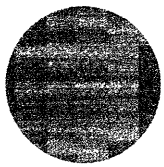
THE MIT JAPAN PROGRAM

日本プログラム

Science, Technology, Management

科学・技術・経営



MULTINATIONALS AND REGIONAL INTEGRATION: A COMPARISON OF THE AMERICANS, EUROPEANS AND JAPANESE IN THE EC AND NAFTA*

Dennis J. Encarnation

MITJP 94-08

Center for International Studies
Massachusetts Institute of Technology

Rm. E38-7th Floor
Cambridge, MA 02139
Tel: (617) 253-2839
Fax: (617) 258-7432
E-mail: robart@mit.edu

MULTINATIONALS AND REGIONAL INTEGRATION: A COMPARISON OF THE AMERICANS, EUROPEANS AND JAPANESE IN THE EC AND NAFTA*

Dennis J. Encarnation
MITJP 94-08

An earlier version of selected sections in this paper has been published in Multinationals in North America, Lorraine Eden, ed., Toronto: University of Toronto Press, 1994

*****

About the MIT Japan Program and its Working Paper Series

*****

The MIT Japan Program was founded in 1981 to create a new generation of technologically sophisticated "Japan-aware" scientists, engineers, and managers in the United States. The Program's corporate sponsors, as well as support from the government and from private foundations, have made it the largest, most comprehensive, and most widely emulated center of applied Japanese studies in the world.

The intellectual focus of the Program is to integrate the research methodologies of the social sciences, the humanities, and technology to approach issues confronting the United States and Japan in their relations involving science and technology. The Program is uniquely positioned to make use of MIT's extensive network of Japan-related resources, which include faculty, researchers, and library collections, as well as a Tokyo-based office. Through its three core activities, namely, education, research, and public awareness, the Program disseminates both to its sponsors and to the interested public its expertise on Japanese science and technology and on how that science and technology is managed.

The MIT Japan Program Working Paper Series provides an important means to achieving these ends.

*****

MULTINATIONALS AND REGIONAL INTEGRATION: A COMPARISON OF THE AMERICANS, EUROPEANS, AND JAPANESE IN THE EC AND NAFTA*

Across North America and the European Community, multinational corporations increasingly secure market access through foreign direct investment (FDI).[1] That investment grants multinationals sizeable influence over international trade--indeed, FDI may even lead trade, as intracompany shipments link multinational parents with their majority-owned subsidiaries abroad. These subsidiaries, moreover, actually record more foreign sales through offshore production and overseas distribution directly in North America and the European Community (EC) than is generated there through imports. When combined, such production and distribution either supplies the local market expressly hosting that particular foreign investment, or is exported both to nearby countries and back home. In each of these ways, this paper will argue, the foreign investment and related trade strategies of multinational corporations operating in North America and the EC have followed a common evolutionary path.[2]

Promoting that common evolution, regional integration joins a broad array of interrelated factors that have long been recognized in the academic literature, and that will be examined in greater detail below.[3] Here, a market's sheer size and its location in the product cycle are often cited. So, too, are a variety of industry characteristics, such as the pressures exerted either by oligopolistic competitors or powerful buyers. Upstream, for example, these competitors may exploit scale economies and other cost advantages that must be matched by other contenders; while downstream buyers seeking greater service may, for instance, force the creation of proprietary distribution systems and related marketing assets. Both tangible and intangible, such assets may be so specific to a particular firm that their use incurs especially high transaction costs that can best be overcome through intracompany transfers--as distinct from more arm's-length exchanges among unaffiliated buyers and suppliers. Finally, in recent

years, even government policies have encouraged a common evolution in North America and the EC: Gone are the trade restrictions and capital controls imposed at various times by both host and home governments; in their place are bilateral and multilateral agreements designed expressly to accelerate foreign investment and international trade flows. When totalled, these several interrelated, often competing, factors have managed to shape the foreign investment and related trade strategies pursued by multinationals.

Understanding both the degree and source of variation in those multinational strategies are the main subjects of this paper. My contention is that such variation, while still apparent, has diminished considerably over time, between countries, within industries, and among nationalities--all because multinationals have come to follow a common evolutionary path. Along that path, multinationals have confronted numerous strategic tradeoffs, which have been simplified and presented below as binary choices, beginning with decisions over equity ownership.

Majority Subsidiaries vs. Minority Affiliates

Multinational corporations create and sustain competitive advantage through the skillful management of tangible and intangible assets in product and process technologies, as well as marketing skills and organizational structures.[4] Such assets are specific to each individual firm, and are often best exploited when that firm owns a majority (including all) of the equity shareholdings in its foreign subsidiaries. Compared to minority shareholdings, a majority position can grant the multinational parent a higher degree of managerial control over the foreign use of that multinational's firm-specific assets. Such managerial control, in turn, often helps to reduce the high costs that can plague more "arm's-length" transactions between foreign suppliers of firm-specific assets and unaffiliated buyers overseas.[5] Instead of using such arm's-length transactions, these foreign suppliers transfer their tangible and intangible

assets internally--directly to their majority-owned subsidiaries abroad. Later, reverse transfers also take place, as foreign subsidiaries begin to ship goods and services back to their multinational parent, as well as to other related affiliates overseas. In the end, this circular flow enhances the total pool of technological, marketing, and organizational assets available to both the multinational parent and its majority subsidiaries.

