PART 2 The International Environment CHAPTER 6 International Trade and Investment



AFTER STUDYING THIS CHAPTER, YOU SHOULD BE ABLE TO:

- 1. Understand the motivation for international trade.
- 2. Summarize and discuss the differences among the classical country-based theories of international trade.
- 3. Use the modern firm-based theories of international trade to describe global strategies adopted by businesses.
- 4. Describe and categorize the different forms of international investment.
- 5. Explain the reasons for foreign direct investment.
- 6. Summarize how supply, demand, and political factors influence foreign direct investment.

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TRADE IS BLOSSOMING

id you ever wonder where those red roses you gave or received on Valentine's Day came from? If you are a North American, they probably were grown on a mountainside in Colombia or Ecuador. If you are European, they might have come from Ethiopia or Kenya. And if you are Asian, their origin may be Kunming, a city in the rural province of Yunnan, China. Although most recipients of floral bouquets give little thought to where their beautiful blooms are grown, they are beneficiaries of the blossoming international trade in flowers and plants. Once the domain of small mom-and-pop growers focused on serving local markets, the globalization of the floriculture industry is driven by the forces we discussed in Chapter 1: technological change, trade liberalization, the desire to leverage core competencies, and the need to respond to new competitors. The supply chains and technology needed to bring fresh cut roses or mums to a loved one are no less sophisticated than those used by high-tech manufacturers of smartphones, personal computers, and big-screen TVs.

The Netherlands has long been the center of the international commercial flower industry. Dutch farmers began to use greenhouses to grow fruits, flowers, and vegetables during medieval times. Its universities, growers, and floral research centers have been leaders for centuries in developing new breeds of plants. The Dutch remain the most important exporters of flowers and plants, with about 65 percent of the world export market. Much of the country's prominence is attributable to FloraHolland, the most important flower auctioneer in the world. Structured as a cooperative owned by its 5,000 members (primarily growers), FloraHolland was created in 2008 through the merger of six of the country's flower auction markets, the largest of which was Aalsmeer (near Schipol Airport), followed by Naaldwijk and Rijnsburg. In 2011, FloraHolland auctioned more than 12.5 billion plants and flowers worth €4.2 billion. Cut flowers accounted for about 57 percent of these revenues. Not surprisingly, roses were the most important flower, with auction sales valued at €761 million, followed by chrysanthemums and tulips. Most of its cut flowers are destined for European Union (EU) markets; potted plants and bulbs, being less fragile, have a wider market. For example, the U.S. market absorbs about a quarter of Dutch bulb exports.

Such statistics, however, do not tell the whole story of FloraHolland's significance. Its large trading volumes have allowed it to create a futures market in tulips, roses, and other flowers. By purchasing a flower future, large flower wholesalers can advertise and market flowers for delivery to their clients over the coming months without fear that unexpected changes in flower prices might wipe out their profits when they actually take delivery and pay for the flowers. The availability of flower futures attracts more buyers and sellers to the FloraHolland exchanges, thus increasing their transaction volumes and the liquidity of the market.

To expand its influence beyond the regional market, the flower exchange has integrated e-commerce into its auction system. Now buyers from Germany, France, and other European countries can monitor tulip, rose, and chrysanthemum auctions from their home computers without having to travel to Aalsmeer. The auction's website can also be used to place orders. By melding new technologies with its traditional auction methods, FloraHolland is ensuring that it will continue to play a critical role in the international flower market.

These adaptations are important, because Dutch growers face high labor and land costs, which have created opportunities for growers in other countries. Colombian farmers have benefited from their lower costs, geographic location, and favorable climates to become the primary source of cut flowers to the North American market, accounting for more than half of the flowers imported by U.S. flower wholesalers and retailers. Neighboring Ecuador specializes in roses, which its climate favors. Kenya and Ethiopia are becoming important providers for the European market. China-particulary the city of Kunming in Yunnan province—is growing as a supplier to the Asian market. The Chinese government has encouraged the growth of the industry through low interest loans on greenhouses and refrigerated trucks. Dutch, Korean, and Japanese companies have started to invest in the area, believing it provides a lower cost source of flowers for the Asian market. The domestic Chinese market is also expanding rapidly, in line with the growth of the country's middle class.

The growing international trade in flowers and plants has impacted other industries. The airline industry has been quick to adapt to the changing needs of the floricultural industry. Flowers are perishable, so the reliability of scheduled air service is critical to the buyers' needs. Moreover, most passenger carriers have unused cargo space after accommodating travelers' baggage. Flowers also have a high value-to-weight ratio and are packed in small boxes that easily fit into the cargo hold of a modern jet airliner. And once the flowers arrive at their destination airport, specialized transporters are needed to ensure that flowers are kept refrigerated from the airport to the wholesaler or retailer, creating new opportunities for innovative trucking companies and providers of logistics services to prosper.¹

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FloraHolland and its members are prime examples of the firms throughout the world who have used technology, knowledge, and the resources at their disposal to compete successfully in the global marketplace. In this chapter we analyze the underlying economic forces that shape and structure the international business transactions conducted by firms in the floriculture industry and in thousands of other industries. We discuss the major theories that explain and predict international trade and investment activity. These theories help firms sharpen their global business strategies, identify promising export and investment opportunities, and react to threats posed by foreign competitors. As they introduce you to the economic environment in which firms compete, the theories help you understand why Dutch floriculture firms, despite their high labor costs, have proved to be so successful in international markets.

International Trade and the World Economy

Trade is the voluntary exchange of goods, services, assets, or money between one person or organization and another. Because it is voluntary, both parties to the transaction must believe they will gain from the exchange or else they would not complete it. **International trade** is trade between residents of two countries. The residents may be individuals, firms, not-for-profit organizations, or other forms of associations.

Why does international trade occur? The answer follows directly from our definition of trade: Both parties to the transaction, who happen to reside in two different countries, believe they benefit from the voluntary exchange. Behind this simple truth lies much economic theory, business practice, government policy, and international conflict—topics we cover in this and the next four chapters.

As Figure 6.1 indicates, world trade has grown dramatically in the more than half-century since the end of World War II. Total international merchandise trade in 2012 was \$18.4 trillion, or approximately 26 percent of the world's \$71.7 trillion gross domestic product (GDP); trade in services that year amounted to \$4.4 trillion. The EU, the United States, Canada, and Japan accounted for 46.8 percent of the world's merchandise exports (see Figure 6.2); China,



FIGURE 6.1

The Growth of World Exports since 1950

Source: Based on data from International Monetary Fund Supplement on Trade Statistics (International Monetary Fund, Washington, DC: 1990); World Trade Organization website (www.wto.org), June 2013.

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11.1 percent; and other countries, 42.1 percent. Such international trade has important direct and indirect effects on national economies. On the one hand, exports spark additional economic activity in the domestic economy. Consider a leading exporter like Caterpillar. Its \$22.8 billion in exports generates orders for its U.S. suppliers, wages for its U.S. workers, and dividend payments for its U.S. shareholders, all of which then create income for local automobile dealers, grocery stores, and others, which in turn add to their own payrolls. On the other hand, imports can pressure domestic suppliers to cut their prices and improve their competitiveness. Failure to respond to foreign competition may lead to closed factories and unemployed workers.

Because of the obvious significance of international trade to businesses, consumers, and workers, scholars have attempted to develop theories to explain and predict the forces that motivate such trade. Governments use these theories when they design policies they hope will benefit their countries' industries and citizens. Managers use them to identify promising markets and profitable internationalization strategies.

In Practice

- Trade benefits both parties to the transactions. If not, why would each agree to the deal?
- International trade in goods and services has grown rapidly in the past three decades.
- For further consideration: How does international trade affect your standard of living?

Classical Country-Based Trade Theories

The first theories of international trade developed with the rise of the great European nation-states during the sixteenth century. Not surprisingly, these early theories focused on the individual country in examining patterns of exports and imports. As we discuss in more detail later in this chapter, these country-based theories are particularly useful for describing trade in commodities— standardized, undifferentiated goods such as oil, sugar, or lumber that are typically bought on the basis of price rather than brand name. However, as multinational corporations (MNCs) rose to power in the middle of the twentieth century, scholars shifted their attention to the firm's role in promoting international trade. The firm-based theories developed after World War II are useful in describing patterns of trade in differentiated goods—those such as automobiles, consumer electronics, and personal care products, for which brand name is an important component of the customer's purchase decision. In this section, we examine the classical country-based theories of international trade; in the next section, we explore the more modern firm-based theories.

