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The Globalization of U.S. Business Investment

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The Globalization of U.S. Business Investment

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Abstract

This paper documents some key facts about foreign direct investment flows by U.S. businesses overseas and foreign businesses in the United States. We show how the pattern of flows has evolved, examine the sources and destination of these flows, document associated employment and productivity gains, and show how investment-related sales compare with traditional exports. While the United States is a net debtor to the rest of the world, direct investment overseas by U.S. businesses exceeds direct investment in the U.S. by foreign businesses. Furthermore, U.S. businesses seem to earn more on their foreign investments than foreign firms earn on their U.S. investments. The globalization of business investment is a long-standing phenomenon, but it has accelerated in recent years and become a source of concern for some, as it is intimately related to the debate on offshore outsourcing. Yet contrary to what some think, the bulk of U.S. investment overseas is in other high-income countries. And foreign investment in the U.S. has been an important source of employment growth in recent years.

JEL codes: F21, F23
Keywords: Foreign direct investment, outsourcing, tax avoidance

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At the end of 2006, the United States was a net debtor to the rest of the world, to the tune of $2.540 trillion. U.S.-owned overseas assets of $13.755 trillion were offset by foreign-owned assets in the U.S. of $16.295 trillion. This negative net international investment position reflects more than two decades of current account deficits, and the largest single component of the current account deficit is the trade deficit.

Just as the U.S. trade deficit is a composite of a deficit in goods trade and a surplus in services, so, too, the country's negative net international investment position is a composite of a very large deficit in holdings of official assets and a surplus in foreign direct investment. U.S. official reserve assets amounted to $219 billion at the end of 2006.[1] By contrast, foreign official assets in the U.S. totaled $2.770 trillion, primarily reflecting Asia's extraordinary reserve accumulation in recent years. However, in one respect, the U.S. continues to be a net creditor vis-à-vis the rest of the world. At the end of 2006, the value of U.S. foreign direct investment (FDI) overseas was $2.856 trillion (valued at current cost), while FDI in the U.S. was $2.099 trillion.[2]

This paper offers an overview of recent trends in global FDI, with a focus on the United States. In addition, we document empirical evidence on the effects of FDI, particularly recent results showing that multinational firms generally outperform their domestic peers. Finally, we contribute to the literature investigating the employment effects of U.S. investment overseas. Our analysis suggests that employment overseas by U.S. multinationals mostly complements domestic employment.

When a U.S.-based firm wants to sell its products in a foreign market, it has two options: It can produce in the United States and export to the foreign market, or it can set up shop overseas. The choice of which course to pursue depends on a myriad of factors, including the existence of barriers to trade (either shipping costs or tariffs or both), the importance of physical proximity to customers, taxes, and so on. The traditional, textbook approach to thinking about how countries interact tends to emphasize interactions through exporting and importing. Yet increasingly, U.S. businesses are setting up operations overseas to produce and sell directly into foreign markets. For example, in recent years Ireland has become a major platform for U.S. businesses seeking to sell into the single European

[1] This figure differs from the weekly statement on the value of U.S. international reserves issued by the Treasury Department due to the latter's valuation of gold holdings at a fixed price of $42.2222 per fine troy ounce rather than the market price, which has been closer to $800 an ounce in recent months.

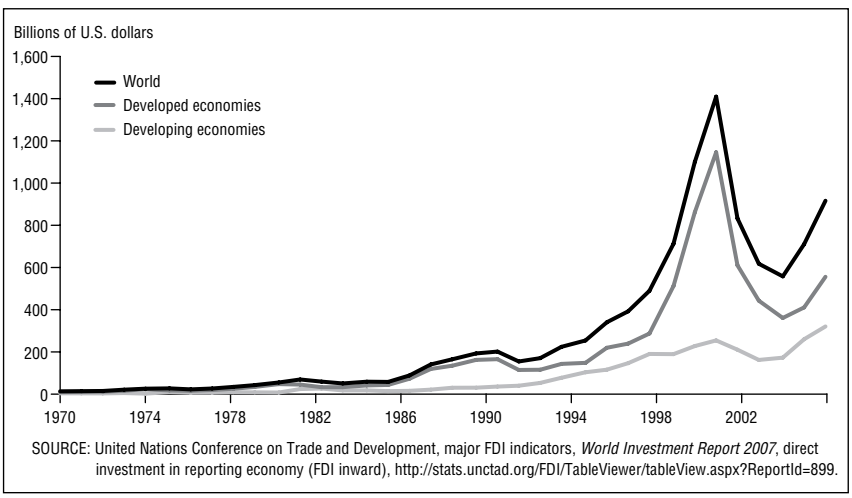
[2] The Bureau of Economic Analysis (BEA) reports the value of foreign direct investment three ways. The historical cost method values assets and liabilities at their book value. This measure is the easiest to compile but of limited value. The BEA's featured measure of direct investment values assets in current-period prices. Investment in plant and equipment is valued using the current cost of capital equipment; investment in land is valued using general price indexes; investment in inventories is valued using estimates of the replacement cost of inventories. Finally, the BEA reports a measure of direct investment at market value, where the equity component of the direct investment position is valued using indexes of stock market prices.

market. Likewise, since the 1980s, many Japanese auto companies have opened plants in the United States to produce for the American market.

U.S. firms may also invest abroad to take advantage of lower labor costs. For example, the big U.S. automobile manufacturers use maquiladoras in Mexico to construct parts like doors and electronic components like sensors. Upon completion, these goods are shipped to the United States for final assembly and eventual sale.

Cross-border investment is not confined to U.S. companies, of course. In fact, worldwide FDI inflows grew from $560 billion in 2003 to $916 billion in 2005—only two years. Figure 1 displays FDI inflow levels for the world, as well as for developed and developing countries. Note that even though the flows into developed countries are quantitatively more significant than the flows to developing countries, both grew significantly in 2004 and 2005 following a significant slowdown earlier in the decade.

Figure 1: Global Inward FDI Flows



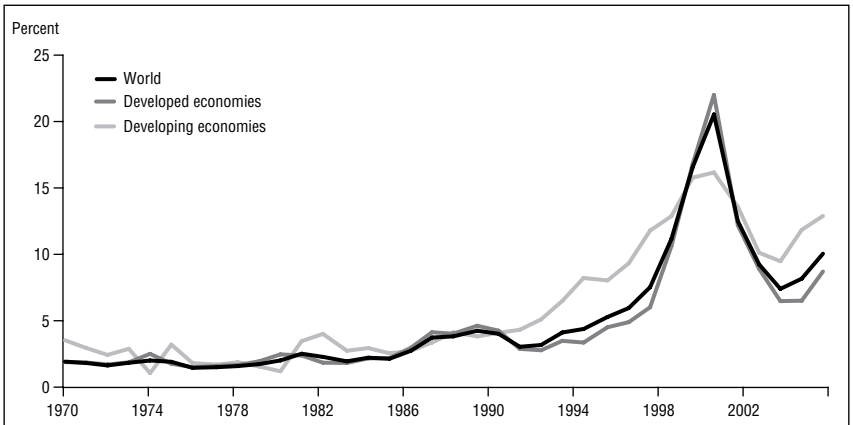
SOURCE: United Nations Conference on Trade and Development, major FDI indicators, *World Investment Report 2007*, direct investment in reporting economy (FDI inward), http://stats.unctad.org/FDI/TableViewer/tableView.aspx?ReportId=899.

Figure 2 displays another dimension along which FDI to developing countries is notable. As a share of overall gross fixed capital formation, FDI inflows are more significant in the developing world than in rich countries. More generally, the figure confirms that FDI has grown faster than overall domestic capital formation since the early 1990s.

As with many aspects of globalization, some commentators consider the rise of FDI a cause for concern. Some analysts have connected a recent slowdown in domestic investment in the United States to U.S. multinationals' increased investment activity abroad. U.S. businesses are said to be shifting investment overseas at an increasing rate, while shying away from domestic capital expenditures.