At least since the Second World War, US-based multinationals have consistently invested in majority-owned subsidiaries, rather than in minority-owned affiliates. Indeed, as early as 1957, US multinationals reported to the US Commerce Department (in its first postwar census of the foreign operations of US companies) that they owned upwards of three-quarters of the equity invested in their subsidiaries abroad.[6] For the Americans, this strong preference for majority (including 100%) shareholdings remained phenomenally stable over the next three decades,[7] even as fresh outflows of US FDI reached their postwar high (during the late 1960s and early 1970s) and then subsequently fell off, to be replaced by reinvested earnings in existing subsidiaries.[8] As a result of these investments, US multinationals consistently reported that their majority-owned subsidiaries contributed an ever-larger share of total foreign sales recorded abroad by all US multinationals operating abroad: reaching three-quarters by 1966 (in the Commerce Department's first "benchmark" survey of US FDI[9]), and climbing to four-fifths by 1990 (in the Department's most recent annual survey[10]). What little remained was dispersed across equal-partnership joint ventures and minority US-owned affiliates. Thus today, for American multinationals, majority ownership of foreign subsidiaries remains a prominent characteristic of their foreign-investment strategies.

That ownership strategy has enjoyed its greatest success in other industrialized countries. Specifically, in Canada and across EC member-states, majority US-owned subsidiaries clearly prevail. In fact, within these countries, US multinationals continue to boast that they own, on average, over four-fifths of the total shareholders' equity invested in all

their foreign affiliates (see Table 1). Their shareholdings do, however, vary along the value-added chain: Those subsidiaries engaged principally in overseas distribution, for example, generally evidence a larger proportion of US shareholdings than do those subsidiaries engaged principally in offshore manufacturing, which in turn evidence a larger proportion of US shareholdings than do those subsidiaries directly tied to natural-resource extraction abroad. As a result, in Canada, US oil companies report below-average shareholdings in their subsidiaries, while US automakers and US retailers boast above-average shareholdings in their Canadian subsidiaries. Such variation reflects, in part, differences in financial (and other operational) risks, especially since average investments are typically lower in downstream retailing than, say, in upstream oil refining, where greater risks may be shared with joint-venture partners.

-- INSERT TABLE 1 HERE --

Such variation in US shareholdings also reflects wide differences in government policies, which vary not only across industries and along the value-added chain, but also across countries. Within North America, for example, just compare the incidence of majority US shareholdings in Canada and Mexico. In marked contrast to US multinationals in Canada, those same corporations in Mexico report that they own, on average, less than one-half of the total shareholders' equity invested in all their foreign affiliates (see Table 1). Yet, despite such obvious differences, in both Canada and Mexico we do find that the incidence of majority shareholdings increases as we move down the value-added chain. Specifically, in Mexico, US natural resource and (especially petro-) chemical companies have principally invested upstream in minority-owned joint ventures, while US automakers have concentrated their downstream investments in majority US-owned subsidiaries. In Mexico today (as in Canada not too long ago), government policies have restricted foreign ownership in petroleum and other

natural-resource based industries, while encouraging majority shareholdings in export-oriented manufacturing.

When comparing Canada and Mexico, however, wide variation in majority US shareholdings does not simply reflect obvious differences in national levels of economic development. To the contrary, when measuring the incidence of majority US ownership, Japan has far more in common with developing Mexico than with its G-7 partners. Indeed, in marked contrast to either Canada or the EC, Japan continues to evidence the strong legacy of earlier capital controls that limited both the value of FDI inflows and the level of foreign ownership.[11] Consequently, as recently as 1990, a decade after formal liberalization, those limited US investments in majority US-owned subsidiaries still generated a small proportion ($62 billion out of $103 billion) of the total sales recorded by all US multinationals in Japan--in fact, a smaller proportion than that generated in Mexico by majority US subsidiaries there.[12] Nevertheless, in industry after industry, the incidence of major US shareholdings in Japan has risen dramatically since 1980, with the abolition of formal capital controls. As we shall see below, this lower incidence of majority foreign subsidiaries in Japan (and in Mexico) has worked to deny US multinationals the same market access that they enjoyed either in Canada or the EC--or that foreign multinationals enjoyed in the United States.

