UNIT 7

The Global Economy

Chapters in This Unit

17. *International Trade*

18. *Economic Development and Transition*

These bananas were grown in Costa Rica.

Your shoes were made in Indonesia and your backpack in China. While many people take the global economy for granted, when you step back to consider the entire flow of goods, services, and money around the world, the result is mind-boggling.

- Who made your shirt, and how much were they paid for their labor?
- Which goods does the United States export, and which goods are imported?
- How does international trade affect the economy of the United States?

In this unit you'll read about why nations trade and actions nations take to restrict or increase trade. Finally, you'll look at why standards of living vary greatly from country to country and the impact of the global economy on everyone's future.

Focus Activity

Choose five items you own, and identify where they were made. Compare your list of items and countries with that of a classmate.

Chapter 17 International Trade

In today's global economy, many products that Americans use every day were produced in other countries. We drive Japanese cars, wear clothes from China, and sit on furniture from Canada. These products come by trucks and trains or arrive at United States ports aboard huge freighters like the one you see here.

Economics Journal

Check the labels on clothing, appliances, electronics, and other items that you use every day. Then make a list of the items and the countries in which they were made. What does your list suggest about the importance of international trade?

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Section 1 Why Nations Trade

Preview

Objectives

After studying this section you will be able to:

1. **Analyze** the locations of resources and evaluate the significance of these locations.
2. **Explain** the concepts of absolute and comparative advantage and apply the concept of comparative advantage to explain why and how countries trade.
3. **Analyze** the impact of U.S. imports and exports on the United States and its trading partners.
4. **Describe** the effects of trade on employment.

Section Focus

International trade is based on resources that one country needs and another can provide. Each country in the world possesses different resources. By specializing in the production of certain goods and services, nations can use their resources more efficiently. Specialization and trade can benefit all nations.

Key Terms

absolute advantage
comparative advantage
law of comparative advantage
export
import

Have you logged on to a computer today? Ridden in a car or bus? Bought a new sweatshirt or jacket? Chances are these items all have one thing in common. They—or some of their components—were likely made outside the United States.

We know that the United States produces many products, such as jeans, machinery, and some types of computers. We don't, however, produce most of the world's video game systems or VCRs. Why? The answer lies with resources and their distribution. The unequal distribution of resources prevents countries from producing everything their citizens need and want. This is also why we trade.

Resource Distribution

As you read in Chapter 1, the resources that are used to make goods and services are called the factors of production. They include natural resources (land), human resources (labor), and capital resources.

Natural Resources

As you have read, natural resources include those materials found in nature that people use to make goods and provide services. Natural resources include arable land (land that can be farmed), mineral deposits, oil and gas deposits, water, and raw materials like timber.

It is easy to see why a region with fertile soil, such as the central United States, is likely to have an economy based on agriculture. Similarly, you can predict that a region with large oil and natural gas reserves—such as Southwest Asia—is likely to have an economy based on income from the sale of these resources.

Natural resources, as well as climate and location, help determine what goods and services an economy produces. They are not, however, the only influences.

Human Capital

You learned in Chapter 1 that human capital is the knowledge and skills gained by a worker through education and experience. Every job requires some human capital. To be a surgeon you must learn about anatomy and acquire surgical skills. To be a taxi driver, you must know the layout of the city streets.

How do you measure the amount of human capital available in a country? One measure is the literacy rate, or percentage

▲ Many items of clothing are traded internationally.

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Figure 17.1 Resource Distribution

	India	Peru	United Kingdom	United States
Total area (sq km)	3,287,590	1,285,220	244,820	9,629,091
Arable land (sq km)	1,664,986	38,400	60,398	1,740,202
Natural resources	Coal, iron ore, manganese, mica, bauxite, titanium ore, chromite, natural gas, diamonds, petroleum, limestone, arable land	Copper, silver, gold, petroleum, timber, fish, iron ore, coal, phosphate, potash, hydropower	Coal, petroleum, natural gas, tin, limestone, iron ore, salt, clay, chalk, gypsum, lead, silica, arable land	Coal, copper, lead, phosphates, molybdenum, uranium, bauxite, gold, iron, mercury, nickel, potash, silver, tungsten, zinc petroleum, natural gas, timber
Population	1.1 billion	27,949,639	59,778,002	291,765,169
Labor force	406 million	7.5 million	29.7 million	147 million
Literacy rate	52%	88.3%	99%	97%
Telephones*	27 per 1,000 people	64 per 1,000 people	585 per 1,000 people	697 per 1,000 people
Airports	335	239	470	14,695

*non-cellular
Sources: *CIA World Factbook*, U.S. Census Bureau

These countries each possess different natural, human, and physical resources.
Specialization **How do a nation's resources determine what that nation produces?**

of people over 15 who can read and write. A country with a high literacy rate is likely to have an educated, skilled work force.

Physical Capital

Physical capital includes objects made by men and women that are used to produce goods and services. Examples include factories, machinery, and computers. Physical capital also includes the public infrastructure, such as roads and bridges, that allows raw materials and finished goods to be manufactured and transported.

Economic Activity Patterns

Five major economic activities are producing, exchanging, consuming, saving, and investing. Patterns of production, distribution, and use develop as the economic activities become concentrated in urban, industrial, or agricultural areas. Geographic and human factors also influence patterns of economic activity. Ski resorts develop in the mountains, farming in the valleys, and mining where there are ore deposits. Saving and investment also follow patterns, becoming concentrated in areas of potential growth.

Unequal Resource Distribution

Each country in the world possesses different types and quantities of land, labor, and capital resources. Some of these resources are determined by nature. Others are not. A nation's culture and history affect its human and physical resources. For example, if a nation has experienced prolonged civil wars, it may not have been able to develop its resources fully.

The table in Figure 17.1 provides data on different types of resources in selected countries. You can see that the availability of resources differs greatly from country to country. For example, the United Kingdom has over twice as many airports as Peru despite its smaller land area, suggesting that the United Kingdom has more physical capital than Peru. Economists can confirm this fact with additional data. As you might expect, because countries differ in resources, they also differ in their capacities to produce different goods and services.

The Need for Trade

Specialization occurs when producers—either individuals or nations—decide to produce only certain goods and services,

rather than producing all the goods and services they need. Specialization is determined by a nation's natural resources and by its human and physical capital. For example, the world's wheat is grown in regions with a cool climate. In the United States, we grow wheat, soybeans, and other crops for which we have appropriate soil and climate conditions. We cannot, however, produce diamonds or coffee.

When nations specialize in producing only certain goods, they obtain the goods they don't or can't produce through trade. For example, Costa Rica specializes in producing coffee and exports a large quantity of coffee beans. The country then uses the money it earns from coffee exports to buy products that it does not produce.

What about a nation that enjoys an abundance of resources, including a rich natural environment, a well-educated work force, and the latest technologies? It can, in theory, produce almost all that it needs by itself, without trade. If you were in charge of such a country, would you engage in large-scale trading? Or, would you decide to rely mostly on your country's own resources and be largely self-sufficient? Although self-sufficiency may sound appealing, it actually is better for countries to specialize in some products and trade for others.

Absolute and Comparative Advantage

Trading relationships benefit countries with abundant resources as well as countries with few resources. To see why, you need to look at two related concepts—absolute advantage and comparative advantage.

Absolute Advantage

A person or nation has an **absolute advantage** when it can produce more of a given product using a given amount of resources. A simple example can illustrate this idea.

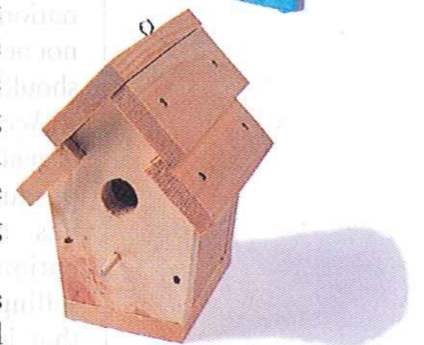
Suppose that two of your friends, Carl and Kate, want to make some extra money. They decide to print designs on T-shirts and make birdhouses.

Figure 17.2 Productivity per Hour

	T-shirts per hour	Birdhouses per hour
Kate	6	2
Carl	1	1

Kate has an absolute advantage in producing both T-shirts and birdhouses.

Specialization In which good should each person specialize?



As shown in Figure 17.2, Kate can either print six T-shirts or make two birdhouses per hour. Carl can print one T-shirt or make one birdhouse per hour. In other words, Kate is more productive than Carl in making both T-shirts and birdhouses. In economic terms, Kate has an absolute advantage over Carl in producing both goods.

Suppose that each person is initially self-sufficient. Both Kate and Carl produce their own T-shirts and their own birdhouses. Because Kate enjoys an absolute advantage in both goods, should she remain self-sufficient? Or would Kate be better off if she specialized in either T-shirts or birdhouses? What should Carl produce—T-shirts, birdhouses, or both?

Countries have to face the same sorts of questions as individuals. Should a wealthy country with many resources be self-sufficient, or should it specialize in a few products and trade for the goods it doesn't produce? How does a poorer nation decide what to produce? The answer to these questions lies with the concept of comparative advantage.

Comparative Advantage

Early in the nineteenth century, British political economist David Ricardo argued that the key to determining which country should produce which goods is opportunity cost. Remember that the opportunity cost is what you give up in order to produce a certain product. The nation that has the lower opportunity cost in producing a

absolute advantage *the ability to produce more of a given product using a given amount of resources*

Kate gives up three T-shirts for each birdhouse she produces. Carl gives up only one T-shirt for each birdhouse he produces.

Opportunity Costs
What are Kate and Carl's opportunity costs for T-shirts and birdhouses?

Figure 17.3 **Opportunity Costs for Kate and Carl**

	Opportunity cost of a T-shirt	Opportunity cost of a birdhouse
Kate	$\frac{1}{3}$ birdhouse	3 T-shirts
Carl	1 birdhouse	1 T-shirt

certain good has a comparative advantage in producing that good. A country has a **comparative advantage** in the product that it can produce most efficiently given all the products it could choose to produce. It is the nation with the comparative advantage—not necessarily the absolute advantage—that should specialize in producing that good.

According to the **law of comparative advantage,** a nation is better off when it produces goods and services for which it has a comparative advantage. Each nation can then use the money it earns selling those goods to buy other goods that it cannot produce as efficiently. We can use the example of Kate and Carl to illustrate the benefits from trade that is based on comparative advantage.

The Importance of Opportunity Cost

To determine comparative advantage in the example involving Kate and Carl, you need to look at the opportunity costs of producing T-shirts and birdhouses.

- *Kate's opportunity costs* In an hour, Kate can make either six T-shirts or two birdhouses. She therefore sacrifices three T-shirts for every birdhouse she produces. In other words, the opportunity cost of a birdhouse is the three T-shirts she could have produced instead. Conversely, the opportunity cost of a T-shirt is one third of a birdhouse.
- *Carl's opportunity costs* Carl sacrifices only one T-shirt for every birdhouse. His opportunity cost for a birdhouse is the one T-shirt that he could have produced instead.

