CHAPTER 8

Multinational Corporations in the Global Economy

Multinational corporations highlight—in a very concentrated fashion—the tension that arises when economic production is organized globally while political systems remain organized around mutually exclusive national territories. Multinational corporations often generate tension because they extend managerial control across national borders. This managerial control enables firms based in one country to make decisions about how to employ resources located in a foreign country. Contemporary discussion surrounding the emergence of Chinese firms as a major source of foreign investment in sub-Saharan African economies illustrates these tensions. While African governments have generally welcomed the gains that Chinese investment in infrastructure, natural resources, and manufacturing brings to their societies, many local observers have raised concerns about how these Chinese firms treat African workers, and safeguard the environment. A major American newspaper even went so far as to title a long story about Chinese corporate investment in Africa, “Is China the World’s New Colonial Power” (Larmer 2017)? Though investment by Chinese firms raises additional questions about the possibility of state control of these investments, this additional dimension sharpens the issue rather than creating it.

Because multinational corporations operate simultaneously in national political systems and global markets, they have been the subject of considerable controversy among governments and among observers of the international political economy. Some consider multinational corporations to be productive instruments of a liberal economic order: multinational corporations ship capital to where it is scarce, transfer technology and management expertise from one country to another, and promote the

efficient allocation of resources in the global economy. Others consider multinational corporations to be instruments of capitalist domination: multinational corporations control critical sectors of their hosts' economies, make decisions about the use of resources with little regard for host-country needs, and weaken labor and environmental standards. About all that these two divergent perspectives agree on is that multinational corporations are primary drivers of, and beneficiaries from, globalization.

This chapter and the next examine the economics and the politics of multinational corporations (MNCs). This chapter focuses on a few of the core economic issues concerning these geographically far-reaching organizations. The first section provides a broad overview of MNCs in the global economy. We define what MNCs are, briefly examine their origins and development, and then examine their rapid growth over the last 30 years. The second section examines standard economic theory developed to explain the existence of MNCs. This theory will both deepen our understanding of the differences between MNCs and other firms and help us understand when we are likely to see MNCs operating and when we are likely to see national firms. The final section examines the impact of MNCs on the countries that host their foreign investments. We look first at the potential benefits that MNCs can bring to host countries and then examine how MNC activities sometimes limit the extent to which host countries are able to realize those benefits.

MULTINATIONAL CORPORATIONS IN THE GLOBAL ECONOMY

For many people, a multinational corporation and a firm that engages heavily in international activities are one and the same thing. Yet, an MNC is more than just a firm that engages in international activities, and many firms that engage heavily in international activities are not MNCs. The standard definition of an MNC is a firm that "controls and manages production establishments—plants—in at least two countries" (Caves 1996, 1). In other words, MNCs place multiple production facilities in multiple countries under the control of a single corporate structure.

The preceding definition does not capture the full range of MNC activities, however. MNCs are engaged simultaneously in economic production, international trade, and cross-border investment. Consider, for example, the U.S.-based company General Electric (GE), which is regularly ranked among the world's largest MNCs. GE controls some 250 plants located in 26 countries in North and South America, Europe, and

Asia. Although production in these facilities is obviously important, the ability to engage in international trade is equally critical to GE's success. Many of the goods GE produces cross national borders, either as finished consumer goods or as components for other finished products. Washers, dryers, and microwave ovens that GE produces in Asia and Latin America, for example, are sold in the United States and Europe. To create this global production and trade network, GE has had to make many cross-border investments. Each time that GE establishes a new production facility or upgrades an existing facility in a foreign country, it invests in that country. MNCs are thus also an important source of foreign capital for the countries that host their affiliates. Thus, even though GE certainly controls and manages factories in at least two countries, this does not describe the full range of GE's international activities. Like all MNCs, GE engages simultaneously in production, trade, and cross-border investment.

MNCs are not recent inventions. They first emerged as significant and enduring components of the international economy during the late nineteenth century. This first wave of multinational businesses was dominated by Great Britain, the world's largest capital-exporting country in that century. British firms invested in natural resources and in manufacturing within the British Empire, the United States, Latin America, and Asia. In 1914, British investors controlled almost half of the world's total stock of foreign direct investment, and multinational manufacturing was taking place in a large number of industries, including chemicals, pharmaceuticals, the electrical industry, machinery, automobiles, tires, and processed food (Jones 1996, 29–30). American firms began investing abroad in the late nineteenth century. Singer Sewing Machines became the first American firm to create a permanent manufacturing facility abroad when it built a plant in Glasgow, Scotland, in 1867 (Wilkins 1970, 41–42). By the 1920s, the United States was overtaking Britain as the world's largest source of foreign direct investment (see Jones 1996).

Although MNCs are not a recent innovation, what is novel is the rate at which firms have been transforming themselves into MNCs. We can see the unprecedented growth of MNCs in two different sets of statistics. The first tracks the number of MNCs operating in the global economy. In 1969, just at the tail end of the period of American dominance, there were only about 7,300 MNC parent firms operating in the global economy (Gabel and Bruner 2003). By 1988, 18,500 firms had entered the ranks of MNCs, an impressive growth in 20 years. During the next 20 years, however, the number of MNCs operating in the global economy more than quadrupled,

rising to more than 100,000 parent firms by 2010. Together, these parents control almost 900,000 foreign affiliates. Thus, in just over 40 years, the number of firms engaged in international production has increased about elevenfold.

The second set of statistics tracks the growth of foreign direct investment over the same period. **Foreign direct investment** (FDI) occurs when a firm based in one country builds a new plant or a factory, or purchases an existing one, in a second country. A national corporation thus becomes an MNC by making a foreign direct investment. As Table 8.1 illustrates, the total volume of foreign direct investment has grown dramatically since 1990. During the late 1980s, cross-border FDI outflows equalled about $180 billion per year. The figure more than doubled during the 1990s and then doubled again during the first decade of the twenty-first century. Between 2010 and 2016 it averaged about $1.45 trillion per year. As a consequence, the world's stock of FDI, the total amount of foreign investment in operation, has grown from $693 billion in 1980 to $27 trillion in 2016 (United Nations Conference on Trade and Development 2017, 226). The last 30 years have thus brought a dramatic acceleration of the number of firms that are internationalizing their activities.