Indeed, foreign ownership patterns in the United States look much like US ownership patterns in either Canada or the EC, but not in Japan. As a result, Canadian, European, and Japanese multinationals all evidence a high incidence of majority ownership in their US subsidiaries. For the Europeans, at least, such a high incidence mirrors that recorded by the Americans in Europe (see Table 1), with limited variation across industries. The Canadians and Japanese, by contrast, seem more inclined to invest in minority foreign-owned joint ventures, but the differences remain quite small. Few of these minority Canadian or Japanese joint ventures can be found in the US distribution system, where their sizeable

investments are actually concentrated in majority foreign-owned subsidiaries. Rather, most of their minority joint ventures are principally engaged in US manufacturing, albeit in widely different industries (for example, autos and electronics for the Japanese; food and metals for the Canadians). Despite such variation, however, across these several industries majority Canadian or Japanese ownership still prevails. Moreover, as we shall see below, the slightly higher incidence of minority foreign-owned joint ventures by Canadian and Japanese multinationals can be explained in part as mere "vintage effect:" While their earlier and smaller investments across a broad range of industries were concentrated in minority joint ventures, the recent and sizeable surge of Canadian and Japanese FDI into the US has largely entered majority subsidiaries. With this surge, the ownership strategies of multinational corporations of different national origins have begun to converge, as majority subsidiaries have become the preferred means to gain and maintain market access.

Foreign Sales vs. International Trade

After securing majority ownership and managerial control, multinationals typically employ their foreign subsidiaries to sell in overseas markets far more than they and other exporters back home ship to these same markets. In general, foreign sales come from three sources: the host-country market of the foreign subsidiary, the home-country market of that subsidiary's parent, and third-country markets that are typically in close geographic proximity to the host country. To supply these several markets, multinationals may decide to invest in overseas distribution channels consisting of dedicated sales and service networks; or they may decide to invest directly in offshore production. But before we examine (in later sections of this paper) the actual sources and final destinations of foreign sales by multinational subsidiaries, we will first compare the total value of those foreign sales (the numerator in Table 2) to the total value of bilateral trade (the denominator). Such a comparison will

establish the primacy of FDI as the principal means for gaining access both to downstream markets for products and to upstream sources of supply.

For the Americans, the predominance of foreign sales over international trade is *not new*, although some analysts have only recently discovered it. For example, Susan Strange asserted that in the "evolution of international business ... the mid-1980s were a milestone as the volume of international production for the *first time* exceeded the volume of international trade" (emphasis added).[13] To the contrary, at least for the Americans: As early as 1957, the foreign (largely majority US-owned) subsidiaries of US multinationals reported total overseas sales at twice the value of total US exports.[14] A decade later, by 1966, the combined foreign sales of these majority US subsidiaries had risen to represent three times the value of all US exports.[15] Subsequently, that 3:1 ratio of foreign sales to US exports has remained largely unaltered. In fact, during 1990, US multinationals continued to sell just over three times as much overseas through their majority subsidiaries than the United States exported to the world[16]--further testimony to the fact that U.S. FDI continues to carry international competition well beyond cross-border trade.

For the Americans, however, the relative mix of overseas sales generated either by foreign investment or international trade varies widely across regions. On one extreme is the EC, where majority U.S.-owned subsidiaries sold during 1990 well over six times more than did all U.S.-based exporters (see Table 2)--a ratio that has remained quite stable over time, dating back at least to the mid-1960s.[17] By then, several factors combined to attract the foreign investments of US multinationals to Europe: the growth in EC demand for sophisticated products already available in the United States, the erection of common EC barriers to US exports of these products, the reduction of comparable barriers to internal EC trade, and the exertion of formidable pressures by both strong EC buyers and powerful EC competitors. These pressures proved especially irresistible in oligopolistic industries where scale economies

upstream and after-sales service downstream remain critical. In autos, for example, US automakers and component suppliers during 1990 sold over 20 times more through majority subsidiaries operating in the EC than they did through US exports to the EC.[18] Here, as we shall see below, regional integration has served as an important stimulus, encouraging the growth of EC sales by US subsidiaries.

-- INSERT TABLE 2 HERE --

On the opposite extreme from Europe is Mexico, where U.S.-based exporters during 1990 sold nearly twice as many goods and services as did majority US subsidiaries operating there (see Table 2). Of course, compared to the EC, Mexico provides a much smaller national market, where product cycles still evidence significant lags. Given these market constraints, plus the strict implementation of capital controls, what little US FDI did enter Mexico was limited in value and concentrated in minority joint ventures, all as a result of stiff capital controls. Instead, US corporations principally supplied the Mexican market through cross-border trade, which itself faced stiff import restrictions. However, the recent liberalization of Mexico's trade and investment policies promises to reverse many of these earlier patterns, especially for multinationals seeking lower labor costs. Illustrative of future trends are US automakers and component manufacturers: During 1990, their majority subsidiaries in Mexico sold over twice as much as they exported to Mexico.[19] Such trends are likely to continue as US FDI in Mexico continues to grow in response to NAFTA.