Mercantilism

Mercantilism is a sixteenth-century economic philosophy that maintains that a country's wealth is measured by its holdings of gold and silver. According to mercantilists, a country's goal should be to enlarge these holdings by promoting exports and discouraging imports. The logic was transparent to sixteenth-century policymakers: If foreigners buy more goods from you

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than you buy from them, then the foreigners have to pay you the difference in gold and silver, enabling you to amass more treasure. Mercantilist terminology is still used today, for example, when television commentators and newspaper headlines report that a country suffered an "unfavorable" balance of trade—that is, its exports were less than its imports.

At the time mercantilism seemed to be sound economic policy. Large gold and silver holdings meant the reigning monarchs could afford to hire armies to fight other countries and thereby expand their realms. Politically, mercantilism was popular with many manufacturers and their workers. Export-oriented manufacturers favored mercantilist trade policies, such as those establishing subsidies or tax rebates, which stimulated sales to foreigners. Domestic manufacturers threatened by foreign imports endorsed mercantilist trade policies, such as those imposing tariffs or quotas, which protected the manufacturers from foreign competition. These businesses, their workers, their suppliers, and the local politicians representing the communities in which the manufacturers had production facilities all praised the wisdom of the monarchs' mercantilist policies.

Most members of society, however, are hurt by such policies. Governmental subsidies of the exports of certain industries are paid by taxpayers in the form of higher taxes. Governmental import restrictions are paid for by consumers in the form of higher prices because domestic firms face less competition from foreign producers. During the age of imperialism, governments often shifted the burden of mercantilist policies onto their colonies. For example, under the Navigation Act of 1660 all European goods imported by the American colonies had to be shipped from Great Britain. The British prohibited colonial firms from exporting certain goods that might compete with those from British factories, such as hats, finished iron goods, and woolens. To ensure adequate supplies of low-cost inputs for British merchants, the British required some colonial industries to sell their output only to British firms. This output included rice, tobacco, and naval stores (forest products used in shipbuilding).² This particular mercantilist strategy ultimately backfired—it contributed to the grievances that led to the overthrow of the British Crown in the American colonies.

Because mercantilism does benefit certain members of society, mercantilist policies are still politically attractive to some firms and their workers. Modern supporters of such policies, called **neomercantilists** or **protectionists**, include such diverse U.S. groups as the American Federation of Labor–Congress of Industrial Organizations, textile manufacturers, steel companies, sugar growers, and peanut farmers.

Protectionist attitudes are not limited to the United States. North Americans and Europeans have long complained that Japan limits the access of foreign goods to its market. For instance, it took 40 years of negotiations before Japan grudgingly agreed in the 1990s to allow the importation of foreign rice, and even then it limited rice imports to less than 10 percent of its market. Asian and North American firms criticize the Europeans for imposing barriers against imported goods such as beef, bananas, and other agricultural products. Such finger-pointing is amply justified: Nearly every country has adopted some neomercantilist policies to protect key industries in its economy.

Absolute Advantage

Neomercantilism has superficial appeal, particularly to patriots who want to strengthen their country's economy. Why should a country not try to maximize its holdings of gold and silver? According to Adam Smith, the Scottish economist who is viewed as the father of free-market economics, mercantilism's basic problem is that it confuses the acquisition of treasure with the acquisition of wealth. In *An Inquiry into the Nature and Causes of the Wealth of Nations* (1776), Smith attacked the intellectual basis of mercantilism and demonstrated that it actually weakens a country because it robs individuals of the ability to trade freely and to benefit from voluntary exchanges. Moreover, in the process of avoiding imports at all costs, a country must squander its resources producing goods it is not suited to produce. The inefficiencies caused by mercantilism reduce the wealth of the country as a whole, even though certain special interest groups may benefit.

Smith advocated free trade among countries as a means of enlarging a country's wealth. Free trade enables a country to expand the amount of goods and services available to it by specializing in the production of some goods and services and trading for others. But which goods and services should a country export and which should it import? To answer this question, Smith developed the **theory of absolute advantage**, which suggests that a country should export those goods and services for which it is more productive than other countries are and import those goods and services for which other countries are more productive than it is.

	Output Per Hour of Labor	
	France	Japan
Wine	2	1
Clock radios	3	5

TABLE 6.1 The Theory of Absolute Advantage: An Example

Absolute advantage can be demonstrated through a numerical example. Assume, for the sake of simplicity, that there are only two countries in the world, France and Japan; only two goods, wine and clock radios; and only one factor of production, labor. Table 6.1 shows the output of the two goods per hour of labor for the two countries. In France one hour of labor can produce either two bottles of wine or three clock radios. In Japan one hour of labor can produce either one bottle of wine or five clock radios. France has an absolute advantage in the production of wine: One hour of labor produces two bottles in France but only one in Japan. Japan has an absolute advantage in the production of clock radios: One hour of labor produces five clock radios in Japan but only three in France.

If France and Japan are able to trade with each other, both will be better off. Suppose France agrees to exchange two bottles of wine for four clock radios. Only 1 hour of French labor is needed to produce the two bottles of wine bound for Japan. In return, France will get four clock radios from Japan. These four clock radios would have required 1.33 hours of French labor had France produced them rather than buy them from Japan. By trading with Japan rather than producing the clock radios itself, France saves 0.33 hour of labor. France can use this freed-up labor to produce more wine, which in turn can be consumed by French citizens or traded to Japan for more clock radios. By allocating its scarce labor to produce goods for which it is more productive than Japan and then trading them to Japan, France can consume more goods than it could have done in the absence of trade.

Japan is similarly better off. Japan uses 0.8 hour of labor to produce the four clock radios to exchange for the two bottles of French wine. Producing the two bottles of wine itself would have required 2 hours of labor. By producing clock radios and then trading them to France, Japan saves 1.2 hours of labor, which can be used to produce more clock radios that the Japanese can consume themselves or trade to France for more wine.

Comparative Advantage

The theory of absolute advantage makes intuitive sense. Unfortunately, the theory is flawed. What happens to trade if one country has an absolute advantage in both products? The theory of absolute advantage incorrectly suggests that no trade would occur. David Ricardo, an early-nineteenth-century British economist, solved this problem by developing the **theory of comparative advantage**, which states that a country should produce and export those goods and services for which it is *relatively* more productive than other countries are and import those goods and services for which other countries are *relatively* more productive than it is.³

The difference between the two theories is subtle: Absolute advantage looks at absolute productivity differences; comparative advantage looks at relative productivity differences. The distinction occurs because comparative advantage incorporates the concept of opportunity cost in determining which good a country should produce. The **opportunity cost** of a good is the value of what is given up to get the good. Most of us apply the principles of comparative advantage and opportunity cost without realizing it. Consider a brain surgeon who is better at both brain surgery and lawn mowing than her neighbor's teenaged son is. If the surgeon is comparatively better at surgery than at lawn mowing, she will spend most of her time at the operating table and pay the teenager to mow her lawn. The brain surgeon behaves this way because the opportunity cost of mowing the lawn is too high: Time spent mowing is time unavailable for surgery.

Let us return to the example in Table 6.1 to contrast absolute and comparative advantage. Recall that France has an absolute advantage in wine and Japan has an absolute advantage in clock radios. The theory of absolute advantage says that France should export wine to Japan

	Output Per Hour of Labor	
	France	Japan
Wine	4	1
Clock radios	6	5

TABLE 6.2 The Theory of Comparative Advantage: An Example

and Japan should export clock radios to France. As Table 6.1 shows, France also has a comparative advantage in wine: With 1 hour of labor it produces 2 times as much wine as Japan does but only 0.6 times as many clock radios. Thus, France is relatively more productive in wine. Japan has a comparative advantage in clock radios: With 1 hour of labor it produces 1.67 times as many clock radios as France does but only 0.5 times as much wine. So Japan is relatively more productive in clock radios. The theory of comparative advantage says that France should export wine to Japan and Japan should export clock radios to France. For the example in Table 6.1, the theory of absolute advantage and the theory of comparative advantage both yield the same outcome.

Now let us change the facts. Suppose productivity stays the same in Japan but doubles in France as the result of new job training programs. Table 6.2 shows this new situation. France now can produce four bottles of wine or six clock radios per hour of labor. France now has an absolute advantage in both wine and clock radios: For each hour of labor, France can produce three more bottles of wine (four minus one) or one more clock radio (six minus five) than Japan can. According to the theory of absolute advantage, no trade should occur because France is more productive than Japan in producing both goods.

