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# Multinational Activity in the Modern World

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# 1

# Multinational Activity in the Modern World

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> "The multinational corporation has become one of the most controversial economic and political institutions of our time. What international investment does to jobs, exports, prices, income distribution, access to raw materials, taxes, and market power is debated in host and home countries alike. To some observers, multinationals threaten the international economic and political system; to others, they stabilize international relations. In one view, they are engines of progress; in another, agents of exploitation."
>
> —From the foreword to *American Multinationals and American Interests* (1978)[1]

Multinational corporations are the global goliaths of modern times. These entities collectively are responsible for large portions of world production, employment, investment, international trade, research, and innovation. Although their economic impact is most pronounced in high-income countries, where their activities have been concentrated historically, their reach increasingly extends to every corner of the world. Decisions made by these firms affect not only those who work for them, buy from them, do business with them, and compete with them, but also communities and countries in which they are located. As a result, their operations and activities are subjects of considerable interest and heated speculation.

To some, multinational firms are highly problematic. From this vantage point, these firms seek to monopolize markets, exploit foreign and domestic

labor, avoid paying taxes, dodge government regulations, manage innovation inappropriately, and exploit their financial positions to the detriment of other companies. Large multinational firms are uniquely capable of deploying their market positions and influence over government to solidify their control, obtaining outsized profits with actions that undermine the public interest. "Huge multinational companies often act as if the rules we all live by don't apply to them. They use loopholes to claim they don't owe tax and cynically push their workers to the limit," the former head of Britain's Labor Party, Jeremy Corbyn, has said.[2] Lawrence Summers, a former U.S. Treasury secretary, adds: "There is no gap in the architecture of globalization more serious than the failure of nations to prevent global companies and wealthy individuals from escaping taxation through tax havens, accounting devices, and pressure to bring down business tax rates."[3]

To others, multinational firms are the epitome of modern capitalism, producing many of the benefits of economic life that many take for granted. The McKinsey Global Institute, an arm of the consultancy, offers that multinational corporations (MNCs) "contribute disproportionately to the U.S. economy's growth and health" and are responsible for more than 40 percent of all the gains in U.S. labor productivity since 1990.[4] And Matthew J. Slaughter, dean of the Tuck School of Business at Dartmouth, challenges the view—espoused by many pundits—that U.S. multinationals export American jobs. "[W]hen U.S. multinationals hire more people at their overseas affiliates, it does not come at the expense of American jobs," he writes. "How can this be? Large firms need workers of many different skills and occupations, and the jobs done by employees abroad are often complements to, not substitutes for, those done by workers at home. Manufacturing abroad, for example, can allow workers in the United States to focus on higher value-added tasks such as research and development, marketing, and general management."[5]

Differing views of multinational corporations carry implications not only for understanding today's world economy but also for government policies. Governments contract with multinational corporations, tax them, and regulate them. Diplomatic negotiations, international treaties and economic agreements, and even military interventions are of central concern to international investors. Furthermore, governments offer multinational firms tax concessions and other inducements to attract and retain their activities. These interactions are premised on views of the nature of the multinational enterprise, and its role in the modern economy, over which there is considerable difference of opinion.

This book offers fact-based analysis of the activities of multinational corporations. For this purpose, we apply the definition used in foreign direct investment statistics: multinationals are business entities with one or more foreign affiliates in which the parent company holds at least a 10 percent ownership stake, although most foreign affiliates are 100 percent–owned by their parents.[6] Thoughtful consideration of the evidence can augment our understanding of multinational firms, contributing to informed public discussion and better public policies. This chapter puts the modern multinational enterprise in historical and global context and identifies important patterns that appear in publicly available data. Subsequent chapters, written by distinguished scholars with relevant expertise, assemble the best available evidence to address some of the key questions about multinationals that arise in public debates: Do U.S. multinationals export jobs? Do they exploit foreign workers? What drives multinationals to look beyond home-country borders? Do they shift profits to tax havens to the detriment of other countries? Where do they conduct R&D, and why? Does the rise of the digital economy allow multinationals to dominate their markets, or does it challenge their market power? Do multinational corporations have an edge over other firms in raising money? How important are cross-border takeovers, and what drives them? How have U.S., European, and Japanese multinationals responded to the remarkable rise of Asia—China, in particular?

This book was largely completed prior to the outbreak of the COVID-19 pandemic, which—in addition to killing people all over the world—led to a deep global recession and disrupted global trade flows and supply chains. As of this writing, we do not know how long it will take the global economy to recover, or how the behavior of multinational corporations and national governments will change as a result. Even before the pandemic, global trade measured as the sum of global imports and exports as a share of Gross Domestic Product was falling for the first time since World War II, a development that leads trade historian Douglas Irwin to declare that globalization is in retreat.[7] The pandemic, Irwin says, adds momentum to the deglobalization trend. The rise of protectionist political leaders, animosity toward foreigners and immigrants, redefinitions of "national security" to extend to public health, attacks on multinational institutions such as the WTO, and the rethinking of global supply chains and the virtues of keeping more production at home undoubtedly will shape decisions made by multinational corporations and by governments. We do not attempt to predict what multinationals and governments will decide or how these decisions will affect the

trends that this book documents, but we recognize this time may prove to be an inflection point in the history of globalization. As William Baldwin and Eiichi Tomiura warn: "There is a danger of permanent damage to the trade system driven by policy and firms' reactions. The combination of the United States' ongoing trade war against all of its trading partners (but especially China) and the supply-chain disruptions that are likely to be caused by COVID-19 could lead to a push to repatriate supply chains. Since the supply chains were internationalized to improve productivity, their undoing would do the opposite."[8]

Concerns about the role of multinational corporations in the economy and society are not new, and this is not the first time that their activities have been subject to comprehensive examination. In 1978, C. Fred Bergsten, Thomas Horst, and Theodore Moran published *American Multinationals and American Interests*, a volume that synthesized the state of knowledge and captured the worries of the era over the growing size and power of multinational corporations. In the late 1970s, the U.S. economy still exhibited its postwar economic preeminence, as symbolized by large U.S. multinational corporations that seemingly controlled the industries and markets in which they operated and appeared able to keep foreign competitors and governments at bay. Bergsten, Horst, and Moran catalogued the growth, size, and influence of U.S. multinational firms, noting the benefits that size and market leadership conferred, and posed the question of to what extent governments and private competitors would be able to limit the power of large U.S. multinationals in the future.

A lot has changed since then. Between 1978 and 2020, Asian economies rapidly expanded while economic growth in the West decelerated. China, in particular, established itself as one of the world's largest economies and a formidable competitor to the United States. Other emerging markets also have become major economic players. The Berlin Wall fell—and, with it, Soviet domination of Eastern Europe. Nineteen European countries surrendered their national currencies to join the eurozone. Central banks around the world now wrestle not with too much inflation, but too little. The internet has changed almost every aspect of business and daily life. The average share of workers in manufacturing in OECD countries fell from 22.5 percent in 1978 to 13.5 percent in 2019, with corresponding increases in shares of workers in services.[9] Labor's share of national income appears to have fallen around the world, declining by about four percentage points in advanced economies since the 1970s.[10] Global supply chains stretched

around the world as trade barriers fell, China and other developing economies matured, and technology advanced. By one recent estimate, more than two-thirds of world trade now goes through global value chains, in which production crosses at least one, and typically several, borders before final assembly.[11] Exports of goods and services, measured as a share of global GDP, nearly doubled between 1978 and 2008, but have plateaued since.[12]

These changes in the global business environment have been associated with the foreign expansion of many firms. For U.S. multinationals, one big change has been the growth of their foreign activities and workforces. In 1982, about one-fifth of all their employees were outside the United States, and this fraction rose to one-third by 2011 but has leveled off since. Foreign multinational corporations operating in the United States account for small, but steadily growing, shares of total U.S. economic activity and employment. Cross-border merger and acquisition activity has surged, with numbers of annual transactions more than tripling between 2001 and 2017 (see chapter 4 of this volume by Chari).

The identities of leading multinational corporations also have changed, with multinationals based in the United States and Europe no longer dominating the league tables as they once did. When *Fortune* magazine began ranking companies globally in 1988, nine of the fifteen largest were U.S.-based, five were European, and one was Japanese.[13] No Chinese company made the top fifty. In 2020, seven of the top fifteen were U.S. based, three were European, three were Chinese, and there was one each from Japan and Saudi Arabia. Twelve of the top fifty were Chinese. Notably, half the top fifty companies in 2020 did not exist in their present forms in 1978.