The recent strategy of US automakers in Mexico closely follows their long-standing operations in Canada. Just as we saw in Mexico, US automakers and component manufacturers in Canada reported during 1990 that their majority subsidiaries sold over twice as much as they exported across the border.[20] (In both countries, the largest category of US

exports actually consisted of auto parts and components; and in both countries, these parts and components accounted for roughly 10 percent of all US exports.[21]) Yet in Canada, but not in Mexico, that 2:1 ratio of subsidiaries' sales to US exports actually represented the average across industries for all US corporations operating across different industries. For sure, this figure remained well below the 6:1 ratio enjoyed by US subsidiaries in the EC (see Table 2). Nevertheless, US corporations invested in Canada--as they had in the EC--to gain access to a sophisticated (and long-protected) domestic market, where foreign investors often faced stiff performance requirements in exchange for market access. But unlike the EC, Canada (along with Mexico) offered geographic proximity to the United States to foreign investors eager to reduce transport and transaction costs. The result, therefore, was a hybrid multinational strategy that mixed large levels of foreign investment and related trade.

Like US corporations in Canada, Canadian corporations in the United States seem, at first glance, to have also adopted a hybrid strategy that mixes trade and investment. By 1990, Canadian subsidiaries recorded US sales with one-and-a half times the value of Canadian exports to the United States (see Table 2). But this Table is deceptive; for as we shall see below, US subsidiaries in Canada contribute exceptionally high levels of Canadian exports to the United States. These should be subtracted from Canada's total exports to the United States to get a more accurate measure of the relative importance of FDI to (largely) Canadian-owned corporations seeking access to the US market. Indeed, when this correction is made, we find that Canadian subsidiaries in the United States sold two-and-a half times more than Canadian-owned corporations exported to the United States. Moreover, regardless of the measure employed, we can safely say that these ratios have increased significantly over the last two decades. For example, figures for 1974 suggest that, by either of these measures, Canadian exports exceeded the US sales of Canadian subsidiaries in the United States.[22] But with the subsequent growth of Canadian FDI in the United States, especially during the 1980s, US sales by Canadian-owned

subsidiaries surely outstripped all Canadian exports to the United States--as Canadian multinationals joined the same evolutionary path charter earlier by the Americans.

Further along that evolutionary path are the Europeans. But for them, too, such progress is a recent phenomenon. By 1974, for example, European subsidiaries sold three times more in the United States than did European-based exporters; this 3:1 ratio for the Europeans fell far short of the 6:1 ratio of foreign sales to international trade enjoyed at that time by the Americans in Europe.[23] However, over the next two decades, the Europeans erased this difference, so that by 1990 EC subsidiaries in America actually reported US sales five to six times larger than US imports from Europe (see Table 2). Thus, quite recently, the Europeans in the United States and the Americans in the EC have achieved a rough parity in the strategic mix of both foreign investment and international trade they employ to secure access to each other's market.

Like American, European, and then Canadian multinationals before them, Japanese corporations have also come to generate more of their overseas sales through foreign investment rather than through international trade. But compared to any of these multinationals, and especially to the Americans, this evolution is of very recent origin, reflecting their prolonged status as traders rather than investors. In fact, as late as 1977, Japanese subsidiaries reported total foreign sales to be roughly equivalent to Japanese exports worldwide.[24] But by 1990, following a decade of rapid growth in Japanese FDI abroad, Japanese subsidiaries (most of which were majority Japanese-owned) reported foreign sales two-and-a-half times larger than all Japanese exports worldwide.[25] This ratio proved even larger in both the United States and the European Community, where during 1990 Japanese subsidiaries sold four times more than did Japanese exporters (see Table 2). Thus, in both the US and the EC, the Japanese have come to pursue the same foreign-investment strategies that have continued to elude the Americans (and Europeans) in Japan--strategies which elsewhere in the world have

proved so successful first for American, European, Canadian, and now Japanese multinationals.

Local vs. Export Markets

To generate foreign sales, multinational corporations principally focus on the local market hosting their majority subsidiaries. No where is this more apparent than in the United States, where Canadian, European, and Japanese multinationals all reported that the local US market during 1990 consumed well over 85 percent of their subsidiaries' total US sales.[26] Consequently, exports sales back home and to third countries have remained negligible. Especially for the Canadians, neither a reduction in (transportation and transaction) costs resulting from geographic proximity, nor related gains from the regional integration of production and sales operations--none of these has exercised much influence on the final destination of their subsidiaries' sales. As a result, exports back to Canada by Canadian subsidiaries in the United States are still negligible. Similarly, European multinationals exported an equally small proportion of their subsidiaries' US sales back to the EC. By comparison, Japanese subsidiaries operating in the United States actually exported far more back to their home market, but again these US exports (principally food and raw materials) paled in comparison to local US sales. In short, the sheer size of the local US market continues to exert a powerful influence on the investment strategies of major foreign investors in the United States.

Of course, the relative importance of the local market may vary over time, as it has for US multinationals. First measured in 1957, and continuing for at least another decade, local markets in host countries accounted for three-quarters of all foreign sales generated abroad by majority US subsidiaries.[27] However, beginning in the late 1970s and continuing through the 1980s, the contribution of host markets to the worldwide revenues of majority US subsidiaries has gradually declined, so that by 1990 this contribution reached two-thirds of

total foreign sales.[28] That 1990 contribution, moreover, varied little across host countries in North America and Western Europe (see Table 3).