The theory of comparative advantage, on the other hand, indicates that trade should still occur. France is 4 times better than Japan is in wine production but only 1.2 times better in clock radio production. (Alternatively, Japan is only 0.25 times as good as France in wine production but 0.83 times as good in clock radio production.) France is comparatively better than Japan in wine production, whereas Japan is comparatively better than France in clock radio production.

By the theory of comparative advantage, France should export wine to Japan and Japan should export clock radios to France. If they do so, both will be better off. In the absence of trade, one bottle of wine will sell for 1.5 clock radios in France and for 5 clock radios in Japan. If Japan offers to trade 2 clock radios for one bottle of wine, France will be better off—even though France has an absolute advantage in clock radio production. Without trade, sacrificing one bottle of wine domestically would yield France only 1.5 clock radios in increased production. With trade, France could get 2 clock radios by giving up one bottle of wine to Japan. France gets more clock radios per bottle of wine given up by trading with Japan than by producing the clock radios domestically.

Japan also gains. Without trade, Japan has to give up five clock radios to get one more bottle of wine. With trade, Japan has to give up only two clock radios to obtain one more bottle. Japan gets more wine per clock radio given up by trading with France than by producing the wine domestically. Even though France has an absolute advantage in both wine and clock radio production, both countries gain from this trade. It is comparative advantage that motivates trade, not absolute advantage. For another insight into comparative advantage and the problems inherent in neomercantilism, see "Bringing the World into Focus."

Comparative Advantage with Money

The lesson of the theory of comparative advantage is simple but powerful: You are better off specializing in what you do relatively best. Produce (and export) those goods and services you are relatively best able to produce, and buy other goods and services from people who are relatively better at producing them than you are.

Of course, Tables 6.1 and 6.2 are both simplistic and artificial. The world economy produces more than two goods and services and is made up of more than two countries. Barriers to trade may exist, someone must pay to transport goods between markets, and inputs other than labor are necessary to produce goods. Even more important, the world economy uses money as

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Vietnam's low labor costs, coupled with fertile soil and abundant rainfall, grant it a comparative advantage in growing rice. Vietnam is the second-largest exporter of rice, after Thailand.



a medium of exchange. Table 6.3 introduces money into our discussion of trade and incorporates the following assumptions:

- **1.** The output per hour of labor in France and Japan for clock radios and wine is as shown in Table 6.2.
- **2.** The hourly wage rate in France is 12 euros (\notin).
- **3.** The hourly wage rate in Japan is 1,000 yen (¥).
- 4. One euro is worth 125 yen.

BRINGING THE WORLD INTO FOCUS

THE LINCOLN FALLACY

Foreign trade policy has been debated by politicians, pundits, and professors for centuries. Proponents of free trade see little distinction between domestic trade and foreign trade: If the voluntary exchange of goods, services, and assets between two residents of the same country is to be encouraged because it benefits both parties to

the transaction, the same logic should hold true for voluntary exchanges between a domestic resident and a foreigner. But other groups argue that government policy should favor domestic producers over foreign producers. In their view, foreign trade builds up the economies of foreign countries while weakening the domestic economy. Abraham Lincoln, for example, endorsed this position with his characteristic



clarity: "I know this much. When we buy goods manufactured abroad, we get the goods and the foreigner gets the money. When we buy goods manufactured at home, we get both the goods and the money."

Although Lincoln's statements may seem like common sense to patriots concerned about strengthening their nation's economy and promoting job opportunities for their fellow citizens, trade experts find his argument misleading and incomplete. Lincoln is correct in asserting that buying goods from foreign producers sends our money abroad, whereas buying goods from domestic producers keeps our money in our country. What his argument fails to consider is the resources—the factors of

<image>

The elegant Galeries Lafayette department store on Boulevard Haussmann, a Parisian fixture for over a century, is a magnet for international shoppers desiring the latest in fashion and design from around the world.

Relative Factor Endowments

The theory of comparative advantage begs a broader question: What determines the products for which a country will have a comparative advantage? To answer this question, two Swedish economists, Eli Heckscher and Bertil Ohlin, developed the **theory of relative factor endowments**, now often referred to as the **Heckscher-Ohlin theory**. These economists made two basic observations:

- **1.** *Factor endowments (or types of resources) vary among countries.* For example, Argentina has much fertile land, Saudi Arabia has large crude oil reserves, and Bangladesh has a large pool of unskilled labor.
- **2.** *Goods differ according to the types of factors that are used to produce them.* For example, wheat requires fertile land, oil production requires crude oil reserves, and apparel manufacturing requires unskilled labor.

From these observations, Heckscher and Ohlin developed their theory: A country will have a comparative advantage in producing products that intensively use resources (factors of production) it has in abundance. Thus, Argentina has a comparative advantage in wheat growing because of its abundance of fertile land; Saudi Arabia has a comparative advantage in oil production because of its abundance of crude oil reserves; and Bangladesh has a comparative advantage in advantage in apparel manufacture because of its abundance of unskilled labor.

The Heckscher-Ohlin theory suggests a country should export those goods that intensively use those factors of production that are relatively abundant in the country. The theory was tested empirically after World War II by economist Wassily Leontief using input-output analysis, a mathematical technique for measuring the interrelationships among the sectors of an economy. Leontief believed the United States was a capital-abundant and labor-scarce economy.

In Practice

- The country-based trade theories focus on the nation's resource base to explain the nation's competitiveness in international markets.
- The theory of comparative advantage predicts that countries will export goods for which they are *relatively* more productive than other countries.

For further consideration: Do you use "comparative advantage" in your daily life or in allocating tasks when you are involved in a group project?

Modern Firm-Based Trade Theories

Since World War II, international business research has focused on the role of the firm rather than the country in promoting international trade. Firm-based theories have developed for several reasons: (1) the growing importance of MNCs in the postwar international economy; (2) the inability of the country-based theories to explain and predict the existence and growth of intraindustry trade (defined in the next section); and (3) the failure of Leontief and other researchers to empirically validate the country-based Heckscher-Ohlin theory. Unlike country-based theories, firm-based theories incorporate factors such as quality, technology, brand names, and customer loyalty into explanations of trade flows. Because firms, not countries, are the agents for international trade, the newer theories explore the firm's role in promoting exports and imports.

Product Life Cycle Theory

Product life cycle theory, which originated in the marketing field to describe the evolution of marketing strategies as a product matures, was modified by Raymond Vernon of the Harvard Business School to create a firm-based theory of international trade (and, as we will see, of international investment). International product life cycle theory traces the roles of innovation, market expansion, comparative advantage, and strategic responses of global rivals in international production, trade, and investment decisions. According to Vernon's theory, and as illustrated in Figure 6.4, the international product life cycle consists of three stages: new product, maturing product, and standardized product.

In stage 1, the *new product stage*, a firm develops and introduces an innovative product, such as a photocopier or a personal computer, in response to a perceived need in the domestic market. Because the product is new, the innovating firm is uncertain whether a profitable market for the product exists. The firm's marketing executives must closely monitor customer reactions to ensure that the new product satisfies consumer needs. Quick market feedback is important, so the product is likely to be initially produced in the country where its research and development occurred, typically a developed country such as Japan, Germany, or the United States. Further, because the market size also is uncertain, the firm usually will minimize its investment in manufacturing capacity for the product. Most output initially is sold in the domestic market, and export sales are limited.

For example, during the early days of the personal computer industry the small producers that populated the industry had their hands full trying to meet the burgeoning demand for their product. Apple Computer typified this problem. Founded on April Fool's Day in 1976, its initial assembly plant was located in the garage of cofounder Steve Jobs. The first large order for its homemade computers—50 units from a local computer hobbyist store—almost bankrupted the firm because it lacked the financing to buy the necessary parts.⁴ Apple survived because of the nurturing environment in which it was born, California's Silicon Valley. Home to major electronics firms such as Hewlett-Packard, Intel, and National Semiconductor, Silicon Valley was full of electrical engineers who could design and build Apple's products and venture capitalists who were seeking the "next Xerox." It was the perfect locale for Apple's sales to grow from zero in 1976 to \$7.8 million in 1978 and \$156 billion in 2012.