TABLE 8.1

Foreign Direct Investment Outflows, 1990–2016 ($U.S. Billions)

	1990–1999	2000–2009	2010–2016
World	413.8	1,100.0	1,435.7
Europe	244.2	609.9	482.8
North America	99.8	248.7	369.2
Africa	1.9	11.2	26.5
Asia	33.6	121.8	341.6
Latin America and the Caribbean	4.4	17.7	34.1
Transition Economies	1.1	23.0	49.3

Source: United Nations Conference on Trade and Development, 2017.

As the number of MNCs has increased, the role that they play in the

global economy has likewise gained in importance. The United Nations (UN) estimates that MNCs currently account for about a third of global exports (roughly $6.8 trillion in 2016), and much of this is intrafirm trade—that is, trade that takes place between an MNC parent and its foreign affiliates. MNCs and their affiliates employ some 82 million people worldwide (UNCTAD 2017, 26). Much of this activity is concentrated in a relatively small number of firms. The 100 largest MNCs account for more than 9 percent of the total foreign assets controlled by all MNCs, for 16 percent of all MNC sales, and for 11 percent of all MNC employment (UNCTAD 2009, xxi). Together, these 100 firms account for about 4 percent of world gross domestic product (GDP). MNCs thus play an important role in the contemporary global economy, a role that has grown at a rapid pace during the last 30 years.

Although MNCs have a global reach, most of their activities are concentrated in Europe, North America, and (increasingly) in East Asia. We can see just how concentrated MNC operations are by looking at some statistics on the nationality of parent firms and on the global distribution of FDI flows. Ninety-one of the 100 largest MNCs are headquartered in the United States, Western Europe, or Japan, and about 73 percent of all MNC parent corporations are based in advanced industrial countries (see Table 8.2). The advanced industrialized countries historically have been the largest suppliers of FDI as well. During most of the 1980s, the United States, Western Europe, and Japan together supplied about 90 percent of FDI (see Table 8.1). Their share fell to about 80 percent between 1990 and 2009 and then to 60 percent between 2010 and 2016. The biggest underlying change that explains this decrease in developed countries' share has been the emergence of Asian MNCs as important foreign investors.

The advanced industrialized countries and East Asia are also the largest recipients of the world's FDI. Until the late 1980s, Western Europe and the United States regularly attracted a little more than three-quarters of the world's total FDI inflows each year. This share fell to about two-thirds of total inflows during the 1990s. The share of inflows that the developed world captures has continued to fall—to an average of 60 percent of the total between 2000 and 2009 and then to slightly less than half of total inflows during the current decade. Asia was on the opposite side of this change, as its share of total inflows rose from 18 percent to 28 percent between 1990 and 2016. Consequently, Asia is now host to 55 percent of all foreign affiliates that MNCs have established in the global economy. Thus, whereas historically most MNC activities have involved American

and Japanese firms investing in Europe, European and Japanese firms investing in the United States, and American and European firms investing in Japan, over the last 25 years we see developing Asia becoming an increasingly important player as a source of and host to multinational corporation activities.

TABLE 8.2

Parent Corporations and Affiliates by Region, 2010

	Parent Corporations Based in the Economy	Foreign Affiliates Based in the Economy
Developed Economies	73,144	373,612
European Union	47,455	310,074
United States	9,692	27,251
Japan	4,543	2,948
Other Developed Economies	3,593	13,472
Developing Economies	30,209	512,531
Africa	621	6,673
Latin America and the Caribbean	4,406	21,634
Asia	25,148	483,715
Southeast Europe and the CIS	433	5971

Source: United Nations Conference on Trade and Development, "World Investment Report 2011, Web Table 34," *http://unctad.org/Sections/dite_dir/docs/WIR11_web%20tab%2034.pdf*.

MNC activities in other regions have also increased during the last 30 years. Latin America and the Caribbean saw inward FDI increase from an average of $38 billion per year during the 1990s to $172 billion per year in the current decade (see Table 8.3). These investments are heavily concentrated in a small number of economies in the region. Over the last

decade, Brazil alone attracted between 40 and 50 percent of all investment in the region. Mexico attracted (on average) another 20 percent of the total inward investment. Africa has also experienced a dramatic increase in foreign direct investment. Indeed, average annual inflows to Africa increased ten-fold between the 1990s and the current decade, rising from $6.6 billion per year to $67 billion per year. During the current decade, Angola has received the largest single share of these investment flows, capturing 22 percent of the total inflows over the period. Most of this investment has been directed to Angola's oil industry. Egypt and Nigeria also attract a significant share of inward investment. Inward investment increased in the transition economies also, and here the inflows are heavily concentrated in Russia (50 percent of the total on average since 2010) and Kazakhstan (15–20 percent of the total since 2010). Thus, MNC investment in Latin America, Africa, and the transition economies has increased substantially during the last 20 years, but the majority of this investment has been directed to a small handful of countries. And in contrast to Asian economies, these regions have not increased their share of the world's FDI.

TABLE 8.3

Foreign Direct Investment Inflows, 1990–2016 ($U.S. Billions)

	1990–1999	2000–2009	2010–2016
World	397.6	1,095.2	1,550.7
Europe	167.3	455.0	449.6
North America	99.7	215.5	293.5
Africa	6.6	38.0	67.3
Asia	70.2	224.7	440.8
Latin America and the Caribbean	37.6	81.4	172.1
Transition economies	4.0	42.8	64.9

Source: United Nations Conference on Trade and Development, 2017.

The last 30 years also have seen some emerging market countries become home bases for MNC parent firms. To date, however, this

development has been limited to a small number of countries, such as Hong Kong, China, South Korea, Singapore, Taiwan, Venezuela, Mexico, and Brazil. Sixty of the top 100 MNCs from developing countries are based in Southeast and East Asia. Another six are based in India. Most of these developing-world MNCs are considerably smaller than the MNCs based in the advanced industrialized world. Only nine developing-country MNCs ranked among the world's 100 largest MNCs in 2017. And as a group, the 100 largest MNCs from developing countries control a combined $1.7 trillion of foreign assets, only one-fifth the value of the foreign assets controlled by the world's 100 largest MNCs (UNCTAD 2017). Even though MNCs based in developing countries remain small relative to the firms based in the U.S. and the EU, the emergence of these MNCs nonetheless constitutes a significant change in the global economy. It indicates that, for the first time in history, some emerging economies are shifting from a position in which they are only the host to foreign MNCs to a position in which they are both host of foreign firms and home to domestic MNCs.