Despite considerable change in the world economy and in multinational activity, current concerns about the nature of multinational corporations and their likely effect on the future course of society bear striking resemblance to concerns prevalent in 1978. At the time, it seemed that the profits generated by multinational activity, together with the advantages of scale and scope that make integrated international operations highly cost-effective, meant that multinational firms would inevitably dominate the competition and ultimately even challenge governments. These dominant positions would make it feasible, and profitable, for multinational firms increasingly to exploit low-cost foreign labor at the expense of domestic workers, and thereby erode the social contract in the high-income countries in which they were based. Furthermore, multinational firms would be able to maintain and augment their market positions by exploiting low-cost finance

to acquire competitors and outperform others in research and development. Due to the political power of multinational corporations, and their abilities to relocate their valuable activities, governments would be unwilling or unable to effectively tax or regulate them in the public interest.

These concerns are understandable, given the circumstances of 1978 and the associated uncertainty over the future course of the world economy. While subsequent events brought some of these concerns into sharp relief, and offered new reasons to worry about the behavior of multinational firms, the dire versions of the predictions of the 1970s have not materialized. Concerns that multinational firms, particularly those based in the United States, would overcome any constraints on their behavior seem in retrospect to have been premised on visions of the future that did not reckon with large changes in the world economy. While multinationals are large enough to have considerable influence, they are subject to limits imposed by competitors, financial markets, and governments. There are constraints on their abilities to control labor and product markets, largely because they compete with each other and with smaller, and often nimbler, upstarts. Multinationals seeking to minimize labor costs can choose to locate production in countries with low prevailing wages, and many do, thereby reducing their demand for lower-skilled workers elsewhere, including in their home countries; but these firms also typically maintain large workforces of highly skilled workers in high-income countries where output per worker is higher. Multinational employers tend to offer above-average compensation to their workers. Multinational firms dominate the market for private research and development, but the resulting innovation, in addition to augmenting the profits of the innovators, has widespread benefits. And while governments struggle to make multinational firms pay the taxes that they appear to owe on crafty or contested transactions, the governments nonetheless find ways to collect significant taxes from other aspects of the firms' operations. All that said, however, multinational firms remain extremely important, and in some cases dominant, players in certain markets, with the ability to exert the influence that comes with market dominance.

Differences in business settings and the complicated reality of multinational operations make it easy to mischaracterize the activities of these firms. To correct misunderstandings, it is helpful to consider the available information about the activities of multinational corporations. The following chapters consider several important aspects of current multinational business practice, evaluating the available evidence in light of prevailing theories.

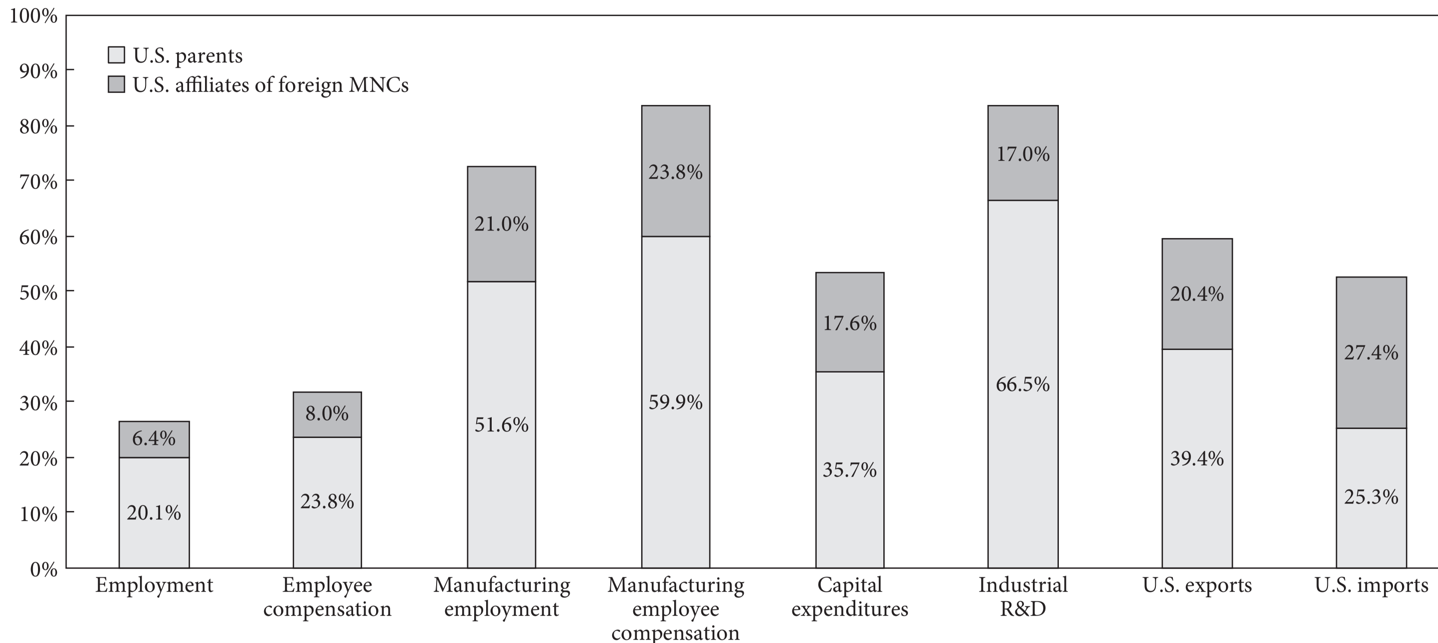
In this introductory chapter, we frame the discussion with a description of the current scope of multinational activity and how practice has evolved over recent decades. Since the United States collects much of the world's high-quality information about multinational firms, and these data cover U.S.-based multinationals and U.S. operations of foreign-based multinationals, this review of multinational activity focuses largely on U.S. evidence, augmented, when possible, with information on firms based in other countries.

## THE SCALE OF MULTINATIONAL ENTERPRISE

By any measure, multinational corporations are major participants in the U.S. economy, as figure 1-1 illustrates. The vertical axis measures the fractions of U.S. totals accounted for by multinationals—both those headquartered in the United States and U.S. affiliates of foreign-headquartered firms.

In 2017, U.S.-headquartered multinationals accounted for 20.1 percent of all U.S. private sector employment, and foreign-headquartered firms accounted for another 6.4 percent. Of course, their direct employment figures capture only part of the effect of multinationals on the U.S. labor market, as firms employing the remainder of the American private sector workforce include suppliers, customers, and competitors of the multinationals. Jobs at multinationals tend to pay more, on average, than others, so multinationals account for a larger share of total labor compensation than their share of workers, as figure 1-1 shows. This wage premium, in part, reflects a skill premium, in that multinationals tend to employ a more highly skilled workforce than their industry peers. Multinationals play a particularly large role in manufacturing: U.S.-based multinationals accounted for 51.6 percent of U.S. manufacturing employment in 2017, and the U.S. operations of foreign-based multinational firms employed an additional 21 percent of the U.S. manufacturing workforce. And the multinational share of total manufacturing compensation is even greater: more than 80 percent of all wages paid to U.S. manufacturing workers come from multinational firms. Multinational firms also accounted for more than half of all non-residential capital expenditures and more than 80 percent of all industrial R&D done in the United States. Not surprisingly, given their global reach and prominence in manufacturing, multinationals account for a large share of U.S. trade of goods and services—more than 60 percent all of U.S. exports and more than 50 percent of U.S. imports are attributable to multinationals, U.S.- and foreign-based combined.

**FIGURE 1-1.** Multinationals' Share of U.S. Economic Activity in 2017




*Note:* This figure displays the share of U.S. economic activity accounted for by multinational firms. The lighter-shaded section of each bar represents the share accounted for by the parent operations of U.S. multinationals. The darker-shaded section represents the share accounted for by the U.S. affiliates of foreign multinationals. U.S. parents that are majority foreign-owned are accounted for as U.S. affiliates in the shaded sections. The all-U.S.-companies totals for manufacturing are not strictly comparable with the totals for U.S. parents and U.S. affiliates, because the former are based on the industry of establishment, but the latter are based on the industry of enterprise. Data are drawn from the BEA, the Census Bureau, and the National Science Foundation.

