

Facts and Fallacies about Foreign Direct Investment

by

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1. Introduction

Foreign direct investment combines aspects of both international trade in goods and international financial flows, and is a phenomena more complex than either of these. As its name suggests, it first involves ownership of the assets of a firm: foreign direct investment (FDI) is often defined as the acquisition of 10% or more of the assets of a foreign enterprise. Second, it involves the choice of a host country for these assets. The decision of where to invest will depend on cost conditions and the extent to which investment gives preferential access to the local market, and both of these considerations depend on trade restrictions and other policies in the host country. In this respect, the decision of firms to invest abroad will be a counterpart to the international trade policies of the countries involved.

Third, FDI involves the decision of which activities to keep internal to a firm, and which to contract on the market: only the activities *internal* to a firm will be included in FDI, while other activities can be pursued by arms-length transactions between unrelated firms. For example, a firm investing in a country might bring with it some knowledge that cannot be effectively leased or sold on the market. Instead, it will set up a plant for local production and also export, so as to profit from the knowledge it has; in this case FDI leads to a transfer of intangible assets (knowledge) from the parent to the foreign subsidiary. This argument can work equally well in reverse, whereby the acquisition of a foreign firm can bring with it some knowledge of value to the purchaser, that could not be obtained by simply buying the products of that foreign firm. I will argue that increased inflows of FDI into the United States during the past decade have been motivated in part by the acquisition of knowledge.

These three features of FDI – ownership, location, and internalization – comprise the so-called OLI framework for understanding foreign direct investment. These features stress the

multi-faceted aspect of any decision to acquire a foreign firm. Because of the complexity of this decision, one should not expect any simple model to account for the trends in foreign investment as it occurs around the globe. Nevertheless, one might still expect the broad facts to be well-understood. In this paper I will argue that this is not the case, and on the contrary, there is a good deal of confusion about even the most elementary aspects of FDI, such as who is investing where, by how much, and why? Some of this confusion is due to contradictory data, but in other cases, it represents genuine conceptual misunderstandings about FDI.

To present the arguments in the starkest manner, I will organize the discussion around four fallacies about foreign direct investment. This presentation runs the risk of having the reader reject the fallacies as simple-minded, and not believable in the first place. But it is hoped that each reader will find some degree of plausibility in these fallacies, and indeed, each of them contains an element of truth. It is when they are taken as factual statements intended to hold quite generally that they become incorrect.

I begin the paper with a summary of the major trends in foreign investment over the 1980-1995 period. Following that I present the various fallacies, dealing with: the magnitude of foreign investment in Japan; the impact of FDI on the U.S. and Japanese trade balance; the extent to which multinational corporations control U.S. trade; the impact of exchange rate movements on foreign investment flows; and finally, the impact of FDI on welfare of the host country. I conclude the paper with a further analysis of the recent trends in foreign investment, and their implications for the competition faced by U.S. firms on international markets. Taken together with what I learn from over-turning the various fallacies, this analysis can serve as a guide for how to understand the movements in foreign direct investment today.

2. Trends in Foreign Direct Investment

Theories of foreign direct investment often emphasize the links between developed and developing countries. For example, the celebrated “product cycle” model of Vernon (1966) describes how new products are created in the developed countries, where production first occurs, and then as the production process is standardized production will shift to lower-wage developing countries. This shift in production need not occur within a multinational firm, but often it does, as Vernon rightly emphasizes. While this is an insightful description of the dynamic process of product development and trade, it ignores the fact the *majority* of foreign investment flows have been between developed countries. Thus, about three-quarters of the world stock of direct investment is currently located in developed countries, with only one-quarter in developing countries. In Table 1, I show the allocation of inward and outward FDI stocks between the developed and developing countries over the years 1980-1995. These data are obtained from United Nations sources, which are the best available on a worldwide basis, but still have some deficiencies that I will describe later.

Looking first at the inward stock in the upper-half of Table 1, the proportion of FDI located in developing countries fluctuated between 19% and 26% over 1980-95. There was a surge of investment into the developed countries during the second half of the 1980s, during which time the stock of investment in developed countries nearly tripled from \$538 billion to \$1,373 billion. The magnitude of direct investment in the United States doubled from 1980 to 1985, and again from 1985 to 1990. Since 1990, the stock of investment located in the developing countries has grown more rapidly, which is in large part due to increased FDI into China. This country accounts for 18.6% of the inward stock of developing countries in 1995, up from 4.1% just five years earlier. The vast majority of FDI entering into developed and

developing countries alike comes from the developed countries, as detailed in the lower-half of Table 1.¹

In comparison with these stock figures, about one-third or more of the inward *flow* of FDI in recent years has been going to developing countries, especially China. For example, in 1995 the United States was the largest recipient of FDI, with an inflow of \$60.2 billion, but China was the second largest recipient with an inflow of \$37.5 billion. Table 2 provides detailed information on the inward and outward flows of FDI for developed and developing countries. The surge in FDI flows during the second half of the 1980s both come from and was directed towards the developed countries: this flow reached \$172 billion in 1989. This was followed by a fall in direct investment magnitudes from 1990 to 1991, with a recovery that was slow at first but has increased recently to reach \$203 billion in 1995. The inflow of investment into China grew most dramatically in 1990-92, and again in 1994-95.

In addition to China, the inflows of FDI into the developing world are concentrated on a rather small number of countries. In Table 3, I show the “top ten” recipient developing countries for both FDI stocks and flows, for 1995. China has nearly 5% of the world stock of FDI in 1995, which is about twice as much as the next highest country, Mexico. At the same time, it is receiving nearly 12% of the world’s flow of FDI, which is about five times as much as that entering Mexico. The other developing countries with substantial inward stocks and flows include Malaysia, Singapore, Brazil, Indonesia and Argentina. Taken together, the “top ten” recipient countries account for 70% of the inward stock and nearly 80% of the inflows.