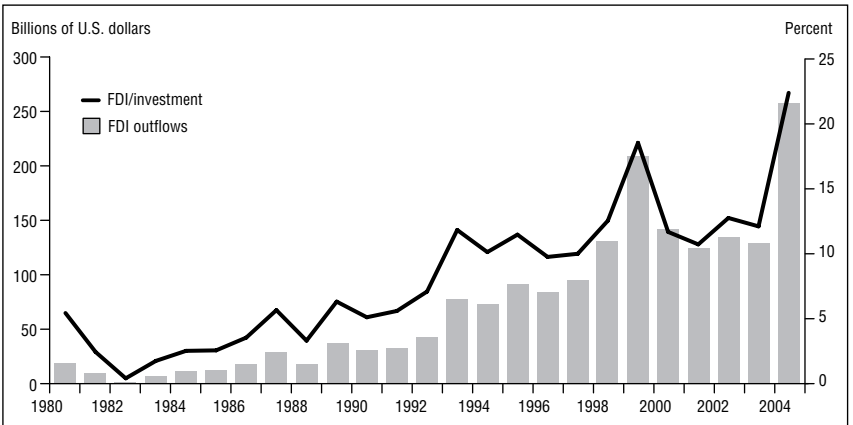
One way to check the validity of this contention is to look at the ratio of U.S. FDI outflows to U.S. private nonresidential investment. Figure 3 shows how this evolved over 1980–2004. Throughout the 1980s, outgoing FDI made up less than 5 percent of total fixed investment. That share

Figure 2: FDI Inflows Relative to Gross Fixed Capital Formation



SOURCE: United Nations Conference on Trade and Development, major FDI indicators, *World Investment Report 2007*, direct investment in reporting economy (FDI inward), http://stats.unctad.org/FDI/TableViewer/tableView.aspx?ReportId=899.

Figure 3: U.S. FDI Outflows and Outflows/Investment



SOURCES: Bureau of Economic Analysis, national income and product accounts, Table 5.2.5, and balance of payments and direct investment position data.

had increased to around 19 percent by 2004. However, the idea that there is only so much investment to go around and hence every dollar that is spent abroad is unavailable to be spent in the U.S. is questionable. Are the two kinds of investment truly substitutes, or can they be complements? Does foreign investment undertaken by U.S. multinationals rob the U.S. of real economic activity?

1. WHY DO FIRMS INVEST OVERSEAS?

Why do some firms invest directly abroad while others do not? Economic theory answers this question by assuming that for a firm to engage in FDI, certain conditions must be fulfilled. When faced with either making goods at home and exporting them to a foreign market or setting up shop overseas to produce for a foreign market, transaction costs are criti-

cal. These costs can arise directly via transportation costs and indirectly via tariffs and nontariff barriers. FDI that is motivated by the existence of high trade barriers is often referred to as "tariff-jumping."

More generally, firms that engage in FDI (multinational firms) are usually assumed to have firm-specific assets that both give them an advantage in their industry significant enough to venture abroad and that possess enough public good characteristics to make the licensing of production overseas unattractive (Markusen 2002). Examples of such firm-specific assets include superior production techniques and management strategies. Often it is these assets that are used to explain stylized facts about FDI, such as higher productivity and wages in multinational firms relative to domestic ones.

In the past, the FDI literature classified investment undertaken by multinational enterprises into one of two categories. The first was horizontal investment, which consists of creating a subsidiary in a host country that essentially replicates the original firm's operations. This form of investment is chosen when the reason for going abroad is to enter a new market. Horizontal investment is usually viewed as the main driver of FDI between developed countries, and tariff-jumping is often seen as an important motive for horizontal FDI.

The second category is vertical investment, which seeks to take advantage of differences in factor costs and shifts a specific stage of production abroad. Take, for example, a firm that both designs and assembles a product. If the design process is intensive in the use of high-skilled labor and the assembly is not, the firm might move final assembly to a country where low-skilled labor is abundant and cheap. It is vertical investment that lies at the root of many concerns about the potential negative effects of globalization and the fear that firms are "exporting jobs."

One way to interpret the data that show FDI predominantly occurs between developed countries is to conclude that horizontal investment plays a much larger role than vertical investment. Presumably, projects in Europe and Canada are undertaken to enter new markets, not to access large pools of cheap labor. This horizontal investment can be expected to increase the domestic activity of the U.S. parent of the new affiliate rather than cause it to export jobs.

In recent years, alternative motivations for FDI have been considered. Hanson, Mataloni, and Slaughter (2001) examine data on affiliate imports of goods that parent companies send for further processing. This measure of the extent to which parents provide inputs to affiliate production abroad is an indicator of vertically specialized production and outsourcing. The share of processing imports is found to vary significantly by industry and region, with the highest shares in transportation, electronics, and electrical equipment and in Canada and Mexico. The high share in those industries is because the corresponding production processes have distinct stages that can be separated geographically. The high shares for Canada and Mexico point to low trade costs related to the North American Free Trade Agreement.

In addition, Hanson et al. show why studies may be misleading if they regress affiliate sales on country characteristics like per capita GDP and

conclude that vertical FDI is unimportant. While overall affiliate sales are higher in host countries that are larger and have a higher GDP, the same holds for imports for further processing as well. When the ratio of the two measures is used as a dependent variable, a familiar result emerges: Work is outsourced to smaller countries with lower labor costs. In other words, aggregating overall FDI activity in large countries is bound to overlook the (not insignificant) part that is vertical.

As noted above, horizontal FDI is generally considered a substitute for exports. Evidence of FDI in wholesale trading leads Hanson et al. to question this view. This type of FDI occurs when a firm invests primarily in facilities for distribution, rather than production. As an example, Hanson et al. report that in 1998, only 59.1 percent of total sales by affiliates of U.S. parents whose primary industry was electronic and electric equipment were by affiliates primarily in the same industry; 28.1 percent were by affiliates primarily in wholesale trade.

Furthermore, firms seem to decide to produce or distribute in a foreign country—but rarely do both. So production- versus distribution-oriented FDI is a distinction that has been overlooked by the early literature and that has important implications for the benefits of FDI for the host country. The hope for a diffusion of technology and know-how to local industries that leads many governments to seek FDI is generally based on production-oriented investment. The benefits of inbound distribution-oriented investment are found in logistical areas such as supply-chain management (which can, of course, still provide valuable expertise to developing countries).

Using FDI to establish export platforms is another distribution-oriented aspect of horizontal FDI that has received little attention. This differs from traditional horizontal investment in that production in the host country is not only for sale in that market but reexported to third countries. Hanson et al. report that in manufacturing sectors, in the 1990s exports accounted for a growing share of affiliate sales and reached 44 percent by 1998. Not surprisingly, the establishment of export platforms is sensitive to the host country's trade policy and geographic location.

2. MEASUREMENT OF FOREIGN DIRECT INVESTMENT

For statistical purposes, investment abroad is classified in one of three ways, depending on the amount of control achieved over the foreign firm. If the share of ownership is below 10 percent, the investment is considered portfolio investment. Between 10 and 50 percent, ownership counts as foreign direct investment. As soon as the U.S. share in a foreign company exceeds 50 percent, the Bureau of Economic Analysis (BEA) treats it as a majority-owned foreign affiliate, or MOFA.

The BEA collects and publishes the most comprehensive data on U.S. multinationals and their operations, as well as foreign multinationals' operations in the United States. The BEA sends out mandatory surveys at regular intervals. The agency conducts highly representative and exhaustive benchmark surveys every five years; other years, a sample of firms is

surveyed. These samples cover only MOFAs, which is the reason for better data availability and a corresponding heavier focus on MOFAs in empirical studies.

However, the BEA's data on multinationals are not without problems, as Lipsey (2007) points out. He shows that data on FDI flows and stocks can only provide rough approximations of country distributions of "true" FDI sources and destinations and even worse approximations of their industry distributions.[3] Changes over time in these distributions are also not detectable using stock and flow data. The challenge this poses for correctly measuring FDI activity has received little attention, since the focus has primarily been on the potential tax avoidance by multinational companies.

At the root of the problem is "the ability of firms to shift the reported location of financial and intangible assets, sales, and profits by paper transactions internal to the firm" (Lipsey 2007, 15). One way to see the extent of this asset reallocation is to examine the ratio of total assets to measures of labor input, such as employment or payroll. In 1999, nonbank foreign affiliates of U.S. nonbank parents had average assets of $502,400 per employee. However, the ratio in Ireland was twice that, affiliates in Switzerland had roughly $2 million per employee, the number for U.K. islands in the Caribbean was $12.1 million, and the number for Bermuda ranged from $16 million to $31.9 million.[4] In 2004, the differences were even more pronounced. Average assets per employee were $873,000, and the ratio for Bermuda was $72.7 million. Lipsey shows that industry composition cannot explain these differences. The numbers are similar only for affiliates and parents in the financial sector.

These statistics are a result of the shifting of intangible assets like patents, corporate logos, and software licenses. Because such assets lack a geographic location, Lipsey (2007, 20) concludes that "only statistical convention places the output from them in these affiliates' host countries."[5]

The location of intangible assets—and thus, the output attributed to them—can be freely chosen by the firm. This has consequences for the measurement of exports, imports, and domestic product. For example,

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[3] The true distributions are concerned with real activity, such as production and employment, as opposed to just capturing financial transactions and transfers of intangibles.

