds for highway construction?



▲ President Dwight Eisenhower signed the Federal Aid-Highway Act on June 29, 1956.



Chapter 3 Assessment

Chapter Summary

A summary of major ideas in Chapter 3 appears below. See also the **Guide to the Essentials of Economics**, which provides additional review and test practice of key concepts in Chapter 3.

Section 1 Benefits of Free Enterprise (pp. 51–55)

The benefits of the American free enterprise system are the result of the basic principles of **profit motive**, **voluntary exchange**, **private property rights**, and **competition**. These benefits include individual freedom for consumers and producers and a wide variety of goods. To protect economic freedoms, the government intervenes in matters of **public interest**. Federal agencies monitor and regulate certain types of businesses. **Public disclosure laws** provide critical information to consumers.

Section 2 Promoting Growth and Stability (pp. 57–60)

Macroeconomics concerns the behavior of whole economies, while **microeconomics** concerns the behavior of smaller economic units, such as households. When necessary, the government takes action to influence macroeconomic **business cycles**. It aids the growth of the economy, as measured by **GDP**. It encourages the creation of new **technologies** by giving patents and copyrights to entrepreneurs.

Section 3 Providing Public Goods (pp. 62–66)

The government provides **public goods**, such as roads, when it would be impractical for individuals to pay for them. Providing public goods produces positive and negative **externalities**.

Section 4 Providing a Safety Net (pp. 67–70)

The government uses tax money to raise the standard of living of people in **poverty**. The nation's welfare system includes programs that distribute various benefits, including **cash transfers**, **in-kind payments**, and medical benefits.

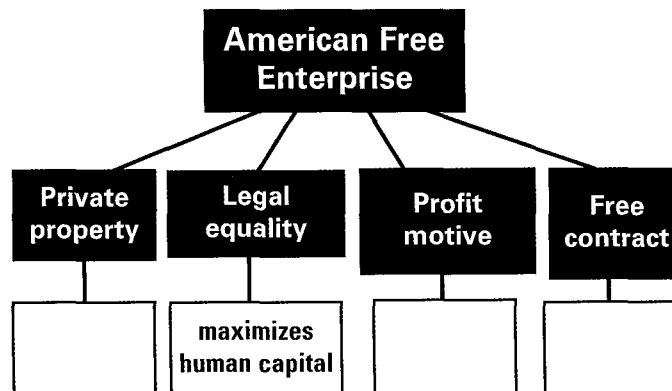
Key Terms

Choose the italicized word in parentheses that best completes each sentence.

1. Acid rain is an example of a(n) (*externality/free rider*).
2. The tradition of (*private property/open opportunity*) allows everyone to compete in the free market.
3. The right of (*free contract/voluntary exchange*) allows people to decide what agreements they want to enter into.
4. Someone who benefits from a good without paying for it is an example of a (*free rider/public good*).
5. Food stamps are an example of a/an (*cash transfer/in-kind payment*).
6. We can use figures on (*gross domestic product/public goods*) to measure economic growth.
7. Study of the behavior of the entire U.S. economy is an example of (*macroeconomics/microeconomics*).

Using Graphic Organizers

8. On a separate sheet of paper, copy the tree map below to help you organize information about the American free enterprise system. Complete the tree map by writing descriptions and examples for each of the headings shown. You may add branches to the tree.



Reviewing Main Ideas

9. (a) How does the government support free enterprise and protect public interest? (b) Describe and evaluate the government rules and regulations described in this chapter.
10. Explain the basic principles of free enterprise in your own words.
11. Why does the U.S. government track and influence business cycles?
12. Explain why each of the following is either a cash transfer or an in-kind payment. (a) unemployment insurance (b) Social Security (c) food stamps

Critical Thinking

13. **Drawing Inferences** Choose one of the federal agencies mentioned in Section 1, and explain how it acts to limit negative externalities.
14. **Synthesizing Information** Based on your reading of the chapter, write a paragraph in which you describe and analyze the economic rights of businesses.
15. **Predicting Consequences** How might the invention of a new, powerful fuel source for cars and trucks affect the country's production possibilities frontier? How might the new fuel affect GDP?