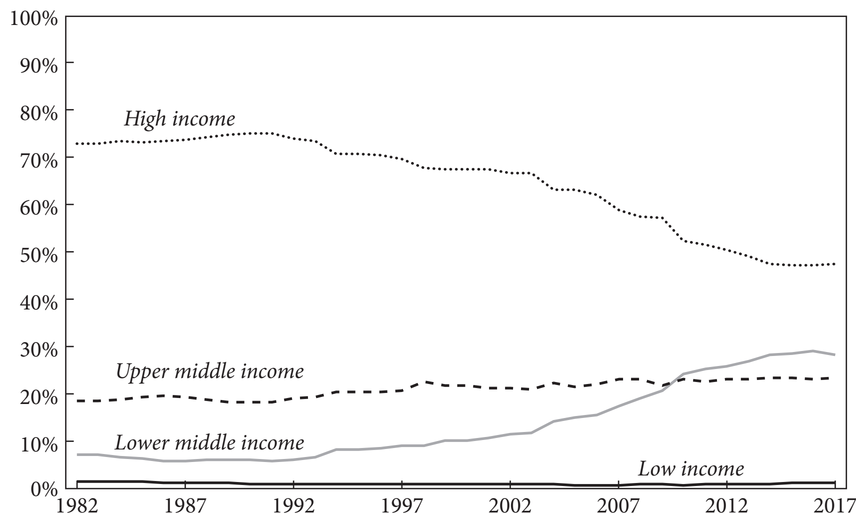
## THE LOCATION AND NATURE OF MULTINATIONAL ACTIVITY

Data on the geographic distribution of multinational activity sheds light on its nature. To the extent that firms are motivated to operate in foreign countries to employ low-cost labor and avoid costly regulations, one would expect to see high levels of multinational activity in developing economies with low-cost labor and light regulation. This is the basis of theories of *vertical* foreign direct investment. These theories emphasize the ability of firms to locate different stages of production in places where they can be performed at lowest cost. An alternative view holds that multinational firms perform similar activities in different locations so they can be close to their customers; this is known as *horizontal* foreign direct investment. The available data suggest that horizontal foreign direct investment is dominant: most of those who work for multinational corporations do so in relatively high-income countries, not in low-wage, low-income countries, though the rising share of multinational activity in middle-income countries (such as Brazil and China) may portend a change.

Figure 1-2 displays shares of U.S. multinational firm employment accounted for by their affiliates located in countries with different levels of per capita income as classified by the World Bank as of October 2006, a year chosen somewhat arbitrarily to avoid distorting the data by countries moving among income categories over time. Figure 1-2 shows that the fraction of foreign employees of U.S. multinationals employed by affiliates in high-income countries declined between 1982 and 2017. By 2017, employees of affiliates in high-income countries still represented close to half of the foreign workforces of U.S. firms, but this represents a significant decline from the three-quarters in the 1980s. Over the same time span, the share of foreign employment by affiliates located in lower-middle-income countries (including Brazil, China, and India) rose by almost as much as the high-income share declined, and the share of employment by affiliates in low-income countries did not budge. While the data show a movement in the direction of low-cost operations, if U.S. multinational firms were motivated primarily by a quest for low-wage, lightly regulated locations, one would have expected an even sharper decline in high-income employment, and at least some growth in the employment share of affiliates in low-income countries.

More generally, the operations of multinational firms reflect the locus of world economic activity. Historically, much of the world's foreign direct in-

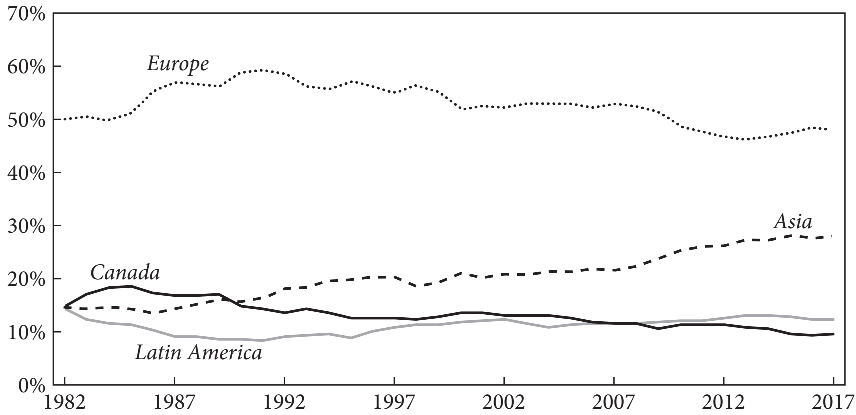
**FIGURE 1-2.** The Share of U.S. MNC Foreign Affiliate Employment by Host Country Income




*Note:* This figure displays the share of U.S. multinational firm foreign affiliate employment accounted for by affiliates located in countries with different income classifications. The income classifications are the ones issued by the World Bank as of October 2006. The income levels of countries are classified in the following four tiers on the basis of their annual per capita gross national income in 2005 dollars: high-income countries, in which income is US$10,726 or more; upper-middle-income countries, in which income ranges from US$3,466 to US$10,725; lower-middle-income countries, in which income ranges from US$876 to US$3,465; and low-income countries, in which income is US$875 or less. Data are drawn from the BEA.

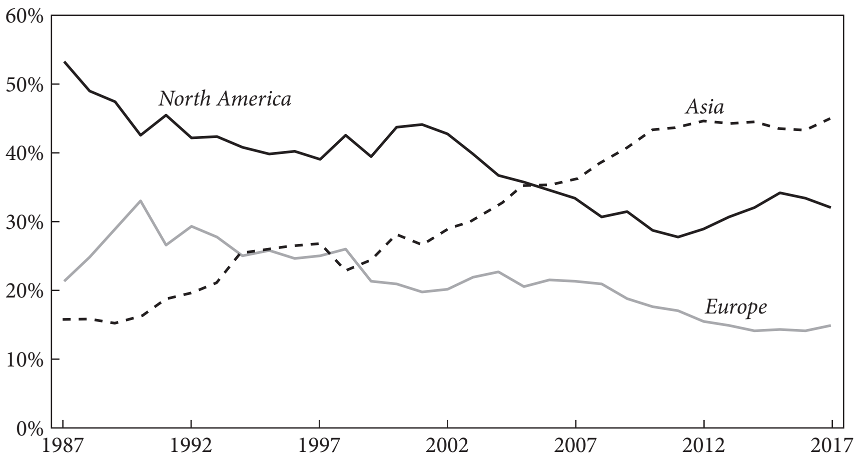
vestment consisted of investments by firms from large wealthy countries in affiliates located in other wealthy countries. However, as the share of global economic activity in developing countries has grown, so has multinational activity in those countries. The share of the stock of outward foreign direct investment (FDI) from countries classified as developing by the United Nations Conference on Trade and Development (UNCTAD)[14] (including China, South Korea, Taiwan, and other Asian economies, plus all of Latin America and Africa) has increased from 12 percent in 1982 to 22 percent in 2017. Developing countries long have been the recipients of FDI and attracted nearly a third of it in 2017. Changes in multinational activity also reflect Asia's rising share of world economic activity. Figure 1-3 displays the falling shares of total worldwide sales of U.S. multinationals' foreign affiliates that are accounted for by affiliates located in Europe and in Canada. It also shows that the share of sales from their Asian affiliates doubled from 14 percent in 1982 to 28 percent in 2017. As figure 1-4 illustrates, the same

**FIGURE 1-3.** The Share of U.S. MNC Foreign Affiliate Sales, by Affiliate Location



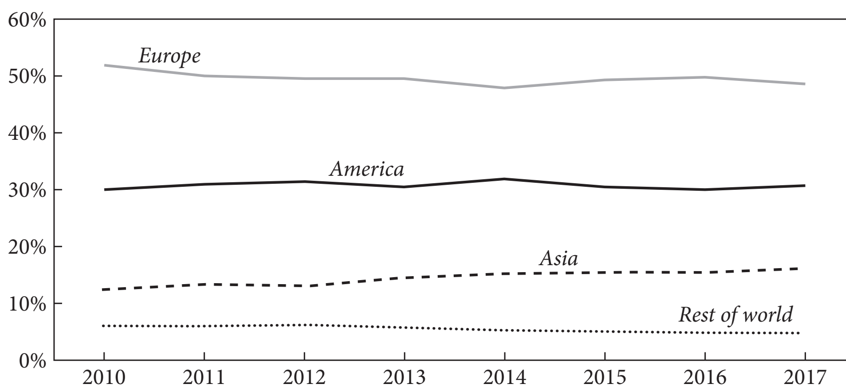

*Note:* This figure displays the share of U.S. multinational firm foreign affiliate sales accounted for by affiliates located in different regions. The data cover majority-owned foreign affiliates. Data are drawn from the BEA.

**FIGURE 1-4.** The Share of Japanese MNC Foreign Affiliate Sales, by Affiliate Location




*Note:* This figure provides information about the sales of overseas affiliates of Japanese multinational firms. The dark solid line illustrates the share of total overseas affiliate sales accounted for by affiliates based in North America. The dark dashed line illustrates the share for affiliates based in Asia, and the gray line illustrates the share for affiliates based in Europe. Data are drawn from the Ministry of Economy, Trade, and Industry Survey on Overseas Business Activity.