-- INSERT TABLE 3 HERE --

What does vary for US multinationals is the actual destination of subsidiaries' sales generated outside of the local host-country market. Again on one extreme is the EC, where exports to third countries, mostly other EC member-states, contributed nearly 30 percent of the total sales recorded by US subsidiaries (see Table 3). Worldwide, by comparison, American subsidiaries sold just over 20 percent of total foreign sales in third-country markets.[29] What remains of foreign sales, after subtracting those destined for host- and third-country markets, are largely shipped back home. Over the postwar period, at least for the Americans, exports back home have doubled their relative contribution to total sales by US subsidiaries, reaching one-tenth of total foreign sales worldwide during 1990.[30] Such increases result less from large changes in the industrial composition of US FDI, and more from growing differences in corporate strategy within the same industry and across different regions.[31] Here, US operations in Canada and Mexico both contrasted sharply with comparable operations in the EC. In both countries, despite their obvious differences, majority US-owned subsidiaries generated a large and comparable share--fully 25 percent--of their total sales by exporting goods and services back to the United States. So, while the final destination of their subsidiaries' sales may differ, North American trade by US multinationals closely parallels their intra-EC trade, as they move to integrate their regional operations.

Leading the way in regional integration, both in North America and in Western Europe, are US automakers pressured to realize scale economies in the management of cross-border, multiplant operations (see Table 3). In both Canada and Mexico, as well as across the

EC, the majority-owned subsidiaries of US automakers and related suppliers consistently rely on export markets for more than one-half of their total sales. That export share is largest in Canada, where Ford, GM, and Chrysler have tightly integrated their Canadian subsidiaries with their parent operations just across the border in the United States. Here, US automakers have been aided by bilateral treaties (most notably the 1965 Auto Pact), as well as a variety of US and Canadian laws, all of which have eventually reduced trade barriers and encouraged foreign investment. Many of these same US laws (e.g., 9801 and 9802[32]), plus the recent expansion of export processing zones south of the US border (continuing the Maquiladora program initiated as far back as 1965) have also helped to make Mexico an attractive location for US automakers and their suppliers looking to invest directly in inexpensive sources of supply. Finally, in the EC, Ford and GM employ their production sites--principally in the UK, Germany, and Spain--to supply the rest of the European market. (Japanese automakers, located principally in the UK, evidence a similar EC pattern.[33]) Across the EC, as well as in Canada and Mexico, the pressures of regional integration on US automakers greatly exceed the pull of national markets.

Offshore Production vs. Overseas Distribution

To generate their foreign sales, multinational corporations often invest in majority-owned subsidiaries that produce offshore goods and services that are then supplied to markets both abroad and back home. As a practical matter, pressures to increase such offshore production greatly increase when any of several conditions arise: when national governments severely constrain, or credibly threaten to limit, imports;[34] when global competitors derive significant cost and related advantages from their overseas location;[35] when indigenous buyers in large markets demand closer relations with their foreign suppliers;[36] and when foreign exporters fear the increased risks of exchange-rate fluctuations.[37] Otherwise, multinationals will continue to supply offshore markets through international trade, at times supplemented by

direct investments in overseas distribution. Such distribution is especially important in industries requiring dedicated sales channels and after-sales service.

Quick to respond to the pressures for offshore production have been the Americans: At least as early as 1957, and continuing for more than three decades, the value of offshore production by US multinationals was twice the value of US manufactured exports.[38] The Americans concentrated most of their foreign manufacturing in advanced markets, especially in the European Community, where during 1990 majority US-owned manufacturing subsidiaries generated sales nearly five times larger than US-based manufacturers exported to the EC (see Table 4). To illustrate an extreme case, consider how US automakers and parts suppliers generate their European sales: During 1990, US auto exports (including parts and components) to the EC totaled roughly $2.5 billion.[39] Compare this sum to the sales generated both in local host markets ($36 billion, reported above in Table) and in nearby regional markets ($28 billion) by the EC plants of US automakers. For US corporations, then, direct investment in offshore production has become their principal strategy for gaining and maintaining market access in the EC.

-- INSERT TABLE 4 HERE --

By contrast, in Mexico, international trade still remains as important as offshore production to US corporations. In fact, US subsidiaries manufacturing in Mexico reported 1990 sales roughly equal to the value of all US manufactured exports to Mexico (see Table 4). Such a ratio is actually quite common across developing economies,[40] where few incentives push multinationals to invest in offshore production. But in Mexico, recent increases in US FDI have begun to reverse earlier trends. Again, consider the auto industry: By 1990, the total Mexican production (one-half for sale in the local market, one-half for sale in

the US, according to Table 3 above) of US automakers was more than double the value of all US auto exports to Mexico (principally parts and components for reexport).[41] As a result, US automakers have come to account for fully one-third of the 1990 sales reported by all US subsidiaries manufacturing in Mexico. With NAFTA such trends are likely to continue, even with the simultaneous relaxation of Mexican import restrictions (on, say, fully made-up autos), as Ford, GM, and other US manufacturers continue their pursuit of low cost production sites.