As you have read, each person should produce the good for which he or she has a comparative advantage—that is, a lower opportunity cost than another person. Carl's opportunity cost for producing a birdhouse (one T-shirt) is lower than Kate's (three T-shirts), so it is sensible for Carl to produce birdhouses. Kate's opportunity cost for producing a T-shirt (one third of a birdhouse) is lower than Carl's (one birdhouse), so Kate should produce T-shirts.

Why is it sensible for Carl to specialize in birdhouses? Although Kate has an absolute advantage in making birdhouses, Carl has a comparative advantage in birdhouses because he has a lower opportunity cost. Remember that in order to make a birdhouse, Kate has to give up three T-shirts. In order to make a birdhouse, Carl has to give up only one T-shirt.

Benefits for Trading Partners

As you might remember from trading baseball cards or small toys when you were younger, trade usually involves bargaining. Each side tries to make the best deal it can. In a modern economy, we don't exchange goods directly—we use money. The main principle, however, remains the same: both sides agree on a price that benefits both.

When Kate wants a birdhouse, she can either produce it herself or produce some shirts and trade some of them for a birdhouse made by Carl. Suppose Kate and Carl agree to trade two T-shirts for one birdhouse. In this case, Kate will be better off producing T-shirts and trading for a birdhouse. That's because in the time she could have taken to produce her own birdhouse, Kate can produce three T-shirts. Once she pays Carl two T-shirts to get a birdhouse, she will still have one T-shirt left over. In other words, trade makes her better off by one T-shirt. (See Figure 17.4.)

When Carl wants two more T-shirts, he can either make them himself, or make some birdhouses and trade some of them for shirts made by Kate. If Kate and Carl agree to trade one birdhouse for two T-shirts, Carl will be better off producing birdhouses and trading for shirts. In the time he could have taken to produce two T-shirts for himself, he can produce two

comparative advantage *the ability to produce a product most efficiently given all the other products that could be produced*

law of comparative advantage *the idea that a nation is better off when it produces goods and services for which it has a comparative advantage*

birdhouses. Once he pays one birdhouse to Kate to get two T-shirts, he will still have one birdhouse left over. Trade makes him better off by one birdhouse.

Kate and Carl both benefit from trade. Each person specializes in the production of the good for which he or she has a comparative advantage, and then trades for the other good. The same is true with nations—both sides benefit from trade.

Comparative Advantage and Trade

The lessons from this example apply to trade between nations. According to Ricardo, the nation that has the lower opportunity cost in producing a good has a comparative advantage in producing that good. Remember that comparative advantage is the ability of one nation to produce a good at a lower opportunity cost than that of another nation. It is the nation with the comparative advantage—not necessarily the absolute advantage—that should specialize in producing that good.

Suppose two countries, A and B, produce bananas and sugar. If A must sacrifice 2 tons of sugar to produce a ton of bananas, the opportunity cost of a ton of bananas is 2 tons of sugar. If the opportunity cost of a ton of bananas in B is 3 tons of sugar, A has a comparative advantage in producing bananas. That's because A's opportunity cost (2 tons of sugar) is lower than B's (3 tons of sugar). If A specializes in producing bananas, it could use the money earned from selling bananas to buy other goods and services.

International trade leads to greater interdependence. When countries are interdependent, events in one country's economy influence the other economies as well. Mexico and the United States have become more interdependent since 1994.

The United States and Trade

The United States enjoys a comparative advantage in producing many goods and services. What, then, is its position as an

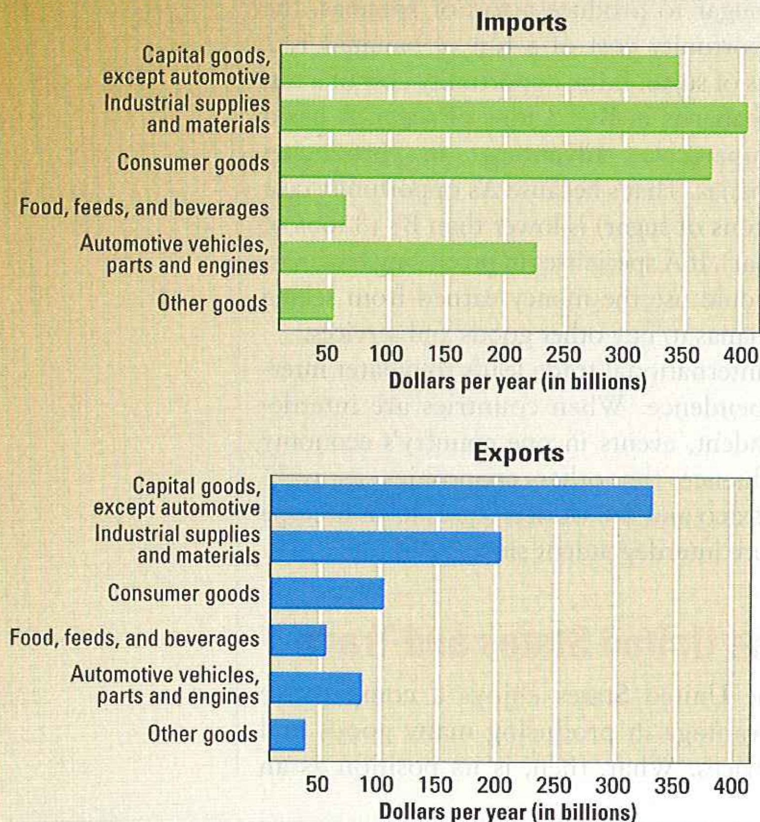
Figure 17.4 Benefits From Specialization and Trade for Carl and Kate

Carl			Kate		
Specialization	Trade	Net Effect	Specialization	Trade	Net Effect
Carl specializes, switching 2 hours from T-shirt production to birdhouse production.	Carl trades 1 birdhouse for 2 T-shirts.	Net effect is same number of T-shirts and 1 more birdhouse.	Kate specializes, switching one half-hour from birdhouse production to T-shirt production.	Kate trades 2 T-shirts for 1 birdhouse.	Net effect is the same number of birdhouses and 1 more T-shirt.

Kate and Carl both benefit from specialization and trade.

Trade What is the net effect of trade for Kate and Carl? Why are they both better off trading?

Figure 17.5 **Major U.S. Imports and Exports, 2004**



Category	Examples
Capital goods, except automotive	Computers, airplanes, semiconductors
Industrial supplies and materials	Chemicals, metals, plastic, oil
Consumer goods	Clothes, toys, jewelry
Food, feeds, and beverages	Beef, corn, soybeans

Source: U.S. Census Bureau

The United States is both the world's largest importer and its largest exporter. **Trade** **Judging from these graphs, does the United States export more than it imports or import more than it exports? Explain.**

export *a good that is sent to another country for sale*

import *a good that is brought in from another country for sale*

importer and exporter on the world market? In the language of international trade, an **export** is a good sent to another country for sale. An **import** is a good brought in from another country for sale.

As you can see from the map on page 545 of the Databank, the main U.S. trading partners are Canada, Mexico, Japan, and China. Trade with China has grown tremendously in recent years.

The United States as an Exporter

The United States is the world's leading exporter, followed by Germany and Japan. One reason for the success of the United States as an exporter is the wide range of its exports, from telecommunications equipment to soybeans. Another reason is that the United States has a commanding lead in manufacturing such products as computer software, medical equipment, and other advanced technology.

The United States is also in a good position to benefit from increased trade in services. Goods make up the bulk of international trade, but services are also traded on the world market. These include education, information services, computer and data processing, financial services, and medical care. Exports of services have grown rapidly over the last decade. The United States is the world's top exporter of services, so it stands to gain significantly from this trend.

The United States as an Importer

Besides being the world's largest exporter, the United States is also the world's top importer, and by a significant amount. The United States imports nearly $1.4 trillion in goods and services, or 17.3 percent of the world's total. That amount exceeds total imports for Germany and Japan combined, the world's largest importers after the United States.

The Effects of Trade on Employment

Trade allows nations to specialize in producing a limited number of goods while consuming a greater variety of goods. However, specialization can also dramatically change a nation's employment patterns.

Specialization and Employment

To help you better understand the effects of international trade on employment, think back to the example of Kate and Carl. As you have read, Kate can make six T-shirts or two birdhouses by herself in an hour.

Suppose she hires Ari to help her build birdhouses. She later realizes that she should specialize only in T-shirts since that is where her comparative advantage lies. She no longer needs Ari to help her. Unfortunately, Ari's only skill is making birdhouses.

Ari now faces three possibilities: unemployment, retraining, or relocating to a part of the country where his skills are in demand. Ari may be able to find a training program and learn to make T-shirts or another product. He might even find himself better off than he was making birdhouses.

If Ari relocates, he may or may not be better off. How well he does depends on housing prices, the quality of his new neighborhood, the impact on his family, and a variety of other factors.

Government assistance is often available to help retrain laid-off workers for new jobs or to help them relocate to fit shifts in employment patterns. However, especially in the case of older workers or workers with families, retraining or relocation is not an easy (or sometimes not a possible) option. Some workers may become unemployed or be forced to take lower-paying jobs.

Specialization and Employment in the United States

In the United States, significant changes in employment patterns have occurred in the past two decades as a result of specialization and international trade. For example, during the 1970s, specialization, new technologies like robotics, and high productivity gave Japan a comparative advantage in producing automobiles. As a result, Japanese cars became less expensive than many comparable American-made cars. As more consumers bought Japanese cars, many American workers lost jobs in automobile-producing centers such as Detroit.

Many other shifts in employment have also taken place in the United States in recent decades as a result of world trade and other factors. The overall result has been a shift in population from the manufacturing states of the Midwest to the Sunbelt states of the South and Southwest.

▲ **Workers who lose their jobs can often learn new skills.**

Section 1 Assessment

Progress Monitoring *Online*
For: Self-quiz with vocabulary practice
Web Code: mna-7175

Key Terms and Main Ideas

1. How do nations obtain goods and services for which they lack adequate resources?
2. Susan grows coffee in a North Dakota greenhouse under sunlamps. Growing coffee this way takes a lot of effort and money. She also grows sunflowers, which are easy to grow in the dry climate in which she lives. In which crop does she probably have a **comparative advantage?**
3. Why is a nation with abundant resources better off trading than being self-sufficient?
4. Specialization and trade can result in shifting employment patterns. **(a)** What possibilities are available to people who lose their jobs due to changes in employment patterns? **(b)** What are the advantages and disadvantages of each possibility?

Applying Economic Concepts

5. ***Critical Thinking*** Suppose a nation has a great deal of human capital but few natural resources. In what kinds of products might it specialize?
6. ***Try This*** Make a Productivity Table for yourself and a friend using the table on page 443 as a model. Choose your own goods and estimate production times. Then decide where you and your friend have a comparative advantage.
7. ***Using the Databank*** Turn to the map showing United States trading partners on page 545. Considering geographical location and resources, give reasons to explain why the countries shown are major U.S. trading partners.

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Skills for

LIFE

Creating a Multimedia Presentation

Multimedia presentations communicate information in a variety of forms, both audio and visual. The preproduction, or planning, stage of a presentation requires a considerable amount of work if the production stage and final product are to go well. During the preproduction stage, the producer drafts an outline and script, decides what media to use and where, arranges interviews or photography sessions, selects images, and chooses music.