In stage 2, the *maturing product stage*, demand for the product expands dramatically as consumers recognize its value. The innovating firm builds new factories to expand its capacity and satisfy domestic and foreign demand for the product. Domestic and foreign competitors begin

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In stage 3, the *standardized product stage*, the market for the product stabilizes. The product becomes more of a commodity, and firms are pressured to lower their manufacturing costs as much as possible by shifting production to facilities in countries with low labor costs. As a result, the product begins to be imported into the innovating firm's home market (by either the firm or its competitors). In some cases, imports may result in the complete elimination of domestic production.

The personal computer industry has entered the standardized product stage. Chinese computer companies like Lenovo and Taiwanese manufacturers such as Asustek, Hon Hai, Tatung, Mitac International, and First International—none of them household names in the United States—annually export to the United States and to other countries millions of personal computers, many of which are produced under contract for leading PC vendors like Apple, Dell, and Hewlett-Packard. Such an arrangement is typical in this stage of the product life cycle: the production of the good shifts to lower-cost manufacturing sites, but the branding and marketing functions remain in the innovating country.⁵

According to the international product life cycle theory, domestic production begins in stage 1, peaks in stage 2, and slumps in stage 3. Exports by the innovating firm's country also begin in stage 1 and peak in stage 2. By stage 3, however, the innovating firm's country becomes a net importer of the product. Foreign competition begins to emerge toward the end of stage 1, as firms in other industrialized countries recognize the product's market potential. In stage 2, foreign competitors expand their productive capacity, thus servicing an increasing portion of their home markets and perhaps becoming net exporters. As competition intensifies in stage 2, however, the innovating firm and its domestic and foreign rivals seek to lower their production costs by shifting production to low-cost sites in less-developed countries. Eventually, in stage 3, the less-developed countries may become net exporters of the product.

Country Similarity Theory

Country-based theories, such as the theory of comparative advantage, do a good job of explaining interindustry trade among countries. **Interindustry trade** is the exchange of goods produced by one industry in country A for goods produced by a different industry in country B, such as the exchange of French wines for Japanese clock radios. Yet much international trade consists of **intraindustry trade**, that is, trade between two countries of goods produced by the same industry. For example, Japan exports Toyotas to Germany, and Germany exports BMWs to Japan. Intraindustry trade accounts for approximately 40 percent of world trade, and it is not predicted by country-based theories.

Swedish economist Steffan Linder sought to explain the phenomenon of intraindustry trade. Linder hypothesized that international trade in manufactured goods results from similarities of preferences among consumers in countries that are at the same stage of economic development. In his view, firms initially manufacture goods to serve the firms' domestic market. As they explore exporting opportunities, they discover that the most promising foreign markets are in countries where consumer preferences resemble those of their own domestic market. The Japanese market, for example, provides BMW with well-off, prestige- and performance-seeking automobile buyers similar to the ones who purchase its cars in Germany. The German market provides Toyota with quality-conscious and value-oriented customers similar to those found in its home market. As each company targets the other's home market, intraindustry trade arises. Linder's **country similarity theory** suggests that most trade in manufactured goods should be between countries with similar per capita incomes and that intraindustry trade in manufactured goods should be common. This theory is particularly useful in explaining trade in differentiated goods such as automobiles, expensive electronics equipment, and personal care products, for which brand names and product reputations play an important role in consumer decision making. (Undifferentiated goods, such as coal, petroleum products, and sugar, are those for which brand names and product reputations play a minor role at best in consumer purchase decisions.)

New Trade Theory

The so-called **new trade theory** developed by Elhanen Helpman, Paul Krugman,⁶ and Kelvin Lancaster,⁷ in the 1970s and 1980s extends Linder's analysis by incorporating the impact of economies of scale on trade in differentiated goods. **Economies of scale** occur if a firm's

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to its website is relatively small. Accordingly, Amazon has expanded from books to compact discs to DVDs to myriad other goods to capture such economies of scope.

EXPLOITING THE EXPERIENCE CURVE Another source of firm-specific advantages in international trade is exploitation of the experience curve. For certain types of products production costs decline as the firm gains more experience in manufacturing the product. Experience curves may be so significant that they govern global competition within an industry. For instance, in semiconductor chip production, unit cost reductions of 25 to 30 percent with each doubling of a firm's cumulative chip production are not uncommon.⁸ Any firm attempting to be a low-cost producer of so-called commodity chips-such as DRAM memory chips-can achieve that goal only if it moves further along the experience curve than its rivals do. Both U.S. and Asian chip manufacturers have often priced their new products below current production costs to capture the sales necessary to generate the production experience that will in turn enable the manufacturers to lower future production costs. Because of their technological leadership in manufacturing and their aggressive, price-cutting strategies, Asian semiconductor manufacturers such as Samsung and Hynix dominate the production of low-cost, standardized semiconductor chips.⁹ Similarly, innovative U.S. semiconductor firms such as Intel and Advanced Micro Devices use the experience curve to maintain leadership in the production of high-priced, proprietary chips that form the brains of newer microcomputers.

Porter's Theory of National Competitive Advantage

Harvard Business School professor Michael Porter's **theory of national competitive advantage** is the newest addition to international trade theory. Porter believes that success in international trade comes from the interaction of four country- and firm-specific elements: factor conditions; demand conditions; related and supporting industries; and firm strategy, structure, and rivalry.

FACTOR CONDITIONS A country's endowment of factors of production affects its ability to compete internationally. Although factor endowments were the centerpiece of the Hecksher-Ohlin theory, Porter goes beyond the basic factors—land, labor, and capital—considered by the classical trade theorists to include more advanced factors such as the educational level of the workforce and the quality of the country's infrastructure. His work stresses the role of factor creation through training, research, and innovation.

DEMAND CONDITIONS The existence of a large, sophisticated domestic consumer base often stimulates the development and distribution of innovative products as firms struggle for dominance in their domestic markets. In meeting their domestic customers' needs, however, firms continually develop and fine-tune products that also can be marketed internationally. Thus, pioneering firms can stay ahead of their international competitors as well. For example, Japanese consumer electronics producers benefit internationally because of the willingness of Japan's large, well-off middle class to buy the latest electronic creations of Sony, Toshiba, and Matsushita. After being fine-tuned in the domestic market, new models of Japanese digital cameras, big-screen TVs, and Blu-ray players are sold to eager European and North American consumers. A similar phenomenon is occurring in the telecommunications market, where the rapid adoption of the Internet, tablets, and smartphones by North American consumers and companies has created a fertile climate for companies such as Twitter, Facebook, eBay, and Amazon to develop and tailor new products to meet the needs of this market domestically and internationally.

RELATED AND SUPPORTING INDUSTRIES The emergence of an industry often stimulates the development of local suppliers eager to meet that industry's production, marketing, and distribution needs. An industry located close to its suppliers will enjoy better communication and the exchange of cost-saving ideas and inventions with those suppliers. Competition among these input suppliers leads to lower prices, higher-quality products, and technological innovations in the input market, in turn reinforcing the industry's competitive advantage in world markets. For example, Hollywood's dominance of the world film industry is based in part on the local availability of specialist input suppliers, such as casting directors, stunt coordinators, costume and set designers, demolition experts, animators, special-effects firms, and animal wranglers.

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VENTURING ABROAD

BIRDS OF A FEATHER FLOCK TOGETHER

Although important for the development of trade theory, Porter's theory of national competitive advantage also explains the existence of another phenomenon of international business activity, the regional **clustering** of firms within an industry resulting

from agglomeration economies. **Agglomeration economies** occur when a firm's costs of production decline as the number of firms in that industry increase within a given area. Such growth attracts additional input suppliers to the areas, which then increases price competition and innovation among those suppliers. As their customer base increases, suppliers can specialize, developing unique abilities that benefit the cluster as a whole. Clusters also promote innovation and entrepreneurship. Competition is intense, and firms must continually improve their products and productivity to survive. Entrepreneurs can tap into sophisticated local knowledge networks. Moreover, local bankers and financiers understand the ins-and-outs of the local industry and thus are better able to recognize good ideas when entrepreneurs request loans or capital. Firms within the cluster thus enjoy significant advantages when competing with a firm from outside the cluster. Map 6.1 depicts some key industrial clusters in Western Europe.