By comparison, Canada lies between the extremes represented today by Mexico and the EC. For in Canada, US subsidiaries engaged in offshore production reported 1990 sales with a dollar value one-and-a-half times that of US manufactured exports to Canada (see Table 4). This ratio can be explained by looking at the Canadian plants operated by US automakers, who account for fully one-third of the Canadian production undertaken by all US multinationals (roughly the same share of combined sales also contributed by US auto plants in Mexico). During 1990, US auto exports to Canada totalled roughly $17 billion,[42] slightly above sales generated in the Canadian market ($14 billion, reported above in Table 3) and exported to the US market ($24 billion) by US automakers manufacturing in Canada. Such large sums reflect the simple fact that US automakers on both sides of the US-Canada border have sought to exploit scale economies as they manage their multiplant operations.

So large, in fact, is the Canadian production of US auto and component makers that during 1990 it equalled roughly two-thirds of the combined sales of all Canadian multinationals engaged in US manufacturing (compare Table 3 with Table 5). Indeed, the value of that US production even fell below the total value of all Canadian exports of manufactured goods to the United States. However, when we subtract from these Canadian exports those shipments to the United States actually made by US-owned subsidiaries in Canada, a different conclusion emerges: With this correction, the value of (truly) Canadian production in the United States is more than

one-and-a-half times larger than (largely) Canadian-owned manufacturers exported to the United States (see Table 5). Of even greater importance is the fact that the US production of Canadian multinationals grew during the 1980s at a rate at least twice that recorded by Canadian manufactured exports to the United States.[43] With such growth, Canadian multinationals in the United States are following the same evolutionary path charted long ago by the Americans in Canada.

-- INSERT TABLE 5 HERE --

Quicker to follow that US path were the Europeans, whose movement is also of recent origin. As early as 1974, the value of US production by European multinationals roughly equalled US imports of European manufactured goods.[44] Even when we add to this figure the estimated value of additional assembly operations by European subsidiaries engaged principally in US wholesaling, the total value of local production probably does exceed all US imports from Europe. Still, such offshore manufacturing remained well below comparable production by US multinationals in Europe. However, over the next two decades, the Europeans moved to cut this difference in half, so that by 1990 their manufacturing subsidiaries in the United States actually reported US sales nearly three times larger than US imports of European manufactured goods (see Table 5). As a result, both American and European multinationals have generally managed to produce and sell many more manufactured goods in each other's home market than they and other national exporters shipped across the Atlantic.

From across the Pacific, however, the Japanese have continued to pursue a very different offshore-manufacturing strategy, one that still lags Japanese exports of manufactured goods. As recently as 1990, for example, foreign sales resulting from the offshore production by Japanese subsidiaries in the US (or the EC[45]) were two-thirds the total value of Japanese

manufactured exports to these markets (see Table 5). Even when we add to these local sales the assembly operations of Japanese subsidiaries engaged principally in overseas distribution, the total value of Japanese production in America and Europe still barely equals US (and European[46]) imports of manufactured goods from Japan. For the Japanese, however, this low ratio of foreign production to international trade actually represented a significant *increase* in offshore manufacturing. Indeed, just over a decade earlier (in 1977), Japanese manufacturers and (to a much lesser extent) Japanese trading companies had reported exports from home four times larger than the worldwide production recorded by Japanese subsidiaries abroad.[47] Yet, even after such growth, these Japanese subsidiaries had little in common either with US multinationals in Europe or with EC multinationals in the United States.

Far more central to the foreign-investment strategies of Japanese multinationals has been the establishment of majority-owned subsidiaries engaged in overseas distribution (see Table 5). During 1990, for example, such intracompany shipments accounted for over three-fifths all Japanese exports to the United States.[48] Much of this trade consisted of autos, nearly all of which was shipped intracompany, by Japanese automakers (with very little involvement by Japanese trading companies) to their majority subsidiaries engaged in US wholesaling. Here, the Japanese did not act alone. To the contrary, nearly all EC auto exports to the United States are also shipped by EC automakers to their wholesaling subsidiaries in the United States.[49] From this perspective, EC and Japanese automakers differ only in terms of the value of total exports they ship to the United States. Otherwise, both have established dedicated sales channels and after-sales service networks for shipments between their parents and their US-based distributors.[50]

In addition to downstream marketing of home-country exports, wholesaling subsidiaries also increase foreign sales, by serving as upstream sources of overseas supplies. Specifically, these subsidiaries often serve as purchasing agents, both for their parents back home and for affiliated subsidiaries in third countries. Of particular significance to American multinationals have been those US wholesaling subsidiaries which supply third-country markets--especially those in Europe, where affiliated subsidiaries were among their major buyers.[51] Otherwise, for the Americans, wholesaling subsidiaries have proved to be of little value as purchasing agents for shipments back home, supplying less than 2 percent of all US imports during 1990.[52] However, for the Japanese, wholesaling subsidiaries represent much more important sources of shipments back home. These Japanese subsidiaries reported to MITI during 1990 that they had supplied nearly one-half of all Japanese imports worldwide--and the figure was higher still (roughly four-fifths) for Japanese imports from the United States.[53] These imports consisted largely of agricultural products, metals, and other raw materials--all of which remained in short supply in Japan but were plentiful in America. So, in marked contrast to the Americans, the Japanese (beginning with Japanese trading companies, but increasingly including Japanese manufacturers) invested far more aggressively in wholesaling subsidiaries in order to exploit the lower transaction and information costs they enjoy back in Japan, where they tightly control their own proprietary distribution systems.[54]