The principal bilateral stocks and flows of FDI in 1995 are represented in Figures 1 and 2. I focus on the so-called “Triad” countries: U.S., Europe, and Japan. The bilateral FDI between these regions account for fully one-third of the world stock (which is \$2.7 trillion) or of the world

flow (about \$315 billion) in 1995. It is apparent that stocks and flows between the United States and Europe continue to dominate the world allocation of direct investment, in addition to intra-European FDI. Following these in magnitude are the outward investment from Japan to the U.S. and Europe, and the outward investment from the U.S. to China, Mexico and Latin America.² The large magnitude of FDI in the United States, and its steady increase during the 1980-1990 period, should be seen as not that surprising in view of the tendency for FDI to concentrate in the industrial regions of the world. The exceptions are the recent flows of FDI into China, and to a lesser extent, Mexico and other areas of Latin America and Asia.

3. Fallacies about Foreign Direct Investment

Fallacy # 1. Foreign direct investment in Japan is less than one percent of assets, sales or employment.

An often-cited figure is that foreign investment accounts for less than *one percent* of the value of assets in Japan, or of the share of sales or employment. This figure has appeared in widely-read studies of foreign investment (Graham and Krugman, 1989, p. 25; Graham and Krugman, 1993, p. 16; Lawrence, 1993, p. 85), within a popular textbook (Krugman and Obstfeld, 1994, p. 162), and have even been used within the *Economic Report of the President* (1994, p. 216). The source for these figures is a study by Julius and Thomsen (1988), who report data for 1986. The extremely low apparent share of FDI in Japan contrasts with the United States, where the shares of FDI in assets, sales, or employment reported by Julius and Thomsen are 7-10%, and with European countries (France, Germany and the UK), where these range from 13-27%.

The “one percent” figure for Japan used by Julius and Thomsen is consistent with that country’s own statistics reported by the Ministry of International Trade and Industry (MITI). However, Weinstein (1997) has examined these statistics in detail, and found that they substantially *understate* the actual level of inward FDI. He cites several reasons for the understatement, including the fact that only about one-half of the firms surveyed actually respond, and that only firms with 33 percent or more of foreign ownership are even included in the survey: this percentage is far higher than the ten percent criterion for foreign ownership used by the U.S. and other countries. Weinstein rejects the MITI data on foreign investment, and instead constructs his own estimates using a published sample of foreign firms operating in Japan. Based on this sample, he estimates that the share of sales accounted for by these foreign firms is about 5.6-5.7% of total sales, or over *five times higher* than the numbers reported by Julius and Thomsen (Weinstein, 1997, p. 86).³ This figure can still be considered low in comparison with other industrial countries, but then again, it is quite comparable to the share of sales or employment in the United States accounted for by foreign firms!^{4,5}

Unfortunately, the understatement built into the MITI numbers for foreign investment extend to other Japanese sources, particularly those of the Ministry of Finance (MOF) and the Bank of Japan, the latter of which are used for balance of payment purposes. Both these agencies do not collect information from smaller foreign firms, so there is some understatement for that reason. A more serious problem, however, stems from that fact that *reinvested earnings* are not included as a source of foreign investment. Thus, if an American firm in Japan funds additional investments from earnings, it would not be recorded as foreign direct investment. It should be noted that the exclusion of reinvested earnings from foreign direct investment, especially from data collected for balance of payments purposes, is a common problem in various countries

(though not for the United States). This is one of the reasons for the discrepancy between the worldwide inward and outward FDI figures in Table 1. The reason this problem arises is that balance of payments data only include transactions between domestic and foreign residents, and therefore excludes investment due to reinvested earnings because there is no foreign exchange transaction. This type of financial activity could in principal be captured by surveys of firms, such as that conducted by MITI, but as I have seen this survey does not extend to all foreign firms in Japan.

To further illustrate the problems with the FDI reported by Japanese sources, in Table 4 I focus on bilateral U.S.-Japan direct investment, and contrast the Japanese MOF numbers with those reported by U.S. Bureau of Economic Analysis (BEA). The BEA data are based on a mandatory survey of U.S. foreign affiliates, and it *includes* investment from their earnings (Mataloni, 1995).⁶ The first column of Table 4 reports the stock or flow of FDI between the U.S. and Japan in 1993 and 1994, taken from MOF data, while the second column reports the comparable figure taken from BEA statistics. It can be seen the Japanese MOF data substantially understates the BEA data on the inward FDI stock or flow from the U.S., while it overstates the BEA data on the outward FDI stock or flow.⁷ I have argued that the understatement is due to the omission of reinvested earnings from the Japanese statistics on inward FDI, and the overstatement on outward FDI appears to be due to the fact that the Japanese figures do not take into account depreciation or losses on investment.

To put the Japan-U.S. investment flows into perspective, in Table 5 I report the bilateral FDI stocks and flows between the U.S. and a number of other countries. The Japanese inflows into the U.S., such as the purchase of Rockefeller Center and of Pebble Beach in Monterey, California, gained widespread attention in the popular press. However, the United Kingdom and

the Netherlands have historically been even larger investors in the United States. By 1993, the Japanese stock of investment in the United States had surpassed that of the Netherlands, and nearly caught up with the U.K. But there has been a reduced inflow from Japan since that time, reflected in part by capital losses on investment.⁸ The UK remains the largest single investing country in the United States, followed by Japan and then the Netherlands.

Fallacy #2. Multinational firms account for the majority of U.S. imports and exports.

Graham (1996, p. 14) states that “intrafirm trade by MNCs accounted for almost 50 percent of US exports and well over 50 percent of US imports of merchandise in 1991.” Numbers of this magnitude appear to confuse two types of trade by multinational corporations (MNCs): the trade that occurs between a parent and an affiliate – so-called “intrafirm” trade – and the trade that occurs between a multinational and all other companies it buys from and sells to. The second type is just an example of arms-length transactions between unrelated firms, and there does not seem to be any reason to treat it as special. The first type includes only those products that are transferred internationally within a MNC. Since this movement of goods leads to issues of transfer pricing, which affects the tax liability of the corporation and tax revenues of the countries involved, there is good reason to focus attention on these trade flows.

The magnitude of trade by U.S. multinationals and foreign affiliates in the U.S. are shown in Table 6. About one-third of exports and 43% of imports consist of intra-MNC trade, handled between a U.S. or foreign MNC and its affiliates. On the export side, twice as much is transacted within U.S. MNCs as by foreign MNCs. On the import side, intrafirm trade through foreign MNCs is somewhat more than through U.S. MNCs (\$134 billion compared to \$93 billion), but the majority of those imports by foreign MNCs are within wholesale and retail trade. A good

example of this is imports of finished automobiles, where Japanese affiliates such as Toyota Motor Sales in Los Angeles handle the distribution of products into the United States.