The rapid growth of MNCs during the last 30 years has pushed these firms into the center of the debate about globalization. Indeed, practically every aspect of globalization has been linked to the activities of MNCs. Ross Perot, for example, claimed during his unsuccessful bid for the presidency in 1992 that the North American Free Trade Agreement (NAFTA) would produce a "giant sucking sound" as American MNCs shifted jobs from the United States to their affiliates located in Mexico. Other critics of globalization claim that MNC affiliates based in developing countries are sweatshops engaged in the systematic exploitation of workers in those countries. Still others argue that the ability of MNCs to move production wherever they want is gradually eroding a broad range of government regulations designed to protect workers, consumers, and the environment. We will examine these arguments in greater detail in Chapter 16. For our purposes here, it is sufficient to note that criticism of MNC activities has emerged from the growing sense that the last 30 years have seen a fundamental change in the nature of corporate behavior within the global economy. Falling trade barriers and improvements in communications technology have made it substantially easier for firms to internationalize their activities. Firms have responded to these changes by internationalizing at historically unprecedented rates.

ECONOMIC EXPLANATIONS FOR

MULTINATIONAL CORPORATIONS

One might wonder why all of the economic transactions that occur between MNC parent firms and their foreign affiliates are not simply handled through the market. Indeed, the prevalence of MNCs in the contemporary international economy is puzzling to neoclassical economists. When the GAP or the Limited acquire clothes from producers in Bangladesh, they handle most of these transactions through the market. They sign contracts with locally owned Bangladeshi firms that produce clothes and then sell them to the retailer. The GAP and the Limited do not own the firms that produce their clothes. In other instances, however, almost identical transactions are taken out of the market. When Volkswagen decided to assemble some of its cars in Mexico, it could have signed contracts with locally owned Mexican firms, which then could have produced components that met Volkswagen's specifications; assembled them into Jettas, Beetles, and Golfs; and sold the finished cars to Volkswagen. Volkswagen, however, didn't opt for this market-based approach, but instead built an assembly plant in Mexico. Volkswagen thus took the economic transactions that would otherwise have taken place between suppliers of components, assemblers, and corporate headquarters out of the market and placed them under the sole control of Volkswagen headquarters. The rapid growth of MNCs implies that an increasing number of firms have opted to take their international transactions out of the market and to internalize them within a single corporate structure. Why have they done so?

In finding an answer to this puzzle, we deepen our understanding of how MNCs are something more distinctive than simply "large firms." Many MNCs *are* large, but what truly distinguishes them from other firms is the fact that they organize and manage their international activities very differently than other firms do. A firm's decision about whether to conduct international transactions through the market or instead to internalize these transactions inside a single corporation reflects some specific characteristics of the economic environment in which it operates. In conceptualizing how this environment shapes the firm's decision, economists have placed the greatest emphasis on the interaction between locational advantages and market imperfections.

Locational Advantages

As a first step, we need to understand the factors that encourage a firm to internationalize its activities—that is, what factors determine when a firm

will stop sourcing all of its inputs and selling all of its output at home and begin acquiring its inputs or selling a portion of its output in foreign markets? At a very broad level, it is obvious that a firm will internationalize its activities when it believes that it can profit by doing so. **Locational advantages** derive from specific country characteristics that provide such opportunities. Historically, locational advantages have been based on one of three specific country characteristics: a large reserve of natural resources, a large local market, and opportunities to enhance the efficiency of the firm's operations. A firm based in one country will internationalize its activities in an attempt to profit from one of these characteristics in a foreign country.

Locational advantages in **natural-resource investments** arise from the presence of large deposits of a particular natural resource in a foreign country. The desire to profit from the extraction of these natural resources was perhaps the earliest motivation for international activities. The American copper firms Anaconda and Kennecott, for example, made large direct investments in mining operations in Chile in order to secure supplies for production in the United States. American and European oil companies have invested heavily in the Middle East because the countries of that region hold so large a proportion of the world's petroleum reserves. The desire to gain access to natural resources remains important today. Indeed, petroleum and mining together account for 17 of the 100 largest MNCs currently in operation.

Locational advantages for **market-oriented investments** arise from large consumer markets that are expected to grow rapidly over time. Firms looking to sell their products in foreign markets clearly prefer countries with large and growing demand to those with small and stagnant demand. In addition, the degree of industry competition within the host country is important. The less indigenous competition there is in a particular foreign market, the easier it will be for the MNC to sell its products in that market. Finally, the existence of tariff and non-tariff barriers to imports is another important consideration for this type of investment. By investing inside the country, firms essentially jump over such barriers to produce and sell in the local market. Countries that have large and fast-growing markets, with a relatively small number of indigenous firms in the particular industry, and that are sheltered from international competition represent attractive opportunities for market-oriented MNC investment.

Much of the cross-border investment in auto production within the advanced industrialized world fits into this category. During the 1960s, many American automotive MNCs made direct investments in the EU to

gain access to the emerging common market. During the 1980s and early 1990s, Japanese and German automotive MNCs, such as Toyota, Nissan, Honda, BMW, and Mercedes, built production facilities in the United States in response to the emergence of voluntary export restraints (VERs) that limited auto imports. Like petroleum and mining, the auto industry is heavily represented among the world's largest MNCs, accounting for 12 of the 100 largest MNCs. Of course, the desire to gain access to foreign markets has not been limited to the auto industry but has been an important motivation for much FDI in manufacturing as well.

Finally, locational advantages in **efficiency-oriented investments** arise from the availability at a lower cost of the factors of production that are used intensively in the production of a specific product. In these efficiency-oriented investments, parent firms allocate different stages of the production process to different parts of the world, matching the factor intensity of a production stage to the factor abundance of particular countries. In computers, electronics, and electrical equipment, for example, the human and physical capital-intensive stages of production, such as design and chip fabrication, are performed in the capital-abundant advanced industrialized countries, whereas the more labor-intensive assembly stages of production are performed in labor-abundant developing countries. Locational advantages thus arise from factor endowments. When the contemplated investment is in low-skilled, labor-intensive production, labor-abundant countries have obvious advantages over labor-scarce countries. When the contemplated investment draws heavily upon advanced technology, the availability of a pool of highly trained scientists is important. American firms in the computer industry, for example, have opted to base many of their overseas activities in East Asian countries, where the average skill level is very high, rather than in Latin America, where, on average, skill levels are lower.