Problem-Solving Activity

16. Suppose that there is a three-person city. The three residents are considering having a fireworks display. Gabriela is willing to contribute \$100 toward the display, while Jerome is willing to pay \$80, and Katelyn is willing to pay \$60. The fireworks display costs \$120. (a) Will any single citizen alone be willing to pay for the fireworks? (b) What recommendation can you make to this city that will benefit all three citizens?

Economics Journal

Brainstorming Reread your Economics Journal entry for Chapter 3. Of the benefits of free enterprise that you listed, which are most important to you and your family?

Skills for Life

Analyzing Primary Sources Review the steps shown on page 61; then read the primary source below and answer the following questions.

17. What course of action is President Johnson suggesting in this speech?
18. In your own words, state three economic reasons Johnson uses to support his argument.
19. For what type of assignment might you use this primary source quotation? Explain.

The war on poverty is not a struggle simply to support people, to make them dependent on the generosity of others. It is a struggle to give people a chance. . . . We do this, first of all, because it is right that we should. . . . We do it also because helping some will increase the prosperity of all. Our fight against poverty will be an investment in the most valuable of our resources—the skills and strength of our people. And in the future, as in the past, this investment will return its cost many fold to our entire economy.

If we can raise the annual earnings of 10 million among the poor by only \$1,000 we will have added \$14 billion a year to our national output. In addition we can make important reductions in public assistance payments which now cost us \$4 billion a year, and in the large costs of fighting crime and delinquency, disease and hunger. . . .

This is only part of the story. Our history has proved that each time we broaden the base of abundance, giving more people the chance to produce and consume, we create new industry, higher production, increased earnings and better income for all.

—President Lyndon B. Johnson,
*Public Papers of the Presidents of the
United States, 1965*



Take It to the NET

Chapter 3 Self-Test As a final review activity, take the Economics Chapter 3 Self-Test in the Social Studies area at the Web site listed below, and receive immediate feedback on your answers. The test consists of 20 multiple-choice questions designed to test your understanding of the chapter content. www.phschool.com

THE WALL STREET JOURNAL.

CLASSROOM EDITION

DEBATING CURRENT ISSUES: *Toxic-Waste Cleanup*

Rail yards are among the country's most serious pollution problems, largely because of hazardous chemicals that have leaked or been spilled or dumped over the years. The following excerpts from "Union Pacific Faces a Foe It Can't Easily Steamroller," by Marc Lifsher, Staff Reporter of *The Wall Street Journal*, describe a bitter standoff in the historic rail town of Sacramento, California.

YES *Should Polluters Determine the Extent of Toxic-Waste Cleanup?*

UNION PACIFIC CORP. finds itself up against a foe that possesses an extraordinary amount of political firepower: the Neighborhoods Working Group. The organization is spearheaded by folks from Sacramento's upscale Curtis Park area, which counts among its residents an impressive lineup of legislative staffers, high-priced private attorneys, and scientific experts.

At issue are plans to redevelop a former rail yard here. The 60-plus-acre tract is now a weed-strewn urban wilderness separating Curtis Park and an even ritzier residential section, Land Park. Though both Union Pacific and neighborhood activists welcome development of this so-called brownfield site, the two sides are at odds over what exactly should be built and where.

These differences—while couched in planning jargon about "densities" and "mixed uses"—boil down to an argument over toxic waste and its removal.

Union Pacific insists its goal is to see a high-quality development get put in place on the site—but one that pencils out financially. So it is promising to clean up half the rail yard for "unrestricted" uses, such as the building of homes and parks. But it wants to remove only some of the toxic material from the other half—a step that could conceivably save it millions of dollars.

The reduced cleanup, Union Pacific officials contend, would still allow for safe construction of supermarkets, small office complexes, and apartments or

condominiums. Such "restricted" uses, they say, would ensure that people have no contact with any potentially harmful substances in the soil because the dangerous spots would be paved over. What's more, property sold in the restricted zone would likely be saddled with deed covenants prohibiting any potentially perilous activities, such as digging into the ground.