[4] The U.K. islands are the British Antilles, British Virgin Islands, Cayman Islands, and Montserrat.

[5] There is also plenty of anecdotal evidence for tax-motivated transfers within companies. The *Wall Street Journal* reported in 2005 that a Microsoft affiliate in Ireland held most of the company's licenses for copyrighted software. On paper, the 1,000 full-time employees working there controlled more than $16 billion in Microsoft assets. The company is one of Ireland's biggest and paid $300 million in taxes to Ireland's government in 2004. Over time, the affiliate has taken over other foreign affiliates of Microsoft, in an obvious effort to concentrate the income tied to intangible assets such as licenses and copyrights in Ireland, where the tax rate it faces is minimal. Law firms now specialize in helping multinationals set up affiliates in Ireland to avoid taxation.

instead of reporting all output for the home market was produced domestically, firms can attribute output produced in the home country for home consumption to a foreign subsidiary on paper and then import it back on paper. While there is no real change in production and inputs, the treatment of the two alternatives in the statistics would be different.[6]

To avoid this distortion, value-added measures concentrate on affiliates' production processes as opposed to the financing thereof. In their most recent work on the operations of U.S. multinational companies, Mataloni and Yorgason (2006, 42) argue that "compared to sales, value added is a preferable measure of production because it indicates the extent to which a firm's sales result from its own production rather than from production that originates elsewhere, whereas sales data do not distinguish between these two sources of production."

3. THE BASIC FACTS

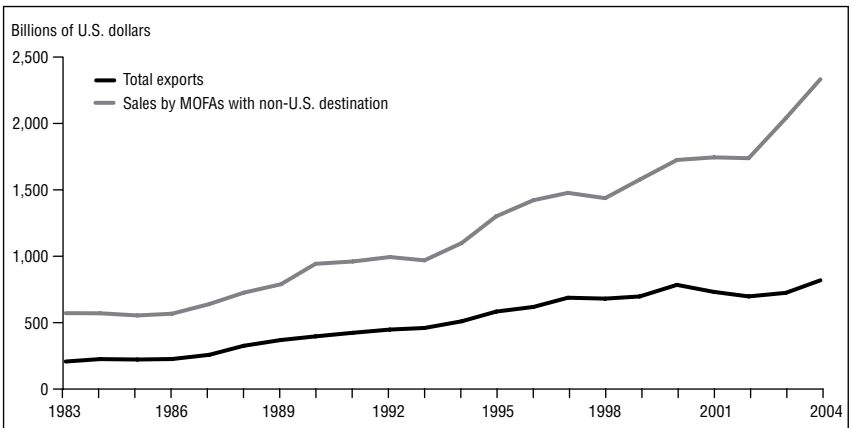
When discussing the recent surge in global economic integration, the point is often made that the U.S. continues to be a fairly closed economy. One of the more traditional measures of openness, the ratio of imports and exports to GDP, supports that view. U.S. exports amount to slightly less than 12 percent of GDP, up from about 5 percent in the 1950s, while imports total nearly 17 percent, up from just over 4 percent in the 1950s. However, traditional trade via imports and exports is not the only option for companies that want to sell their goods and services on foreign markets. Globalization is as much the story of the multinational enterprise that invests directly in other countries as it is the story of greater trade flows due to declining transportation and communication costs. In this section, we show that with regard to multinationals, the U.S. has been at the forefront of globalization, rather than a laggard.

Figure 4 presents the facts. The sales growth of majority-owned foreign affiliates of U.S. multinationals over 1990–2004 clearly outpaced U.S. export growth.[7] In addition, 52.4 percent of total U.S. exports in 2004 were associated with multinationals. So in quantitative terms, multinational companies dominated international transactions. Of the foreign af-

[6] At the same time, productivity and growth statistics for countries like Ireland could be biased upwards. Honohan and Walsh (2002) identify four industries within Irish manufacturing that show signs of being "entrepôt" economies. The term (translating literally to "warehouse") refers to an economy in which large amounts of goods are imported and then exported again, with little or no processing. The four industries combined employed 3 percent of the workforce in 1999. However, they accounted for 57 percent of industrial output and 15 percent of GDP. So trying to identify the share of output attributable to intangible capital and removing it from the calculations gives a more realistic picture of output and productivity growth. Honohan and Walsh find that for Ireland, corrected GDP growth drops from 8.2 percent to 6.2 percent and labor productivity growth in manufacturing from 8.6 percent to 3.8 percent. This is another example of transfer pricing and the arbitrary location of intangible assets posing problems for traditional ways of accounting and obtaining national economic indicators.

[7] Note that the numbers depicted are total sales minus the sales that went back to the U.S. The share of affiliate sales that go back to the U.S. is significant, especially for Canada (22.8 percent) and Mexico (23 percent).

Figure 4: U.S. Exports and MOFA Sales, 1983–2004



SOURCES: Bureau of Economic Analysis, national income and product accounts, Table 1.1.5, and "U.S. Direct Investment Abroad: Financial and Operating Data for U.S. Multinational Companies," sales by affiliates, Table III.F.1.

filiate sales that did not go back to the U.S., 70.3 percent went directly to the host country, while the remaining 29.7 percent were exported to a third market.

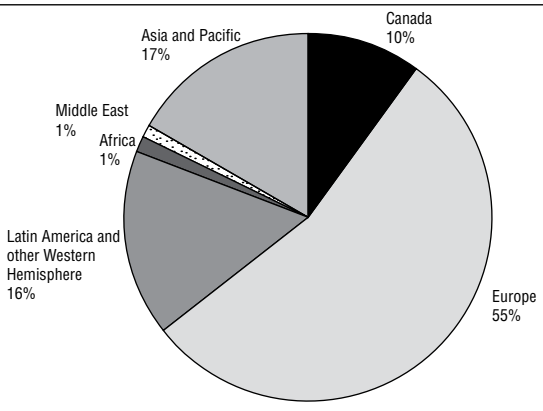
Closely connected to the purpose of U.S. investment abroad is the question of its geographic distribution. It is well documented that direct investment primarily takes place between rich countries (e.g., Markusen 1995 and Lipsey 2001). The U.S. is no exception. In 2004, 79.5 percent of the value added by U.S. affiliates abroad was generated in high-income countries (Mataloni and Yorgason 2006), down slightly from 82.2 percent in 1999.[8] The three most important countries in 2004 were the U.K. with 16.1 percent, Canada with 11.4 percent, and Germany with a 9 percent share of the total value added by majority-owned foreign affiliates of U.S. multinationals. All three nations saw a decline in their share between 1999 and 2004; among the countries whose share grew (though from very low levels) were China, India, and Poland.

Figure 5 presents the geographic breakdown of U.S. investment outflows over 1994–2004. The shares of total investment to specific regions were fairly constant over this period; the figure shows the averages of the yearly fractions. Because of the aforementioned possibility that the destination of capital flows does not necessarily reflect the location of final production, we also examine employment data. Figure 6 shows foreign affiliate employment of U.S. multinationals by region. Again, the average of the shares for each year is displayed. Comparing the two figures, the most notable differences are in the shares for Europe and Asia. This fits well with the common perception that U.S. foreign direct investment in Asia frequently occurs in labor-intensive sectors to take advantage of low factor costs, while projects in Europe are relatively capital-intensive.

[8] Value-added is the portion of goods and services sold or added to inventory or fixed investment by a firm that results from the firm's own production. The value-added estimates presented here are calculated by summing the cost and profits data collected in the BEA's annual and benchmark surveys. For details, see Mataloni and Goldberg (1994, 57).

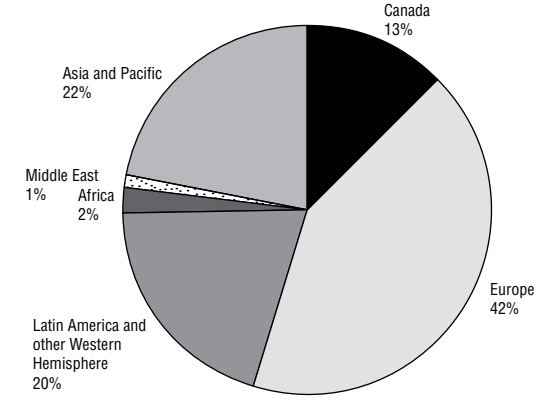
Aggregate U.S. capital outflows have been positive for the past twenty-seven years, with the exception of 2005. The widely accepted explanation for the radical change that year is the American Jobs Creation Act of 2004 (H.R. 4520). The act cut firms' tax on repatriated foreign-source income to a 5.25 percent rate for one year, as long as they permanently reinvested inside the U.S. This made reinvesting abroad temporarily less attractive, which resulted in substantial capital flows from affiliates to parent companies in 2005. U.S. capital outflows were back to being positive and significant in 2006 and the first quarter of 2007. Another consequence of the tax holiday was a big drop in reinvested earnings reported by affiliates of U.S. multinationals.