Suppose that you have been assigned to produce a multimedia presentation on how the global economy affects the lives of people in your region. Use the following steps and a copy of the preproduction topic analysis sheet below to prepare your presentation.

1. **Plan your content.** Select a topic for your presentation. (a) What possible topics might you focus on? (b) How could you break up your presentation into different segments? (c) How do these segments connect with one another?

PREPRODUCTION TOPIC ANALYSIS SHEET

Assignment: The impact of the global economy on the local community

Possible topics:
1. ____________
2. ____________
3. ____________

My choice: ____________

Sources for topic information: ____________

Intended audience: ____________

Information to be presented: ____________

____

Segment description and sequence:
1. ____________
2. ____________
3. ____________

Mood: ____________

Type of narration: ____________

Graphics/illustrations, interviews, music

Segment #1 ____________

Segment #2 ____________

Segment #3 ____________

2. **Plan a script.** You must decide whether to use a running commentary by a single narrator, comments by several interviewees, or a combination. (a) What are the advantages and disadvantages of using a single narrator? (b) Which script style do you feel would be most appropriate for a presentation on the local impact of the global economy, and why?

3. **Make a list of images, interviews, and music.** The images you choose will help viewers visualize your message. (a) What images would fit the content and mood of each segment? (b) Which people could you interview? (c) What pieces or types of music would best enhance the mood of your presentation?

Additional Practice

Suppose that you are planning a multimedia presentation on some aspect of life at your school. Prepare a preproduction chart like the one shown here for your presentation.

Section 2 Trade Barriers and Agreements

Preview

Objectives

After studying this section you will be able to:

1. **Define** various types of trade barriers.
2. **Compare** the effects of free trade and trade barriers on economic activities.
3. **Understand** arguments in favor of protectionism.
4. **Evaluate** the benefits and costs of participation in international trade agreements.
5. **Explain** the role of multinationals in the global market.

Section Focus

The free exchange of goods can be restricted by barriers to trade, such as tariffs, quotas, and voluntary export restraints. International trade agreements and organizations work to reduce trade barriers.

Key Terms

trade barrier
import quota
voluntary export restraint (VER)
customs duty
tariff
trade war
protectionism
infant industry
international free trade agreement
World Trade Organization (WTO)
European Union (EU)
euro
free-trade zone
NAFTA

So far, our discussion of trade has assumed that international trade is not subject to government regulations. Many people, however, argue that governments should regulate trade in order to protect certain industries and jobs from foreign competition.

Trade Barriers

Most countries have some form of trade barriers that hinder free trade. A **trade barrier,** or trade restriction, is a means of preventing a foreign product or service from freely entering a nation's territory. Trade barriers take three common forms: import quotas, voluntary export restraints, and tariffs.

Import Quotas

An **import quota** is a limit on the amount of a good that can be imported. For example, the United States limits the annual amount of raw (unprocessed) cotton coming into the country from other nations. Quotas limit India and Pakistan to 908,764 kilograms of cotton, China to 621,780 kilograms, and Egypt and Sudan to 355,532 kilograms. The United States will accept no more than these amounts of cotton from these countries. Other nations that produce cotton must also observe quotas of various amounts.

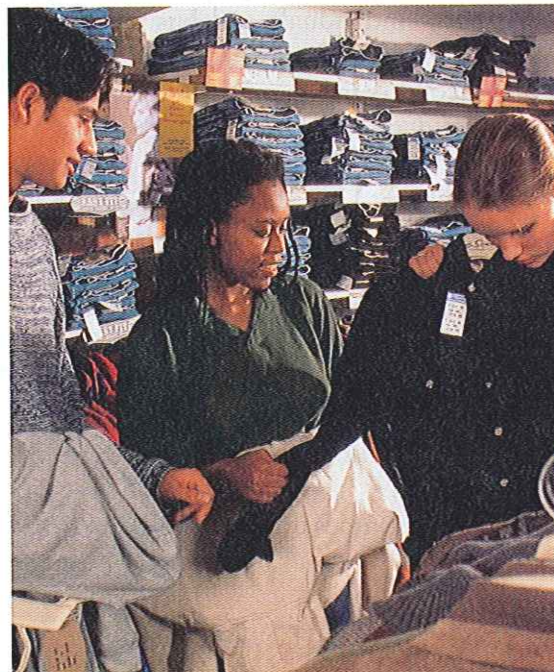
Voluntary Export Restraints

An import quota is a law. A **voluntary export restraint (VER)** is a self-imposed limitation on the number of products that are shipped to a particular country. Under a voluntary export restraint, a country voluntarily decreases its exports in an attempt to

trade barrier *a means of preventing a foreign product or service from freely entering a nation's territory*

import quota *a limit on the amount of a good that can be imported*

voluntary export restraint (VER) *a self-imposed limitation on the number of products shipped to a particular country*



◀ The cotton used to make much of the clothing Americans wear is subject to import quotas.

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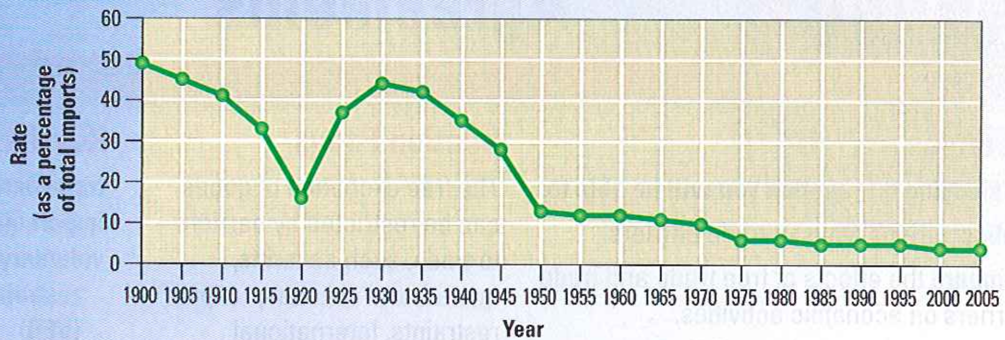
Figure 17.6 **Average Tariff Rates, 1900–2005**



Sources: *Historical Statistics of the United States: Colonial Times to 1970; Statistical Abstract of the United States; Trade Policy Review of the United States*

Tariffs work to safeguard American products from foreign competition.
Trade What has been the overall trend in the use of tariffs as trade barriers?

customs duty *a tax on certain items purchased abroad*

tariff *a tax on imported goods*

reduce the chances that the importing country will set up trade barriers.

Tariffs

If you have traveled to a foreign country, you might have had to pay a tax called a **customs duty** on certain items you purchased abroad. You might also have seen "duty free" stores at international borders and airports selling luxury items like perfume and chocolate. Countries have agreed that items purchased in these shops will be free of customs duty.

Customs duty is one kind of **tariff**, or tax on imported goods. As you read in Chapter 14, both individuals and businesses have to pay tariffs. For example, the United States collects tariffs on steel, foreign-made cars, and many other products that are brought into the country. As you can see from Figure 17.6, however, tariffs have become far less important sources of government revenue than they were in the late 1800s and early 1900s.

Other Barriers to Trade

Governments sometimes use less formal methods to limit imports. For example, sometimes a government will require foreign companies to obtain a license to sell goods in that country. High licensing fees or slow licensing processes act as informal trade barriers.

Health and safety regulations and requirements are often used by governments as subtle trade barriers. For example, suppose a nation treats the fruit it grows with an insecticide that is widely accepted in its own country. Another nation that wants to discourage imports of this product might ban any fruit treated with that insecticide. The importing nation hopes that it will be too troublesome for potential sellers to meet this condition. In this way, imports will be sharply reduced or eliminated.

Effects of Trade Barriers

Trade barriers have a number of effects, some negative and some positive. Simply put, trade barriers limit supply. You will recall that the United States limits cotton imports through import quotas. These quotas ensure that the United States manufacturers of jeans and other cotton clothing will probably not be able to meet their needs for cotton with imported cotton alone. Instead, clothing manufacturers will have to buy some cotton grown in the

United States to make up their shortfall. In this way, American cotton growers benefit from quotas on cotton.

Increased Prices for Foreign Goods

Although producers of many products may benefit from trade barriers, consumers can lose out. That's because trade barriers result in higher prices. For example, suppose the market price of an imported car is $20,000. The United States wants to use a tariff to restrict the number of imported cars coming into the country. The United States government thus places a 10 percent tariff on all foreign-auto imports. With this tariff, the price of the $20,000 imported car now rises to $22,000.

As a result of this price increase, American car makers can compete more easily in the market. American manufacturers and workers therefore benefit through increased sales. On the other hand, consumers must now pay higher prices for foreign-made cars. In addition, American manufacturers lose the economic incentive to become more efficient and produce their cars less expensively.

Trade Wars

Escalating economic conflict is another possible outcome of trade barriers. When one country restricts imports, its trading partner may impose its own restrictions against that country. Such a cycle of increasing trade barriers is known as a **trade war**.

Trade wars often lead to a substantial decrease in trade for both countries. As you read in Section 1, trade benefits both trading partners. Conversely, a decrease in trade hurts both trading partners.

Perhaps the largest and most dangerous trade war in United States history was launched by the Smoot-Hawley tariff in 1930. This tariff raised the average tariff on all products to 50 percent. When the federal government passed this law, the economy had begun to slide into a depression. Consumers were spending less, and many workers had lost their jobs. Congress hoped the tariff would protect American workers from foreign competition.

Other countries responded by raising tariffs against American-made goods. The trade war that resulted decreased international trade and deepened the worldwide depression of the 1930s. Most economists blame the Smoot-Hawley tariff for increasing American unemployment. The trade war had closed foreign markets to American goods and reduced world-wide demand for all goods.

Trade wars still break out between the United States and other countries, but most disputes center on a few products instead of all imports. Recent conflicts include the Beef War of 1999 and the Steel Tariff of 2002.

European countries launched the Beef War by banning the import of American beef from cows raised with hormones. The United States responded by imposing tariffs on European clothing and specific foods, including certain cheeses, meats, and mustards.

The Steel Tariff dispute began when the United States introduced temporary tariffs on imported steel to help American steel producers recover from bankruptcy. Angry European nations sued and threatened to retaliate. An international panel (see page 454) ruled these tariffs illegal in 2003.

trade war *a cycle of increasing trade restrictions*

◀ **Trade wars have at times resulted in increased prices for some imported foods such as this mustard from France.**

protectionism *the use of trade barriers to protect a nation's industries from foreign competition*

infant industry *a new industry*

Arguments for Protectionism

Why does a country impose trade barriers? There are three main arguments that support **protectionism,** the use of trade barriers to protect industries from foreign competition. These include protecting workers' jobs, protecting infant industries, and safeguarding national security.

Protecting Jobs

One argument for protectionism is that it shelters workers in industries that would be hurt by foreign competition. This reasoning led to the Smoot-Hawley tariff in 1930. For example, suppose that nations in East Asia have a comparative advantage in producing textiles. If the United States reduced existing tariffs on textile imports, domestic manufacturers may not be able to compete with East Asian imports. They would have to close their factories and lay off workers.