**FIGURE 1-5.** The Share of European MNC Foreign Affiliate Sales, by Affiliate Location




*Note:* This figure is based on data on the sales of the foreign affiliates of multinational firms from six selected European countries: Austria, Belgium, Finland, France, Germany, and Portugal. Each line illustrates the share of aggregated sales that are generated by foreign affiliates located in a particular region. Data are drawn from the Organisation for Economic Co-Operation and Development.

pattern applies to the overseas affiliates of Japanese multinationals. In 1987, North American and European affiliates of Japanese multinational firms collectively accounted for 74 percent of total sales by Japanese overseas affiliates that year, whereas their Asian affiliates accounted for just 16 percent. Three decades later, in 2017, North American and European affiliates were responsible for 47 percent of total sales by foreign affiliates, and Asian affiliates 45 percent. And as figure 1-5 illustrates, European multinationals have also experienced disproportionately high growth recently among their Asian affiliates. The figure presents data for 2010–2017, and over this period, the share of sales by their foreign affiliates in Europe declined from 52 to 49 percent while the share of sales by their Asian affiliates increased from 12 to 16 percent.

## GROWTH OVER TIME

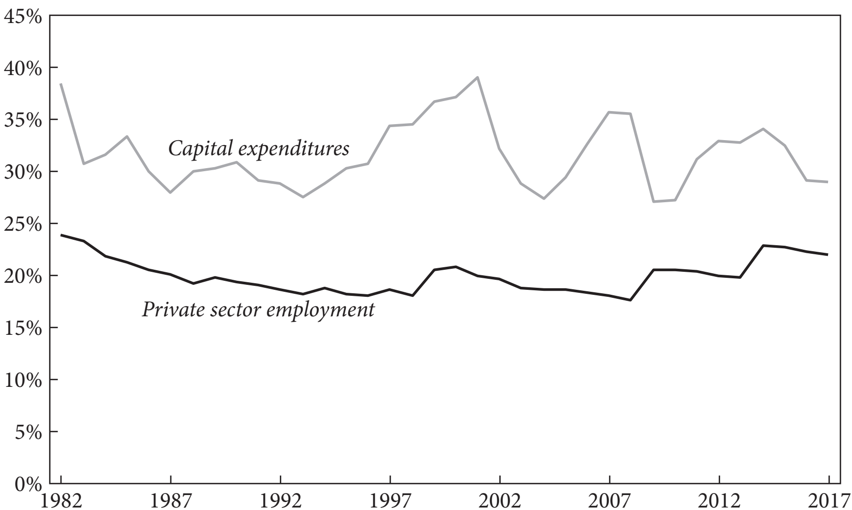
Rapidly declining trade, transportation, and communications costs supported a marked globalization of the world economy in recent decades—at least until recently. These trends raise questions about how multinationals have responded. Have the domestic operations of multinationals become a larger share of their economies? Has foreign affiliate activity grown faster

than parent and host country activity? Data on U.S. multinationals and on U.S. affiliates of foreign multinationals shed light on these questions.

U.S. multinational parent firms in aggregate have grown at roughly the same pace as the rest of the U.S. economy. Shares of total U.S. private sector employment and capital expenditures accounted for by the parent companies of U.S. multinationals have changed little since the early 1980s. Figure 1-6 shows that U.S. multinational parent companies employed 24 percent of the U.S. private sector workforce in 1982 and 22 percent in 2017. In between, the fraction of U.S. workers employed by these firms fluctuated, declining during the economic expansions of the 1990s and 2000s, bottoming at 18 percent in 2008 as other firms expanded, and rising during the Great Recession as multinational firms proved to be more stable than other employers. The U.S. multinational parent company share of annual U.S. private capital expenditures fluctuated between roughly 30 and 40 percent over the years 1982–2017.

Other evidence indicates that multinationals have extended their foreign reach at rates that are high relative to parent and host country growth. The foreign activities of U.S.-based firms and the U.S. activities of foreign-based firms grew much faster than did the domestic activities of U.S. multinationals. Figure 1-7 illustrates that majority-owned foreign affiliates accounted for 21 percent of total employment in U.S. multinational firms in 1982, and 34 percent in 2017. The aggregate activity of the U.S. affili-

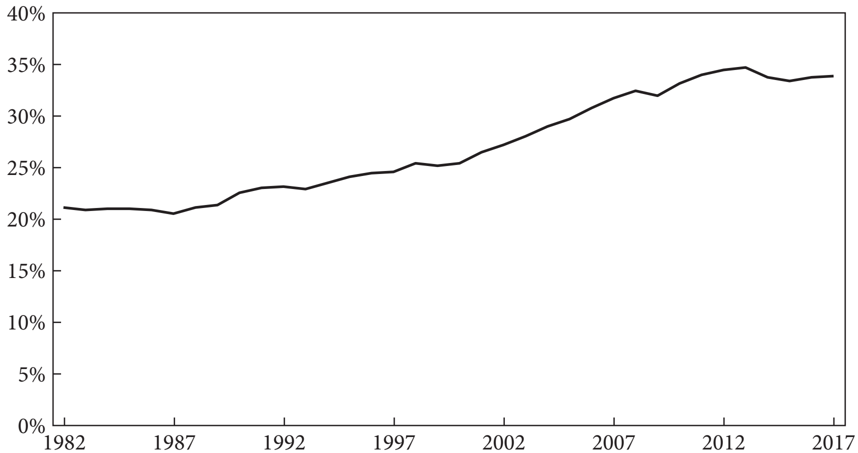
**FIGURE 1-6.** U.S. MNC Parent Share of U.S. Activity




*Note:* This figure shows the U.S. MNC parent share of U.S. private sector employment and capital expenditures. Data are drawn from the BEA.

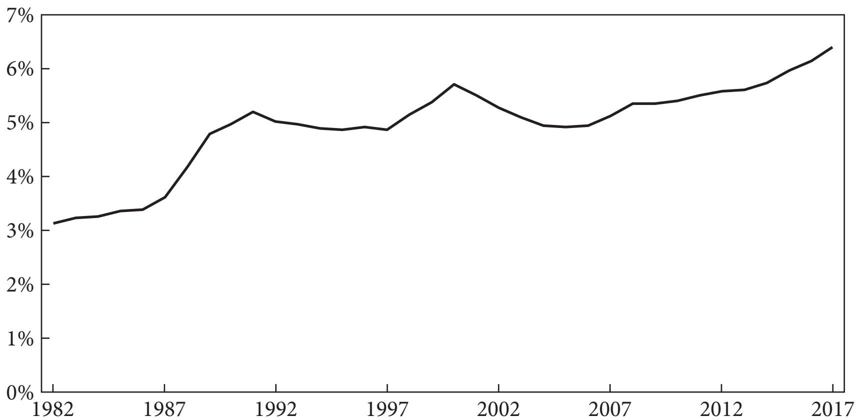
ates of foreign multinationals has grown considerably faster than the U.S. economy. The share of U.S. private sector workers employed by U.S. affiliates of foreign-headquartered multinationals doubled, albeit from a low level of 3 percent in 1982 to 6 percent in 2017, as shown in figure 1-8.

**FIGURE 1-7.** Share of U.S. Multinational Employment Accounted for by Foreign Affiliates




*Note:* This figure illustrates the extent to which U.S. multinational firms' employment is located outside of the United States. Data are drawn from the BEA.

**FIGURE 1-8.** Share of U.S. Employment Accounted for by U.S. Affiliates of Foreign MNCs



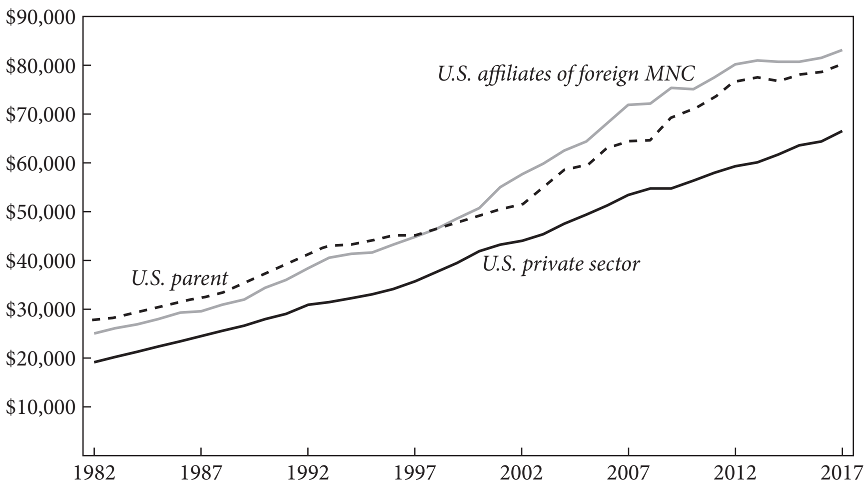

*Note:* This figure shows the share of U.S. private sector employment accounted for by U.S. affiliates of foreign MNCs. Data are drawn from the BEA.