Intracompany Shipments vs. Arm's-Length Trade

Much of the trade conducted by multinational corporations is shipped intracompany, among and between parents and their subsidiaries--a fact that has recently attracted the renewed attention of academic scholars.[55] For multinationals, such trade insures greater control over both upstream supplies and downstream markets than do more arm's-length transactions among unaffiliated buyers and suppliers. Intracompany trade also

substantially lowers the high costs which these arm's-length transactions normally impose on those cross-border exchanges of the technological, marketing, and organizational assets necessary to compete successfully through foreign production and overseas distribution. As we shall see below, only with majority ownership do multinationals exercise sufficient managerial control to dictate their subsidiaries' decisions regarding these exchanges; such control is far more circumscribed in minority affiliates. Empirically, intracompany trade seems especially prominent in autos and other industries where significant economies can be achieved through the integration and coordination of multiplant operations; or where additional advantages can be gained through after-sales service.

Consider US-Canada trade. During 1990, nearly 100 percent of all US auto exports to Canada were shipped by Chrysler, Ford, and GM directly to their majority-owned subsidiaries across the border. Similarly, over 80 percent of all US auto imports from Canada were shipped by these same US subsidiaries back to their US parents. This two-way auto trade has important implications for total bilateral trade, since autos represent the largest single class of goods traded between the US and Canada (accounting for over one-fifth of all US exports to Canada, and over one-quarter of all US imports from Canada[56]). As a result, when totalled across all industries, intracompany shipments between US parents and their Canadian subsidiaries during 1990 contributed nearly 40 percent of all US trade--both imports and exports--with Canada (see Table 6). By contrast, Canadian multinationals contributed little of the remainder, given their more limited investments in the United States. Indeed, most US-Canada trade not shipped intracompany by US multinationals was shipped at arm's length among unaffiliated buyers and suppliers with no direct investments in either of the two countries. Here, low transaction and transportation costs, both resulting from geographic proximity, plus limited government impediments to market access, together aided cross-border trade independent of foreign investment.

-- INSERT TABLE 6 HERE --

As in Canada, so too in Mexico, auto trade principally entails intracompany shipments between the parent operations of the US Big-3 and their majority subsidiaries across the border. Indeed, during 1990, such shipments accounted for nearly 100 percent of all US auto exports to--and all US auto imports from--Mexico. But unlike US-Canada trade, US commerce with Mexico is not nearly as dependent on autos (which, during 1990, accounted for just over one-tenth of all two-way trade south of the border[57]). Moreover, as we saw above, Mexico--in sharp contrast to Canada--has attracted little US FDI in the face of stiff capital controls, which then forced that limited investment into minority US-owned joint ventures. Such minority ventures, as we shall see below, are typically poor markets for US exports. Given these several factors, then, a much smaller proportion (roughly 25 percent) of the two-way flow of US-Mexico trade is conducted intracompany. Instead, roughly 75 percent of US-Mexico trade is shipped among unaffiliated buyers and suppliers with no direct investments in either of the two countries (see Table 6). Yet, such arm's-length shipments are likely to diminish in the future, at least as a proportion of total US-Mexico trade. Instead, intracompany shipments are likely to grow in response to NAFTA: For as the dollar value of US FDI in Mexico rises along with the incidence of majority US ownership, so too will the dollar value of US-Mexico trade in fully made-up cars and other US goods previously restricted by Mexican import barriers.

While US-Mexico trade continues to represent an extreme case of arm's-length commerce, US-Japan trade illustrates the growing predominance of intracompany shipments. Here, Japanese multinationals exercise unrivaled control over the two-way flow (see Table 6). By 1990, in fact, over 60 percent of all US imports from Japan were shipped intracompany, largely from the parents of Japanese multinationals to their (principally majority)

subsidiaries in the United States. Here again, the auto trade figures prominently: Autos account for over one-third of all US imports from Japan, most of which (over 80 percent) are shipped by Japanese automakers directly to their US subsidiaries.[58] In reverse, however, autos contribute little to US exports to Japan. Yet, once more, intracompany trade predominates: Shipments from Japanese subsidiaries in the US back to their Japanese parents account for upwards of two-thirds of all US exports to Japan. Largely raw materials and agricultural products, these US exports are then channeled by Japanese multinationals into their proprietary distribution channels back home. There, Japanese trading companies and manufacturers often enjoy lower information and transaction costs, as well as related advantages, than do more arm's-length US exporters. For the Japanese, then, foreign direct investment has created the *principal* channels for two-way trade flows with the United States.