Tyson (1991) adds another twist onto the issue of intrafirm trade by contrasting the patterns of American and Japanese firms. A substantial portion of imports into Japan are handled by Japanese MNC, especially the large trading companies called *soga shosha*. For example, it is estimated that in 1990 the *soga shosha* handled more than two-thirds of Japanese imports and one-half of its exports.⁹ Tyson (1991, p. 45) argues that this contrasts very strongly with the United States, where rather than having our own firms manage import and export trade, it is instead managed by the *foreign* firms: “Foreign direct investment in wholesale and retail trade in the U.S. is so substantial, in fact, that by 1986 foreign affiliates accounted for 75 percent of total U.S. imports and nearly 70 percent of U.S. exports. So while Japanese firms control Japanese trade with the rest of the world, foreign firms dominate America’s trade.”

As has been shown, a significant portion of Japanese exports to the U.S. are indeed handled by their MNCs, with investments in the wholesaling and retailing sector. But the magnitude of these flows are not nearly as high as suggested by Tyson. For example, in Table 6 the magnitude of exports by U.S. affiliates of foreign corporations is \$48.8 billion, which amounts to 10 percent of total U.S. merchandise exports. Of this amount, \$29.6 billion or 7 percent of total exports is shipped to foreign parents in Japan. Similarly, the magnitude of imports by U.S. affiliates from their foreign parents is \$137.8 billion, amounting to one-quarter of total U.S. merchandise imports. Of this amount, \$71.2 billion or 13 percent of total imports are shipped by parent corporations in Japan.

Fallacy #3. Exchange rate changes do not affect the flow of foreign direct investment.

Of all our misconceptions, this is the one held with greatest vigor by economists, at least until recently. The reason that exchange rates are presumed not to matter is that FDI is treated like the acquisition of a financial asset. The decision of a Japanese firm to purchase an American Treasury bill, for example, will depend on the expected rate of return on the Treasury bill. The need to first convert its yen currency to dollars, and later convert the dollar returns back to yen, would be handled in the spot and forward markets for foreign exchange at the time of purchase. Thus, there is no risk involved in this currency transactions, and the exchange rates involved will effectively cancel out of the decision: all that matters is the expected return on the Treasury bill as compared to alternative investments for the firm, as well as the covariances between the returns on these various assets.

This theoretical independence of the exchange rate from the FDI decision seems to contradict recent evidence for the United States, especially the increase in acquisitions that occurred following the depreciation of the dollar in 1985. This is illustrated in Tables 7 and 8. Table 7 shows outlays by Japan and five other top investing countries for *new acquisitions* in the United States, while Table 8 shows outlays for *existing establishments*.¹⁰ Both tables show a very marked increase in acquisitions following the depreciation of the dollar in 1985, with a much smaller increase in Japanese outlays for establishments, and no variation at all in purchases of establishments by the other countries. The boom in acquisition lasted for about six years, slowing around 1991, but has recovered since then for the UK and Canada. These numbers suggest that FDI for acquisitions is especially sensitive to the exchange rate.

To reconcile the theory with this evidence, several reasons why exchange rates *will* affect the foreign investment decision have recently been proposed. The first is due to Froot and Stein

(1991), and depends on the idea that firms have less than perfect access to capital markets for loans. Since an appreciation of their exchange rates make the firms wealthier in terms of their purchasing power abroad, this will increase their ability to buy foreign firms. In particular, the appreciation of foreign currencies against the dollar after 1985 meant that foreign firms were better able to purchase U.S. plants, or establish new plants here. Note that this argument applies equally well to acquisitions or new establishments, so that it does not explain why the largest increase in FDI in the U.S. after 1985 was of the former type.

A second reason why exchange rates will matter has been advanced recently by Blonigen (1997), and helps to explain the particular surge in acquisitions in the U.S. This argument builds upon the OLI framework described at the beginning of the paper. The ownership implied by foreign direct investment allows a parent company to transfer knowledge to the subsidiary, but it equally well allows the parent to receive knowledge from the subsidiary. This knowledge can take the form of a product or process development, for example. Suppose that either of these can be usefully applied by the parent corporation in its own home market, leading to a stream of profits in that market. This will mean that the company has purchased a firm one currency (say, dollars), and receives a stream of profits in its own currency (say, yen) due to the investment. Given that revenues and costs are in different currencies, it is *certainly* the case the exchange rate will affect this decision to acquire the U.S. plant or not, and an appreciation of the yen would make it more likely that the Japanese firm will make the investment. Blonigen (1997) has shown that this argument helps the explain the increase in foreign direct investment in the U.S. manufacturing industries, especially those with high R&D.

Fallacy #4. If FDI occurs in response to trade restrictions, then it harms the host country.

Former import-substitution regimes within Latin America and elsewhere led to inflows of foreign investment to “jump” the tariff barriers, and to counteract this, the countries imposed various restrictions on foreign direct investment. These restrictions have some, albeit limited, theoretical justification. The idea the inward FDI is harmful to the host country is true when: (i) the trade restrictions in the host country takes the form of tariffs; (ii) the foreign investment does not lead to any wages increase, or technology transfer, in the host country; (iii) the foreign investment reduces but does not eliminate imports of the good (Brecher and Diaz-Alejandro, 1977). Under these assumptions, the tariff will artificially raise the rate of return in the protected industry, and this return is earned by the foreign firms located there. Unless these artificially high profits are taxed by the host country, their withdrawal will be harmful to that economy.

Recently, however, a number of developing countries have recognized the potential benefits of FDI, and loosened restrictions on these activities. For example, Mexico greatly liberalized the rules governing foreign investment during the 1980s, and these actions were taken even before the discussion of the North America Free Trade Agreement. Together with the change in the policies of some developing countries, there has also been a growing awareness among economists that the losses from FDI are the exception rather than the rule. One reason for this is that FDI generally does lead to wage increases in the host economies, as well as providing benefits through technology transfer.¹¹ Another reason is that trade restriction in the host country often take the form of quotas or “voluntary” export restraints (VERs), rather than tariffs. In this case, even the limited theoretical case showing losses due to FDI no longer holds, because the inflow of foreign investment effectively reduces the need for imports, so the quota is no longer binding. A good example of this is the VER on U.S. auto imports from Japan during the 1980s.