## MULTINATIONALS AND LABOR

Given their scale and flexibility regarding where to locate activity, multinational firms have the ability to organize production in ways that reduce their labor costs, typically by putting labor-intensive operations in low-wage locations. Concern over this possibility is responsible for the common refrain in high-income, high-wage countries that multinational firms export jobs, and more generally, that they undermine worker interests. The data paint a rather more complicated picture. Wages of U.S. workers employed by multinationals are consistently higher than average wages in the U.S. economy—in part, due to the industries in which multinationals are most active and the occupations of the workers they employ. Figure 1-9 compares average compensation per employee—unadjusted for inflation—for the entire U.S. private sector to the average compensations of U.S. workers employed by U.S.-based multinational firms and those employed by U.S. affiliates of foreign firms. The gap between compensation of workers employed by multinationals has persisted over the last few decades. These patterns are provocative, but hardly extensive or conclusive.

On the question of whether and to what extent multinationals export jobs from high-wage countries, there clearly are cases of U.S. firms substi-

**FIGURE 1-9.** Compensation per Employee




*Note:* This figure displays the average annual nominal compensation per employee for the U.S. private sector, the U.S. parents of U.S. multinationals, and the U.S. affiliates of foreign multinationals. Data are drawn from the BEA.

**FIGURE 1-10.** Changes in Domestic and Foreign Employment by a Matched Sample of 1,687 U.S. Multinationals, 2004–2014

| | Decrease in foreign employment | Increase in foreign employment |
|---|---|---|
| Increase in U.S. employment | 293 | 704 |
| Decrease in U.S. employment | 336 | 354 |

*Note:* This figure presents number counts of firms that experienced different changes in U.S. and foreign affiliate employment over the 2004–2014 period. These counts were produced using BEA data.

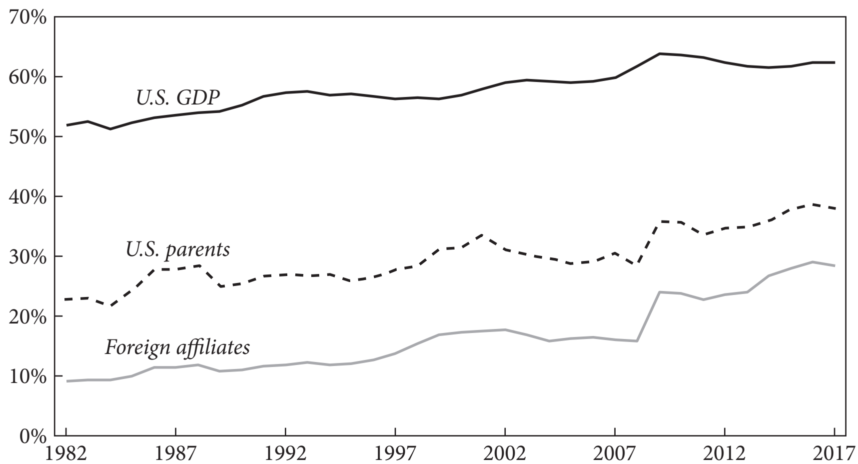
tuting low-wage foreign employment for higher-wage U.S. employment, though aggregate data suggest that this type of substitution may be offset by job creation. Between 1982 and 2017, U.S. multinational corporations added almost exactly the same number of workers (9.4 million) to their payrolls in the United States as they added abroad—and while this fact does not identify the net effect of foreign employment on U.S. jobs, it suggests that foreign expansion did not entirely supplant U.S. job creation. Figure 1-10 provides further evidence.[15] Between 2004 and 2014, 1,687 U.S. multinational firms expanded their foreign workforces; of these, roughly two-thirds (704) contemporaneously expanded their U.S. employment. Over the same time period, 629 U.S. multinational firms reduced their foreign workforces, and of these, about half (336) also reduced their employment in the United States. The prevalent pattern is U.S. multinationals that increase their foreign employment also increase their domestic employment. Such changes would occur if foreign operations increased the productivity of domestic activities, thereby stimulating demand for domestic labor. Of course, these aggregate patterns mask considerable heterogeneity at the levels of firms and labor markets, so any substitution effects of greater foreign expansions can cause significant hardships for sectors of labor markets in high-wage countries, with lower-skilled workers likely most at risk. But a complete analysis of the job market effects of multinational firms includes consideration of their effects on job creation as well as job destruction.

## THE RISE OF SERVICES

One striking economic trend of modern times is the decline of manufacturing as a fraction of economic activity, particularly among high-income countries. Throughout the modern era, multinational firms have been more manufacturing-intensive than economies as a whole, as the cost savings and market access advantages of integrated worldwide production are generally more pronounced in manufacturing than in other industries. As a result, manufacturing firms are the most willing and able to incur the costs and bear the risks associated with foreign investment. Other industries, such as construction, retail trade, transportation, and mining and other extractive industries, also tended to be overrepresented among multinational firms, as foreign locations presented special opportunities for integrated international operations. But the provision of services often requires deep local knowledge, so the rising importance of services in foreign economies has the potential to put multinationals at disadvantages relative to local firms.

Their potential cost disadvantages do not appear to have prevented the international expansion of U.S.-based services firms, as indicated in figure 1-11.

**FIGURE 1-11.** The Share of Services in U.S. Parent Sales, Foreign Affiliates Sales, and U.S. GDP




*Note:* This figure displays the importance of services in the sales of U.S. multinationals and the U.S. economy. The dark line depicts the share of U.S. GDP accounted for by services, including government services. The dashed line illustrates the share of U.S. parent sales that are sales of services, and the lighter line illustrates the share of foreign affiliate sales that are sales of services. Data are drawn from the BEA.

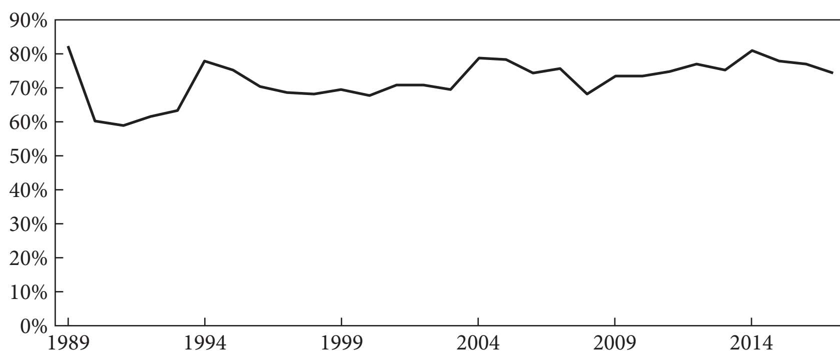
In 1982, 52 percent of the output of the U.S. economy was in services, and 23 percent of the sales of U.S. multinational parent companies represented services. By 2017, the U.S. economy was 62 percent services, and 38 percent of the sales of U.S. parent companies were in services. Over the same time period the foreign sales of U.S. multinationals moved even more dramatically in the direction of services: in 1982, just 9 percent of the sales of U.S. majority-owned foreign affiliates were in services; by 2017, 28 percent were. Furthermore, other measures of activity indicate that the foreign operations of U.S. multinational firms were even more concentrated in services.

## INNOVATION

Despite the popular fascination with the innovative activities of small start-up firms, multinational firms account for a large fraction of total research and development expenditures. Prevailing theories of the multinational enterprise hold that integrated international operations are best able to exploit sources of value in intangible assets. Once a firm develops a novel product or process, the incompleteness of market contracts compels managers to deploy such innovations within the firm, since the alternative of licensing the intangible asset to another party yields lower returns and the prospect of fostering unwelcome competition or imitation. These incentives are particularly strong for international opportunities, and thus encourage innovative firms to establish multinational operations. Innovation requires and begets scale and scope: larger and more internationally oriented firms have the greatest ability to exploit new innovations, and have access to the resources necessary for large-scale modern research projects.

To the extent that international opportunities created by important innovations are most effectively exploited by multinational firms, it follows that firms with established multinational operations have the strongest incentives to produce internationally profitable innovations. They also typically have the resources necessary to finance the development of such innovations. It is no surprise, then, that multinational firms are highly active researchers. Figure 1-12 indicates that research and development spending in the United States by U.S.-based multinationals in 2017 accounted for a large fraction of the total performed by all U.S. businesses. This has been true consistently over the last three decades, and figure 1-12 shows the fraction of U.S. private sector R&D accounted for by U.S.-based multinationals hovering in the neighborhood of 70 percent every year since 1989.[16] Certain

**FIGURE 1-12.** U.S. Parent Share of U.S. Business R&D




*Note:* This figure shows the extent to which business R&D in the United States is performed by the parents of U.S. multinational firms. Data are drawn from the BEA and the National Science Foundation.