Figure 5: Regional Breakdown of U.S. Capital Outflows, Average 1994–2004



SOURCE: Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Country and Investment Detail for Capital Outflows," www.bea.gov/international/xls/usdiacap.xls.

Figure 6: Regional Breakdown of Foreign Affiliate Employment, Average 1994–2004



SOURCE: Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Financial and Operating Data for U.S. Multinational Companies," employment of affiliates, Table II.H.3.

Investment in low-cost, low-income countries still makes up only a small share of total U.S. capital outflows and an even smaller share of the total value added by affiliates of U.S. parents. However, the development between 1999 and 2004 may point to a reversal of that trend (recall, also, Figure 1). Supporting this view, Hanson, Mataloni, and Slaughter (2001) report that the degree of vertical specialization in affiliates of U.S. multinationals increased between 1982 and 1994.[9]

4. WAGES AND PRODUCTIVITY IN FIRMS WITH INTERNATIONAL OPERATIONS

Bernard and Jensen (1995) were the first to document that U.S. manufacturing firms that export pay higher wages than those that do not. Their paper was just the beginning of a large literature that reveals numerous stylized facts about the behavior and relative performance of exporting firms. Other examples of studies on the characteristics of these firms are Bernard and Jensen (1999), Clerides, Lach, and Tybout (1998), and Aw, Chung, and Roberts (1998). All these studies find that exporters across countries are larger, more productive, more capital-intensive, more technology-intensive, and pay higher wages.

While the cross-sectional studies can detect these differences, they do not allow any conclusion about causality. Does exporting cause firms to perform better along other dimensions? Or is it superior performance along other dimensions that allows firms to export? Bernard and Jensen (1999) and Clerides et al. find little or no empirical evidence for "learning by exporting." A firm's productivity and wage structure does not improve markedly once it starts to export; in fact, the opposite is more likely. But there is strong empirical evidence that high-productivity exporters were high-productivity firms years before they started shipping abroad.

As discussed above, a firm may start exporting or even become a multinational and engage in foreign direct investment in order to service a foreign market. If multinational firms are endowed with specific assets that make it profitable for them to expand abroad, one would expect them to differ significantly from local firms in the same industry with regard to productivity and wages, just as exporters differ from their nonexporting counterparts. Intriguingly, this is indeed the case.

Feliciano and Lipsey (2006) examine the impact of foreign ownership on U.S. wages during 1987–92. In the aggregate, foreign-owned establishments in the United States paid 29 percent more than domestically owned establishments. Much of this gap is explained by differences in the distribution of employment across industries. Foreign-owned establishments were concentrated in mining, manufacturing, and wholesale trade and tended to be larger than their U.S. counterparts. More than half of U.S. employment was in low-wage sectors such as retail trade and services. Controlling for industry, state of location, size distribution of plants, and other industry- and state-specific factors, the wage difference remains only

[9] More specifically, Hanson et al. interpret the decline in the ratio of value-added over total sales observable in affiliates to represent increasing vertical specialization.

for nonmanufacturing industries, but it is still significant at 8 to 9 percent. This study does not take up the question of causality.

Lipsey and Sjöholm (2003) go one step further, using firm-level data on Indonesian manufacturing plants. Not only do the authors find evidence that foreign-owned firms pay significantly higher wages, the use of a panel data set enables them to compare the years before and after an acquisition, allowing them to address the issue of causation. Lipsey and Sjöholm find that both skilled and unskilled workers' wages increase significantly in the two years following an acquisition. They invoke this evidence to argue that it is foreign ownership that causes the wage premium. Interestingly, this only holds for foreign acquisitions. The effect is absent in the case of domestic takeovers. The authors conclude there is no strong support for selection by foreign investors since the acquired firms are not significantly different prior to the investment.

Two more-recent studies examining the effect of foreign ownership on wages are Almeida (2007) and Girma and Görg (2007). Almeida uses a matched employee–employer data set from Portugal that allows her to trace both foreign participation and workforce characteristics for a specific firm over time. She finds foreign wage premiums of 32 percent for low-education workers and 48 percent for high-education workers, even after controlling for age, schooling, tenure, and gender. However, before their acquisition, the labor forces of firms acquired by foreigners are significantly different from the domestic sector averages. In addition, the human capital of the workforce and the average wages of acquired firms do not change significantly following the takeover. Thus, Almeida finds support for cherry-picking: FDI is not random. Foreigners specifically target firms already outperforming their peers. Therefore, the empirical fact that foreign-owned firms pay higher wages is due to the acquired firms having been industry leaders all along, as opposed to having experienced improved performance brought about by foreign ownership. Almeida speculates that the difference between her results and Lipsey and Sjöholm's (2003) is caused by the differing degrees of development of Portugal and Indonesia.

Girma and Görg (2007) examine data on U.K. establishments for 1980–94. While confirming that foreign-owned firms pay higher wages, their study's goal is to identify the direction of causality. They include the nationality of the foreign acquirer in the analysis and find it to be significant. In particular, both skilled and unskilled workers experience a post-acquisition wage increase if their firm was acquired by a U.S. multinational, whereas there is no such effect after an acquisition by European Union firms. This finding is very interesting in light of the ongoing debate about the apparent excess return that U.S. FDI earns relative to direct investment in the United States.

In contrast to Almeida, Girma and Görg find changes in the structure of human capital in the acquired firms after the takeover. This may be

due to structural differences in Portugal's and the U.K.'s labor markets. Almeida points to several factors unique to the Portuguese case that could make labor adjustments less attractive to a foreign investor. These could also explain the discrepancy with regard to Feliciano and Lipsey's results for Indonesia.

Huttunen (2007) investigates the effects of foreign ownership on Finnish establishments over 1988–2001. She also finds a significant positive effect on wages in all skill groups. The higher a worker's education level, the larger the wage increase. Furthermore, the author finds the positive wage effect occurs only within one to three years after the acquisition, similar to the findings by Girma and Görg (2007).

5. MANUFACTURING VERSUS SERVICES

The FDI literature exhibits one understandable bias: A dominant share of the analysis deals with manufacturing firms. Various reasons are given for this. Slaughter (1995) reports limitations on services data. In addition, manufacturing has the advantage of producing tangible output, which can be tracked. The service sector, however, poses numerous problems, among them the ease with which intangible inputs and outputs can be shifted around the globe.

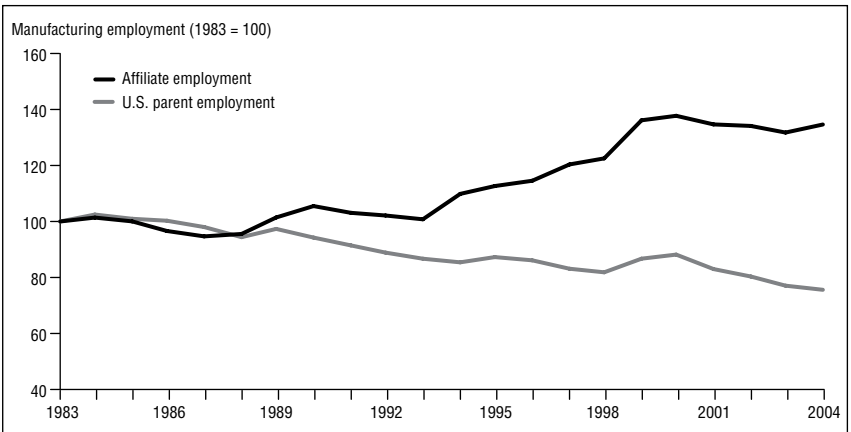
Nonetheless, recent concerns about globalization and its consequences have been caused by reports that outsourcing is shifting from blue- to white-collar jobs. An article by Blinder (2007) that has received a lot of attention outlines the characteristics of jobs already subject to outsourcing or likely to be so in the future. Well-known examples are call-center workers and computer programmers; the country most often cited in connection with outsourcing is India. Blinder concludes that the line between jobs that are vulnerable to outsourcing and jobs that are not has changed. In the past, whether a job could be outsourced depended on the skill level needed. Today, the decisive factor is whether personal interaction and a personal relationship are required. This creates uncertainty for employees who in earlier phases of globalization felt secure.