Consider three California industries, filmed entertainment, centered in Los Angeles; premium wines, centered in Napa and Sonoma counties; and personal computing, centered in the Silicon Valley. Each industry no doubt started and benefited from supportive factor endowments and demand conditions. But as area firms began to prosper, other firms within the same industry were attracted to the region seeking to replicate the pioneering firms' success. The expanding number of customers then induced supplier firms to relocate as well. Over time, the cluster becomes so strong that firms not in the cluster are at a significant disadvantage. Film studios requiring the best directors, cinematographers, screenwriters, casting agents, and such are likely to find them in Hollywood. Suppliers of specialized services like pyrotechnics, animal wrangling, special

effects, and set design are readily available as well. Similarly, firms seeking the latest vineyard management techniques or viniculture science are likely to find them in Napa or Sonoma counties or at the nearby University of California at Davis. Firms specializing in making or supplying wine-making and grape-harvesting equipment,

barrels, corks, bottles, and label design have proliferated there as well, benefiting and strengthening the area's vineyards. Or consider the move of Facebook from Cambridge, Massachusetts, to the Silicon Valley as portrayed in the movie *The Social Network*. There are plenty of smart people in Cambridge. However, Facebook founder Mark Zuckerberg realized that Facebook needed to access the specialized resources and talent that the Silicon Valley could best provide if it were to dominate the social networking market.

Porter argues that clusters play an important role in promoting international competitiveness. Such competition is being transformed from a firm-versus-firm basis to a cluster-versus-cluster basis. In wine, for example, we often think of competition as being between a French vineyard such as Chateau Lafite Rothschild or a California grower like Chateau Montelena. From a cluster perspective, however, the nature of competition changes: California's Sonoma and Napa Valley vintners compete against vintners from France's Burgundy and Champagne provinces and from growers in Australia's Barossa Valley. In Porter's view, a wise government institutes policies that allow the cluster to flourish, perhaps by funding research at local universities or providing infrastructure improvements that benefit the cluster as a whole.

Sources: Based on Harvard Business School, "Global Wine War 2009: New World versus Old," Case number 9-910-405 (2009); Harvard Business School, "Finland and Nokia: Creating the World's Most Competitive Economy," Case number 9-702-427 (2008); Michael Porter, "Clusters and the New Economics of Competition," *Harvard Business Review*, November–December 1998, pp. 77–90; Michael Porter, "The Competitive Advantage of Nations," *Harvard Business Review*, March–April 1990, pp. 73–93.

In Practice

- The firm-based trade theories highlight the importance of multinational corporations in international trade and international investment flows.
- Regional clustering of firms within an industry can be an important source of competitive advantage to firms and to countries.

For further consideration: What percentage of your budget do you spend on undifferentiated goods? On differentiated goods?

FIGURE 6.5 Theories of International Trade

Country-Based Theories

Country is unit of analysis Emerged prior to World War II Developed by economists Explain interindustry trade Include: Mercantilism Absolute advantage Comparative advantage Relative factor endowments (Heckscher-Ohlin)

Firm-Based Theories

Firm is unit of analysis Emerged after World War II Developed by business school professors Explain intraindustry trade Include: Country similarity theory Product life cycle New trade theory National competitive advantage

An Overview of International Investment

Trade is the most obvious but not the only form of international business. Another major form is international investment, whereby residents of one country supply capital to a second country.

Types of International Investments

International investment, as discussed in Chapter 1, is divided into two categories: foreign portfolio investment (FPI) and foreign direct investment (FDI). The distinction between the two rests on the question of control: Does the investor seek an active management role in the firm or merely a return from a passive investment?

Foreign portfolio investments (FPI) represent passive holdings of securities such as foreign stocks, bonds, or other financial assets, none of which entails active management or control of the securities' issuer by the investor. Modern finance theory suggests that FPI will be motivated by attempts to seek an attractive rate of return as well as the risk reduction that can come from geographically diversifying one's investment portfolio. Sophisticated money managers in New York, London, Frankfurt, Tokyo, and other financial centers are well aware of the advantages of international diversification. In 2012, for example, private U.S. citizens purchased \$145 billion worth of foreign securities, bringing their total holdings of such securities to \$7.5 trillion. Foreign official and private investors purchased \$764 billion worth of U.S. corporate, federal, state, and local securities, raising their total holdings of such securities to \$12.5 trillion.¹⁰

Foreign direct investment (FDI) is acquisition of foreign assets for the purpose of controlling them. U.S. government statisticians define FDI as "ownership or control of 10 percent or more of an enterprise's voting securities or the equivalent interest in an unincorporated business."¹¹ FDI may take many forms, including purchase of existing assets in a foreign country, new investment in property, plant, and equipment, and participation in a joint venture with a local partner. Perhaps the most historically significant FDI in the United States was the \$24 that Dutch explorer Peter Minuit paid local Native Americans for Manhattan Island.¹² The result: New York City, one of the world's leading financial and commercial centers. "Venturing Abroad" discusses the growing importance of sovereign wealth funds in global capital markets.

VENTURING ABROAD

THE NEW PLAYER IN GLOBAL CAPITAL MARKETS: SOVEREIGN WEALTH FUNDS

Sovereign wealth funds (SWFs) are one of the newest, and perhaps most controversial, sources of capital in the world economy. Sovereign wealth funds, which are government-controlled pools of capital, are estimated to possess \$5 trillion in assets in 2012.

Most of the SWFs are owned by oil-rich governments. The Abu Dhabi Investment Authority is currently the largest, with \$627 billion in assets, followed by the Government Pension Fund of Norway with \$611 billion. Other SWFs are owned by governments of countries enjoying large balance of payments surpluses, such as the China Investment Corporation (\$440 billion), Temasek Holdings of Singapore (\$157 billion), and the Government of Singapore Investment Corporation (\$248 billion).

China, for example, has accumulated foreign exchange reserves totaling \$3.4 trillion as a result of its balance of payments surpluses. The government transferred \$200 billion of these reserves to the China Investment Corporation (CIC) to manage in hopes of improving the government's rate of return on its investments. One of the first investments made by the CIC was a \$3 billion equity position in the Blackstone Group, a U.S. private equity firm.

The rise of the SWFs reflects the growing role of emerging markets in the global economy. Their ownership of the world's productive assets has grown in conjunction with their increasing share of the world's GDP. SWFs have invested in a variety of industries. For example, Dubai International Capital, owned by the ruler of Dubai, owns stakes in European Aeronautic Defense & Space (the parent of Airbus), Sony, and HSBC Holdings. It has also purchased ownership stakes

in the London Stock Exchange, the Nasdaq Stock Market, and OMX AB, which controls seven stock exchanges in Scandinavia and the Baltic region. The Qatar Investment Authority holds major positions in Volkswagen, Porsche, Total, Barclays, J Sainsbury, and Harrods. Similarly, Temasek purchased a controlling interest in Shin Corporation, the largest provider of mobile telephone service in Thailand.

The SWFs were particularly important in shoring up the balance sheets of international banks, hedge funds, and private equity firms hurt by the chaos in the U.S. mortgage market during the global recession of 2008–2009. UBS, which lost \$37 billion in the crisis, received \$9.7 billion in new equity from the Government of Singapore Investment Corporation, and an additional \$1.8 billion from an unidentified strategic investor from the Middle East. The Singapore SWF owns about 9 percent of the Swiss bank as a result of this investment. The China Investment Corporation invested \$5 billion in Morgan Stanley, while the Abu Dhabi Investment Authority purchased a 4.9 percent stake in Citigroup for \$7.5 billion and a 7.5 percent share of the Carlyle Group for \$1.35 billion.

Most of the investments made by SWFs to date have been passive in nature, seeking to earn financial returns rather than actively



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control assets. Many have purchased equity stakes in investment banks and private equity firms, allowing the SWFs to tap into the sophisticated knowledge of these concerns without having to develop the expertise themselves. They are also attractive to the firms because to date they have not concerned themselves with corporate governance issues or proven to be activist investors. Their investments typically do not entitle the SWF to a board seat, allowing them to avoid political problems and national investment control laws like the Exon-Florio Act. (This act allows the president of the United States to reject certain investments made by foreign nationals for national security reasons.)