Locational advantages thus provide the economic rationale for a firm's decision to internationalize its activities. These advantages can arise from a country's underlying comparative advantage, as in mineral deposits or abundant labor. They can also be a product of government policies, as in the existence of high tariffs or the creation of a reliable economic infrastructure. Whatever the underlying source, locational advantages create a compelling motivation for a firm based in one country to engage in economic transactions with a foreign country. Locational advantages thus help us understand why a firm elects to engage in economic transactions with one country rather than another, for some countries offer potential benefits from cross-border exchange, whereas others do not.

Market Imperfections

Locational advantages help us understand why some firms opt to internationalize their activities, but they do not help us understand why firms sometimes choose to take the resulting transactions out of the market and place them within a single corporate structure. Why didn't American firms simply buy copper from Chilean firms, rather than establish their own mining operations in Chile? Why didn't American computer firms simply buy semiconductors and other components from indigenous East Asian firms, rather than create their own chip fabrication factories in East Asia? Why didn't American auto firms simply export to the EU and Brazil, rather than build assembly plants in those countries?

To understand why firms sometimes take their transactions out of the market and place them under the control of a single corporate structure, we need to examine the impact of market imperfections. A market imperfection arises when the price mechanism fails to promote a welfare-improving transaction. In the global economy, this means that, under certain conditions, firms will be unable to profit from an existing locational advantage unless they internalize the international transaction. Two different market imperfections have been used to understand two different types of internalization: horizontal integration and vertical integration.

Horizontal integration occurs when a firm creates multiple production facilities, each of which produces the same good or goods. In the international economy, horizontally integrated MNCs produce the same product in multiple national markets. Auto producers are a good example. Ford, General Motors, Volkswagen, and the major Japanese auto producers each produce essentially the same line of cars in factories located in the United States, Western Europe, and Japan. Firms integrate horizontally when a cost advantage is gained by placing a number of plants under common administrative control (Caves 1996, 2). Such cost advantages most often arise when intangible assets are the most important source of a firm's revenue.

An **intangible asset** is something whose value is derived from knowledge or from "a set of skills or repertory routines possessed by the firm's team of human (and other) inputs" (Caves 1996, 3). An intangible asset can be based on a patented process or design, or it can arise from "know-how shared among employees of the firm" (Caves 1996, 3). Intangible assets often give rise to horizontally integrated firms because those assets are difficult to sell or license to other firms at a price that

accurately reflects their true value. In other words, markets will fail to promote exchanges between a willing seller of an intangible asset and a willing buyer. The market failure arises because owners of knowledge-based assets confront what has been called the "fundamental paradox of information": "[The] value [of the information] for the purchaser is not known until he has the information, but then he has in effect acquired it without cost" (Teece 1993, 172). In other words, in order to convey the full value of an intangible asset, the owner must reveal so much of the information upon which the asset's value is based that the potential purchaser no longer needs to pay to acquire the asset. If the owner is unwilling to reveal that information, potential buyers will be unsure of the asset's true value and will therefore be reluctant to pay for the asset.

Suppose, for example, that I have developed a production process that reduces by one-half the cost of manufacturing cars. This innovation is purely a matter of how the production process is organized and managed, and has nothing to do with the machines and technology actually used to produce cars. I try to sell this knowledge to Ford Motor Company, but, in our negotiations, Ford's board of directors is skeptical of my claim that I can cut the firm's costs by 50 percent. The board members insist that I disclose fully how I will accomplish this before they will even consider purchasing my knowledge, and they want specifics. Once I disclose all of the details, however, they will know exactly what changes they need to make in order to realize the cost reductions. As soon as they have this knowledge, they have no reason to pay me to acquire it. Like all other owners of intangible assets, I will receive less than my asset's true worth when I sell it to another firm.

Such market failures create incentives for horizontal integration. Suppose an individual owns an intangible asset that can generate more revenue than is currently being earned, because demand for the goods produced with the use of this asset will be greater than can be met from the existing production facility. How can the owner earn the additional revenue that the asset will generate? The only way he or she can do so is to create additional production sites—that is, to integrate horizontally and allow each of these facilities to make use of the intangible asset. Because the same firm owns all of the production sites, it can realize the full value of its intangible asset without having to try to sell it in an open market. Horizontal integration, therefore, internalizes economic transactions for intangible assets.

Vertical integration refers to instances in which firms internalize their transactions for intermediate goods. An intermediate good is an output of

one production process that serves as an input into another production process. Standard Oil, which dominated the American oil industry in the late nineteenth century, is a classic example of a vertically integrated firm. Standard Oil owned oil wells, the network through which crude oil was transported from the well to the refinery, the refineries, and the retail outlets at which the final product was sold. Thus, each stage of the production process was contained within a single corporate structure. Why would a single firm incorporate the various stages of the production process under a single administrative control, rather than purchase its inputs from independent producers and sell outputs to other independent firms, either as inputs into additional production or as final goods to independent retailers?

To explain the internalization of transactions within a single vertically integrated firm, economists have focused on problems caused by specific assets. A **specific asset** is an investment that is dedicated to a particular long-term economic relationship. Consider a hypothetical case of a shipowner and a railroad. The shipowner would like to transport the goods he delivers to his dock to market by rail. He contacts the railroad and asks that a rail spur be built from the main line down to the dock so that he can offload goods directly onto railcars. If the railroad agrees to build the spur, then this spur will be dedicated to the transport of that particular shipowner's goods to the main rail line. In other words, this rail spur is an asset that is specific to the ongoing relationship between the shipowner and the railroad owner.

Specific assets create incentives for vertical integration because it is difficult to write and enforce long-term contracts. Returning to our example of the shipowner and the railroad, suppose that, under the terms of the initial agreement, the shipowner agreed to pay the railroad a certain fee per ton to carry goods to market once the spur was built. This initial fee made it profitable for the railroad to build the spur. Once the spur has been built, however, the ship-owner has an incentive to renegotiate the initial contract to achieve a more favorable shipping rate. The shipowner recognizes that, because the railroad must incur costs if it decides to reallocate the resources it used to build the spur, the railroad owner will be better off accepting renegotiated terms than refusing to carry the goods. Thus, the existence of a specific asset creates possibilities for opportunistic behavior once the investment has been made: one party in the long-term relationship can take advantage of the specific nature of the asset to extract a larger share of the value from the transaction (Teece 1993, 166–169; Williamson 1985).