In an ideal world, the laid-off workers would take new jobs in other industries. In practice, however, as you read in Section 1, retraining and relocation can be difficult. Many workers do not have the skills to work in other industries, and obtaining such skills takes time and money.

In addition, industry and political leaders often do not want to shut down existing industries and lose jobs in their home regions. For example, the textile industry is heavily concentrated in the southeastern United States. Politicians and industry leaders from the Southeast might try to keep textile tariffs in place to prevent loss of jobs and business.

Protecting Infant Industries

Suppose you are learning a new skill, such as playing ping-pong. At first you find it difficult to hit the ball, but as you play more your skills improve. This process is called "learning by doing."

Similarly, new industries need time and practice to become efficient producers. Tariffs and other protectionist policies are often defended on the grounds that they protect new industries in the early stages of their development. A new industry is often called an **infant industry.**

A tariff shields a young industry from the competition of its more mature rivals. After the infant industry grows up—that is, acquires the ability to produce goods efficiently and at a competitive price—the tariff can be eliminated because the industry is able to compete.

Two main difficulties arise, however. First, a protected infant industry lacks the incentive to become more efficient and competitive. Second, once an industry is given tariff protection, it is difficult to take the protection away. In other words, the infant may never "grow up."

Safeguarding National Security

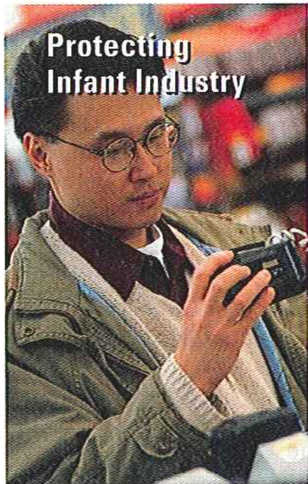
Certain industries may require protection from competition because their products are essential to defending the country. In the event of a war, the United States would need steel and other products from heavy industries. It would also need industries that provide energy and advanced technologies. For this reason, the government wants to ensure that these industries remain active in the United States.

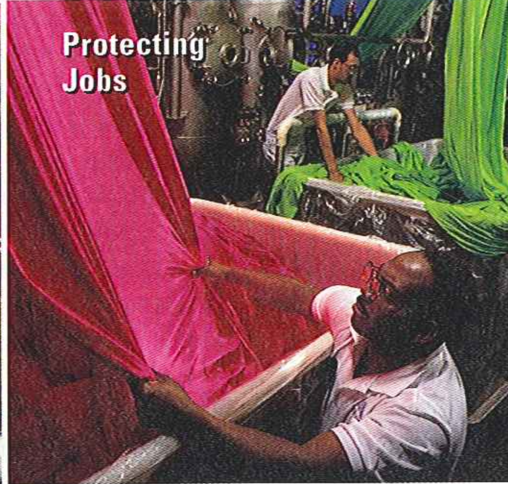
Even supporters of free trade agree that some industries need to be protected—or at least receive government financial help—so

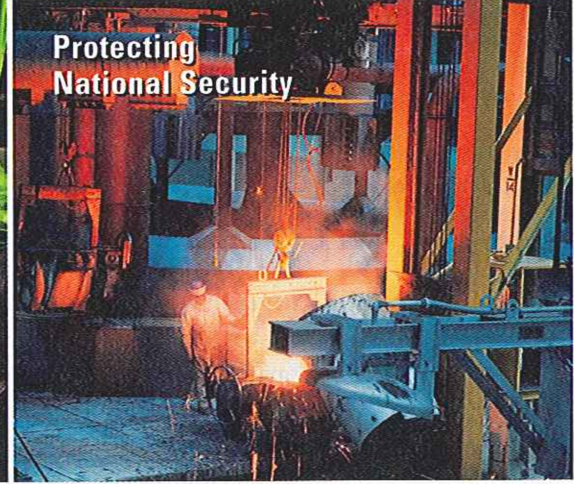
Global Connections

Frankenstein Food? When free trade and the worries of the everyday consumer conflict, trade wars may result. Companies in the United States have developed genetically modified (GM) crops to be hardier, more nutritious, and more resistant to pests than unmodified crops. Today, much of the grain used to feed American livestock and bake bread comes from GM plants.

Many European consumers and governments strongly oppose genetically modified crops, known in Britain as "Frankenstein Food." European regulators banned GM crops for five years on the grounds that they were unsafe to eat, although they lacked scientific evidence for this claim. The ban prevents American farmers from selling grain to Europe. In addition, American businesses can not sell GM seeds to farmers in other countries that export crops to Europe. Many people argue that the ban is an illegal tactic to protect European farmers from competition. In 2003, the United States sued the European Union to end the ban. **Who are the winners and losers in a trade war?**







Protectionists argue in favor of trade barriers based on protecting infant industries, jobs, and national security.
Competition How does protectionism reduce foreign competition?

that the United States will not have to depend on other nations during a crisis. Free trade supporters argue, however, that certain industries claim trade protection when in fact their products are not essential to national security at all.

International Agreements

Recent trends favor lowering trade barriers and increasing trade. Many people argue that free trade is the best way to pursue comparative advantage, raise living standards, and further international peace.

To increase free trade, a number of international free trade agreements have developed. An **international free trade agreement** results from cooperation between at least two countries to reduce trade barriers and tariffs and to trade with each other.

The Reciprocal Trade Agreement Act

Today's free trade movement began in the 1930s when the United States began to promote international trade, which had declined due to tariffs and depression. The Reciprocal Trade Agreements Act of 1934 gave the president the power to reduce tariffs by as much as 50 percent.

The Act also allowed Congress to grant most-favored-nation (MFN) status to U.S. trading partners. Today, MFN status is called normal trade relations status, or NTR. A country with NTR status pays the same tariffs as those paid by all NTR partners. Therefore, if the United States lowers the tariff on imported rice from 25 percent to 15 percent for one NTR nation, all other NTR nations automatically receive the reduction. (Non-NTR nations may still be taxed at the higher rate, however.)

The World Trade Organization

In 1948, GATT, the General Agreement on Tariffs and Trade, was established to reduce tariffs and expand world trade. The **World Trade Organization (WTO)** was founded in 1995 to ensure compliance with GATT, to negotiate new trade agreements, and to resolve trade disputes. Various conferences, or rounds, of tariff negotiations have advanced the goals of GATT and the WTO. For example, the Uruguay round of negotiations, completed in 1994, decreased average global tariffs by about a third. From 1930 to 1995, the average tariff in the United States dropped from about 59 percent to about 5 percent.

The World Trade Organization also acts as a referee, enforcing the rules agreed upon by the member countries. For example, when the Beef war erupted

international free trade agreement *agreement that results from cooperation between at least two countries to reduce trade barriers and tariffs and to trade with each other*

World Trade Organization (WTO) *a worldwide organization whose goal is freer global trade and lower tariffs*

European Union (EU) *a regional trade organization made up of European nations*

euro *a single currency that replaces individual currencies among members of the European Union*

free-trade zone *a region where a group of countries agrees to reduce or eliminate trade barriers*

NAFTA *agreement that will eliminate all tariffs and other trade barriers between Canada, Mexico, and the United States*

between the United States and the European Union, the case was brought before the WTO. The WTO allowed the United States tariffs to remain in effect. In 2003, the WTO ruled against the United States in the case of the steel tariffs.

The European Union

In recent years, many countries have formed customs unions—agreements that abolish tariffs and trade restrictions among union members, and that adopt uniform tariffs for nonmembers. The most successful example is the **European Union (EU).**

The European Union as we know it today developed slowly over time. In 1957, six western European nations set up the Common Market to coordinate economic and trade policies. In the years that followed, additional European nations joined the Common Market. In 1986, member nations agreed to eliminate tariffs on one another's exports. They thereby created a single market, called the European Economic Community (EEC).

The development of the EU illustrates how the global economy and free trade can change the role of international political borders and territorial sovereignty. In 1993, the European Economic Community nations formed the European Union. The EU has a parliament and a council in which all member nations are represented. It also has its own flag, its own anthem, and celebrates Europe Day on May 9. Most EU citizens can cross borders freely and work in other EU countries. In early 2002, twelve member nations replaced their individual currencies with a single currency called the **euro.**

FAST FACT

Europe and the United States account for 55 percent of world trade, 60 percent of trade in services, and 80 percent of world wealth.

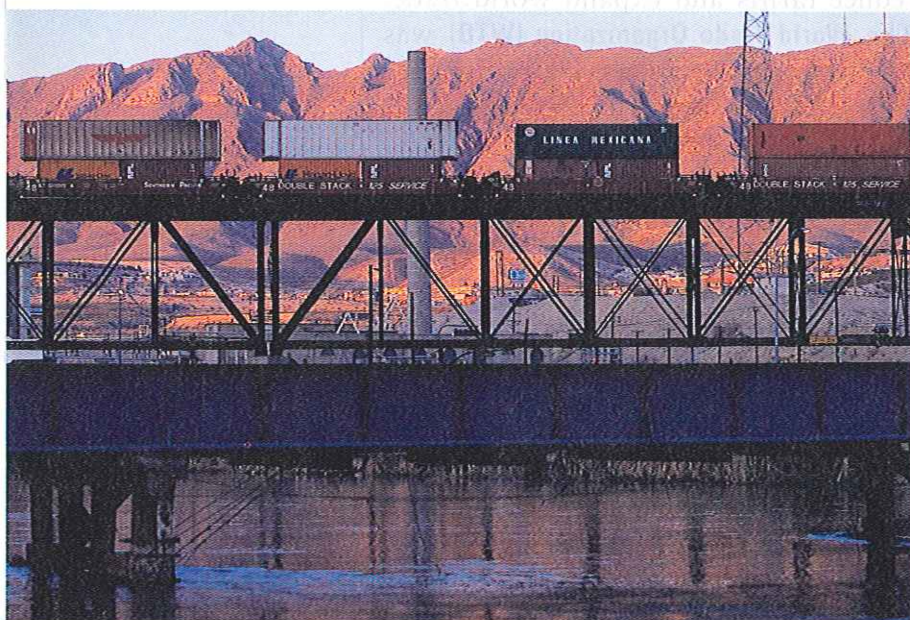
NAFTA

In other parts of the world, countries have developed **free-trade zones,** or regions where a group of countries agrees to reduce or eliminate trade barriers. **NAFTA** (the North American Free Trade Agreement) will eliminate all tariffs and other trade barriers between Canada, Mexico, and the United States by 2009. The resulting free-trade zone is the largest in the world.