This import restriction led to a large inflow of foreign investment from Japan, which had the effect of lowering prices in the United States, thereby offsetting the initial cost of the trade restriction. In a world of rapid capital mobility, direct investment can offset the distortions created by trade restrictions, and also offset their welfare costs.

4. Analysis of the Trends

It is easier to throw stones than dodge them, and this paper has taken advantage of that. Even among the most widely read popular writers in economics, there are some misconceptions about the magnitudes or implications of FDI. In the process of explaining these, I have tried to outline the trends in FDI as it occurs around the globe. In this section, I will provide further explanations and analysis of these trends.

4.1 Protection

Since the early 1980s there has been a very substantial increase in foreign direct investment into the United States. The reasons for this increase, and its implications, are still being debated. Among other factors, the inflow of FDI has been influenced by the threat of protection in various industries. This threat was triggered in part by the tight monetary policy, U.S. recession and strong dollar of the early 1980s. Bhagwati et al (1992) have coined the term *quid-pro-quo* foreign investment to describe the inflow of foreign investment in response to protectionist threats. As they state: “there is certainly some plausible, more-than-anecdotal evidence that the acceleration in Japanese FDI in the United States in the early 1980’s was due to a mix of ‘political’ reasons: some partly in anticipation of the imposition of protection, and others partly to defuse its threat.” They report a survey by MITI of Japanese firms undertaking

foreign investment between 1980 and 1986, where it was found that many were motivated by “avoiding trade friction.”

The threat of protection reflects the ongoing tendency for the United States to move away from a position of supporting undivided free trade, as it did in the post-war years as the hegemonic leader of the multilateral system, to a more activist position in using its trade policies to influence the behavior of its trading partners. The inflows of foreign investment resulting from such threats of protection should not be viewed as anything new, at least from the perspective of other countries: a substantial amount of U.S. investment entered Europe during the 1960s and 1970s, in response to the moral suasion of those governments. So while the direction of these flows have been reversed in recent years, the reasons for the movement of capital has remained the same.

An empirical investigation of *quid-pro-quo* foreign investment has been undertaken by Blonigen and Feenstra (1996). They examine the impact of Japanese FDI on the outcome of antidumping investigations in the U.S., and find that the inflows of FDI tend to reduce the likelihood of antidumping duties being imposed. The same has been shown to hold for the applications of antidumping duties in Europe (Barrell and Pain, 1997). Goodman, Spar and Yoffie (1996) describe how the industry coalitions in the U.S. in automobiles, semiconductors, steel, and typewriters were impacted by the entry of foreign firms, and in most cases the eventual outcome was a *reduction* in the demands for protection. In sum, there is good empirical evidence that inflows of FDI have an impact on demands for and the application of tariffs, and in most cases the impact is to *reduce* the use of tariffs. This means that FDI inflows can have a positive impact, over and above the benefits from increased wages and technology transfer.

4.2 *Exchange Rates*

In addition to the threat of protection, I have argued that the depreciation of the dollar has played a significant role in increasing the flow of FDI. I have relied on a new argument for the importance of exchange rates: that foreign companies purchasing a U.S. firm will be able to use the knowledge from this firm in their own home market, so that they purchase the firms in dollars but earn a return in their own currencies. It is then certainly the case that the exchange rate will enter into the calculation of whether to purchase a U.S. firm or not (but not in the decision of whether to establish a new firm). I believe this argument is especially important in such industries with high R&D expenditures, and can explain the influx of foreign firms into Silicon Valley.

To complete this argument, however, it is necessary to ask why U.S. plant in question did not enter the foreign market itself, either by exporting there or establishing a subsidiary of its own. This question is easily answered: the foreign market may have restrictions on imports and on inward foreign investment. In the presence of these restrictions, the foreign company will have preferential access to its own market, and will be able to earn higher profits there from acquiring the U.S. firm than could the American firm itself. Indeed, there is evidence that foreign companies do pay a premium for U.S. firms when they are acquired (Swenson, 1993), suggesting that some aspect of this acquisition is of greater value to the foreign firm.

This rationale for FDI therefore depends fundamentally on market imperfections, giving foreign firms preferential access to home markets and therefore increasing the value of intangible assets (such as knowledge of process or product innovations) they acquire from U.S. firms. It is essentially the reverse of the traditional argument for FDI, whereby a domestic firm would move its proprietary knowledge abroad. The idea that FDI in the U.S. is for the purpose of acquiring

American knowledge may lead to the question of whether the companies involved are receiving the full value of that knowledge in their sale. While there is no reason to think that the markets are undervaluing these firms, it may be the case that *state subsidies* to FDI make these firms attractive targets for foreign takeovers. A broad array of state-level subsidies are available to foreign investors, especially those investing in new establishments. It is quite possible that states compete against each other in an effort to attract foreign investment, ending up in a “prisoner’s dilemma” situation whereby the subsidies offered are too high from a national point of view, but each state maintains these subsidies so that it does not lose out to others. For this reason, Reich (1991) has proposed that an office of the U.S. Investment Representative – analogous to the U.S. Trade Representative – should govern the use of states incentives to attract foreign investment.

4.3 Investment in Mexico and China

At the same time as capital from Europe and Asia is entering the United States, there has been a substantial outflow of foreign direct investment into Mexico and into China. This outflow is explained by the more conventional reasons of access to low-priced labor and (for China) to large domestic markets. The flow from the U.S. to Mexico may have already stabilized following the establishment of NAFTA. But the flow of investment into China can be expected to continue for some time to come, though it will depend on the development of infrastructure and stable policies in that country. Japan and the newly-industrialized countries of Asia have large and growing investments in China. Europe, by contrast, has relatively little foreign direct investment there.