The recognition that asset specificity creates incentives for opportunistic behavior after the investment has been made can cause economic actors to refuse to make investments. In our example, the railroad owner will recognize that the shipowner has an incentive to behave opportunistically after the spur is built; therefore, quite rationally, the railroad owner will refuse to build the spur. As a result, a mutually beneficial transaction between the shipper and the railroad will go unrealized.

By incorporating the two parties to the transaction within the same ownership structure, vertical integration eliminates the problems arising from specific assets. If the shipowner also owned the railroad (or vice versa), there would be little incentive for opportunistic behavior once the rail spur had been built. The shipping division of this now vertically integrated firm could pay the firm's railroad division a smaller fee for transporting its goods, but this would simply shift revenues and expenditures between units of the same firm; the firm's overall bottom line would remain constant. By internalizing transactions involving specific assets, therefore, vertical integration enables welfare-improving investments that would not otherwise be made.

Firms thus internalize their transactions—take them out of the market and place them under the control of a single corporate structure—in response to market imperfections. When firms earn a substantial share of their revenues from intangible assets, they face strong incentives to integrate horizontally—that is, to create multiple production facilities all controlled by a single corporate headquarters. When firms earn a substantial share of their revenues from specific assets, they face strong incentives to integrate vertically—that is, to place all of the various stages of production under the control of a single corporate structure. In both cases, the incentive to take transactions out of the market and place them within a single corporate structure arises from the inability of the market to accurately price the value of the asset that generates the firm's income.

Locational Advantages, Market Imperfections, and Multinational Corporations

Although locational advantages and market imperfections often occur independently of each other, we expect to see MNCs—firms that internalize economic transactions across national borders—when both factors are present. Locational advantages tell us that cross-border activity will be profitable, whereas market imperfections tell us that the firm can take advantage of these opportunities only by internalizing the transactions

within a single corporate structure.

Table 8.4 illustrates how the interaction between locational advantages and market imperfections shapes the kinds of firms we expect to see in the global economy. When locational advantages and intangible assets are both present, we expect to find horizontally integrated MNCs that have undertaken foreign investment to gain market access. Horizontally integrated MNCs are therefore often present in manufacturing sectors. FDIs by auto producers in the markets of other advanced industrial countries are perhaps the prototypical example of this type of MNC. In the auto industry, intangible assets arising from knowledge about the production process are of great value to individual firms, but are hard to price accurately in the market. Together with important locational advantages—especially the availability of large local markets—intangible assets induce foreign investment. Western Europe and the United States offer large markets for automobiles, and governments in the EU and in the United States have used VERs to restrict imports from foreign auto producers. The combination of market imperfections and locational advantages in the auto industry therefore has led to considerable FDI by all of the major auto producers in the European and American markets.

When locational advantages combine with specific assets, we expect to find vertically integrated MNCs that have invested in a foreign country either to gain secure access to natural resources or to reduce their costs of production. The best example of firms investing to secure access to natural resources is found in the oil industry. An oil refinery must have repeated transactions with the firms that are drilling for oil. The refinery is highly vulnerable to threats to shut off the flow of oil, because an inconsistent supply would be highly disruptive to the refinery and its distribution networks. Thus, we would expect a high degree of vertical integration in the oil industry. This knowledge helps us understand why petroleum companies are so heavily represented in the world's 100 largest MNCs.

TABLE 8.4

Market Imperfections, Locational Advantages, and Multinational Corporations (MNCs)

	Market Imperfection	
	Intangible Assets	Specific Assets
Yes	Horizontally integrated MNC	Vertically integrated MNC

Locational Advantages		Market based	Natural resource based; Cost based
	No	Horizontally integrated domestic firm	Vertically integrated domestic firm

The best example of firms investing abroad to reduce the cost of production may be found in the factories built by auto producers in developing countries. The individual components involved in auto production are complex and specific to the final good: one cannot produce a Ford with parts designed for a Nissan. Thus, auto producers must have long-term relationships with their parts suppliers, and these relationships create incentives for vertical integration across borders. It is no surprise, therefore, that the auto industry also is heavily represented in the 100 largest MNCs.

More broadly, MNC investments that combine a quest for efficiency gains with specific or intangible assets have become an increasingly important element of multinational production over the last 20 years. These MNC investment patterns are often called **global value chains** (GVCs). A value chain "describes the full range of activities that firms and workers perform to bring a product from its conception to end use" (Gereffi and Fernandez-Stark 2016, 7). Such activities range from research, development, and design on the one end, to the manufacturing processes in the middle, through the wholesale distribution, marketing, retail sales, and support at the other end. A value chain becomes global when these various stages are allocated to different countries. In the ideal-typical GVC, a lead firm will distribute the stages of production globally in an attempt to realize efficiency gains by matching the factor intensivity of each stage of production with the factor abundance of the selected production locations. Stages that rely intensively on human capital, such as R&D and design, would be based in an advanced industrialized economy, the capital-intensive manufacturing activity would be done in a middle-income economy, and labor-intensive manufacturing and assembly would be allocated to low-income labor abundant economies. Marketing and post-sale services would be based in economies with an abundance of human capital.

Global value chains are most common in the consumer electronics and automotive industries. Apple products such as the iPhone are often used as examples of a fairly complex GVC in the consumer electronics industry. Apple is a MNC that has elements of vertical and horizontal integration

and also coordinates the activities of hundreds of independent suppliers and assemblers worldwide. Most of the research and design for Apple hardware and software occurs in Apple's campus in California (though it also owns an R&D facility in Austin, Texas, and in 2017 it announced plans to open new R&D facilities in China). At the other end of the chain, Apple retains considerable control of retail distribution via its Apple Stores as well as online sales. To manufacture its products, it coordinates an extensive global supply chain of independent contract manufacturing firms. It sources the hardware components—printed circuit boards, microprocessor chips, memory, storage devices, displays, cases, and so on, from hundreds of independent firms in Asia, the U.S., and Europe. These components are assembled into finished goods at two Foxconn factories in China and Brazil.