While a careful examination of globalization's potential adverse effects is beyond this paper's scope, a closer look at the nonmanufacturing side of multinational activity seems warranted. Figure 7 shows manufacturing employment for U.S. parents of affiliates and the affiliates themselves. Figure 8 shows the development of affiliate employment in manufacturing and nonmanufacturing. Figure 9 breaks down the nonmanufacturing employment by its components.[10]

The figures show a remarkable development. We observe the well-documented fact that manufacturing employment by affiliates of U.S. multinationals increased over the two decades ending in 2004, in stark contrast to manufacturing employment by the parents themselves (*Figure 7*). But Figure 8 shows that affiliate employment in sectors other than

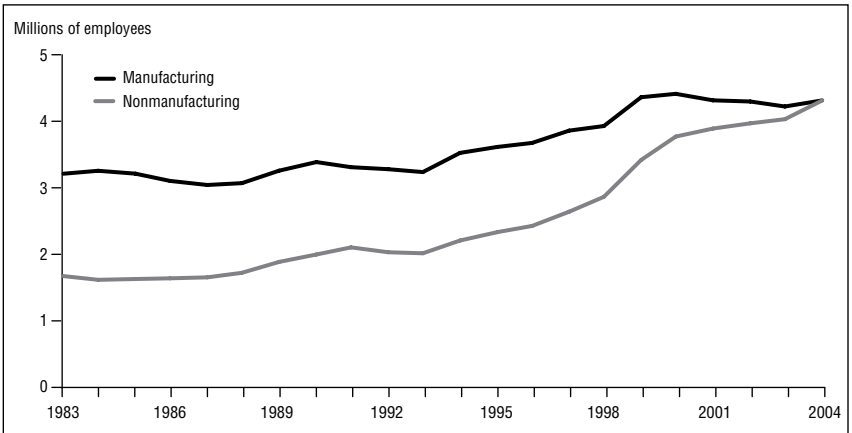
[10] The BEA reports a break in the series from 1998 to 1999. The reason is the introduction of extended coverage, which led the benchmark survey in 1999 to gather data from a larger number of firms.

Figure 7: Outsourcing Manufacturing?



SOURCES: Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Financial and Operating Data for U.S. Multinational Companies," employment of affiliates, selected financial and operating data of U.S. parents, Tables III.H.3 and II.M.1.

Figure 8: Composition of Affiliate Employment



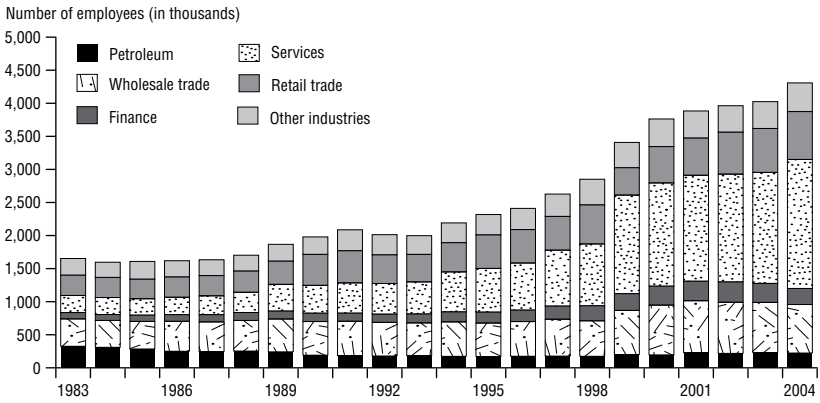
SOURCES: Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Financial and Operating Data for U.S. Multinational Companies," employment of affiliates, selected financial and operating data of U.S. parents, Tables III.H.3 and II.M.1

manufacturing has risen even more dramatically. In 1983, roughly two in three employees of affiliates abroad worked in manufacturing. By 2004, that number had fallen to one in two.

Figure 9 shows the composition of nonmanufacturing affiliate employment abroad. Most of the increase in employment stemmed from the service sector, followed by retail and wholesale trade. The growth in the latter two sectors is consistent with the observation that distribution, not production, is an important driver of FDI growth.[11]

[11] Note that the BEA's industry specifications changed in 1999, which necessitated some aggregation assumptions to extend the graph beyond 1998. Mining and utilities were aggregated under petroleum. Information services; professional, scientific, and technical services; administration; support and waste management; and food and accommodation services were all grouped together under "services."

Figure 9: Decomposition of Affiliate Nonmanufacturing Employment



NOTE: The series breaks after 1998; see text for definition of series.
SOURCE: Bureau of Economic Analysis, "U.S. Direct Investment Abroad: Financial and Operating Data for U.S. Multinational Companies," employment of affiliates, Table III.H.3.

6. FOREIGN DIRECT INVESTMENT IN THE U.S.

Foreign direct investment flows go in both directions. As U.S. firms have expanded their operations overseas, foreign firms are a growing presence in the United States. Figures 10 through 12 present the activity of foreign multinational enterprises in the U.S. As is well documented, there was a significant inflow of FDI into the U.S. during the 1980s and 1990s. This can be seen in Figures 10 and 11, which show the gross product of U.S. affiliates almost doubled from 1992 to 2000, while employment of U.S. affiliates of foreign multinationals rose from 2 million in 1980 to 6.5 million in 2000.[12] In spite of this growth, the geographic origin of the investment flows has remained fairly stable over time. Figure 12 shows the breakdown of the gross product by home country of the ultimate beneficial owner, or UBO, for 1992–2004.[13] The lion's share of foreign investment in the U.S. originated in Europe, with the most active investors from the U.K., Germany, France, the Netherlands, and Switzerland. Recent numbers confirm Europe's dominant role. The BEA reports that roughly two-thirds of the 2006 outlays to acquire or establish U.S. businesses originated there.

The origin of FDI has implications for its destination in the United States. Shannon, Zeile, and Johnson (1999) show differences between the location choices made by foreign and U.S. investors, especially for greenfield establishments. Their research uses employment data for both foreign- and U.S.-owned establishments. Not surprisingly, the employment distribution of the two kinds of establishments across the U.S. is generally similar; the correlation coefficient is 0.95. In addition, both shares are highly correlated with the population distribution, although the correla-

[12] The BEA defines a U.S. affiliate as a "U.S. business enterprise in which a single foreign person owns or controls, directly or indirectly, 10 percent or more of the voting securities if the enterprise is incorporated or an equivalent interest if the enterprise is unincorporated."

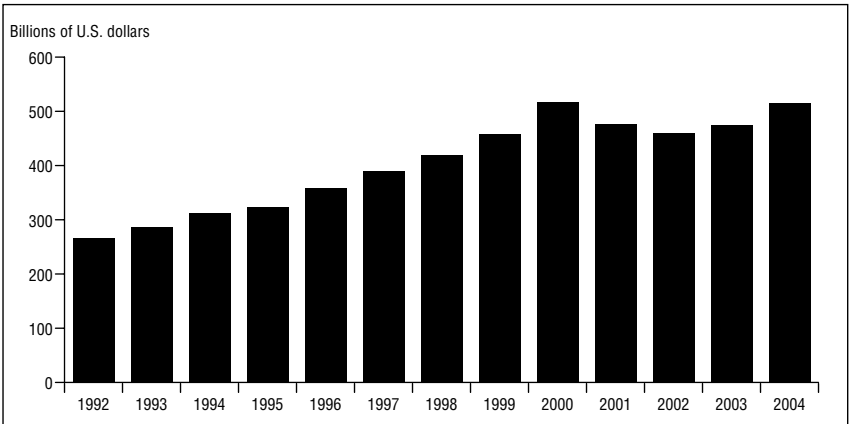
[13] The BEA defines the UBO as "the investor, proceeding up a U.S. affiliate's ownership chain, beginning with the foreign parent, that is not owned more than 50 percent by another investor."

tion for U.S.-owned establishments is higher (0.97 versus 0.92). However, foreign-owned establishments are more concentrated in the Southeastern United States. Four economic areas that rank in the top twenty for foreign-owned establishments rank significantly lower for U.S. establishments and population.[14]

There are more marked differences in the regional patterns of employment among the five major investing countries—Canada, France, Germany, the U.K., and Japan. Canadian investment is concentrated in a number of areas along the country's border and in the central United States. Greenfield investment primarily takes place in regions that already host Canadian-owned establishments. Investment projects from Canada are diversified, not concentrated in specific industries.