There is an important difference in the rationale for FDI in China as it comes from elsewhere in Asia, as compared to that from the United States. The investment from Japan,

Taiwan, Korea and Hong Kong is largely for the “outward processing” of goods, whereby the inputs are provided from those countries and certain stages of assembly and processing are done in China. The availability of the low-priced Chinese labor reduces the overall cost of the final goods. Some of these products are quite sophisticated, such as computers or their components, and compete with American-made products on world markets. The use of China as an outward processing region for goods developed elsewhere in Asia therefore increases the competition facing some American products on world markets.

How are American corporations responding to this challenge on international markets? It appears that their investment in China is not of the same type as that done by other Asian countries. Rather, large American firms investing in China are attracted in significant part by the huge domestic market in that country. These companies see the population of 1.2 billion, with low but rising personal incomes, as a potential source of future sales. Companies such as Boeing, General Motors and Motorola see their investments in China are part of a global strategy, designed to secure sales in China over the long-term, but not necessarily resulting in short-term reduction of production costs.

This characterization suggests that the competitive challenge created by outward processing of goods in China, originating in Japan, Taiwan, and Korea, will *not* be met by similar investment in China by American corporations. Rather, U.S. firms have the opportunity to meet this challenge by the outsourcing of production activities to Mexico, under NAFTA and the offshore assembly provisions of the U.S. tariff code. These provisions allow U.S. firms to export intermediate inputs, have them processed in Mexico or elsewhere, and then re-import the final products while only paying duty on the value-added resulting from the overseas activity. As the tariff reductions under NAFTA continue to take effect, the incentives for outsourcing to the so-

called *maquiladora* plants in Mexico will increase even more. These plants should be viewed as the counterpart to the outward processing done in China for other countries in Asia. In both cases, the outsourcing of assembly activities allows the parent firms to lower their costs of production and increase their ability to compete on world market. The outsourcing by U.S. multinationals, especially to Mexico, and the outsourcing by multinationals from elsewhere in Asia, especially to China, creates two regionally-based production networks that take advantage of the low-priced labor on each continent. The competition between these regional production networks is perhaps the most important outcome of foreign investment in the developing world, and will continue to have fundamental effects on the pattern of trade and investment into the next century.

Footnotes

¹ Note that the total world stock of inward FDI in 1995 – \$2.66 trillion – is less than the total stock of outward FDI – \$2.73 trillion. This discrepancy is due to different accounting practices of countries in recording the value of FDI, as I shall discuss below.

² The direct investment from Japan to China, and the investment from Europe to Africa, are not shown due to inadequate statistics.

³ Weinstein (1997, p. 85) also suggests that the stock of foreign assets in Japan as reported by MITI (\$26 billion in 1992) should be at least four times higher (at least \$100 billion).

⁴ In 1995, the share of total U.S. private-industry employment accounted for by U.S. affiliates of foreign companies was 4.9 percent, the same as in 1994 (Fahim-Nader and Zeile, 1997). The gross-product originating in U.S. affiliates was \$327 billion in 1995, which compares to U.S. GDP of \$7,254 billion, giving a 4.5% share of value-added. Eaton and Tamura (1994) argue that foreign investment into Japan is within the range of what one would expect from a “gravity” equation, given that country’s size and distance from others.

⁵ The government of Japan is currently engaged in various activities to promote inward foreign investment, including the establishment of Foreign Access Zones, the provision of low-interest loans by the Japan Development Bank, and various tax incentives such as the extension of a carry-over period for initial losses on investment (see JETRO, 1995a,b).

⁶ Benchmark surveys are conducted by the BEA every five years, which cover virtually the entire universe of U.S. multinationals. The annual and quarterly surveys are not as extensive in their coverage, but data for smaller firms not surveyed are estimated by extrapolating from the last benchmark survey. By including foreign investment due to reinvested earnings, the BEA is

following the latest recommendations of the International Monetary Fund and the OECD (Mataloni, 1995, pp. 39-40).

⁷ It turns out that discrepancies of roughly the same magnitude can be observed in United Nations data reported the bilateral FDI flows between Japan and the U.S., which is not surprising since these data are based on the Japanese MOF and U.S. BEA sources.

⁸ For example, Rockefeller Center was sold back to General Electric by Japanese investors at a very large capital loss, and similar losses were taken on U.S. investments purchased during the “bubble” economy in Japan.

⁹ The World Bank, *China: Foreign Trade Reform*, 1994, p. 111.

¹⁰ These figures only use data on new investments, and do not include the acquisition of additional equity in an existing U.S. affiliate by the foreign parent, or plant expansions (Quijano, 1990, p. 31). Therefore, the data are less than total FDI inflows, such as shown for Japan in Table 4. The source for these figures is: Bureau of Economic Analysis, *Foreign Direct Investment in the United States: U.S. Business Enterprises Acquired or Established by Foreign Direct Investors, 1980-91 and 1992-1995*, on diskettes from the U.S. Department of Commerce, BEA, Tables 2, 5E, 6.1, 6.2, 6C, 6D.

¹¹ Lipsey (1994) shows that foreign-owned establishments in the United States pay higher wages, on average, than domestically-owned establishments. Aitken, Hanson, and Harrison (1994) and Aitken, Harrison, and Lipsey (1995) have documented the positive impact of investment inflows on wages for various developing countries.

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Table 1: FDI Stock, 1980-1995**Inward Stock (\$Billion):**

Host region/economy	1980	1985	1990	1995
Total Inward Stock	481.9	734.9	1716.9	2657.9
Developed Economies	373.6	538.0	1373.3	1932.7
Developed Share as % of total	77.5%	73.2%	80.1%	73.9%
US Inward Stock	83.1	184.6	394.9	564.6
US Share of Developed Stock	22.2%	34.3%	28.8%	29.2%
Developing Economies	108.3	196.8	341.7	693.3
Developing Share as % of total	22.5%	26.8%	19.9%	26.1%
China Inward Stock	0.0	3.4	14.1	129.0
Chinese Share of Developing Stock	0.0%	1.7%	4.1%	18.6%

Outward Stock (\$Billion):