The rising importance of GVCs is transforming the nature of international trade. Fifty years ago, the goods and services that entered international trade were predominantly final consumption goods. Sixty years ago, for instance, Sony manufactured transistor radios in its factories in Japan and exported complete radios to the U.S. and Europe in large quantities. FDI often substituted for international trade as corporations created new overseas production sites from which to supply their overseas markets or supported trade by extracting raw materials. Today, in contrast as much as 60 percent of trade consists of intermediate goods and services rather than final goods (UNCTAD 2013, 122) while FDI increases trade as lead firms ever-more finely slice up and disperse their supply chains.

The matrix presented in Table 8.4 also points to those industries in which we would not expect to find a significant amount of MNC activity. When locational advantages exist, but there are neither intangible nor specific assets, we do not expect to find a significant amount of MNC activity. Instead, firms will prefer to purchase their inputs from independent suppliers and to sell their products through international trade, or they will prefer to enter into subcontracting arrangements with firms located in the foreign country and owned by foreign residents. Apparel production fits nicely into this category. Apparel production is a labor-intensive activity and is increasingly done in labor-abundant developing countries. The major retailers in the advanced industrialized world, such as the GAP and the Limited, rely heavily upon producers located in developing countries, but they rarely own the firms that produce the apparel they sell. Instead, they enter into contracting relationships with independent firms.

In sum, MNCs are more than just large firms. MNCs are firms that have

responded in predictable ways to the specific characteristics of the economic environment in which they operate. The creation of an MNC is most often the result of a corporate response to a locational advantage and a market imperfection. Locational advantages create incentives to extend operations across borders in order to extract natural resources, sell in foreign markets, or achieve cost reductions. Intangible and specific assets create incentives for firms to shift their economic transactions out of the market and into a single corporate structure. When locational advantages and market imperfections coexist, we expect to find MNCs—firms that have internalized transactions across national borders.

Multinational Corporations and Host Countries

Up to this point, we have focused exclusively on what MNCs are, where they operate, and why they are established. In doing so, we have neglected the impact of MNCs on the countries that host their affiliates. We conclude the chapter by looking at this important dimension of MNC activity. FDI creates a dilemma for host countries. On the one hand, FDI has the potential to make a positive contribution to the host country's economic welfare by providing resources that are not readily available elsewhere. On the other hand, because MNC affiliates are managed by decision makers based in foreign countries, there is no guarantee that FDI will in fact make such a contribution. The politics of host country—MNC relations, a topic that we explore in depth in the next chapter, revolves largely around governments' efforts to manage this dilemma. Here, we look at the benefits that FDI confers on host countries in theory, as well as at a few MNC practices that can erode these benefits.

MNCs can bring to host countries important resources that are not easily acquired otherwise. Three such resources are perhaps the most important. First, FDI can transfer savings from one country to another. Economic growth is dependent on investment in physical capital as well as in human capital. To invest, however, a society needs to save, and in the absence of some form of foreign investment, a society can invest only as much as it is able to save. Foreign investment allows a society to draw on the savings of the rest of the world. By doing so, the country can enjoy faster growth than would be possible if it were forced to rely solely on its domestic savings. Moreover, fixed investments—factories that are not easily removed from the country—are substantially more stable than financial capital flows and thus do not generate the boom and bust cycles we will examine in Chapter 14 and Chapter 15. In addition, because MNCs invest by creating domestic

affiliates, direct investment does not raise host countries' external indebtedness. Of the many possible ways that savings can be transferred across borders, direct investment might be the most stable and least burdensome for the host countries.

MNCs also can bring technology and managerial expertise to host countries. Because MNCs control intangible assets based on specialized knowledge, the investments they make in host countries often can lead to this knowledge being transferred to indigenous firms. In Malaysia, for example, Motorola Malaysia transferred the technology required to produce a particular type of printed circuit board to a Malaysian firm, which then developed the capacity to produce these circuit boards on its own (Moran 1999, 77–78). In the absence of the technology transfer, the indigenous firm would not have been able to produce the products.

Such technology transfers can generate significant positive externalities with wider implications for development (see Graham 1996, 123–130). **Positive externalities** arise when economic actors in the host country that are not directly involved in the transfer of technology from an MNC to a local affiliate also benefit from this transaction. If, for example, the Malaysian Motorola affiliate were able to use the technology it acquired from Motorola to produce inputs for other Malaysian firms at a lower cost than these inputs were available elsewhere, then the technology transfer would have a positive externality on the Malaysian economy.

MNCs can also transfer managerial expertise to host countries. Greater experience at managing large firms allows MNC personnel to organize production and coordinate the activities of multiple enterprises more efficiently than host-country managers can. This knowledge is applied to the host-country affiliates, allowing them to operate more efficiently as well. Indigenous managers in these affiliates learn these management practices and can then apply them to indigenous firms. In this way, managerial expertise is transferred from the MNC to the host country.

Finally, MNCs can enable host-country producers to gain access to marketing networks. When direct investments are made as part of a global production strategy, the local affiliates of the MNC and the domestic firms that supply these affiliates become integrated into a global marketing chain. Such integration creates export opportunities that would otherwise be unavailable to indigenous producers. The Malaysian firm to which Motorola transferred the printed circuit board technology, for example, not only wound up supplying Motorola Malaysia, but also began to supply components to 11 Motorola plants worldwide. These opportunities would not have arisen had the firm not been able to link up with Motorola

Malaysia.

MNCs provide these benefits at a price, however. To capture the benefits that MNCs offer, a country must be willing to allow foreign corporations to make decisions about how resources will be used in the host country. As long as foreign managers make decisions about how much capital and technology are transferred to the host country, about how the resources MNCs bring to the host country will be combined with local inputs, and about how the revenues generated by the local affiliate will be used, there will be some chance that a particular investment will not enhance, and may even detract from, the welfare of the host country.

MNCs can reduce, rather than increase, the amount of funds available for investment in the host country, as a result of a number of different practices. MNCs sometimes borrow on the host country's capital market instead of bringing capital from their home country. This practice crowds out domestic investment; that is, by using scarce domestic savings, the MNC prevents domestic firms from making investments. MNCs also often earn rents on their products and repatriate most of these earnings. Consequently, the excess profits wind up in the MNC's home country rather than remaining in the host country, where they could be used for additional investment.