French- and German-owned greenfield establishments tend to be located in the eastern half of the United States. Among new foreign-owned establishments, it is the British-owned that follow a regional pattern most similar to U.S. establishments. Thus it is strongly correlated with population. Japanese greenfield establishments, on the other hand, show a pattern distinct from other owner nations. They tend to be concentrated in the far Western United States and along a corridor from Indiana to northern Georgia. The Western establishments are in the electronics industry, whereas those in the corridor are mainly related to motor vehicle production.

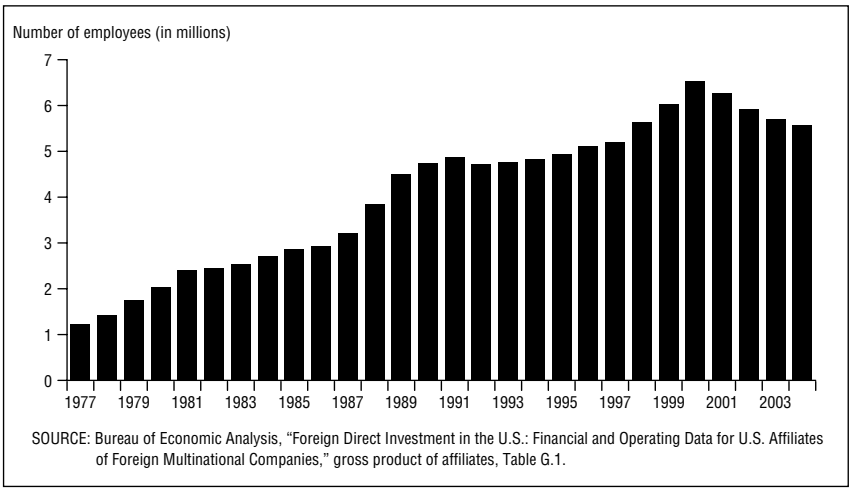
Figure 10: Gross Product of U.S. Affiliates of Foreign Multinationals



NOTE: Value-added replaces gross product for 2002–04.
SOURCE: Bureau of Economic Analysis, "Foreign Direct Investment in the U.S.: Financial and Operating Data for U.S. Affiliates of Foreign Multinational Companies," gross product of affiliates, Table F.1.

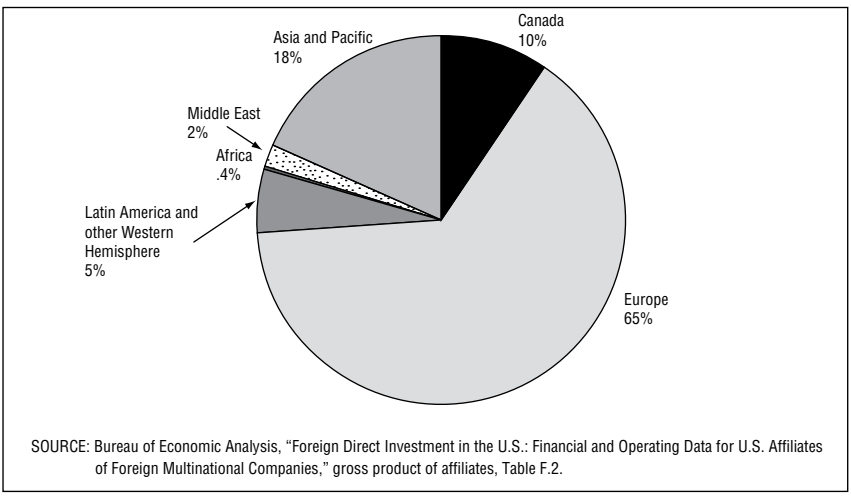
[14] The four areas in the top twenty are Nashville, Greenville–Spartanburg–Anderson, Charlotte–Gastonia–Rock Hill, and Raleigh–Durham–Chapel Hill. The BEA redefined 172 economic areas in the U.S. in 1995. The areas are designed to be self-contained labor markets. This means all members of an area's labor force have both their place of work and residence within the same economic area. For details, see Johnson (1995).

Figure 11: Total Employment of U.S. Affiliates of Foreign Multinationals



SOURCE: Bureau of Economic Analysis, "Foreign Direct Investment in the U.S.: Financial and Operating Data for U.S. Affiliates of Foreign Multinational Companies," gross product of affiliates, Table G.1.

Figure 12: Regional Breakdown of U.S. Affiliate Gross Product, 1992–2004



SOURCE: Bureau of Economic Analysis, "Foreign Direct Investment in the U.S.: Financial and Operating Data for U.S. Affiliates of Foreign Multinational Companies," gross product of affiliates, Table F.2.

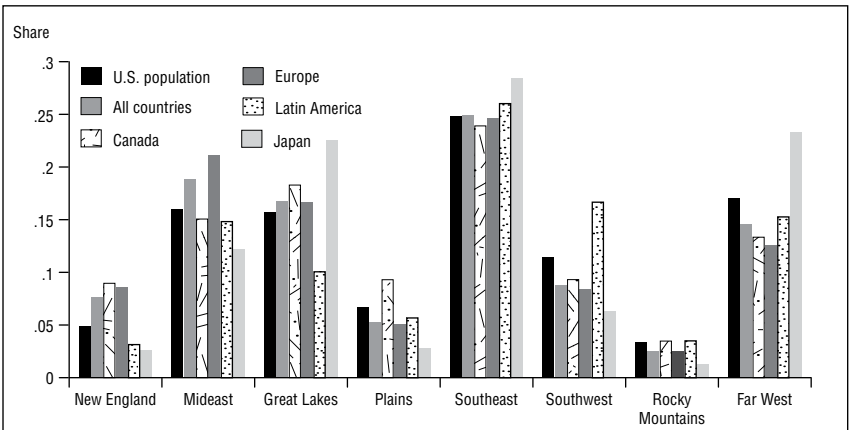
Figure 13 compares U.S. regions' total population shares with the shares of employment by foreign-owned affiliates of various countries. Aggregating across countries shows a distribution similar to that of the general population (comparing the second bar with the first). However, regional differences become obvious when looking at, for example, the disproportionate share of Latin American-owned establishments in the Southwest and the European concentration in New England and the Mideast.

7. THE RETURNS ON FDI

A puzzle that has received much attention recently is the apparent difference in the rates of return between U.S. investment abroad and for-

eign investment in the U.S. While the U.S. current account deficit has been growing for decades, the investment income balance remained positive through 2006. Part of the explanation is that U.S. direct investment abroad generates a higher rate of return than FDI in the U.S. This is, in fact, the most commonly accepted explanation, and some of the reasons offered for this discrepancy are discussed in detail below.

Figure 13: Comparison of Regional Distribution of U.S. Population and Foreign-Owned-Establishment Employment, by Country of UBO



SOURCE: Bureau of Economic Analysis, "Foreign Direct Investment in the U.S.: Financial and Operating Data for U.S. Affiliates of Foreign Multinational Companies," employment of affiliates, state by country of UBO (2004), Table III.G.8.

However, Hausmann and Sturzenegger (2005) provide an alternative take on the facts. They put forward the hypothesis that the denominator underlying the rate of return calculation for U.S. assets abroad is consistently mismeasured. The authors start with the assumption that an asset that consistently pays out more than another asset has to be worth more. This leads them to conclude that the U.S. must still be a net creditor to the world and that the BEA statistics are missing certain kinds of assets. Like its namesake in physics, this kind of "dark matter" cannot be measured directly, but its existence and size can be deduced by examining the data on returns. The amount of dark matter required to even out the rates of return is substantial: Instead of being a $2.5 trillion debtor to the world, the U.S. would have a surplus of around $600 billion.

According to Hausmann and Sturzenegger, the sources of this dark matter are in liquidity services the U.S. provides to the rest of the world, knowledge capital that is part of U.S. FDI overseas, and the fact that the U.S. can use Treasury debt to borrow at lower rates than it earns on its investments overseas.