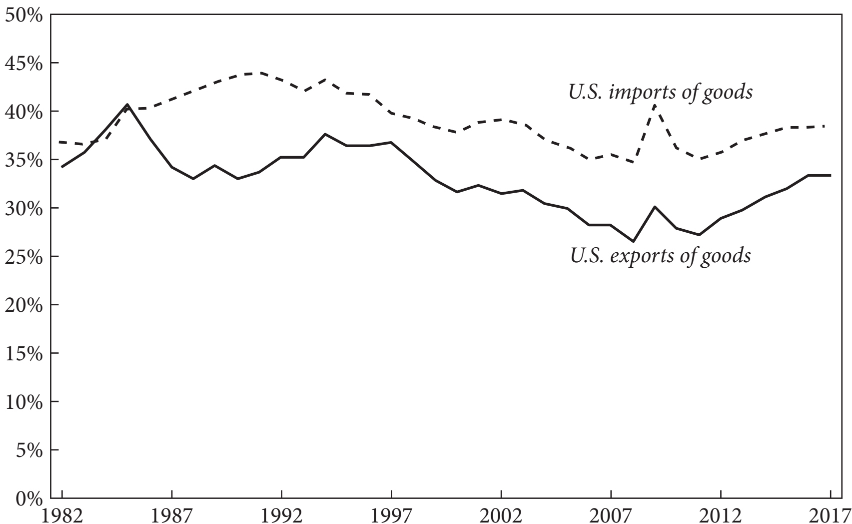
aspects of the multinational research landscape have changed, however, as multinationals perform increasing portions of their research and development outside their home countries. U.S.-based firms did 9 percent of their total R&D spending outside the United States in 1989, a share that grew to 16 percent by 2017. This is not the product of any decline in total research expenditures by U.S. parent companies, whose aggregate R&D spending increased at a compound nominal annual growth rate of 4.7 percent, while R&D spending by their foreign affiliates grew at a faster compound annual growth rate of 7.3 percent.

## INTEGRATED OPERATIONS OF MULTINATIONAL FIRMS

How integrated are the operations of multinationals? What fraction of international trade is intrafirm trade? How has that fraction changed as trade, transport, and communication costs have fallen? The answers to these questions reveal features of the structure of global supply chains and mechanisms that propagate shocks across countries. One of the cost advantages afforded by the multinational mode of production is that integrated operations permit firms to avoid arm's-length market transactions that may be costly or difficult to tailor to individual firm circumstances, that may entail relinquishing control over production processes, and that can make it difficult to prevent subsequent diffusion of firm-specific intellectual capital. Multinational firms can sidestep these problems by arranging foreign purchases and sales through foreign affiliates they own.

The evidence displayed in figure 1-13 indicates that the intrafirm trade in goods of multinational firms has represented significant portions of U.S. exports and imports in every year between 1982 and 2017. During this period, international trade significantly increased, even as measured relative to the growing U.S. economy. In 1982, total U.S. exports were 6.3 percent of GDP and imports were 7.4 percent; in 2017, exports were 8.0 percent of GDP and imports 12.1 percent. Intrafirm exports, which include exports from U.S. parents to their foreign affiliates and from U.S. affiliates to their foreign parents, were roughly one-third of the total value of U.S. exports in 1982 and constituted an almost identical fraction of the total in 2017. Similarly, intrafirm imports were 37 percent of total U.S. exports in 1982, and 39 percent of U.S. imports in 2017. As the figure illustrates, these fractions have fluctuated over time, albeit in rather narrow bands, always constituting significant fractions of U.S. international trade, but never as much as half. It is noteworthy that the global expansion of multinational enterprise and the opportunities afforded by greater international trade have not translated into a rising share of intrafirm trade, nor has intrafirm trade been supplanted by trade

**FIGURE 1-13.** Related-Party Share of U.S. Exports and U.S. Imports of Goods




*Note:* This figure illustrates the extent to which U.S. trade in goods occurs between related parties. Related party trade includes trade between a U.S. parent and its foreign affiliates as well as trade between a U.S. affiliate of a foreign multinational and its foreign parent group. Data are drawn from the BEA and the Census Bureau.

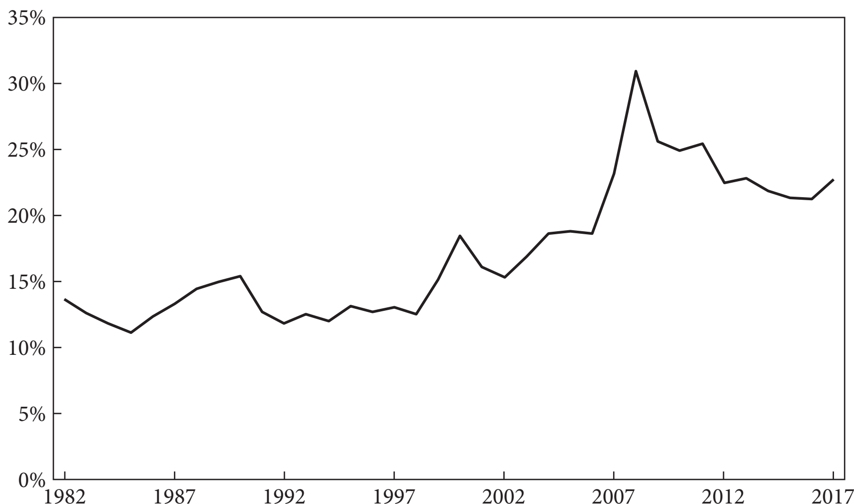
between unrelated parties. In short, there appear to be important limits to the benefits of structuring international transactions between related parties. Unfortunately, there are no comprehensive data that capture the widely reported increase in cross-border contract manufacturing, an arrangement in which multinational firms hire foreign firms in which they have no equity stakes to make and assemble products.[17] These arrangements are common in several industries, including apparel and electronics.

## FOREIGN PROFITABILITY OF MULTINATIONAL FIRMS

Foreign operations are increasingly important sources of value for multinational firms, reflecting the growing scale and profitability of their foreign activities. Given the available data and inherent ambiguity in the origin of profits, estimates of foreign profitability shares are imprecise. Figure 1-14 presents U.S. firms' direct investment income on equity investments abroad, after taxes, as a share of U.S. firms' total pretax income from current production. These data, drawn from the U.S. national income and product accounts, indicate that profits from overseas represent a growing share of U.S. firms' global profits—the share was 14 percent in 1982 and 23 percent in 2017. The foreign share of profits tends to rise during U.S. recessions, particularly evident in 2008, because of the relative decline of profitability in the United States.

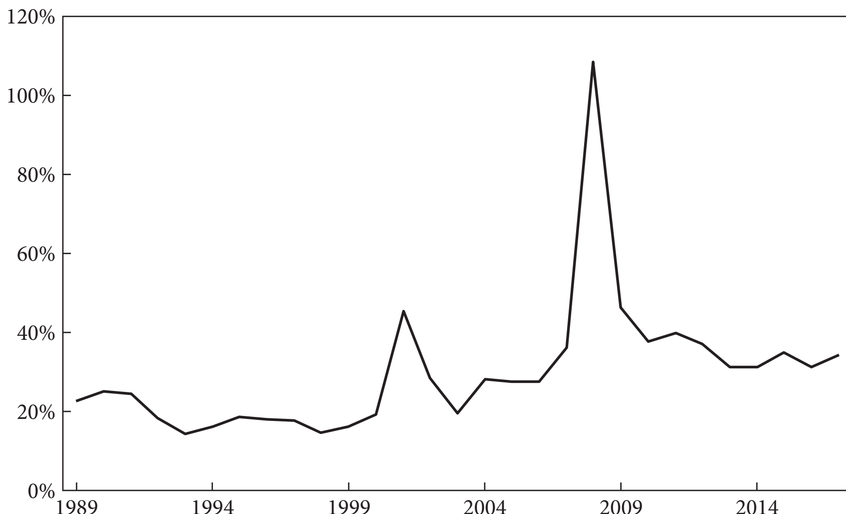
Another approach to measuring the foreign profit shares of U.S. firms uses data on total and foreign pretax income reported by U.S.-based publicly listed firms and compiled by Compustat. As illustrated in figure 1-15, the reported foreign share of total profits of these companies has risen from 23 percent in 1989 to 34 percent in 2017. These data likewise show that the foreign share of profits rises when the U.S. economy is weak; indeed, the measure exceeds 100 percent in 2008, when many large listed financial services firms reported significant losses. These data must be interpreted carefully, since the total number of publicly listed firms has declined precipitously over time, so those that remain listed tend to be larger on average than was previously the case. With that caveat, it is noteworthy that 19 percent of listed firms reported earning pretax foreign income in 1989, whereas 38 percent did so in 2017. One question raised by these measures is the extent to which multinationals shift profits from one location to another because of tax and other incentives.