In addition, MNCs typically charge their host-country affiliates licensing fees or royalties for any technology that is transferred. When the affiliates pay these fees, additional funds are transferred out of the host country to the MNC's home base. Finally, MNCs often require the local affiliate to purchase inputs from other subsidiaries of the same corporation. These internal transactions take place at prices that are determined by the MNC parent, a practice called transfer pricing. Because such transactions are internal to the MNC, the parent can set the prices at whatever level best suits its global strategy. When the parent overcharges an affiliate for the goods it imports from affiliates based in other countries and underprices the same affiliate's exports, revenues are transferred from the local affiliate to the MNC parent. Sometimes such transfers can be very large: an investigation revealed that Colombia paid $3 billion more for pharmaceutical imports through MNCs than it would have paid in market-based transactions. All of these practices reduce the amount of funds that are available to finance new projects in the host country. In extreme cases, MNCs might *reduce* the total amount of funds available for investment, rather than increase them.

An MNC might also drive established host-country firms out of business. Suppose an MNC enters an industry already populated by local

firms. Suppose also that the MNC controls technology or management skills that enable it to produce at a lower cost than the local firms. As the MNC affiliate's local production expands, the established local firms will begin to lose sales to this new low-cost competitor. Some of these businesses will eventually fail. The failure of the local final-good producers may have a secondary impact on local input suppliers. Local firms often acquire their inputs from local firms. In contrast, most MNCs source their inputs from global networks of suppliers. If the new MNC affiliate drives local firms out of business, then the demand for the inputs provided by local firms will fall. The local input suppliers will thus face serious pressure, and many of them will probably go out of business as well. Although such instances may be an example of a more efficient firm replacing less efficient competitors, the dynamic is one in which local firms are gradually replaced by foreign firms and local managers by foreign managers. If the transfer of skills and technology from foreign to local producers is one of the purported benefits of FDI, then a dynamic in which foreign firms drive local firms out of business suggests that very little technology transfer is occurring.

Technology transfers can be further limited by the incentive that MNCs have to maintain fairly tight control over technology and managerial positions. As we have seen, one of the principal reasons for MNC investment arises from the desire to maintain control over intangible assets. Given this desire, it is hard to understand why an MNC would make a large fixed investment in order to retain control over its technology, but then transfer that technology to host-country firms. The transfer of managerial expertise also may be limited because MNCs are often reluctant to hire host-country residents into top-level managerial positions. Thus, the second purported benefit of MNCs—the transfer of technology and managerial expertise—can be stymied by the very logic that causes MNCs to undertake FDI. If this happens, MNC affiliates will function like enclaves, failing to be tightly integrated into the rest of the host-country economy and never realizing any spillover effects.

Finally, the decisions by MNCs about how to use the revenues generated by their affiliates may bear no relationship to the host-country government's economic objectives. In a world in which governments cared little about the type of economic activity that was conducted within their borders, this would be of little consequence. But when governments use a wide variety of policy instruments to try to promote certain types of economic activity, whether it be manufacturing in a developing country or high-technology industries in an advanced industrialized country, foreign

control of these revenues can pose serious obstacles to government policy. If, for example, a country's export earnings derive entirely from copper exports, but an MNC controls the country's copper-mining operations, then decisions about how to use the country's foreign exchange earnings will be made by the MNC rather than by the government. Or, if the revenues generated by the local affiliate are sufficient to finance additional investment, decisions about whether this investment will be made in the host country or somewhere else and, if in the host country, then in which sector, are made by the MNC rather than by the government. In short, control by MNCs over the revenues generated by their affiliates makes it difficult for governments to channel resources toward the economic activities they are trying to encourage.

A Closer Look

Labor and Foreign Capital in the Developing World

During the past 25 years, the emergence of off-shoring and global value chains has drawn hundreds of millions of people into the global capitalist economy for the first time. China provides the most spectacular example of this process as estimates suggest that 155 million Chinese residents may have migrated from rural provinces to the industrializing coastal cities between the mid-1990s and 2010 (Chan 2013). And though the Chinese experience is unique in scale—the magnitude of the migration is the largest in human history—other emerging market countries have experienced identical flows. Vietnam and Bangladesh, for example, also experienced substantial internal migration as people abandoned farming in favor of manufacturing. These migrants thus provided the core labor force employed by western multinational corporations and their sub-contractors.

The incorporation of these new urban residents into global production networks raises concerns about how multinational corporations treat workers in developing societies. As we saw in Chapter 4, capital mobility may enable western firms to exploit lower labor standards common in many developing countries in ways that bring harm to indigenous workers. And some of the most serious instances of mistreatment are well known. The Taiwanese firm Foxconn, for instance, which produces Apple products under license in factories in China, has a record of substandard and dangerous working conditions, low wages, and other practices. In 2010, 14 Foxconn workers committed suicide in protest against poor conditions, and in

2012, 150 Foxconn workers threatened to commit suicide by jumping off the roof of a Foxconn factory. In Dhaka, Bangladesh, more than 1,127 people died when a building that hosted a number of garment factories producing for a variety of American retailers collapsed. In this instance, structural weaknesses in the building had been noticed prior to the collapse, but the factories continued to operate—thereby endangering more than 3,000 employees—in spite of these problems.

We might wonder whether the underlying problems that give rise to episodes such as Foxconn and Rana Plaza are common consequences of multinationalized production or whether instead they are exceptional occurrences. In particular, we might want to know whether labor rights—the right to organize into unions, to bargain collectively, and to strike—improve or deteriorate with the arrival of global production. We might also wonder if labor abuses—such things as exposing workers to hazardous conditions, low wages, extremely long hours, gender discrimination, and sexual harassment—are aggravated or lessened by participation in the global economy. It turns out, as two authorities on these issues remark, that the impact of global production on labor in the developing world is complex and depends upon the precise "way in which one's country, industry, or firm participates in the global economy" (Mosley and Singer 2015, 188).