Nonetheless, the growth of SWFs has made politicians in many countries uneasy. As a result, the International Monetary Fund is trying to develop a voluntary code of conduct for SWFs. The primary objective of the code is to ensure that investments made by SWFs are solely for commercial purposes, rather than a backdoor means of promoting the political goals of the governmental owner of the SWF. Sources: Based on "China's forex reserves reach \$3.4tn," Financial Times, April 11, 2013; "Here, there and everywhere," Financial Times, March 19, 2013, p. 7; "Norway's national nest egg," Financial Times, August 20, 2012, p. 5; "Wealth funds fight for reputation," Wall Street Journal, May 10, 2011, p. C3; "Beijing to give wealth fund \$200bn," Financial Times, April 26, 2011, p. 4; "China's wealth-fund chief warns on global growth," Wall Street Journal, April 18, 2011, p. A7; www.swfinstitute.org; "IMF clears way for development of sovereign wealth fund codes," Wall Street Journal, March 24, 2008, p. A12; "Code set for state-run funds," Wall Street Journal, March 21, 2008, p. A4; "Temasek rising," TheDeal.com, February 22, 2008 (online); "Dubai investment fund plans to spend in Asia," International Herald Tribune, February 19, 2008 (online); "Ascent of sovereign-wealth funds illustrates new world order," Wall Street Journal, January 28, 2008, p. A2; "Asset-backed insecurity," The Economist, January 19, 2008, pp. 78ff.; "Gulf states seen raising foreign-asset holdings," Wall Street Journal, January 17, 2008, p. A10; "\$9.4 billion write-down at Morgan Stanley," New York Times, December 20, 2007 (online); "UBS gains two new investors, writes down \$10 billion," Wall Street Journal, December 10, 2007 (online); "Abu Dhabi to bolster Citigroup with \$7.5 billion capital infusion," Wall Street Journal, November 27, 2007, p. A3.

The Growth of FDI

The growth of FDI during the past 30 years has been phenomenal. As Figure 6.6 indicates, in 1980 the total stock (or cumulative value) of FDI received by countries worldwide was \$689 billion. Worldwide FDI as of 2011 topped \$20.4 trillion. This stunning growth in FDI—and its acceleration beginning in the 1990s—reflects the globalization of the world's economy. As you might expect, most FDI comes from developed countries. Surprisingly, most FDI also goes to developed countries. We discuss later in this chapter reasons for this explosive growth in FDI.



United Kingdom	488.8	
Japan	308.3	
Netherlands	274.9	
Canada	225.3	
France	209.1	
Switzerland	204.0	
Luxembourg	202.3	
Germany	199.0	
Belgium	88.7	
Bermuda, The Bahamas, and other Caribbean Islands	68.6	
Spain	47.4	
Other European Union countries	137.4	
All other countries	197.0	
Total	2650.8	
b. Destination of FDI from the United States		
Netherlands	645.1	
Netherlands United Kingdom	645.1 597.8	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands	645.1 597.8 537.5	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg	645.1 597.8 537.5 383.6	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada	645.1 597.8 537.5 383.6 351.5	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland	645.1 597.8 537.5 383.6 351.5 203.8	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore	645.1 597.8 537.5 383.6 351.5 203.8 138.6	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore Japan	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore Japan Australia	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0 132.8	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore Japan Australia	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0 132.8 130.3	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore Japan Australia Switzerland Germany	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0 132.8 130.3 121.2	
Netherlands United Kingdom Bermuda, The Bahamas, and other Caribbean Islands Luxembourg Canada Ireland Singapore Japan Australia Switzerland Germany Other European Union countries	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0 132.8 130.3 121.2 288.1	
NetherlandsUnited KingdomBermuda, The Bahamas, and other Caribbean IslandsLuxembourgCanadaIrelandSingaporeJapanAustraliaSwitzerlandGermanyOther European Union countriesAll other countries	645.1 597.8 537.5 383.6 351.5 203.8 138.6 134.0 132.8 130.3 121.2 288.1 788.7	

TABLE 6.4 Stock of FDI for the United States, end of 2012 (billions of dollars)

Source: Based on data from Survey of Current Business, July 2013, pp. 40 and 42.

FDI and the United States

We can gain additional insights into FDI by looking at individual countries. Consider the stock of FDI in the United States, which totaled \$2.7 trillion (measured at historical cost) at the end of 2012 (see Table 6.4[a]). The United Kingdom was the most important source of this FDI, accounting for \$488.8 billion, or 18 percent, of the total. The countries listed by name in Table 6.4(a) account for 87 percent of total FDI in the United States.

The stock of FDI by U.S. residents in foreign countries totaled \$4.5 trillion at the end of 2012 (see Table 6.4[b]). Most of this FDI was in other developed countries, particularly the Netherlands (\$645.1 billion) and the United Kingdom (\$597.8 billion). The countries listed by name in Table 6.4(b) account for 76 percent of total FDI from the United States.

Looking at Table 6.4, you may wonder why Bermuda, the Bahamas, and other small Caribbean islands are so important. They serve as offshore financial centers, which we will discuss in Chapter 8. Many U.S. companies set up finance and other subsidiaries in such centers to take advantage of low taxes and business-friendly regulations. Similarly, many

International Investment Theories

Why does FDI occur? A sophomore taking his or her first finance course might answer with the obvious: Average rates of return are higher in foreign markets. Yet given the pattern of FDI between countries that we just discussed, this answer is not satisfactory. Canada and the United Kingdom are both major sources of FDI in the United States and important destinations for FDI from the United States. Average rates of return in Canada and the United Kingdom cannot be simultaneously below that of the United States (which would justify inward U.S. FDI) and above that of the United States (which would justify outward U.S. FDI). The same pattern of two-way investment occurs on an industry basis. By the end of 2012, for example, U.S. firms had invested \$11.0 billion in the chemical industry. This pattern cannot be explained by national or industry differences in rates of return. We must search for another explanation for FDI.

Ownership Advantages

More powerful explanations for FDI focus on the role of the firm. Initially researchers explored how firm ownership of competitive advantages affected FDI. The **ownership** advantage theory suggests that a firm owning a valuable asset that creates a competitive advantage domestically can use that advantage to penetrate foreign markets through FDI. The asset could be, for example, a superior technology, a well-known brand name, or economies of scale. This theory is consistent with the observed patterns of international and intraindus-try FDI discussed previously in this chapter. Caterpillar, for example, built factories in Asia, Europe, Australia, South America, and North America to exploit proprietary technologies and its brand name. Its chief rival, Komatsu, constructed plants in Asia, Europe, and the United States for the same reason.

Internalization Theory

The ownership advantage theory only partly explains why FDI occurs. It does not explain why a firm would choose to enter a foreign market via FDI rather than exploit its ownership advantages internationally through other means, such as exporting its products, franchising a brand name, or licensing technology to foreign firms. For example, McDonald's has successfully internationalized by franchising its fast-food operations outside the United States, whereas Boeing has relied on exporting to serve its foreign customers.

Internalization theory addresses this question. In doing so, it relies heavily on the concept of transaction costs. **Transaction costs** are the costs of entering into a transaction, that is, those connected to negotiating, monitoring, and enforcing a contract. A firm must decide whether it is better to own and operate its own factory overseas or to contract with a foreign firm to do this through a franchise, licensing, or supply agreement. **Internalization theory** suggests that FDI is more likely to occur—that is, international production will be internalized within the firm—when the costs of negotiating, monitoring, and enforcing a contract with a second firm are high. For example, Toyota's primary competitive advantages are its reputation for high quality and its sophisticated manufacturing techniques, neither of which is easily conveyed by contract. As a result, Toyota has chosen to maintain ownership of its overseas automobile assembly plants.

Conversely, internalization theory holds that when transaction costs are low, firms are more likely to contract with outsiders and internationalize by licensing their brand names or franchising their business operations. For example, McDonald's is a premier expert in the United States in devising easily enforceable franchising agreements. Because McDonald's is so successful in reducing transaction costs between itself and its franchisees, it has continued to rely on franchising for its international operations.

Dunning's Eclectic Theory

Although internalization theory addresses why firms choose FDI as the mode for entering international markets, the theory ignores the question of why production, by either the company or a contractor, should be located abroad. In other words, is there a location advantage to producing abroad? This issue was incorporated by John Dunning in his **eclectic theory**, which combines ownership advantage, location advantage, and internalization advantage to form

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a unified theory of FDI. This theory recognizes that FDI reflects both international business activity and business activity internal to the firm. According to Dunning, FDI will occur when three conditions are satisfied:

- 1. *Ownership advantage*. The firm must own some unique competitive advantage that overcomes the disadvantages of competing with foreign firms on their home turfs. This advantage may be a brand name, ownership of proprietary technology, the benefits of economies of scale, and so on. Caterpillar, for example, enjoys all three of these advantages in competing in Brazil against local firms.
- **2.** *Location advantage.* Undertaking the business activity must be more profitable in a foreign location than undertaking it in a domestic location. For example, Caterpillar produces bull-dozers in Brazil to enjoy lower labor costs and avoid high tariff walls on goods exported from its U.S. factories.
- **3.** *Internalization advantage.* The firm must benefit more from controlling the foreign business activity than from hiring an independent local company to provide the service. Control is advantageous, for example, when monitoring and enforcing the contractual performance of the local company is expensive, when the local company may misappropriate proprietary technology, or when the firm's reputation and brand name could be jeopardized by poor behavior by the local company. All of these factors are important to Caterpillar.