Key NAFTA provisions include the following:

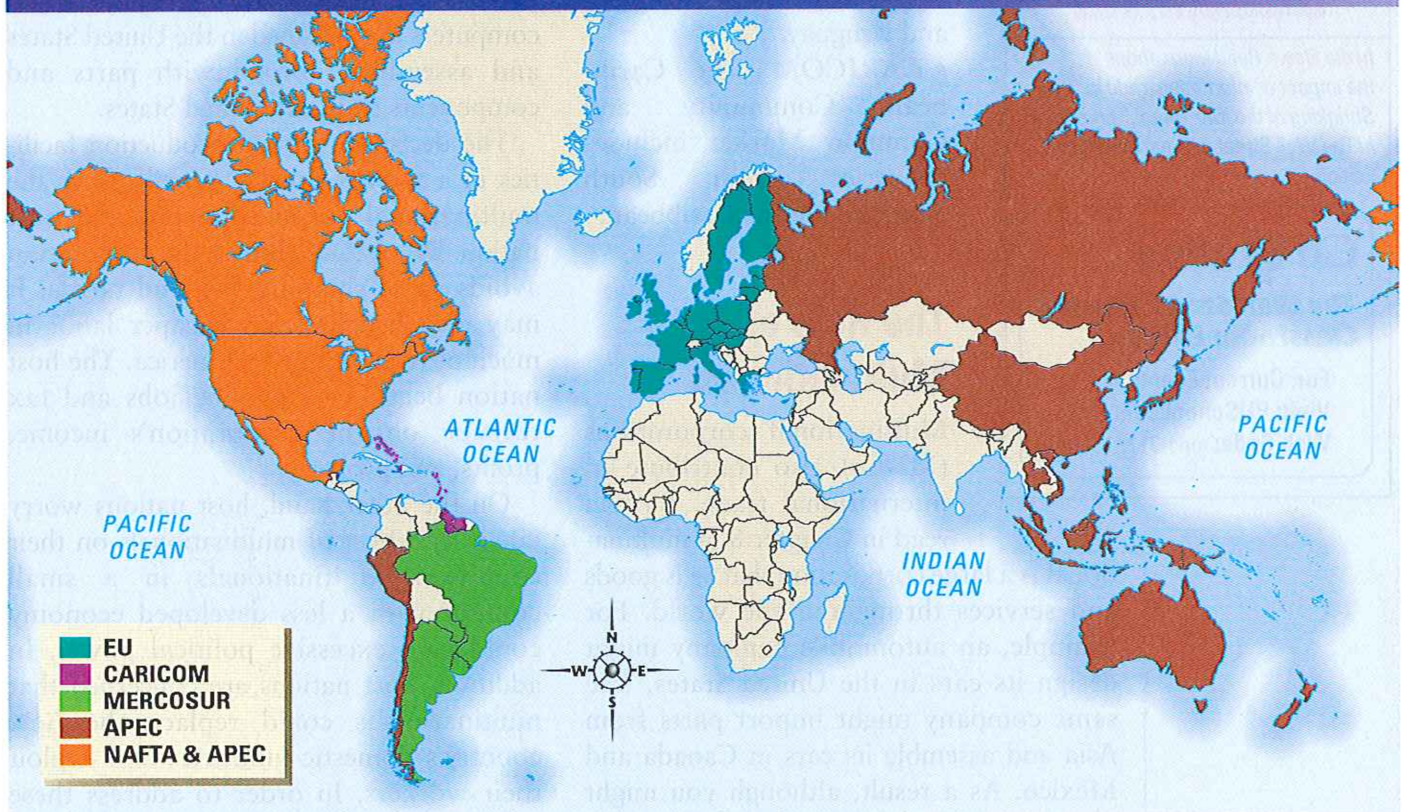
1. Tariffs on all farm products and on some 10,000 other goods are to be eliminated over 15 years.
2. Automobile tariffs are to be phased out over 10 years.
3. Special judges have authority to resolve trade disputes.
4. The agreement cannot be used to override national and state environmental, health, or safety laws.
5. Trucks are to have free access across borders and throughout the three member countries.

Before the agreement was signed, the NAFTA measure aroused a great deal of controversy in the United States. NAFTA opponents worried that American factories would relocate to Mexico, where wages were lower and government regulations, such as environmental controls, were less strict. The result would be a loss of jobs in the United States. Supporters of NAFTA claimed that the measure would instead create more jobs in the United States as a result of increased exports to Mexico and Canada.



▼ **NAFTA has resulted in increased trade across the Rio Grande.**

Figure 17.7 Major Trade Organization Members



Many countries are members of major regional trade organizations.
Trade What is the purpose of these organizations?

The United States Senate ratified NAFTA on January 1, 1994, after a bruising Congressional battle. In 1997, the government's first study of NAFTA revealed that while some jobs had been created, an almost equal number had been eliminated. At the same time, trade between the United States, Canada, and Mexico increased significantly. From 1993 to 2002, United States exports to Mexico increased from $41 billion to $98 billion. Imports from Mexico to the United States more than tripled, from $40 billion to $135 billion. To the north, United States exports to Canada during that time increased by one half, from $100 billion to $161 billion. Imports nearly doubled from $111 billion in 1994 to $211 billion in 2002.

Today, the United States government is working to negotiate trade agreements with other countries, including Chile and Singapore. In 2002, Congress granted the president "fast track" authority to draft trade agreements with minimal interference from Congress.

Other Regional Trade Agreements

Throughout the world, many countries have entered into other regional trade agreements. In fact, about 100 regional trading organizations operate in the world today. The largest of these organizations include the following.

- *APEC* The Asia-Pacific Economic Cooperation includes countries that lie along the Pacific Rim, including the United States, Mexico, and Canada. These nations have signed a nonbinding agreement to reduce trade barriers among their nations.
- *MERCOSUR* The Southern Common Market is similar to the European Union

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in its goals. Its members are Brazil, Argentina, Paraguay, and Uruguay.

- *CARICOM* The Caribbean Community and Common Market includes countries from South America and the Caribbean.

The Role of Multinationals

Multinational corporations (MNCs) also contribute to international trade. As you read in Chapter 8, a multinational is a large corporation that sells goods and services throughout the world. For example, an automobile company might design its cars in the United States. The same company might import parts from Asia and assemble its cars in Canada and Mexico. As a result, although you might purchase the automobile from a company based in the United States, it is not a purely domestic product.

Many goods besides cars are produced globally. Some brands of athletic shoes are designed in the United States but are produced in East Asia. Some personal computers are designed in the United States and assembled abroad with parts and components from the United States.

The decision to build production facilities in a foreign country benefits both the multinational corporation and the host nation. By locating abroad, the corporation avoids some shipping fees and tariffs. It may also benefit from cheaper labor in much of Asia and Latin America. The host nation benefits by gaining jobs and tax revenue on the corporation's income, profits, and property.

On the other hand, host nations worry about the effect of multinationals on their countries. Multinationals in a small country with a less developed economy could gain excessive political power. In addition, host nations are concerned that multinationals could replace the host country's domestic industries and exploit their workers. In order to address these concerns, nations have instituted rules that require multinationals to export a certain percentage of their products. Host nations hope that such requirements will help protect their domestic industries.

Section 2 Assessment

Progress Monitoring *Online*
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Key Terms and Main Ideas

1. Describe the similarities and differences among the following barriers to free trade: **import quotas, voluntary export restraints (VERs),** and **tariffs.**
2. Explain the effects of **trade barriers** on manufacturers, workers, and consumers.
3. What are the advantages and disadvantages of protecting an **infant industry?**
4. Describe the three arguments in favor of **protectionism.**
5. Choose one of the trade organizations or agreements described in the section and explain its purpose.

Applying Economic Concepts

6. ***You Decide*** Suppose that you were in charge of trade policy in the United States. Would you recommend that the United States increase or decrease trade barriers on video game systems? Explain your answer.
7. ***Problem Solving*** Suppose that a company called NewMovies, Inc., located in Country X, has decided to produce and distribute movies. NewMovies, Inc., would like the government of Country X to impose a tariff on foreign-made movies. Why?
8. ***Critical Thinking*** What are the advantages of international trade agreements? What might be some disadvantages?

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ECONOMIC

Profile

Economist

Entrepreneur

Carla Anderson Hills (b. 1934)

Although a strong believer in free trade, U.S. Trade Representative Carla Anderson Hills was not afraid to use tariffs and quotas as tools to pry open foreign markets. Her approach to eliminating overseas barriers to American trade earned her the nickname "the Velvet Crowbar."

An Advocate for Free Trade

"The case for free trade does not easily fit on a bumper sticker," Carla Anderson Hills observes. Free trade, she says, results in a stronger economy with more innovation and technological development.

As U.S. Trade Representative from 1989 to 1993, Hills was charged with carrying out U.S. trade policy. She earned a reputation as a tough advocate for U.S. rights in world trade. "With less than 5 percent of the world's population, we produce more than 20 percent of the world's output," Hills asserts. "We need access to foreign markets to sell the goods we produce."

From Law to International Trade

After graduating from Stanford University, Hills earned a law degree from Yale in 1958. She joined her husband and three other attorneys to found their own law firm in 1962. In 1974, she left California to work in the Justice Department.

In 1975, President Gerald Ford named Hills Secretary of Housing and Urban Development. After Jimmy Carter became president, Hills returned to the private practice of law, where she remained until President George Bush appointed her U.S. Trade Representative in 1989. Today her firm, Hills & Company, provides advice on trade to U.S. businesses.

The Velvet Crowbar

Hills described her negotiating approach as "a handshake wherever possible [and] a crowbar where necessary." To open the Japanese market to U.S. electronic and wood products, Hills threatened U.S. retaliation against Japanese goods. She said, "I'll never say I'm satisfied until their market is as open to our entrepreneurs as ours is to theirs."

In 1992, Hills threatened to pull the United States out of global trade talks unless the European Union agreed to cut government subsidies to its farmers. When France resisted, she slapped a 200 percent tariff on French wine and farm products.

In general, however, Hills opposes this kind of trade protection. She labels it "the worst possible policy option to deal with jobs thought to be lost to foreign competition, because in the long run it will cost more jobs by making our companies less competitive."

CHECK FOR UNDERSTANDING

1. **Source Reading** Explain the reasoning in the following Hills statement: "It is in our interest to persuade our trading partners to lower their barriers. That is particularly true with respect to nations of Asia and Latin America, the two fastest-growing regions in the world."
2. **Critical Thinking** As U.S. trade representative, why would Hills have opposed European governments who provided subsidies to European farmers?
3. **Decision Making** Some opponents of free trade contend that it costs American workers jobs. If you were the U.S. Trade Representative, would you try to protect American companies from foreign competition?

Section 3 Measuring Trade

Preview

Objectives

After studying this section you will be able to:

1. **Analyze** how changes in exchange rates of world currencies affect international trade.
2. **Describe** the effect of various exchange rate systems.
3. **Analyze** the effects of changes in exchange rates on the balance of trade.

Section Focus

International trade is complicated by the fact that different nations have different currencies. Countries pay for imports in their own currencies and receive foreign currency for exports. If a nation imports more than it exports, or vice versa, a trade imbalance is created.