Host region/economy	1980	1985	1990	1995
Total Outward Stock	513.7	685.6	1684.1	2730.2
Developed Economies	507.5	664.2	1614.6	2514.3
Developed Share as % of total	98.8%	96.9%	95.9%	92.1%
US Outward Stock	220.2	251.0	435.2	705.6
US Share of Developed Stock	43.4%	37.8%	27.0%	28.1%
Developing Economies	6.2	21.2	69.4	214.5
Developing Share as % of total	1.2%	3.1%	4.1%	7.9%
China Inward Flow	0.0	0.1	2.5	17.3
Chinese % of Developing Stock	0.0%	0.6%	3.6%	8.1%

Source: UN World Investment Report 1996, Annex Tables 3, 4 (pp. 239-248)

Table 2: FDI Flow, 1983-1995**FDI Inflows (\$Billion):**

Host region/economy	1983-88*	1989	1990	1991	1992	1993	1994	1995
Total inflows	91.6	200.6	203.8	157.8	168.1	207.9	225.7	314.9
Developed Economies	71.8	171.7	169.8	114.0	114.0	129.3	132.8	203.2
Developed Share as % of total	78.4%	85.7%	83.4%	73.8%	70.0%	64.8%	61.4%	68.4%
US Inflows	34.4	67.7	47.9	22.0	17.6	41.1	49.8	60.2
US Share of Developed Inflow	47.9%	39.4%	28.2%	19.3%	15.4%	31.8%	37.5%	29.7%
Developing economies	19.8	28.6	33.7	41.3	50.4	73.1	87.0	99.7
Developing Share as % of total	21.6%	14.3%	16.6%	26.2%	30.0%	35.2%	38.6%	31.6%
China Inflow	1.8	3.4	3.5	4.4	11.2	27.5	33.8	37.5
Chinese % of Developing Inflow	9.2%	11.8%	10.3%	10.6%	22.2%	37.6%	38.8%	37.6%

FDI Outflows (\$Billion):

Host region/economy	1983-88*	1989	1990	1991	1992	1993	1994	1995
Total Outflows	93.7	217.9	240.3	210.8	203.1	225.5	230.0	317.9
Developed Economies	88.3	202.3	222.5	201.9	181.4	192.4	190.9	270.6
Developed Share as % of total	94.2%	92.8%	92.6%	95.8%	89.4%	85.4%	83.2%	85.2%
US Outflows	14.2	25.7	27.2	33.5	39.0	69.0	45.6	95.5
US Share of Developed Outflows	16.1%	12.7%	12.2%	16.6%	21.5%	35.9%	23.9%	35.3%
Developing Economies	5.4	15.6	17.8	8.9	21.6	33.0	38.6	47.0
Developing Share as % of total	5.8%	7.2%	7.4%	4.2%	10.6%	14.6%	16.8%	14.8%
China Outflows	0.5	0.8	0.8	0.9	4.0	4.4	2.0	3.5
Chinese % of Developing Outflows	8.5%	5.0%	4.7%	10.3%	18.5%	13.3%	5.2%	7.4%

*Annual Average

Source: UN World Investment Report 1995, 1996; Annex Tables 1, 2.

Table 3: FDI in Top Ten Developing Countries, 1995

FDI Inward Stock:	(\$Billion)		
	total	% of world total	% of developing total
All Developing Economies	693.3	26.1%	100%
China	129.0	4.9%	18.6%
Mexico	61.3	2.3%	8.8%
Singapore	55.5	2.1%	8.0%
Indonesia	50.8	1.9%	7.3%
Brazil	49.5	1.9%	7.1%
Malaysia	38.5	1.5%	5.6%
Bermuda	28.4	1.1%	4.1%
Argentina	26.8	1.0%	3.9%
Saudi Arabia	26.5	1.0%	3.8%
Hong Kong	21.8	0.8%	3.1%
All Others	205.3	7.7%	29.6%
Total, for top ten		26.08%	70.4%
FDI Inflow (\$Billion):			
	total received	% of world total	% of developing total
All Developing Economies	99.7	31.7%	100%
China	37.5	11.9%	37.6%
Mexico	7.0	2.2%	7.0%
Malaysia	5.8	1.8%	5.8%
Singapore	5.3	1.7%	5.3%
Brazil	4.9	1.5%	4.9%
Indonesia	4.5	1.4%	4.5%
Argentina	3.9	1.2%	3.9%
Hungary	3.5	1.1%	3.5%
Chile	3.0	1.0%	3.0%
Bermuda	2.9	0.9%	2.9%
All Others	21.4	6.8%	21.5%
Total, top ten		31.6%	78.2%
Total, excluding China		19.7%	62.4%

Source: UN World Investment Report 1996, Annex Tables 1,3.

Table 4: FDI Stock and Flow Between the U.S. and Japan (\$Billion)

	Reported by Japan	Reported by the US
U.S. Stock in Japan		
1993	12.17	31.10
1994	13.77	36.68
Japanese Stock in U.S.		
1993	177.10	100.27
1994	194.43	104.53
U.S. Flow to Japan		
1993	0.93	1.63
1994	1.60	2.52
Japanese Flow to U.S.		
1993	14.73	1.06
1994	17.33	7.65

Sources: Japanese figures from Japan Ministry of Finance as quoted on, US Dept of Commerce, STAT-USA, NTDB Search Queue. U.S. figures from U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. Direct Investment Abroad*, <http://www.bea.doc.gov/bea/usdia-d.htm> and *Foreign Direct Investment in the United States*, <http://www.bea.doc.gov/bea/fdius-d.htm>.

Table 5: FDI Inward Stocks and Flow for the United States, by Source Country

Inward Stock	(\$Billion)					
	1993	% Total	1994	% Total	1995	% Total
Total	466.7		502.4		560.1	
Japan	100.3	21%	104.5	21%	108.6	19%
Canada	40.5	9%	42.1	8%	46	8%
Netherlands	71.9	15%	68.2	14%	67.7	12%
United Kingdom	103.3	22%	111.1	22%	132.3	24%
Germany	35.1	8%	40.3	8%	47.9	9%
France	30.7	7%	34.1	7%	38.2	7%
Inflow *	(\$Billion)					
	1993	% Total	1994	% Total	1995	% Total
Total	43.5		49.9		60.9	
Japan	1.1	2%	7.7	15%	5.3	9%
Canada	3.8	9%	4.0	8%	4.5	7%
France	6.8	16%	4.0	8%	3.7	6%
Germany	7.7	18%	6.6	13%	8.2	13%
Netherlands	3.0	7%	-2.3	-5%	-0.2	0%
United Kingdom	13.2	30%	11.1	22%	22.1	36%

* Negative values indicate a depreciation of investment values.