Most generally, workers tend to have more rights and labor abuses are less frequent as the skill-level of the industry increases. Thus, labor-intensive apparel production and general simple assembly operations are characterized by the weakest labor rights and greatest frequency of abuse. Women are often the most exposed to these substandard practices because on the one hand women hold a disproportionate share of jobs in many low-skilled labor-intensive manufacturing jobs, and on the other hand the lack of regard for workers in general in some low-income societies is often reinforced by broader societal norms that deny equal rights to women. As a consequence, women (and especially young women) often bear the burden of labor mistreatment and lack the political rights needed to bring about change.

This general relationship is mediated by at least three other characteristics of multinational production. The first characteristic concerns the specific way that a local factory is connected to the global economy. Generally speaking, labor rights tend to improve when MNCs own the local manufacturing affiliates, and are typically weaker when these local affiliates are independently-owned firms that produce

goods under contract with multinational firms (see Mosley 2011; Mosley and Singer 2015). In addition, workers enjoy higher wages, better workplace conditions, and less workplace abuse of other types (such as sexual harassment, long hours without overtime pay) when their employers are affiliates of MNCs than when they work for locally owned firms. It is somewhat challenging to separate the effect of ownership structure on labor standards from the effect of sectoral characteristics because so much of the low-skilled labor performed in developing countries occurs through sub-contract rather than within MNC affiliates.

The second characteristic concerns the specific ways that host states insert themselves in the relationship between foreign capital and domestic labor. On the one hand, host governments might enact labor policies that help protect workers from abusive practices by global capital. In post-liberalization Latin America, for example, governments who were kept in office in part by support from labor had incentive to expand labors' rights vis-à-vis capital as well as social protections more generally. On the other hand, governments in less democratic regimes might be less inclined to align with or support domestic labor. More authoritarian regimes might have greater incentive to suppress labor unions in order to minimize the likelihood that an independent labor movement could organize into a viable political rival and to supply a compliant and complacent labor force that is attractive to potential foreign investors.

Finally, participation in international agreements might affect host country labor standards (see Berliner et al. 2015). As we saw in Chapter 4, the U.S. and the EU have increasingly included labor standards chapters in the free trade agreements they enter with developing countries. A number of recent empirical studies have found that U.S. free-trade agreements have a positive impact on labor standards in the developing country partners, while other studies have found that the EU has been able to influence labor standards in Eastern and Central Europe through the accession agreements it negotiates with these states as they seek EU membership.

Host countries therefore face a dilemma in their relationships with MNCs. On the one hand, MNCs can provide resources to host countries, including access to new sources of capital, innovative technologies, managerial expertise, and market linkages that are not available elsewhere.

On the other hand, because FDI extends foreign managerial control into the host country's economy, there is no guarantee that a particular investment will in fact yield the aforesaid benefits. An MNC might consume scarce local savings, replace local firms, refuse to transfer technology, and repatriate all of its earnings. This dilemma has led many to suggest that governments may need to play an active role in structuring the conditions under which MNCs operate within their economies. As we will see in the next chapter, much of the politics of MNCs revolve around government efforts to shape these conditions in order to extract as many benefits from MNCs that they can and to minimize the costs of ceding managerial control to foreign decision makers.

CONCLUSION

The last 30 years have seen rapid growth in the number of MNCs operating in the global economy. By 2008, the number of such corporations was 11 times the number in operation in the early 1980s. As that number has increased, the role these firms play in global production, trade, and cross-border investment has also increased. The activities of contemporary MNCs are heavily concentrated in the advanced industrialized countries. Most FDI in the global economy involves a firm based in one advanced industrialized country establishing a facility in another advanced industrialized country. Although MNCs have recently begun to shift more of their activities to the developing world, only a small number of developing countries have received substantial amounts of investment. It will take many more years of investment before the developing world's share of MNC activities approaches the share of the advanced industrialized countries.

MNCs are more than just large firms. They are firms that organize and manage their activities quite differently than traditional firms do. In particular, they have opted to remove many of their international transactions from the market and to place them within a single corporate structure. Thus, even though many firms engage in international activities, only a subset of these firms—those that own productive establishments in at least two countries—can be classified as MNCs. MNCs have opted for this distinctive organization structure because they face opportunities to profit from international exchange; but, because they earn a substantial share of their income from intangible and specific assets, they can capture these profits only by internalizing the associated transactions. Thus, the modern MNC has emerged as an organizational response to a specific

economic problem in the global economy.

Most analysts of MNC activities believe that FDI can benefit the host country as well as the investing firm. Such investments can transfer savings, technology, and managerial expertise to host countries, and can allow local producers to link into global marketing networks. None of these resources are readily available to host countries—especially developing host countries—unless they are willing to open themselves to MNC activity. Yet, opening a country to MNC activity does not guarantee that the benefits will be realized. MNCs are profit-making enterprises, and their activities are oriented toward that end and not toward raising the welfare of their host countries. Consequently, societies that host MNCs face a dilemma: they need to attract MNCs to capture the benefits that FDI can offer, but they need to ensure that activities by MNCs actually deliver those benefits. As we shall see in the next chapter, most of the politics of MNCs revolve around government efforts to manage this dilemma.

KEY TERMS

Efficiency-Oriented Investment
Foreign Direct Investment
Global Value Chains
Horizontal Integration
Intangible Asset
Locational Advantages
Market-Oriented Investment
Natural-Resource Investment
Positive Externalities
Specific Asset
Vertical Integration

SUGGESTIONS FOR FURTHER READING

For a good introduction to the economics of MNCS, see Richard E. Caves, *Multinational Enterprise and Economic Analysis*, 3rd edition (Cambridge: Cambridge University Press, 2007). Another excellent source is John H. Dunning, *Multinational Enterprises and the Global Economy*, 2nd edition (Cheltenham: Edward Elgar, 2008).

The best single source on the history of MNCs is probably Geoffrey Jones, *Multinationals and Global Capitalism: From the Nineteenth to the Twenty-First Century* (Oxford: Oxford University Press, 2005). The most comprehensive treatment of American MNCs is Myra Wilkins, *The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era*

to 1914 (Cambridge, MA: Harvard University Press, 1970).

For those interested in the impact of global capital on labor in developing countries, see Layna Mosley, *Labor Rights and Multinational Production* (Cambridge: Cambridge University Press, 2011) and Kimberly Ann Elliott, "Labor Standards," in K. A. Reinhert (ed.), *Handbook of Globalisation and Development* (Cheltenham: Edward Elgar, 2017: Chapter 11).