Key Terms

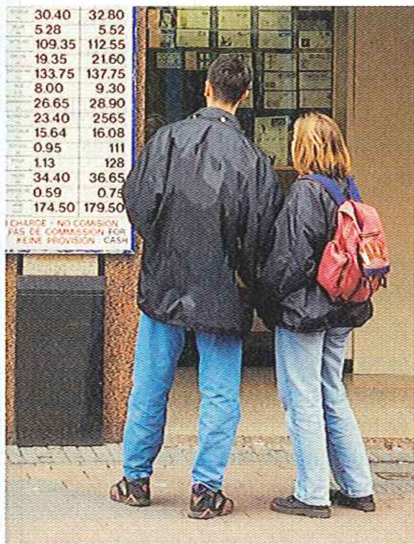
exchange rate
appreciation
depreciation
foreign exchange market
fixed exchange-rate system
flexible exchange-rate system
trade surplus
trade deficit
balance of trade

exchange rate *the value of a foreign nation's currency in terms of the home nation's currency*

Have you ever traveled to a foreign country? If so, you may have been unable to purchase goods in that country using U.S. dollars. Similarly, tourists buying goods in the United States need to exchange their home country's money for U.S. dollars. In order for foreign visitors to buy something in another country, they usually must obtain that country's currency before making any purchases.

Exchange Rates

International trade takes place whenever a good or service is produced in one country and sold in another. Trade between countries is more complex than buying and selling within the same country because of the world's many currencies and their changing values.



▼ **Tourists can exchange their currency for that of the country they are visiting at currency exchange outlets or centers.**

Foreign Exchange

If you want to buy a newspaper in Beijing, you will need to change your American dollars for Chinese renminbi. If a Mexican visitor to New York wants to buy lunch, she must change her pesos to dollars.

Changing money from one currency to another is not a simple matter of exchanging, say, one peso for one American dollar. A dollar might be worth 11 pesos—or 104 Japanese yen, or 8 Chinese renminbi.

The value of a foreign nation's currency in relation to your own currency is called the foreign exchange rate, or simply the **exchange rate.** The exchange rate enables you to convert prices in one currency to prices in another currency.

Reading an Exchange Rate Table

Exchange rates are listed on the Internet and in many major newspapers. Figure 17.8 shows a table of sample exchange rates. If you read down the first column, for example, you will see that one U.S. dollar can be exchanged for about one-and-a-quarter (1.28) Australian dollars, for a bit less than one euro (0.772), and so forth.

It is important to realize that these rates are what one U.S. dollar is worth on one particular day. Exchange rates go up and down daily.

Determing the Rate of Exchange

The following example will help you calculate exchange rates. Suppose your family is planning a trip to Mexico this summer and wants to determine the cost of staying in a

Figure 17.8 Foreign Exchange Rates

	U.S. $	Aust $	U.K. £	Canadian $	¥en	€uro	Mexican peso	Chinese renminbi
U.S. $	1	0.781	1.906	0.804	0.0096	1.296	0.0914	0.121
Australian $	1.281	1	2.442	1.03	0.0122	1.66	0.117	0.155
U.K. £	0.525	0.41	1	0.422	0.00502	0.68	0.04799	0.0635
Canadian $	1.244	0.972	2.372	1	0.0112	1.612	0.114	0.151
¥en	104.4	81.5	199	83.9	1	135.3	9.5	12.6
€uro	0.772	0.603	1.471	0.62	0.00734	1	0.071	0.0934
Mexican peso	10.935	8.54	20.84	8.77	0.105	14.1	1	1.323
Chinese renminbi	8.277	6.464	15.748	6.623	0.0794	10.71	0.757	1

Read down the first column of the chart to find what one U.S. dollar was worth in foreign currencies on this particular day. (Example: One U.S. dollar was worth 0.5245 British pounds.) Read across the top row to find out how much a selected foreign currency was worth in U.S. dollars. (Example: One British pound cost 1.9064 U.S. dollars or about $1.91.)

Money How much were 8.28 Chinese renminbi worth in U.S. dollars?

hotel. If a hotel room in Mexico costs 500 pesos per night and the exchange rate is 10.0 pesos per dollar, a hotel room will cost $50:

$$\frac{500 \text{ pesos}}{10.0 \text{ pesos per dollar}} = \$50.00$$

If your family decides to go to Mexico the following fall, however, the exchange rate will probably have changed. If by fall, the exchange rate is 11.0 pesos per dollar, the hotel room will cost only about $45 a night (assuming that the hotel still charges 500 pesos per night):

$$\frac{500 \text{ pesos}}{11.0 \text{ pesos per dollar}} = \$45.45$$

By fall, the exchange rate might, however, be only 9.0 pesos per dollar. In that case, your family would need to spend more money on your visit. The hotel room would now cost about $56 per night:

$$\frac{500 \text{ pesos}}{9.0 \text{ pesos per dollar}} = \$55.55$$

Strong and Weak Currencies

You have probably heard newscasters talk about a "strong" or "weak" dollar or a currency like the Japanese yen "rising" or "falling." What do these terms mean, and are they good news or bad news for the United States economy?

An increase in the value of a currency is called **appreciation.** When a currency appreciates, it becomes "stronger." If the exchange rate between the dollar and the yen increases from 100 yen per dollar to 120 yen per dollar, one dollar will purchase more yen. Since the dollar has increased in value, we say that the dollar has appreciated against the yen. This appreciation means that people in Japan will have to spend more yen to purchase a dollar's worth of goods from the United States.

When a nation's currency appreciates, that nation's products become more expensive in other countries. For example, a strong dollar makes American goods and services more expensive for Japanese consumers. Japan will therefore probably import fewer products from the United States. That means that total United States exports to Japan will likely decline.

On the other hand, a strong dollar means that foreign products will be less expensive for consumers in the United States. A strong dollar is therefore likely to lead consumers in the United States to purchase imported goods.

A decrease in the value of a currency is called **depreciation.** You might also hear depreciation referred to as "weakening." If the dollar exchange rate fell to 80 yen per

appreciation *an increase in the value of a currency*

depreciation *a decrease in the value of a currency*

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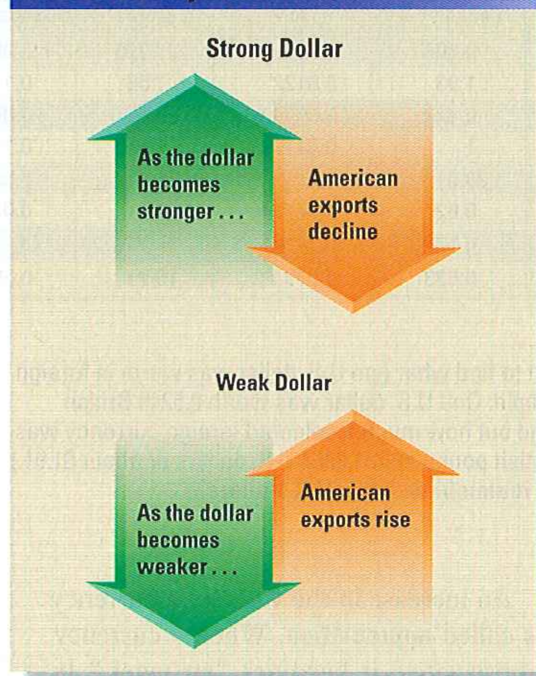


Figure 17.9 **Effects of a Strong or Weak Dollar on Exports**

A strong dollar leads to a decrease in exports. A weak dollar leads to an increase in exports. **Trade** **What is the effect of a strong or weak dollar on imports?**

foreign exchange market *the banks and other financial institutions that facilitate the buying and selling of foreign currencies*

dollar, you would get fewer yen for each dollar. In other words, the dollar has depreciated against the yen.

When a nation's currency depreciates, its products become cheaper to other nations. A depreciated, or weak, dollar means that foreign consumers will be able to better afford products made in the United States. As you can see from Figure 17.9, exports are likely to increase as a result of a weakened dollar. At the same time, other nations' products become more expensive for consumers in the United States, so imports are likely to decrease.

The Foreign Exchange Market

When a company in the United States sells computers in Japan, that company is paid in yen. It must, however, pay its United States workers in dollars. The company must therefore exchange its yen for dollars in order to pay its workers. This exchange takes place on the foreign exchange market. Because each nation uses a different currency, international trade would not be possible without this market.

The **foreign exchange market** consists of about 2,000 banks and other financial institutions that facilitate the buying and selling of foreign currencies. These banks are located in various financial centers around the world, including New York, London, Paris, Singapore, Tokyo, and many other cities. Wherever they are located, the banks that make up the foreign exchange market maintain close links to one another through telephones and computers. This technology allows for the instantaneous transmission of market information and rapid financial transactions.

Exchange Rate Systems

As you read in Chapter 10, currencies varied in value from state to state in early America. In the United States today, of course, it doesn't matter whether you are in California, New York, or Texas—all prices are in dollars, and all dollars have the same value. No one asks whether your dollars came from San Francisco or Miami. Within the United States, a dollar is just a dollar.

Think how much more complicated it would be to do business if each state still had different currencies. To buy goods from a mail-order company in Indiana, for instance, you would have to find out the exchange rate between your local dollar and the Indiana dollar. Any large business in the United States would be overwhelmed by its efforts to keep track of all the exchange rates among the states. The economy would become less efficient as individuals and businesses spent time dealing with exchange rates.

You can understand from the above example how complex transactions would become if states had different exchange rates. The same ideas also apply to exchange rates among nations.

Fixed Exchange-Rate Systems

Wouldn't it be easier if all countries either used the same currency or fixed their exchange rates against one another? Then no one would have to worry about shifts in exchange rates. A currency system in which governments try to keep the values of their currencies constant against one another is called a **fixed exchange-rate system.**

In a typical fixed exchange-rate system, one country with a stable currency is at the center. Other countries fix, or "peg," their exchange rates to the currency of this central country.

Normally, the fixed exchange-rate is not just a single value, but is kept within a certain prespecified range (for example, plus or minus 2 percent). If the exchange rate moves outside of this range, governments usually step in—or intervene—to help maintain the rate.

How do governments intervene to maintain an exchange rate? Like the price of any product or service, the exchange rate relies on supply and demand. To preserve its exchange rate, a government may buy or sell foreign currency in order to affect a currency's supply and demand. It will follow this course of action until the exchange rate is back within the prespecified limits.

The Bretton Woods Conference

In 1944, as World War II was drawing to a close, representatives from 44 countries met in Bretton Woods, New Hampshire. Their purpose was to make financial arrangements for the postwar world after the expected defeat of Germany and Japan.

The Bretton Woods conference resulted in the creation of a fixed exchange-rate system for the Untied States and much of western Europe. Because the United States was the strongest economic power with the most stable currency, the U.S. dollar was at the center of the new system. Beginning in 1945, the conference participants agreed to fix their currencies to the U.S. dollar.

The Bretton Woods conference also established the International Monetary Fund (IMF) to make the new system work. Today this organization promotes international monetary cooperation, currency stabilization, and international trade. You will read more about the International Monetary Fund in Chapter 18.

fixed exchange-rate system *a currency system in which governments try to keep the values of their currencies constant against one another*

Flexible Exchange-Rate Systems

Although fixed exchange-rate systems make it easier to trade, they require countries to maintain similar economic policies, including similar inflation and interest rates. By the late 1960s, changes were continually occurring in the international trading system, and worldwide trade was growing rapidly. At the same time, the war in Vietnam was causing inflation in the United States. These factors made it increasingly difficult for many countries to rely on a fixed exchange-rate system.