Sources: US Bureau of Economic Analysis, as quoted in Stat-USA Database; www.bea.doc.gov/bea/fdius-d.htm#fdius-1

Table 6: U.S. Imports and Exports through Multinational Corporations, 1992 (\$ Billion)

Total U.S. Merchandise Exports	448.2	Total U.S. Merchandise Imports	532.7
Exports through U.S. MNC		Imports through U.S. MNC	
- U.S. parent to foreign affiliates	104.7	- Foreign affiliates to U.S. parent	92.6
- U.S. parent to other foreign firms	140.8	- Other foreign firms to U.S. parent	107.2
- Other U.S. to foreign affiliates	15.6	- Foreign affiliates to other U.S.	16.6
Exports through Foreign MNC		Imports through Foreign MNC	
- U.S. affiliate to foreign parent	48.8	- Foreign parent to U.S. affiliate	137.8
- Manufacturing, of which:	11.6	- Manufacturing, of which:	37.3
- Wholesale Trade, of which:	34.6	- Wholesale Trade, of which:	89.2
-- Motor Vehicles & Equipment	5.2	-- Motor Vehicles & Equipment	28.7
- U.S. affiliate to other foreign firms	55.2	- Other foreign firms to U.S. affiliate	46.7
Total intra-MNC exports	153.5	Total intra-MNC imports	230.4
Intra-MNC exports (percent of total)	34.2%	Intra-MNC imports (percent of total)	43.3%

Sources: Raymond Mataloni, "A Guide to BEA Statistics on U.S. Multinational Companies," *Survey of Current Business*, March 1995, Table 7, p. 48; U.S. Department of Commerce, Bureau of Economic Analysis, *Foreign Direct Investment in the United States, 1992 Benchmark Survey, Final Results*, Table H-25, H-27, H-31, H-33.

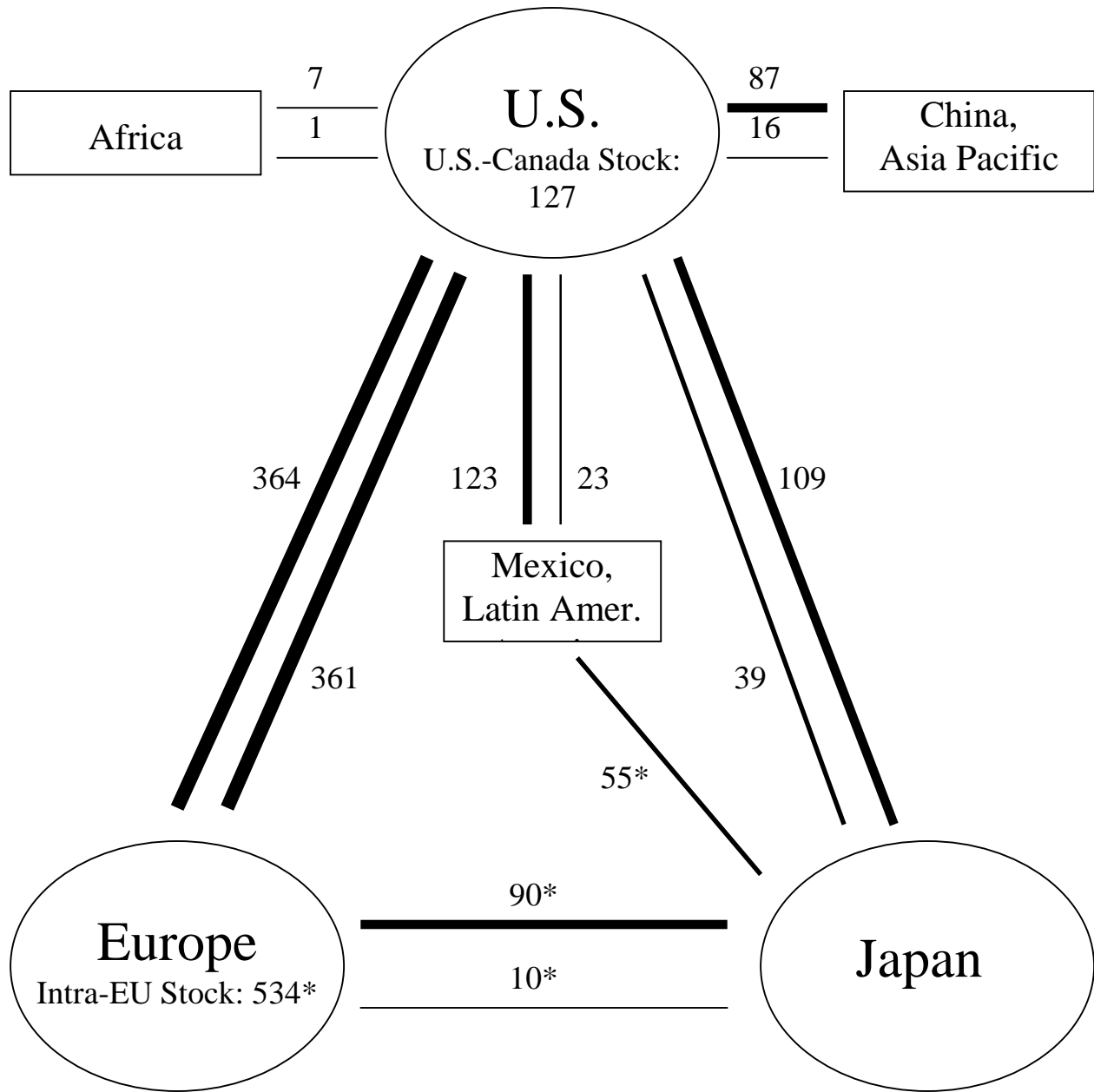
**Table 7: Foreign Acquisitions in the U.S.,
by Source Country, 1980-1996 (\$million)**