In the absence of dark matter, the difference in measured rates of return has to be addressed. Figure 14 shows the rates of return on investment by U.S. affiliates of foreign subsidiaries of U.S. companies and U.S. affiliates of foreign companies.[15] The gap between the two series is signifi-

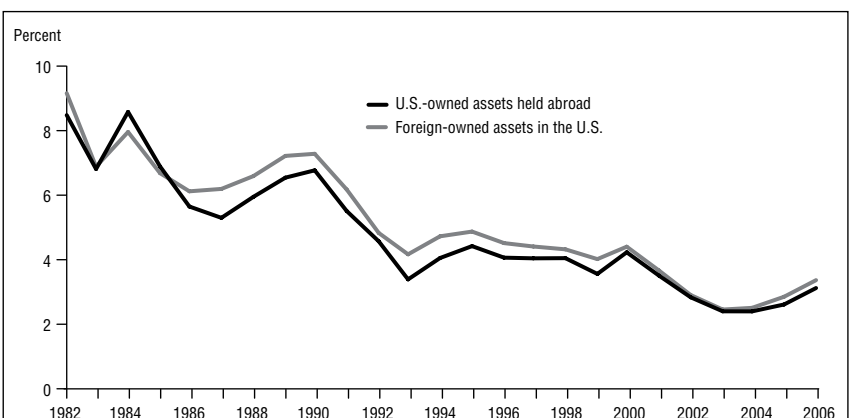
[15] The rates of return here are simply the ratios of direct investment receipts to direct investment at current cost and direct investment payments to foreign-owned direct investment in the U.S. at current cost, respectively.

cant and persistent. The average annual return on foreign-owned direct investment in the U.S. over 1982–2006 was 3.1 percent. The equivalent number for U.S.-owned direct investment abroad was 9.6 percent. Figure 15 shows that over the same period, the rates of return on portfolio investment were virtually identical, regardless whether it was U.S. assets held by foreigners or vice versa.

Figure 14: Rates of Return on FDI

SOURCE: Bureau of Economic Analysis, international investment position, Table 2, "International Investment Position of the United States at Yearend, 1976–2006."

Figure 15: Rates of Return on Portfolio Investment



SOURCE: Bureau of Economic Analysis, international investment position, Table 2, "International Investment Position of the United States at Yearend, 1976–2006."

The rates of return are based on BEA definitions. The measure uses market value as opposed to purchase cost and excludes all changes in the market value of assets except for reinvested earnings.

Three explanations have been advanced to explain the discrepancy (see, for example, Hung and Mascaro 2004): (1) A vintage effect, meaning U.S. investment projects abroad run more efficiently because the investment was made earlier; (2) a risk effect that causes U.S. returns to be

higher because U.S. investors opt for more risky projects; and (3) a tax effect caused by foreign-controlled multinationals shifting profits out of the U.S. while U.S. subsidiaries, on the other hand, overstate their foreign profits. We next discuss each of these channels and present some recent alternative suggestions for the rate-of-return puzzle.

The vintage-effect argument is based on the fact that U.S. companies started directly investing in foreign markets about twenty years before foreign companies started investing significantly in the United States. Through the mid-1970s, stocks of foreign direct investment in the U.S. were significantly lower than stocks of U.S. direct investment abroad. While some have attributed this difference to national security legislation restricting foreign direct investment in the U.S., a simpler explanation may be that the more rapid growth rates of the war-devastated European and Asian economies offered more attractive returns in the early postwar period. In the late 1970s and 1980s, foreign investment flows into the U.S. picked up. The vintage-effect hypothesis argues that these projects are still not as mature as U.S. projects overseas, and high initial costs and other start-up difficulties have kept the average rate of return low.

In a *Survey of Current Business* issue devoted to this subject, Mataloni (2000) also investigates the connection between the age of a multinational subsidiary and its rate of return.[16] He finds that foreign-owned companies with a high ratio of new to total assets have a significantly larger return-on-assets (ROA) gap relative to their U.S. counterparts than foreign-owned companies with a low ratio, which implies that the firms with the high ratio have been in business for longer than two years.[17]

In a panel analysis of firm-level data, Mataloni finds additional support for the relationship between age and ROA, especially for affiliates in the motor vehicles and equipment manufacturing sectors. (The average gap in the sector changed from −6.5 percent in 1988 to 3 percent in 1997 as the affiliates matured.)

A second possible explanation for the ROA gap, often discussed in the literature, is a difference in the risk structure of the projects U.S. and foreign investors undertake. According to this argument, U.S. investors need higher rates of return to compensate them for investing in countries with a lower country-risk rating. Hung and Mascaro (2004) show that the weighted-average Standard & Poor's host-country rating for a representative U.S. FDI project is indeed only Bbb+, while every foreigner investing in the U.S. by definition enjoys a Aaa host-country rating. However, the average yield of U.S. corporate bonds with a Bbb+ rating has exceeded Aaa bond yields by only 0.8 percent over long periods. Thus, the authors conclude that differences in risk can at best account for only a small fraction of the observed gap in ROA.

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[16] Mataloni uses a slightly different measure for return on assets.

[17] "New" assets are the assets of companies acquired or established by a given company in the preceding two years.

Finally, tax avoidance through transfer pricing has been a popular candidate for explaining the difference in returns. Differences in corporate tax rates may induce companies to over- or understate the profits generated by affiliates abroad. This can be easily achieved internally using transfer pricing, as discussed above. For example, a European multinational facing a higher corporate tax rate on profits earned in the U.S. than on profits generated at home might charge its U.S. affiliate high prices for intermediate inputs. This would change the geographic breakdown of profits and reduce overall tax liabilities.

The problem with this explanation is that testing it directly is extremely difficult. Mataloni (2000) tries to circumvent this problem by examining the relationship between the percentage of intrafirm-import content in total sales and the ROA gap. Firms with a high percentage of intrafirm-import content would have a bigger opportunity to shift profits via transfer pricing; therefore, a positive correlation between that ratio and the ROA gap could provide evidence of profit shifting. However, the relationship is rather weak. Another possible avenue is to investigate whether projects from countries with lower corporate tax rates than those in the U.S. show a larger ROA gap. But Mataloni cannot find a significant effect here, either.

Tax considerations undeniably play a role, though. From 1999 to 2003, the rate of return on U.S.-owned direct investment in low-tax Ireland and Bermuda was three and two times higher, respectively, than the overall rate of return on U.S. FDI (Hung and Mascaro 2004). Studies report that intrafirm transfers of intangible assets increase in response to relative changes in tax regimes in the source and host country (Swenson 2001; Foley et al. 2006). Foley et al. also find evidence that on the firm level, the decision of whether to retain or distribute earnings is sensitive to changes in the tax system. This further supports the hypothesis that the negative outflow of capital for the U.S. in 2005 was mainly caused by the one-year tax holiday provided by the Jobs Creation Act of 2004.

Gros (2006) takes the tax avoidance argument one step further. He bases his explanation on the observation that the reinvested earnings accounting entry in the BEA statistics figures prominently in calculating the rates of return on U.S. investment projects abroad. FDI projects in the U.S., on the other hand, have consistently reported retained earnings close to zero.

From 1982 to 2004, the total reinvested earnings on U.S. direct investment abroad was more than $1.1 trillion dollars. The equivalent number for foreign investment in the U.S. was less than $20 billion. Gros (2006, 1) concludes that "it is difficult to accept this difference at face value, particularly since there is little difference in terms of distributed earnings between U.S. FDI abroad and foreign FDI in the U.S. and given that there is little difference in the reported returns on portfolio equity investment."

Reinvested earnings also constitute an accounting entry in the BEA's balance of payments statistics. They are set to equal the difference be-

tween reported profits by the foreign affiliates of U.S. firms and the (measured) cross-border flows of dividends. The same applies to U.S. affiliates of foreign firms. However, the profit reported here is cross-checked with the profits declared for tax purposes. Therefore, there is a clear incentive to minimize the reported profit, given that the U.S. corporate tax rate is higher than most countries'.

Gros points out that reinvested earnings' sensitivity to fiscal and regulatory regimes became obvious in 2005, when reinvested earnings reported by U.S. firms dropped to near zero due to the aforementioned tax holiday.

Gros also shows that excluding reinvested earnings when calculating the U.S. net income on direct investment abroad and current account deficit has significant effects.[18] The returns U.S. firms report on their foreign investment exceed the returns foreign firms report on their investment in the United States by 1 percent of U.S. GDP. Because this difference is caused solely by reinvested earnings, taking them out of the calculation increases the U.S. current account deficit by 1 percent of GDP (a difference of $130 billion in 2004).

But taking out reinvested earnings also has consequences for the measurement of flows. Gros shows that over half the reported gross income from U.S. direct investment consists of reinvested earnings. Excluding these earnings from the calculation reduces U.S. net income from FDI for 1999–2004 from an average of $120 billion to $23 billion. It is noteworthy that net income is still positive even after this adjustment, given that the U.S. stock of FDI is smaller than the stock of foreign FDI in the United States.

8. DOES U.S. FDI OVERSEAS COST U.S. JOBS?

The increase in overseas investment is often viewed as reducing domestic activity, usually jobs. U.S. multinationals do move employment abroad to lower their costs by shifting production to low-wage affiliates. But whether the multinationals' foreign operations are detrimental to domestic employment comes down to the substitutability of their foreign workers for their U.S. employees.