Figure 17.10 Exchange Rates of the Dollar and Pound

The United States and Britain shifted from a fixed rate to a flexible exchange-rate system in the early 1970s.
Money How did this shift affect exchange rates between the dollar and the pound?

FAST FACT

In general, the United States has a negative trade balance. While the United States may experience an overall trade deficit, however, trade with any one country may run a surplus. For example, the United States has recently had trade surpluses with The Netherlands, Hong Kong, Belgium, and Australia, as well as with Brazil, Argentina, and Egypt.

flexible exchange-rate system *a currency system that allows the exchange rate to be determined by supply and demand*

trade surplus *the result of a nation exporting more than it imports*

trade deficit *the result of a nation importing more than it exports*

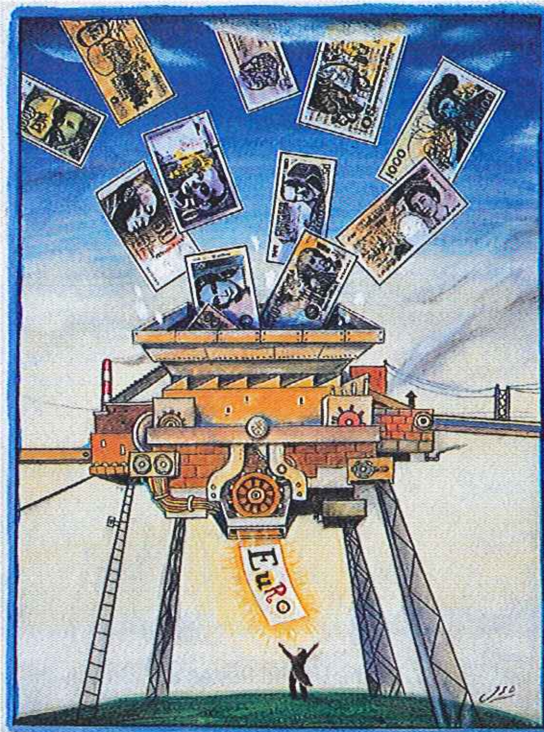
balance of trade *the relationship between a nation's imports and its exports*

In 1971, the West German and Dutch governments abandoned the fixed exchange-rate system. By 1973, many countries, including the United States, had adopted a system based on flexible, or floating, exchange rates.

In contrast to the fixed rate system, the **flexible exchange-rate system** allows the exchange rate to be determined by supply and demand. With a flexible exchange-rate system, exchange rates need not fall into any prespecified range.

Today, the countries of the world use a mixture of fixed and flexible exchange rates. Most major currencies, however—including the U.S. dollar and the Japanese yen—use the flexible exchange-rate system. This system accounts for the day-to-day changes in currency values that you read about earlier in this section.

When the flexible exchange-rate system was first adopted, some economists worried that changes in the exchange rate might interrupt the flow of international trade. In fact, the flexible exchange-rate system has worked reasonably well since the breakdown of the Bretton Woods fixed-rate system. World trade has grown at a rapid rate, and more nations trade today than ever before.



▲ **Most members of the European Union have phased out their individual currencies in favor of a single currency, the euro.**

The Euro

Although the flexible exchange-rate system works well, some countries whose economies are closely tied together want the advantages of fixed exchange rates. One way to enjoy the advantages but avoid some of the difficulties of fixed exchange rates is to abolish individual currencies and establish a single currency.

This is just what most of the European Union countries have done. The EU has established a new currency, which twelve EU member nations have adopted. As you read in Section 2, this single currency is called the euro. Use of this common currency requires participating countries to coordinate their economic policies, but it also simplifies trade.

The Balance of Trade

When a nation exports more than it imports, it has a **trade surplus.** When a nation imports more than it exports, it creates a **trade deficit**. The relationship between a nation's imports and its exports is called its **balance of trade.**

When a large difference between a nation's imports and exports arises, it is said to have a trade imbalance. A nation that exports more goods than it imports has a positive trade balance. A nation that imports more than it exports has a negative trade balance.

Understanding the Balance of Trade

Nations seek to maintain a balance of trade with values of imports equal to values of exports. By balancing trade, a nation can protect the value of its currency on the international market. If a trade imbalance continues, with one country importing more

than it is exporting, the value of its currency falls. For example, in the 1980s the United States imported considerably more than it exported, and the foreign exchange market was glutted with dollars. As the value of the dollar fell, the prices of imports increased and consumers paid more for the goods.

A trade imbalance can be corrected by limiting imports or increasing the number and/or quality of exports. Both of these actions affect trading partners, of course, who may retaliate by raising tariffs. Maintaining a balance of trade thus requires international cooperation and fair trade.

The United States Trade Deficit

Although the United States sells many goods abroad (supercomputers, movies, and CDs, for example), in general it buys more goods from abroad than it sells (cars, clothing, and VCRs, for example). The result is that the United States is running a large trade deficit, and has been for several decades.

The United States trade deficit has existed since the early 1970s. At that time, the Organization of Petroleum Exporting Countries (OPEC) dramatically raised the price of oil. The United States had to increase the money spent on foreign oil, thus increasing the money spent on imports. The total cost of imports to the United States then exceeded the income from exports, and a trade deficit developed. (See the United States Trading Partners map on page 545 of the Databank for the names of the countries that belong to OPEC.)

As you can see from Figure 17.11, the United States suffered record trade deficits in 1986 and 1987. In the early 1990s, the trade deficit began to fall. By the late 1990s, however, the deficit had skyrocketed to record levels, largely as a result of increasing oil prices and an economic boom that fueled consumer buying.

The United States trade deficit totaled over $617 billion in 2004, with the largest amounts owed to China, Japan, Canada, Mexico, Germany, and oil exporting countries, such as Venezuela. Imported petroleum accounted for about 20 percent of the deficit.

Reducing the Trade Deficit

You have read that trade deficit occurs when United States businesses and consumers purchase more goods and services from foreign producers than foreigners buy from the United States during the same time period. This means that Americans are spending more than they produce.

For the United States to run a trade deficit, other countries must be willing to finance the deficits by lending to the United States or buying American assets. When Americans are buying more goods abroad than they sell, extra dollars end up in the hands of foreigners. The foreigners can then use these dollars to purchase American assets. As a result of America's persistent trade deficits, people

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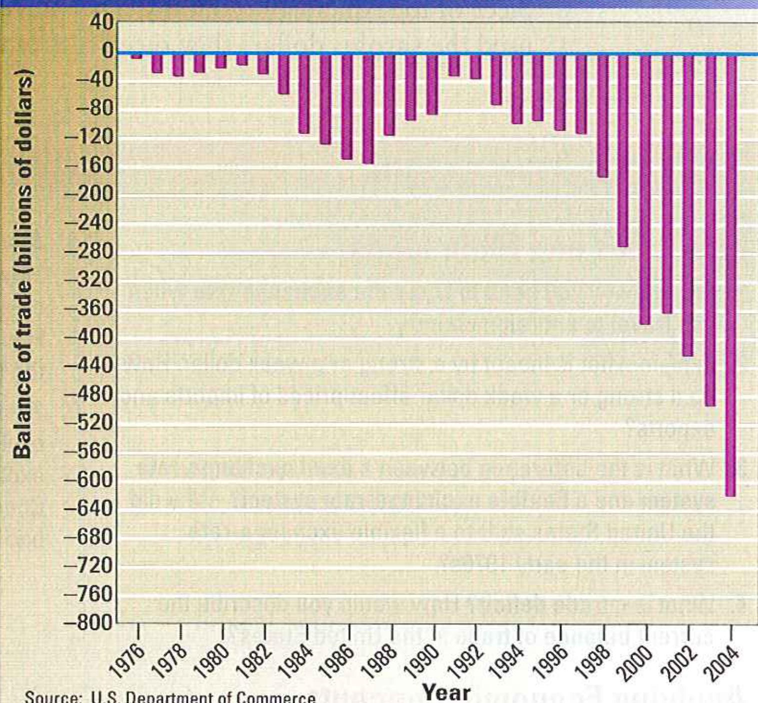
Figure 17.11 U.S. Balance of Trade, 1976–2004



The United States has had a significant trade deficit since the mid-1970s.
Trade Describe the U.S. balance of trade in the 2000s.

Figure 17.12 Leading Exporters and Importers, 2003

Exporters	$ Billions	% Change 2002–2003	Importers	$ Billions	% Change 2002–2003
Germany	748.3	22	United States	1303.1	9
United States	723.8	4	Germany	607.1	23
Japan	471.8	13	China	413.1	40
China	437.9	34	United Kingdom	390.8	13
France	386.7	17	France	390.5	19
United Kingdom	304.6	9	Japan	382.9	14
Netherlands	294.1	20	Italy	290.8	18
Italy	292.1	15	Netherlands	262.8	20
Canada	272.7	8	Canada	245.0	8
Belgium	255.3	18	Belgium	235.4	18

Note: Billions are in U.S. dollars
Source: World Trade Organization

Many of the countries listed on this chart are becoming world trade powerhouses. **Trade** **Which countries grew as exporters and importers in 2003?**

from other countries now own a bigger piece of the American economy. They have used the surplus dollars they received from sales to Americans to purchase American land, stocks, bonds, and other assets.

Some worry that foreign investment might not always support the trade deficit. Federal Reserve Chairman Alan Greenspan has commented that "we do not know how long net imports and U.S. external debt can rise before foreign investors become reluctant to continue to add to their portfolios of claims against the United States." The U.S. Trade Deficit Review Commission reported in 2000 that "Maintaining large and growing trade deficits is neither desirable nor likely to be sustainable for the extended future."

To reduce the trade deficit, individuals and companies could purchase fewer foreign goods or they could sell more domestic products abroad. Nationally, the country could cut back spending by adjusting its monetary or fiscal policy. Or it could appreciate the exchange rate in order to make its own goods more expensive on the world market and make other countries' goods correspondingly less expensive. All of these approaches would result in fewer surplus dollars ending up in the hands of foreigners.

Section 3 Assessment

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Key Terms and Main Ideas

1. Explain why you need to know the **exchange rate** when you travel to a foreign country.
2. Explain what is meant by a strong or a weak dollar. How do a strong or a weak dollar affect prices of imports and exports?
3. What is the difference between a **fixed exchange-rate system** and a **flexible exchange-rate system?** Why did the United States shift to a flexible exchange-rate system in the early 1970s?
4. What is a **trade deficit?** How would you describe the current **balance of trade** in the United States?

Applying Economic Concepts

5. ***Critical Thinking*** Assume you have just heard that the Canadian dollar has weakened. Is this good news or bad news for travelers from the United States visiting Canada? Explain your answer.
6. ***Math Practice*** Suppose you are planning to take a train between the Chinese cities of Beijing and Xian. A ticket costs 480 renminbi. Use the exchange rate table in Figure 17.8 to calculate how much money in U.S. dollars the ticket will cost.
7. ***Try This*** You have been invited to a local high school to explain one of the following topics: **(a)** Understanding exchange rates or **(b)** The United States balance of trade. Choose one of the above topics and prepare notes for a brief presentation.