"The last thing the railroad or the city or the Department of Toxic Substances Control wants to do is to subject the residents to health and safety hazards," says Rick Gooch, director of special properties for Union Pacific in San Francisco. "We will take all precautions necessary."



How clean is clean enough? The extent to which toxic-waste sites are cleaned up is a point of controversy in many communities.

NO

Should Polluters Determine the Extent of Toxic-Waste Cleanup?

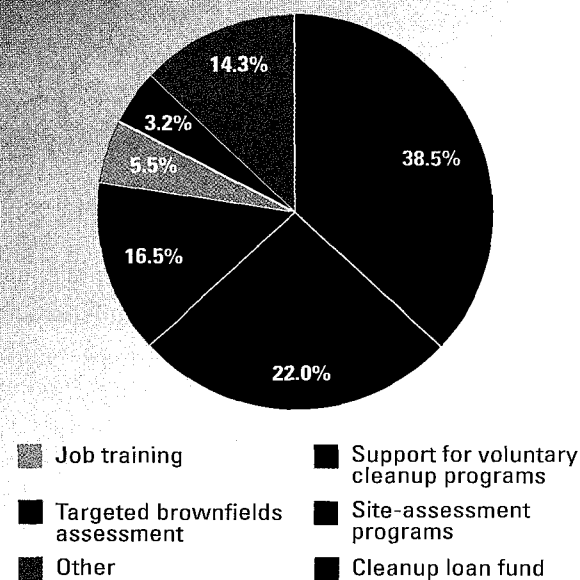
THE CURTIS PARK NEIGHBORS don't trust the railroad to clean up sufficient amounts of lead, arsenic, and petroleum that have been mixed into the soil since the old Western Pacific Railroad opened a steam-locomotive maintenance shop in 1910. And they worry the successor, Union Pacific, with the aid of state regulators, is trying to push through a mitigation plan that could threaten the health of future residents. Arsenic and lead are both poisonous. Arsenic is a carcinogen, and high concentrations of lead in the body can cause mental, digestive, and muscular problems.

The state Department of Toxic Substances Control has approved the railroad's "Final Remedial Action Plan." This, as much as anything, is what has inflamed the Curtis Park activists. Not only do they believe the plan is unsafe, but they also say it effectively foists a huge amount of commercial development on the area.

And this isn't what they want. In fact, the group is urging the Sacramento City Council to guarantee that 44 acres of the rail yard are completely cleaned up for residential housing and 22 acres are cleaned up enough for open space, "neighborhood-friendly" commercial use and community-college expansion—not just stores and office buildings. The council has the final say on any redevelopment project.

Politically connected neighbors say they aren't buying any assurances from the railroad and the state that, if the city eventually adopts a plan that calls for

Annual Costs of Cleanup



Source: Environmental Protection Agency

For fiscal year 1999, Congress appropriated \$91 million to the Environmental Protection Agency for the brownfields program, which reclaims contaminated industrial sites to protect human health and the environment.

more unrestricted construction, additional toxic cleanup would be completed. Thus the activists—backed by the City Council—have enlisted Sen. Deborah Ortiz, a Sacramento Democrat, to introduce legislation that would prevent state regulators from issuing any final cleanup certification until after the city has signed off on the effort.

DEBATING THE ISSUE

- 1.** On what issues in this controversy do Union Pacific and residents of Curtis Park agree? On what issues do they disagree?
- 2.** What would residents say are the disadvantages (costs) of Union Pacific's plan? What would Union Pacific say are the costs of the community's demands?

- 3. Critical Thinking** Why should Union Pacific pay for all the cleanup, when it did not cause all the pollution in the rail yard?
- 4. Reading Graphs** What percentage of brownfields appropriations went for training people to clean up these sites?



Take It to the Net Visit www.phschool.com for additional resources relating to this debate.

UNIT

2

How Markets Work