One way of estimating the relevant elasticity (employed by Slaughter 1995, Brainard and Riker 1997, and Harrison and McMillan 2006) is to estimate a cost function for multinationals.[19] This approach assumes that the output of each firm (or industry) is generated by one global production function, which uses labor in different locations as distinct inputs. In addition, there is one aggregate capital stock. Within this framework, estimated coefficients are used to compute cross-price elasticities to answer the question of whether U.S. and overseas employment are substitutes or

[18] Gros argues that the asymmetry of reported reinvested earnings is sufficient reason to exclude it and use a more "traditional" measure of the U.S. balance of payments—namely, the sum of actual payment flows.

[19] Harrison and McMillan (2006) use various approaches in addition to the translog cost function.

complements. Slaughter estimates specifications for both fixed and adjustable capital. Brainard and Riker focus on the fixed-capital case, arguing that this assumption is unproblematic because we are interested in labor substitution at the margin, taking plant capacity as given. Harrison and McMillan criticize this approach, noting that capital, along with other inputs and technology, is assumed to be predetermined this way.

To address U.S. multinationals' effect on domestic employment, we start by conducting an extended robustness check of Slaughter's results. We use publicly available BEA data on operations of U.S. multinationals abroad. The data cover 1983 to 2004, and we investigate a panel of 34 industries, all of them in manufacturing. Capital is treated as a variable input, since the assumption of fixed plant capacity over this period seems unrealistic.

The approach involves estimating a system of N–1 cost-share equations, where N is the number of production factors. For example, to replicate Slaughter's results, we aggregate over all affiliates to compute the price elasticity of substitution between domestic and overseas employment for U.S. multinationals. There are three production factors (labor at home, labor abroad, and capital), so we estimate two equations of the form

$$(1) \qquad S_{iat} = \beta_{0i} + \sum_j \beta_{ij} \ln P_{jat} + \beta_{iY} Y_{at} .$$

S_{iat} is the cost share of factor i in industry a at time t, and P_{jat} the price of factor j in industry a at time t. Y_{at} is output in industry a at time t, which we use as a proxy for total sales. The price of labor is calculated by dividing total compensation by the number of employees. The cost share is the ratio of the costs related to one specific factor to total cost. For example, in the specification without capital, the cost share for domestically employed labor is the share of compensation going to domestic workers. When capital is included in the specification, its factor price is proxied by Moody's series for Aaa bond rates. Capital itself is taken from the series on total assets.

To simplify the expression, we omit the fixed effects, controlling for industry-specific and period-specific effects. A full set of these effects is included in the estimation, however.

Homotheticity of the production function results in invariance of the factor shares to overall scale of production, or more formally, $\beta_{iY} = 0 \; \forall i$. However, we control for scale effects in our specification. Table 1 compares our results with Slaughter's.[20] We report both the estimated coefficients of interest and the cross- and own-price elasticities of factor demand that are our primary interest. Note that an exact match with Slaughter is impossible given that he uses data from 1977 and 1982–89 and our data set starts at 1983. With the exception of the own-price elasticities, the match is reasonably close. We find employment abroad and employment at home to be (weakly) complementary, just as Slaughter does in his specification with variable capital.

[20] In line with the cost-share approach, linear homogeneity restrictions were imposed.

Table 1: Estimates of the Elasticity of Substitution Between Domestic and Foreign Affiliate Employment in U.S. Multinationals

	(1) Slaughter (1995)	(2) Our results for 1983–89	(3) Our results for 1983–2004
β_{pa}	–.098	–.086	–.078
Standard error	.026	.015	.009
η_{pa}	–.040	–.035	–.004
η_{ap}	–.189	–.18	–.017
η_{aa}	–.371	–.84	–.987
η_{pp}	–.256	–.5	–.47
No. of observations	282	226	678

NOTES: See Table 13, specification 6 in Slaughter (1995). Each specification contains a full set of industry dummies and time dummies and is estimated using seemingly unrelated regression. The subscripts a and p designate affiliate and parent, respectively. Slaughter's sample includes 1977 and 1982–89. β_{pa} is the estimated coefficient on the affiliate compensation rate in the parent cost-share equation. η_{pa} is the implied price elasticity of demand for parent labor with respect to affiliate compensation costs. η_{aa} is the implied own-price elasticity of demand for affiliate labor. The relationship between the estimated coefficients and the relevant elasticities is given by $\eta_{pa} = \frac{\beta_{pa} + S_p S_a}{S_p}$; the own-price elasticity is given by $\eta_{pp} = \frac{\beta_{pp} + S_p(S_p - 1)}{S_p}$.

We next repeat the calculation for the whole sample, 1983–2004, to check whether the rapid increases in FDI activity over those years change the validity of Slaughter's findings for the 1980s. Column 3 of Table 1 shows the results. At this level of aggregation, there seems to be no strong relationship between affiliate compensation costs and U.S. employment by multinationals. The complementary relationship has disappeared; confidence-interval computations show that our estimate for the price elasticity of demand for domestic labor with respect to affiliate compensation costs is not significantly different from zero.

Thus far, we have only considered employment either in the U.S. or abroad, thereby aggregating over all foreign countries. However, the studies by Brainard and Riker (1997) and Harrison and McMillan (2006) suggest aggregating affiliates along income lines. So we differentiate between affiliates in developed countries (Europe, Canada, and Japan) and developing countries. Table 2 shows the results. Our estimation suggests that affiliate employment in developed countries is complementary to parent employment in the U.S. The confidence interval corresponding to the estimate is solidly on one side of zero. On the other hand, the price elasticity of demand for parent labor with respect to developing-country affiliate compensation costs is close to zero. In addition, we do not find evidence of substitution (or complementarity) between affiliate employment in developed and developing nations.

Table 2: Alternative Estimates of the Elasticity of Substitution Between Domestic and Foreign Affiliate Employment in U.S. Multinationals

	β_{pm}	β_{pl}	β_{ml}	η_{pm}	η_{pl}	η_{pp}	η_{mm}	η_{ll}	Observations
Coefficient	–.103	–.016	–.003	—	—	—	—	—	503
Standard error	.010	.004	.003	—	—	—	—	—	—
Implied elasticity	—	—	—	–.075	–.001	–.295	–.247	–.755	—
95% confidence interval	—	—	—	±.034	±.009	—	—	—	—

NOTES: The specification contains a full set of industry dummies and time dummies and is estimated using seemingly unrelated regression. The subscripts p, m, and l designate parent, affiliates in more developed countries, and affiliates in less developed countries, respectively. Confidence intervals are computed using the procedure Anderson and Thursby (1986) outline. For interpretation of β and η, see Table 1 notes.

This finding supports the view that U.S. companies' increase in multinational activity has not robbed the domestic economy of jobs. Once one splits the sample into FDI going to developed countries and FDI going to poorer countries, two facts that have not received much attention emerge. An increase in multinational activity in developed nations is likely to generate more—not less—employment in the U.S. And the rise in FDI in poorer countries is far from being a zero-sum game in which increases in employment abroad imply unemployment at home.

Of course, before too much is read into these results, the limitations of the BEA industry-level data used in these estimations must be taken into account. In addition to providing less detail than confidential, firm-level data, these numbers suffer from missing observations whenever cells are not reported due to confidentiality concerns. However, the number of observations and the statistical significance of our coefficient estimate (and the subsequently narrow confidence band around the elasticity estimate) are reassuring. In addition, all the own-price elasticities are negative and in a highly plausible range. The value of –0.295 for the U.S. is very close to what Hamermesh (1993) calls his "best guess" of –0.3.

9. CONCLUSIONS

This article documents some key facts about foreign direct investment by U.S. firms in recent years. Direct investment by U.S. corporations overseas is growing in importance and is yet another channel through which the U.S. economy is becoming more integrated with the rest of the world.

Contrary to what might be expected, the bulk of U.S. direct investment overseas remains concentrated in other developed countries, suggesting that these investment flows are driven by considerations other than a desire to access cheap foreign labor. Indeed, we present evidence that suggests employment at foreign affiliates of U.S. multinationals complements domestic employment of U.S. multinationals. Increased employment by

U.S. multinationals overseas tends to be accompanied by increased, rather than decreased, employment by these firms in the United States.

Direct investment flows are a two-way street. While U.S. firms have been expanding their operations overseas, foreign companies have become important investors in the United States and currently employ about 5.5 million workers domestically. A remaining puzzle is why the measured return on U.S. foreign direct investment overseas is persistently higher than the measured return on foreign direct investment in the United States. A number of explanations have been offered, but none seem to provide a complete answer.

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