In Practice

- International investments can take the form of portfolio investments or of direct investments. The distinction between the two forms rests on whether the investment is for purposes of control.
- Dunning's eclectic theory argues that ownership, location, and internalization advantages determine whether firms will use FDI when entering a foreign market. *For further consideration*: Does foreign direct investment affect you or your community? If so, how?

Factors Influencing FDI

Given the complexity of the global economy and the diversity of opportunities that firms face in different countries, it is not surprising that numerous factors may influence a firm's decision to undertake FDI. These can be classified as supply factors, demand factors, and political factors (see Table 6.5).

Supply Factors

A firm's decision to undertake FDI may be influenced by supply factors, including production costs, logistics, availability of natural resources, and access to key technology.

Supply Factors	Demand Factors	Political Factors
Production costs	Customer access	Avoidance of trade barriers
Logistics	Marketing advantages	Economic development incentives
Resource availability	Exploitation of competitive advantages	
Access to technology	Customer mobility	

TABLE 6.5 Factors Affecting the FDI Decision

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PRODUCTION COSTS Firms often undertake FDI to lower production costs. Foreign locations may be more attractive than domestic sites because of lower land prices, tax rates, commercial real estate rents, or because of better availability and lower cost of skilled or unskilled labor. For example, Intel built a new chip fabrication facility in Chengdu in China's inland Sichuan province because labor and land costs were much lower than in Shanghai, where the company already operates three facilities.¹³ Similarly, Nokia built a \$275-million mobile phone assembly plant in northern Vietnam to take advantage of the area's low labor costs.¹⁴

LOGISTICS If transportation costs are significant, a firm may choose to produce in the foreign market rather than export from domestic factories. For example, Heineken has used FDI extensively as part of its internationalization strategy because its products are primarily water. Brewing its beverages close to where its foreign consumers live is cheaper for Heineken than transporting the beverages long distances from the company's Dutch breweries. International businesses also often make host-country investments to reduce distribution costs. For example, Citrovita, a Brazilian producer of orange juice concentrate, operates a storage and distribution terminal at the Port of Antwerp rather than ship to European grocery chains directly from Brazil. Citrovita can take advantage of low ocean-shipping rates to transport its goods in bulk from Brazil to the Belgian port. The company then uses the Antwerp facility to repackage and distribute concentrate to its customers in France, Germany, and the Benelux countries.

AVAILABILITY OF NATURAL RESOURCES Firms may use FDI to access natural resources that are critical to their operations. For instance, because of the decrease in conventional onshore domestic oil production, many U.S.-based oil companies made significant investments worldwide to obtain new oil reserves. Often international businesses negotiate with host governments to obtain access to raw materials in return for FDI. For example, the China National Petroleum Company created a \$10 billion joint venture with state-owned Petróleos de Venezuela to extract, refine, and transport 1 million barrels of oil a day from Venezuela's Orinoco basin.¹⁵

ACCESS TO KEY TECHNOLOGY Another motive for FDI is to gain access to technology. Firms may find it more advantageous to acquire ownership interests in an existing firm than to assemble an in-house group of research scientists to develop or reproduce an emerging technology. For instance, many Swiss pharmaceutical manufacturers have invested in small U.S. biogenetics companies as an inexpensive means of obtaining cutting-edge biotechnology. Similarly, Korea's Doosan Infracore paid \$4.9 billion for the Bobcat division of Ingersoll-Rand to benefit from Bobcat's superior technology, outstanding distribution network, and skilled management team.¹⁶ Starbucks recently purchased a 600-acre plot in Costa Rica as an experiment station for developing new coffee varieties and new coffee-growing secrets.¹⁷

Demand Factors

Firms also may engage in FDI to expand the market for their products. The demand factors that encourage FDI include customer access, marketing advantages, exploitation of competitive advantages, and customer mobility.

CUSTOMER ACCESS Many types of international business require firms to have a physical presence in the market. For example, fast-food restaurants and retailers must provide convenient access to their outlets for competitive reasons. KFC cannot supply its freshly prepared fried chicken to Japanese customers from its restaurants in the United States; it must locate outlets in Japan to do so. Similarly, IKEA's success in broadening its customer base beyond its home market in Sweden is the result of its opening a number of new stores worldwide.

MARKETING ADVANTAGES FDI may generate several types of marketing advantages. The physical presence of a factory may enhance the visibility of a foreign firm's products in the host market. The foreign firm also gains from "buy local" attitudes of host country consumers. For example, through ads in such magazines as *Time* and *Sports Illustrated*, Toyota has publicized the beneficial impact of its U.S. factories and input purchases on the U.S. economy. Firms may

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also engage in FDI to improve their customer service. Taiwan's Delta Products, which makes battery packs for laptop computers, was concerned that it could not respond quickly and flexibly enough from its factories in China and Thailand to meet the changing needs of its U.S. customers. As one of its executives noted, if you "build in the Far East, you're too far away. You can't do a last-moment modification while the product is on the ocean." Accordingly, Delta shifted some of its production to a Mexican factory just across the border from Nogales, Arizona, to better serve its U.S. customers.¹⁸

EXPLOITATION OF COMPETITIVE ADVANTAGES FDI may be a firm's best means to exploit a competitive advantage that it already enjoys. An owner of a valuable trademark, brand name, or technology may choose to operate in foreign countries rather than export to them. Often this decision depends on the product's nature. For instance, companies such as Procter and Gamble, Nestlé, and Unilever often choose to site factories in the countries in which they sell their products. By so doing, they enhance their ability to customize their products to meet local tastes while still benefitting from the power of their brand names and manufacturing prowess.

CUSTOMER MOBILITY A firm's FDI also may be motivated by the FDI of its customers or clients. If one of a firm's existing customers builds a foreign factory, the firm may decide to locate a new facility of its own nearby, thus enabling it to continue to supply its customers promptly and attentively. Equally important, establishing a new facility reduces the possibility that a competitor in the host country will step in and steal the customer. For example, Japanese parts suppliers to the major Japanese automakers have responded to the construction of Japanese-owned automobile assembly plants in the United States by building their own U.S. factories, warehouses, and research facilities. Their need to locate facilities in the United States is magnified by the automakers' use of just-in-time (JIT) inventory management techniques; JIT minimizes the amount of parts inventory held at an assembly plant, putting a parts-supply facility located in Japan at a severe disadvantage. Likewise, after Samsung decided to construct and operate an electronics factory in northeast England, six of its Korean parts suppliers also established factories in the vicinity.¹⁹

Political Factors

Political factors may also enter into a firm's decision to undertake FDI. Firms may invest in a foreign country to avoid trade barriers by the host country or to take advantage of economic development incentives offered by the host government.

AVOIDANCE OF TRADE BARRIERS Firms often build foreign facilities to avoid trade barriers. For example, in 2011 Hon Hai Precision Industries, a leading Taiwanese contract manufacturing firm, announced it would build a new electronics manufacturing plant in Brazil to avoid that country's high tariffs on imported consumer electronics goods. Other types of government policies may also impact FDI. Microsoft, for example, located a software development center in Richmond, British Colombia, in part to avoid limitations placed by the U.S. government on the number of highly skilled immigrant workers who can obtain H-1B work visas in any given year.²⁰

ECONOMIC DEVELOPMENT INCENTIVES Most democratically elected governments—local, state, and national—are vitally concerned with promoting the economic welfare of their citizens, many of whom are, of course, voters. Many governments offer incentives to firms to induce them to locate new facilities in the governments' jurisdictions. Governmental incentives that can be an important catalyst for FDI include reduced utility rates, employee training programs, infrastructure additions (such as new roads and railroad spurs), and tax reductions or tax holidays. Often MNCs benefit from bidding wars among communities eager to attract the companies and the jobs they bring. For instance, the Kentucky Economic Development Finance Authority agreed to provide Toyota \$145 million in tax concessions in return for the company investing \$531 million to expand the capacity of its Georgetown, Kentucky, assembly facility. The new investments will allow Toyota to build 60,000 new Lexus ES sedans starting in 2015, creating 750 new jobs at the site.²¹

In Practice

- FDIs can be motivated by supply, demand, and political factors.
- Countries often provide economic development incentives to encourage FDI and the jobs that FDI creates.