**FIGURE 1-14.** U.S. Direct Investment Abroad Equity Income Share of U.S. Worldwide Corporate Profits




*Note:* This figure presents a measure of the extent to which U.S. firms earn profits outside of the United States. This measure is a ratio. The numerator is direct investment income on equity, and it represents parents' share in the net income of their affiliates, after provision for income taxes and excluding extraordinary gains and losses. The denominator captures the portion of total income earned, before deducting income taxes, from current production by U.S. corporations.

**FIGURE 1-15.** Foreign Pretax Income as a Share of Total Pretax Income




*Note:* This figure presents an alternative measure of the extent to which U.S. firms earn profits outside the United States. It is created using Compustat data on firms incorporated in the United States and publicly traded on U.S. exchanges. The line plots the ratio of aggregate foreign pretax income to aggregate pretax income.

## MULTINATIONAL FIRMS AND INTERNATIONAL TAXATION

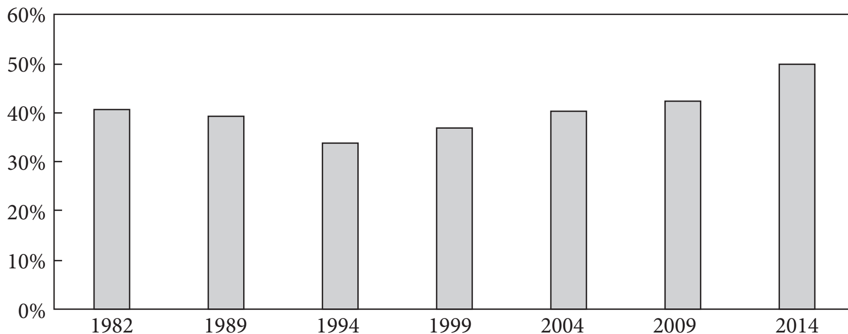
Multinational firms owe taxes to the countries in which they earn income, and in addition, their foreign incomes are also potentially subject to taxation in their home countries. Tax rates and tax burdens differ significantly across locations, offering multinational firms opportunities to arrange their investments, operations, and financial affairs in ways that minimize their taxable incomes in high-tax countries. There is considerable evidence that firms respond to these tax incentives: multinational investment, operations, foreign employment, and income levels are lower in high-tax locations, and higher in low-tax locations, than would otherwise be predicted on the basis of the characteristics of these economies. One common concern about the reported growth and rising share of foreign profits among U.S. multinational firms is that this growth reflects behavior aimed at avoiding U.S. tax obligations, as firms report that income was earned in low-tax foreign countries rather than the United States. Similar concerns are expressed about the behavior of multinationals based in other high-tax countries. Widely publicized examples of companies using complicated financial transactions to avoid tax obligations, together with rising fractions of reported profitability in low-tax foreign locations, suggests to many that high-tax countries are increasingly unable to prevent multinational firms from shifting significant portions of their profits away from the places in which those profits were actually earned.

The impact of low tax rates on firm operations and tax avoidance behavior is evident from the experience of tax haven countries, which are those with very low tax rates, business-friendly regulations, and other features intended to attract foreign business investment. The tax havens identified by Hines Jr. (2010) in 2016 had just 0.9 percent of the non-U.S. world population, and 3.2 percent of non-U.S. world GDP, but nonetheless accounted for 13.5 percent of the foreign property, plants, and equipment of U.S. multinational firms, 9.1 percent of their foreign employee compensation, and 5 percent of their foreign employment (see chapter 11 in this volume by Dharmapala, table 11-1). In addition to the economically disproportionate concentration of investment and employment in tax haven countries, firms reported large portions of their total foreign incomes to have been earned there; though the nature of accounting data and the use of tax haven holding companies make these income figures notoriously difficult to interpret. It is nonetheless clear that low-tax jurisdictions such as tax havens draw considerable por-

tions of the taxable incomes of multinational firms, thereby reducing the firms' total tax obligations.

Figure 1-16 illustrates the use of tax haven affiliates by U.S. multinational firms. In 1982, 41 percent of U.S. multinational firms had one or more affiliates in tax haven countries, a ratio that increased to 50 percent by 2014. Since the small economic footprints of these jurisdictions make them very unlikely to attract so many multinational firms in the absence of tax incentives, the high and rising fraction of U.S. multinational firms with tax haven affiliates is consistent with other evidence of increasing tax avoidance. Still, it is noteworthy that even by 2014 only half of U.S. multinationals have any tax haven affiliates at all, suggesting that the other half has decided that they are either unwilling or unable to shift taxable income into those locations. Despite the concentration of multinational investment in high-income countries that also tend to have high tax rates, statistical evidence consistently indicates that countries with high tax rates receive significantly lower levels of multinational investment than would otherwise be predicted based on economic determinants.[18] This pattern is consistent with firms having limited capacity to shift income into low-tax countries, since in the absence of impediments, these firms could earn income in high-tax countries and

**FIGURE 1-16.** Share of U.S. Multinational Parent Firms with Affiliates in Tax Havens




*Note:* This figure illustrates the share of U.S. multinational parent firms that have at least one affiliate in a tax haven country. Data are drawn from the BEA. Tax haven countries are those identified in Hines Jr., James R., "Treasure Islands," *Journal of Economic Perspectives*, 24/4 (2010): 103–26, with the exception of the Cook Islands, the U.K. Channel Islands, and Niue, which cannot be separately identified in the BEA data. The 2014 parents are restricted to those that match 2013, because in 2014, the BEA made a concerted effort to improve its coverage of FDI by U.S. private equity firms, which added thousands of new private equity U.S. parents that cannot be separately identified.

simply report it in low-tax countries, and there would be no need to limit investment in high-tax countries.

The average rates of taxes paid by multinational firms have gradually fallen over time. At least in part, this reflects changes in government policies, as corporate tax rates have steadily declined over the last forty years. Tax rate reductions have been most pronounced among middle-income and developing countries, so, to the extent that multinational firm operations have grown in these parts of the world, the average tax rates of multinational firms may decline as a result. Furthermore, the tendency of multinational firms to seek locations with low tax rates accelerates this trend. Of course, it is possible for taxpayers to seek tax reductions without relocating, either by appealing to governments for rate reductions or by engaging in self-help tax reductions through complicated financial maneuvers. Through a combination of factors, the average tax rates paid by U.S. multinationals, and the multinationals headquartered in other countries, have steadily declined over time, provoking concern for government finances and tax fairness, and political ire, particularly in many parts of the high-tax world.

## THE PAST AND FUTURE OF MULTINATIONAL ACTIVITY

The available information offers a rich picture of multinational activity in the modern world. In the foreword to the 1978 volume, it was noted that, at that time, answering policy-relevant questions about multinationals was frustrated by inadequate data, inappropriate theories and analytical methods, and complex interactions between the economics and politics of foreign investment. Since that time, the expanded availability of data on multinational companies from surveys conducted by the U.S. Bureau of Economic Analysis and other national statistical agencies, access to the underlying microdata, and the resulting academic research has brought to light many important findings, including many of those summarized in this volume.

Multinational firms are large, and they are important contributors to modern economies. The same was true in 1978, and it is instructive to consider why it is that over the course of the intervening years multinational firms neither expanded to occupy all of the space in the economy nor shrank under the weight of their own costs. It seems that the costs and benefits of multinational operations make them properly suited for certain types of business activities and not others. These activities are focused

in manufacturing, mining, and trade-related industries, and in those that rely heavily on intellectual property produced by research and development. While the scale and profitability of multinational firms makes them ferocious potential competitors in factor markets, for other firms, and even for national governments, the history of recent decades is that dire predictions of unwanted consequences of their actions largely have not come true.

## THE REMAINDER OF THE VOLUME

Each of the subsequent eleven chapters focuses on a specific aspect of multinational corporations, while the final chapter uses this evidence to draw implications for public policy.

Multinational firms use wide varieties of organizational forms, including international joint ventures, creative supply chains, and market-based arrangements strategically introduced in what otherwise might have been within-firm production relationships. Chapter 2, by Davies and Markusen, identifies factors such as labor market conditions, the availability of capital, and tax considerations that explain the use of different organizational forms. The chapter also discusses the relative importance of the two leading models of multinational activities—horizontal investment, in which firms undertake similar activities in multiple locations, and vertical investment, in which firms perform different steps of production processes in different locations. Although there is evidence of vertical investment, the data suggest that horizontal investments are more prevalent. The chapter concludes that a significant share of the activity of multinational firms is replicative, occurs between wealthy countries, and is geared toward serving local final consumers and nearby businesses.

Chapter 3, by Thomas and Bernard, explores motivations for corporations to expand across borders and their choices between acquisitions and greenfield investments, with particular attention to decisions that Western European companies made after the fall of the Berlin Wall opened up Eastern Europe. The chapter finds that while bilateral factors explain little of the variation in MNC activity across countries within the region, or the motives for entry via acquisition rather than greenfield investment, much of the foreign direct investment in the region as a whole appears to be factor-seeking by parent firms in nearby Western European countries. Firm-level

factors—as opposed to investments by peer MNCs from the same home country—play important roles in shaping entry decisions.