For: Comparison Activity
Visit: PHSchool.com
Web Code: mnd-7173

Real-life Case Study

NAFTA: Is Free Trade a Good Idea?

In the 1980s and early 1990s, debate raged over the North American Free Trade Agreement (NAFTA). The goal of this agreement was to eliminate all trade restrictions among Mexico, Canada, and the United States. It included provisions for more than 9,000 products and services.

Pro-NAFTA Arguments Supporters of NAFTA argued it would benefit the economies of all three nations. They believed NAFTA would increase trade and promote healthy competition. They also argued that employment in some U.S. industries would increase, as the elimination of tariffs made American goods less expensive in Mexico and Canada.

▲ NAFTA has given Mexico's electronics assembly industry a boost.

Anti-NAFTA Arguments NAFTA critics argued that without tariffs, items produced in Mexico would be cheaper than American-made goods, resulting in widespread unemployment among American industrial workers. The authors of NAFTA anticipated this possibility and reduced its effects by slowly phasing out tariffs and by providing compensation to many workers who lost jobs because of NAFTA.

Consequences NAFTA went into effect January 1, 1994. By 2005, it was clear that NAFTA had a generally positive impact on the economies of all three trading partners. American exports of farm products, technology, and textiles to Mexico increased over pre-NAFTA levels. Canada's trade with the United States increased by 80 percent, while its trade with Mexico doubled. And although the United States did lose thousands of jobs because of increased imports, the growth in exports to Canada and Mexico resulted in thousands of newly created jobs.

Major Provisions of NAFTA

Automobile manufacturing
- 20% Mexican tariff on U.S. cars eliminated

Agriculture
- 57% of all Canadian, U.S., and Mexican tariffs on farm products eliminated immediately
- Remaining tariffs phased out over 15 years

Clothing and Textiles
- Canadian and U.S. tariffs phased out over 10 years
- Mexican tariffs eliminated immediately

Trucking
- Mexican, Canadian, and U.S. truck drivers allowed to drive and deliver goods anywhere in North America

Banking
- U.S. banks and brokerage firms to have unlimited access to doing business in Mexico

Applying Economic Ideas

1. How has NAFTA benefited the economies of all three nations that signed it?
2. The table shows some of the major provisions of NAFTA. Which of these provisions benefit the United States? Which have a negative impact? Explain.

Chapter 17 Assessment

Chapter Summary

A summary of major ideas in Chapter 17 appears below. See also the **Guide to the Essentials** of Economics, which provides additional review and test practice of key concepts in Chapter 17.

Section 1 Why Nations Trade (pp. 441–447)

Because resources are distributed unevenly throughout the world, nations specialize in producing certain goods and services, then trade to acquire the goods and services that they cannot produce. Nations, like individuals, specialize in producing goods and services based on the **law of comparative advantage:** that is, nations should specialize in producing the goods for which they have the lowest opportunity cost. As a result of specialization, both sides in the trading relationship benefit from trade.

Section 2 Trade Barriers and Agreements (pp. 449–456)

Import quotas, voluntary export restraints (VERs), and **tariffs** are three types of **trade barriers.** Their overall effect is to raise prices and protect domestic industries from foreign competition. People who favor **protectionism** argue that these measures are necessary to protect the jobs of domestic workers, shelter **infant industries,** and safeguard national security. Current trends, however, generally favor international cooperation, regional trade agreements, and an overall reduction in trade barriers.

Section 3 Measuring Trade (pp. 458–464)

After World War II, the United States and many of its trading partners used a **fixed exchange-rate system** in which exchange rates were fixed relative to the U.S. dollar. Today, most countries use a **flexible exchange-rate system** in which exchange rates shift according to market forces. As exchange rates change, currencies weaken and strengthen relative to other currencies. The difference between a nation's imports and exports is called the **balance of trade.** When a country imports more than it exports, it has a **trade deficit.** The United States has generally had a large trade deficit since the 1970s.

Key Terms

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

comparative advantage	**imports**
appreciation	**infant industry**
exchange rate	**protectionism**
exports	**tariff**
free-trade zone	**trade surplus**
	depreciation

1. The ___ determines how much a foreign currency is worth in a certain nation.
2. Nations may choose to impose a ___, or tax, on imports from other countries.
3. A ___ occurs when one nation exports more goods than it imports.
4. Economists use the term ___ to refer to one nation's currency rising in value in comparison to another country's currency.
5. Goods shipped abroad for sale are ___.
6. A country has a ___ when it has the lowest opportunity cost of producing a good.
7. A young business that is shielded from foreign competition is called a(n) ___.

Using Graphic Organizers

8. On a separate sheet of paper, copy the web map below to help you organize information about trade organizations. Complete the web map by writing examples of trade organizations. Include a brief description of each organization in the blank circles.

Reviewing Main Ideas

9. How do specialization and trade benefit both trading partners?
10. Explain the concept of a flexible exchange-rate system.
11. List and describe three arguments in favor of trade barriers.
12. Why does the United States stand to benefit from increased trade in services?

Critical Thinking

13. **Analyzing Information** Suppose the United States loses its comparative advantage in producing computers. How would this loss affect employment in the United States?
14. **Drawing Conclusions** Suppose you have heard that the U.S. dollar is strong on world markets. (a) What does this news mean for imports and exports? (b) How will it affect American tourists in other countries?
15. **Recognizing Cause and Effect** Assume the United States has established a tariff on clocks. Why would the United States establish this tariff, and what are two possible effects of its enactment?

Problem-Solving Activity

16. Divide your class into small groups, each group representing a country. Have each country answer the following questions: What goods and services will you produce? With which other countries will you trade? Will tariffs and import quotas exist? Discuss the implications of your choices for the other countries in your class.

Skills for Life

Creating a Multimedia Presentation Review the steps shown on page 448; then use the chart below to help you plan your presentation. You have been asked to create a multimedia presentation on NAFTA.

17. Review the discussion of NAFTA on pages 454–455 and in the Chapter 17 Case Study on page 465. What aspects of NAFTA should you learn more about?
18. Into what segments will you divide your presentation?
19. What types of sources might you use for your presentation?
20. What sort of audio-visual aids could you use?

PREPRODUCTION TOPIC ANALYSIS SHEET

Assignment: North American Free Trade Agreement

Aspects of NAFTA to consider: ______
1. ______
2. ______

My choice: ______

Segment description and sequence:
1. ______
2. ______
3. ______

Sources of information: ______

______

Audio-Visual Aids: ______

______

Economics Journal

Organizing Ideas Review your Economics Journal entry for Chapter 17. Then answer the following questions: Which countries do the items represent? Do the countries you have listed have any similarities, such as where they are located? What generalizations about the comparative advantages of these countries or regions can you make?

Progress Monitoring *Online*

For: Chapter 17 Self-Test **Visit:** PHSchool.com
Web Code: mna-7171

As a final review, take the Economics Chapter 17 Self-Test and receive immediate feedback on your answers. The test consists of 20 multiple-choice questions designed to test your understanding of the chapter content.

Economics Simulation

Protectionist Policies

The laws of supply and demand apply in international trade as well as in the domestic market. Consumers and producers negotiate to find a price they can agree on. In international trade, though, there is often another player—government. Governments may put certain kinds of restrictions on particular goods in order to protect industries and workers at home. In this simulation, you will explore some effects that protectionist policies have on trade.

▲ How might protectionist policies affect the cost of these foreign-produced coats?

Materials

- 20 slips of paper (one color)
- 10 slips of paper (contrasting color)
- 10 slips of paper (third color)
- 2 small boxes
- notebook paper

Preparing the Simulation

In this simulation, you will role-play foreign and domestic producers who are competing to sell wool coats. Labor costs and other factors make domestic coat manufacturing more expensive. Certain government policies try to make up for this to protect domestic manufacturing. You will discover how different kinds of protectionist policies affect the workings of supply and demand.

Step 1: Your class will be divided into two equal groups: Consumers and Producers.

Step 2: The Consumers group will prepare 20 slips of colored paper that represent the prices a Consumer is willing to pay for a coat. Number these slips from $15 to $110 by fives ($15, $20, $25, and so on). Put these slips into a box.

Step 3: Meanwhile, the Producers group will prepare two sets of ten slips each (each set in a different color). These slips will represent the costs to produce a coat. One color will designate Foreign Producers. Number the Foreign Producers' slips from $10 to $50 by tens ($10, $20, etc.). The other color will designate Domestic Producers. Number the Domestic Producers' slips from $60 to $100 by tens ($60, $70, etc.). Each amount will be used twice—two $60 slips, two $70 slips, and so on. Put all the Producer slips into a second box.

Step 4: Each member of the Consumer group will draw a slip from the Consumer box. This is the maximum price you are willing to pay for a coat. Each member of the Producer group should draw a slip from the Producer box. The color indicates whether you are a Foreign or a Domestic Producer, and the amount represents your cost to make a coat.

Conducting the Simulation

There will be three trading periods. Your goal in each trading period is to make the best deal you can—to buy below your maximum price if you are a Consumer, and to sell for more than your cost if you are a Producer.

If you are a Consumer, your score is your savings—the difference between the maximum price you were willing to pay and the

price you actually paid for a coat. For example, if the price on your slip is $50, and you succeed in buying a coat for only $30, your score is $20. If you are a Producer, your score is your profit—the difference between your cost to produce the coat and the price at which you can sell it.

You do not have to buy or sell a coat in any trading period, but if you do not, your score for that round will be $0. Your teacher will keep a record of all the transactions. You should also keep a record of your own scores. The final score is the sum of all savings (Consumers) or profits (Producers).

Trading Period 1

Producers and Consumers will meet in a trading area and try to make deals. Each person can buy or sell one coat in each trading period. When you reach an agreement, report the price and your own score to the teacher. The trading period will end when no more pairs of Producers and Consumers can make a deal. Your teacher will list the prices at which coats were sold and their origins (domestic or foreign) in this trading period.

Trading Period 2

Now you will see the results of one kind of protectionist policy. The government has imposed a tariff—an import tax—of $30 on each imported coat. If you are a Foreign Producer, add $30 to your cost amount. Then trade as before. Record your transaction with your teacher.

Trading Period 3

Another government policy changes the market. Politicians from textile-manufacturing states have succeeded in banning imports of wool coats. As a result, the Foreign Producers cannot take part in this trading period. Consumers must try to buy coats from the remaining Domestic Producers. Record your transaction with your teacher.

Transactions Chart

	Trading Period 1	Trading Period 2	Trading Period 3
Number of deals made			
Number of Consumers unable to buy			
Number of Producers unable to sell			
Average price for a wool coat			
Lowest price			
Highest price			

Simulation Analysis

Use a sheet of notebook paper to create a transaction chart like the one on this page. As a class, complete the transaction chart using information that you reported to your teacher. Discuss the following questions as a group.

1. In which trading period were the largest number of coats sold?
2. In Trading Period 2, what were the effects of the tariff on the Foreign Producers? On Consumers? How did the tariff affect Domestic Producers?
3. What happened to coat prices when imports from Foreign Producers were banned in Trading Period 3? Why?
4. **Drawing Conclusions** In the real world, what would domestic coat producers probably do if imported coats were banned? Why?