For further consideration: Do you think that providing economic development incentives is a wise use of government revenues?

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CHAPTER REVIEW

Summary

International trade is an important form of international business—\$22.8 trillion of goods and services were traded among residents of different countries in 2012. International trade affects domestic economies both directly and indirectly. Exports stimulate additional demand for products, thus generating income and employment gains. Imports lower consumer prices and pressure domestic firms to become more efficient and productive.

Because of the importance of trade to businesses and governments worldwide, scholars have offered numerous explanations for its existence. The earliest theories, such as absolute advantage, comparative advantage, and relative factor endowments, relied on characteristics of countries to explain patterns of exports and imports. These country-based theories help explain trade in undifferentiated goods such as wheat, sugar, and steel.

Coincident with the rise of MNCs, post–World War II research focused on firm-based explanations for international trade. Product life cycle, country similarity, and new trade theories focus on the firm as the agent for generating trade and investment decisions. These firm-based theories help explain intraindustry trade and trade in differentiated goods such as automobiles, personal care products, and consumer electronics goods.

International investment is the second major way in which firms participate in international business. International investments fall into two categories: FPI and FDI. FDI has risen in importance as MNCs have increased in size and number.

Dunning's eclectic theory suggests that FDI will occur when three conditions are met: (1) the firm possesses a competitive advantage that allows it to overcome the disadvantage of competing on the foreign firm's home turf; (2) the foreign location is superior to a domestic location; and (3) the firm finds it cheaper (because of high transaction costs) to produce the product itself rather than hire a foreign firm to do so. Numerous factors can influence a firm's decision to undertake FDI. Some FDI may be undertaken to reduce the firm's costs. Such supply factors include production costs, logistics, availability of natural resources, and access to key technology. The decision to engage in FDI may be affected by such demand factors as developing access to new customers, obtaining marketing advantages through local production, exploiting competitive advantages, and maintaining nearness to customers as they internationalize their operations. Political considerations may also play a role in FDI. Often firms use FDI to avoid host country trade barriers or to capture economic development incentives offered by host country governments.

Review Questions

- 6-1. What is international trade? Why does it occur?
- 6-2. Which kind of international trade is explained by the theory of comparative advantage?
- 6-3. What is intraindustry trade?
- 6-4. How useful are country-based theories in explaining international trade?
- 6-5. How do interindustry and intraindustry trade differ?
- 6-6. Explain the impact of the product life cycle on international trade and international investment.
- 6-7. What are the primary sources of the competitive advantages firms use to compete in international markets?
- 6-8. Illustrate the Porter's Diamond of national competitive advantages by selecting a country or a sector of your choice.
- 6-9. Why has FDI become so important in international business?
- 6-10. What are the three parts of Dunning's eclectic theory?
- 6-11. How do political factors influence international trade and investment?

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Questions for Discussion

- 6-12. In our example of France trading wine to Japan for clock radios, we arbitrarily assumed that the countries would trade at a price ratio of one bottle of wine for two \bigstar 6-15. Hyundai decided to build a new automobile assembly clock radios. Over what range of prices can trade occur between the two countries? (Hint: In the absence of trade, what is the price of clock radios in terms of wine in France? In Japan?) Does your answer differ if you use Table 6.2 instead of Table 6.1?
 - 6-13. In the public debate over ratification of the North American Free Trade Agreement, Ross Perot said he heard a "giant sucking sound" from U.S. jobs headed south because of low wage rates in Mexico. Using the theory of comparative advantage, discuss whether Perot's fears were valid.
- ★ 6-14. Why is intraindustry trade not predicted by countrybased theories of trade?
 - plant in Alabama.
 - a. What factors do you think Hyundai considered in selecting Alabama as the site for the factory?
 - b. Who benefits and who loses from the new plant in Alabama?
 - c. Is the firm's decision to build the new plant consistent with Dunning's eclectic theory?
 - 6-16. Why are clusters established, and why are they important in international trade? Illustrate you answer with examples.

Building Global Skills

The U.S. market for computers is dominated by domestic firms such as Dell, Hewlett-Packard, and Apple. The U.S. market for consumer electronics is dominated by Japanese firms and brands such as Sony, JVC, Panasonic, Mitsubishi, and Toshiba. However, the U.S. automobile market includes both domestic firms such as Ford and General Motors and formidable Japanese competitors such as Toyota and Honda.

Your instructor will divide the class into groups of four or five and assign each group one of the three industries just noted. To begin, discuss within your group your individual views on why different patterns exist for these industries.

Next, analyze the industry assigned to your group from the standpoint of each country-based and firm-based theory of international trade discussed in this chapter. Try to agree on which theory is the best predictor and which is the worst predictor of reality for your specific industry.

Now reconvene as a class. Each group should select a spokesperson. Each spokesperson should indicate the industry

that the person's group discussed and identify the best and worst theories selected. Note the points on which the groups who analyzed the same industries agree.

Finally, separate again into your small groups and discuss the areas of common disagreements. Also discuss the following questions:

- 6-17. Do some theories work better than others for different industries? Why?
- 6-18. Discuss one of the patterns presented in the initial paragraph with reference to a specific industry.
- 6-19. Do the same theories work as well in making predictions for those industries?
- 6-20. Based on what you know about the Japanese market, decide whether the same pattern of competitiveness that exists in the United States for the computer, consumer electronics, and automobile industries also holds true for the Japanese market. Why or why not?

CLOSING CASE The Growing Trade in Growing Grapes

Wine is one of mankind's oldest and most important industries. Archaeological evidence of wine production dates back to 6000 B.C.E. Hieroglyphics from 3000 B.C.E. depict Egyptians enjoying celebratory cups of wine. The Bible records Jesus' first miracle, turning water into wine at the wedding feast at Cana.

Today, some 18.5 million acres of land are devoted to vineyards, which yield 26 billion liters of wine annually.

The EU produces about 60 percent of this output, with France, Italy, and Spain accounting for the bulk of the EU's production. The United States, Argentina, and Australia are the largest non-European producers.

Until the 1980s, French vineyards were the dominant force in the global wine trade, with Italy, Spain, and Germany trailing behind them. These Old World producers benefitted from centuries of tradition and their reputations

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- 6-23. Should the French government relax its AOC system, allowing French vintners to expand the size of their chateâux to capture economies of scale? Why or why not?
- 6-24. Should the U.S. government adopt an AOC system to ensure the quality of U.S. wines destined for export markets?
- 6-25. "Bottle shops"—small retail outlets specializing in selling fine wines—might purchase a case or two of a specific wine when placing an order. (A case typically consists of a dozen 750-milliliter bottles.) Buyers for large multistore firms such as Tesco or Walmart often order thousands of cases at a time. Which type of retailer is likely to specialize in Old World wines? In New World Wines? Give a reason for your answer.

Sources: Based on "China as a Vast Wine Market," *Wall Street Journal*, March 25, 2013; p. B6; "The Future of French Wine: Overcoming 'Terroirisme' and Stagnation," *Knowledge@Wharton*, January 2, 2013; WWTG Vini-Viticultural Data, World Wine Trade Group, November 2012; Kym Anderson, "The Southern Hemisphere and Global Wine Markets to 2030: Case Study of Australia," Giannini Foundation of Agricultural Economics, University of California; Kym Anderson and Glyn Wittwer, "Modelling the impact of exchange rate movements on the world's wine markets, 2007–2011," Wine Economics Research Centre Working Paper No. 0312, November 2012, University of Adelaide; James Simpson, *Creating Wine* (Princeton University Press: Princeton, 2011); Kym Anderson and S. Nelgen, *Global Wine Markets, 1961 to 2009: A Statistical Compendium* (Adelaide: University of Adelaide Press, 2011); "Wine: World Markets and Trade," U.S. Department of Agriculture, Foreign Agricultural Service, April 2010.

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- 6-26. Discuss the strengths and weaknesses of the country-based trade theories and the firm-based trade theories.
- 6-27. What are the primary factors that affect FDI?
- 6-28. Mymanagementlab Only-comprehensive writing assignment for this chapter.

Endnotes

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- **13.** "Intel pushes chip production deep into China's hinterland," *Wall Street Journal*, May 23, 2006, p. B1.