Chapter 4, by Chari, documents the growth of cross-border mergers and acquisitions (M&A), which accounted for nearly half of foreign direct investment since the global financial crisis of 2008–2009. The chapter observes that M&A activities are concentrated in the United States and a small number of European countries, examines the incentives for foreign acquisitions, and considers post-acquisition outcomes. The chapter cites three reasons for firms to acquire control of foreign firms: to increase valuation by improving governance and protecting intellectual property, especially in emerging markets; to access cheaper capital or exploit cheaper valuations of targets; and to exercise control over foreign affiliates rather than rely on contracts with unrelated parties. The chapter shows that cross-border M&A improves productivity and increases returns. Acquiring firms tend to restructure target firms, with adjustments to employment and capital investment, which is consistent with post-acquisition improvements in firm-level efficiency. But such policy considerations as national security and market concentration must be weighed against any efficiency gains from increased foreign direct investment.

Chapter 5, by Erel, Jang, and Weisbach, explores the question of whether being a multinational corporation confers advantages in financing. Among other things, the chapter finds that multinational firms have better access to capital markets outside their home countries than do other publicly held firms, but that multinationals also face costs—both country risk and foreign exchange risk—that domestic firms do not. U.S. multinationals were likely to hold larger percentages of their assets in cash (possibly because of pre-2018 tax incentives to maintain profits overseas rather than repatriate them) than other publicly held firms. They were also less likely to borrow, but when they did, they relied less on banks and more on capital markets, often with foreign lenders. The chapter finds that when firms are geographically diverse, they generally face lower borrowing rates. Evidence on whether multinationality matters for the cost of equity is inconclusive.

Chapter 6, by Oldenski, seeks to answer a popular question: Do multinational firms export jobs? The answer is a definite yes, but the chapter notes that multinationals also import jobs, and in many cases, offshoring enables that job creation at home. Overall, the net effect of MNC offshoring on domestic jobs and wages is close to zero or possibly a small positive. That net

effect, however, masks the fact that some workers are hurt by offshoring while others gain. In general, less educated workers and those who perform routine tasks are more likely to experience job losses and reduced wages as a result of offshoring, while more highly educated workers gain. Measuring value added by U.S.-owned firms in each host country, the chapter finds that of the top ten offshoring destinations for U.S. firms, only two, Mexico and China, are developing countries, and together they account for only 14 percent of aggregate value added in those top ten locations. The chapter draws attention to evidence suggesting that worker training can help mitigate some of the negative effects of offshoring without sacrificing the benefits.

Chapter 7, by Aisbett, Harrison, Levine, Scorse, and Silver, considers whether MNCs exploit workers in poor countries, based on three definitions of exploitation: paying below market wages, failing to compensate employees with a fair share of surplus, and violating human rights. The chapter finds almost no evidence of exploitation based on the market definitions. Compared to domestic firms, MNCs offer slightly better wages and conditions, and they generally increase the demand for workers in high-paying occupations. The chapter finds no direct evidence that MNCs fail to share their surpluses with their poor-country workers, although it argues that MNCs may be responsible for some negative effects on the labor market and a declining labor share of national income. Aspects of this argument, however, rely on macroeconomic patterns rather than firm-level data, making it difficult to draw causal conclusions. The chapter reports evidence that MNCs violate basic human rights in poor nations—including discrimination against women and migrant workers, suppression of the right to organize, and poor health and safety conditions. The chapter suggests that broad policy changes and activism, such as increasing labor productivity and improving the enforcement of labor standards, can have larger effects on the well-being of workers in poor nations than focusing solely on multinationals specifically.

Chapter 8, by Branstetter, Glennon, and Jensen, shows that over the past two decades, U.S. MNCs have moved increasing amounts of R&D overseas—doing so for efficiency reasons and thereby creating a division of labor akin to that more commonly documented in the production of goods. Combining MNCs' innovation experience with talent around the world, including from developing countries, may revive and sustain innovation and improve productivity growth. The rise in the number of patents from inven-

tor teams with addresses both inside and outside the United States suggests that fears that U.S. expertise is being hollowed out may be overstated. New hubs of foreign R&D activity, such as China, India, and Israel, have highly educated workers and significant technological domains. The chapter indicates that several challenges might limit the benefits of the globalization of R&D, including the rise of economic nationalism, aggressive use of tariffs, global efforts to restrict or tax international data flows, opposition to immigration, and U.S.-China trade tensions.

Chapter 9, by Edelman, examines forces that have contributed to the rise of digital MNCs, as well as the challenges that these firms face. The chapter observes that the digital economy is more centralized than might have been expected. Successful firms, such as Facebook, evolved quickly into multinationals that provide global services from a centralized location. They have benefited from software standardization—such as the internet and Unicode characters for languages—which disproportionately emanates from the United States. As a result, software is cost-effective, and it is easily scalable for free, instant, and reliable deployment around the world. This allows firms to grow rapidly. Digital MNCs that have become behemoths have the scale and resources to withstand pressure from local competitors and national governments. The chapter finds that MNCs increase local employment in response to competition, nuances in knowledge, and privacy concerns, but they face increasing questions related to regulation and taxes. Governments invoke traditional law enforcement and have developed new multifaceted strategies to regulate digital MNCs.

Addressing the controversial issue of taxation, chapter 10, by Dyreng and Hanlon, notes that MNCs pay substantial taxes, both direct and indirect, but also reports evidence of rising tax avoidance, including cross-jurisdictional income shifting and tax-sensitive location of investment, debt, and employment. The paper identifies circumstances in which tax avoidance entails significant adjustments to firms' real activities. While there is evidence of firms shifting taxable income to low-tax locations, the literature is far from settled on the extent to which it occurs. Non-tax factors, including reputational incentives and financial accounting considerations, may influence the magnitude of tax avoidance. Although evidence suggests that tax avoidance by one firm begets tax avoidance by others, it is too early to assess the effects of recent tax-regime changes on levels of aggregate avoidance.

Chapter 11, by Dharmapala, addresses MNCs' use of tax havens, a topic

that has attracted increasing attention and scrutiny in recent years, and is the focus of recent proposals to set minimum taxes on MNC profits. The chapter cites empirical evidence that is consistent with MNCs' disproportionate use of tax havens as locations for holding companies, intellectual property, and financial activities, but also considerable evidence of limits on MNCs' use of havens. Challenging the standard view that tax havens are parasitical on other countries, the chapter argues that MNCs' use of tax havens relies crucially on forbearance or active facilitation by these non-havens, which have available a variety of powerful legal and economic instruments to neutralize the effect of MNCs' use of havens. The chapter speculates that the failure to deploy these instruments fully is a deliberate policy choice, due either to collective action problems among non-havens or to the possibility that, in certain circumstances, MNCs' use of havens increases the welfare of non-haven countries.

Multinational corporations play significant roles in shaping the global economy, but there are few rigorous examinations of their *political* influence on foreign policymaking. Chapter 12, by Kim and Milner, argues that MNCs' economic dominance reduces the relative cost of engaging in political activities, while their large-scale transnational activities increase the marginal benefits of influencing policymaking individually. To examine this empirically, they deploy a novel dataset encompassing lobbying activities of all U.S. public firms from 1999 to 2019, using a difference-in-differences identification strategy to estimate the effect of MNC status on lobbying. They find strong evidence that lobbying expenditures increase when firms become multinationals. They also find that MNCs tend to lobby on more diverse sets of foreign policy issues than do other firms.

And chapter 13, by Foley, Hines Jr., and Wessel, offers some principles for policy drawn from the evidence and discussion in this volume.

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5. Matthew J. Slaughter, "The 'Exporting Jobs' Canard," *Wall Street Journal*, June 14, 2017.

6. For this reason, and because more data are available for majority-owned foreign affiliates, most of the calculations here focus on majority-owned affiliates.

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13. Fortune Global 500, *Fortune*, Aug. 1, 1988.

14. "Classifications," in *2019 e-Handbook of Statistics* (Geneva, Development Statistics and Information Branch, UNCTAD, 2019), https://stats.unctad.org/handbook/Annexes/Classifications.html.

15. The data for this figure are drawn from table 6-1 of chapter 6 of this volume, written by Lindsay Oldenski. The U.S. MNCs in this comparison accounted for more than two-thirds of total U.S. parent employment in 2014.

16. The U.S.-based multinationals whose foreign R&D activities are presented in figure 1-11 and discussed in this section include both U.S.-based companies and the

U.S. affiliates of foreign-based companies if those U.S. affiliates themselves own foreign affiliates.

17. For an example of the data on global supply chains that does exist, see www.wto.org/english/res_e/booksp_e/gvc_dev_report_2019_e.pdf.

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