	Japan	Canada	France	Germany	Netherlands	U.K.
1980	521	1,743	516	1,186	783	2,793
1981	469	5,100	801	800	408	5,309
1982	137	914	359	315	139	2,002
1983	199	718	167	378	360	1,448
1984	1,352	2,185	145	476	460	2,964
1985	463	2,494	593	2,142	579	6,023
1986	1,250	6,091	2,403	1,167	4,406	7,699
1987	3,340	1,169	1,949	4,318	204	14,648
1988	12,232	11,162	3,691	1,849	2,067	22,237
1989	11,204	4,196	3,295	2,216	3,351	21,241
1990	15,875	1,675	10,771	2,003	2,189	12,200
1991	3,413	1,191	4,706	1,828	1,543	1,808
1992	1,643	954	373	1,398	1,113	1,621
1993	1,359	3,234	1,143	2,347	1,345	7,841
1994	1,018	2,983	1,253	2,701	1,083	16,855
1995	1,893	6,037	358	13,657	624	9428

**Table 8: New Foreign Establishments in the U.S.,
by Source Country, 1980-1996 (\$million)**

	Japan	Canada	France	Germany	Netherlands	U.K.
1980	75	213	83	238	867	273
1981	147	984	104	349	163	869
1982	450	282	124	285	191	1,126
1983	193	354	128	206	132	918
1984	454	402	186	210	102	751
1985	689	420	161	127	192	708
1986	4,166	412	88	184	295	872
1987	3,666	107	96	347	188	494
1988	3,956	198	508	241	147	321
1989	6,206	206	174	219	279	1806
1990	4,584	201	114	159	177	898
1991	1,944	2,263	271	95	118	361
1992	1,277	397	33	566	219	634
1993	706	563	106	793	730	397
1994	1,696	1,145	151	627	454	406
1995	1,865	444	859	498	261	249

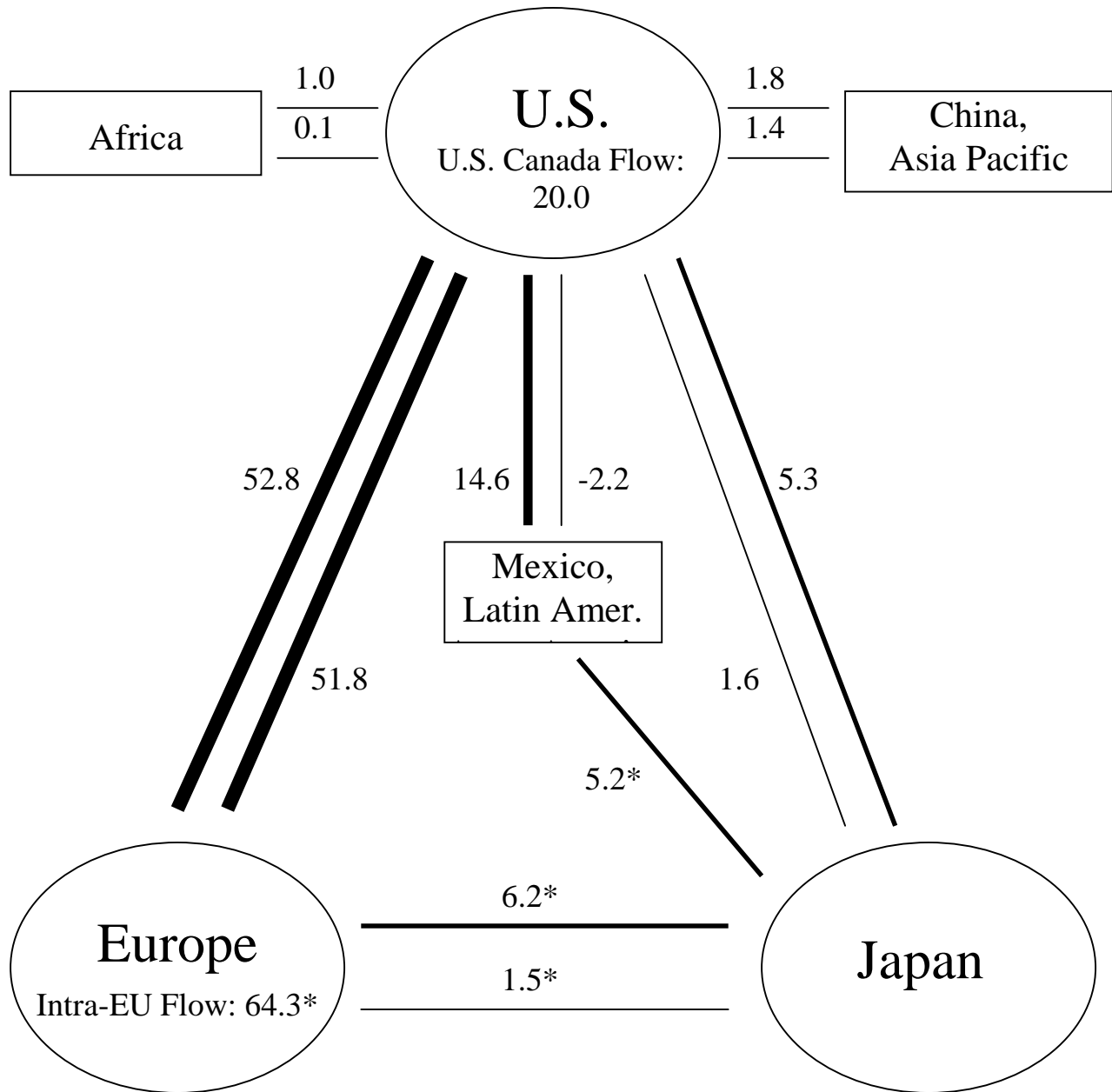
Source: Bureau of Economic Analysis, Foreign Direct Investment in the United States: U.S. Business Enterprises Acquired or Established by Foreign Direct Investors 1980-1991; 1992-1995.



* Estimated by author; intra-EU stock is for 1994.

Source: Bureau of Economic Analysis, Stat-USA Database

Figure 1: Principal FDI Bilateral Stocks, 1995 (\$ Billion)



* Estimated by author; intra-EU flow is for 1994.

Source: Bureau of Economic Analysis, Stat-USA Database

Figure 2: Principal FDI Bilateral Flows, 1995 (\$ Billion)