By contrast, US multinationals exercise no appreciable influence over US bilateral trade with Japan. Here, limited US FDI, and the concentration of that FDI in minority foreign-owned affiliates serves as an especially high barrier in Japan to US exports. Indeed, minority affiliates typically represent poor markets for national exports, even in those host countries where affiliates' sales are relatively large. For example, during 1990, US exports to minority US affiliates worldwide remained negligible--accounting for only 6 percent of all US exports to US multinationals abroad--even though minority affiliates contributed just under 20 percent of all US multinational sales.[59] More specifically, in Japan, US exports to minority US affiliates during 1990 barely totalled $2.5 billion, much less than the $7 billion of US exports shipped that same year to majority US subsidiaries in Japan.[60] Yet, as noted above, these majority subsidiaries accounted for barely $62 billion of sales in Japan, well below the $103 billion in Japanese sales recorded by minority US affiliates. In short, because Japan has long hosted a disproportionately large share of minority affiliates, and because these affiliates generally refrain from purchasing US exports, US multinationals in Japan have contributed a

relatively small share of this bilateral trade. By contrast, for the Japanese, the higher incidence of majority subsidiaries in the United States actually has granted to Japanese exports far greater access to the US market than the Americans, through their limited investments concentrated in minority affiliates, have been able to secure in Japan.

In marked contrast to US-Japan trade, US-EC trade remains far more symmetrical (see Table 6), as do US-EC investment flows. As a result of that investment, in fact, intracompany trade contributed over one-half of all US imports from the EC. Here again, auto figure prominently: Autos comprise the largest class of traded goods (accounting for 16 percent of US imports from the EC), of which nearly 90 percent are shipped intracompany, by BMW and other EC automakers to their majority subsidiaries in the United States.[61] Indeed, as a general rule, the parents of EC multinationals are the largest suppliers of US imports from Europe. Conversely, looking at US exports to the EC, the parents of US multinationals are the largest contributors, often through intracompany shipments to their majority subsidiaries in the EC. Here, US automakers are not active, since US auto exports remain small; indeed, in the absence of much auto trade, intracompany shipments to the EC accounted for just one-third of all US exports to the EC. Finally, what remains of US-EC trade is shipped at arm's-length, between unaffiliated exporters and importers. Here again, foreign direct investment plays a major role, with the US parents of American multinationals serving both as major exporters to unaffiliated EC buyers, and as major importers from unaffiliated EC suppliers. This has left all other US-owned enterprises to ship, again through arm's-length trade, roughly one-fifth of America's exports to the EC, and roughly one-third of US imports from the EC. Thus, neither American nor European multinationals singularly dominate bilateral US-EC trade.

Implications for Government Policy

The corporate behavior analyzed in this paper has not only been shaped by public policy, but ultimately has important implications for future government actions. This is especially true as Canada, Mexico, and the United States together move to ratify and then implement NAFTA. Yet, at the risk of oversimplification, NAFTA (as well as the earlier bilateral accord between Canada and the United States) can be viewed as the formal codification and timely acceleration of an ongoing process of regional integration already well underway thanks to the foreign investment and related trade strategies of multinational corporations. Thus, multinationals have led the way toward regional integration, and this fact alone has important implications for government policy.

Beginning with Mexico, the recently accelerated liberalization of national policies has already begun to accomplish many of the economic goals pursued by both Mexico and the United States, goals otherwise embodied in NAFTA. Specifically, the eradication of most foreign capital controls and the pursuit of export-oriented trade strategies have already done much to attract increased levels of US FDI inflows and, correspondingly, to increase Mexico's trade with the United States. Should such liberalization be reversed, however, Mexico's recent gains could prove ephemeral. Indeed, prior to liberalization, the high incidence of minority foreign-owned subsidiaries and the limited value of their FDI kept Mexico well outside of the evolutionary path otherwise followed by multinationals elsewhere in North America or in Western Europe. But with liberalization, that path now passes through Mexico, even in the absence of a formalized NAFTA. Indeed, because of domestic policy changes, Mexico is already a major beneficiary of regional integration, thanks in large part to the foreign investment and related trade strategies of multinational corporations.

With more emphasis, the same may be said for Canada, where the regional integration strategies of multinationals find their earliest origins (at least in North America),

and where these strategies enjoy their greatest success. So great, in fact, that Canada now faces ongoing asymmetries in trade and investment with the United States that are surprisingly akin to the asymmetries encountered by the United States in its relations with Japan. In both instances, multinationals from one country (US multinationals in Canada; Japanese multinationals in the United States) account for most bilateral investment flows and control a sizeable proportion of bilateral trade. While such asymmetries inevitably feed public fears, they need not influence public policies, certainly not policies designed to redress asymmetries through the imposition of trade and investment restrictions. Rather, one of the strong policy implications flowing from this paper is that increased FDI outflows (from Canada to the US; from the US to Japan) offer the prospect not only of increasing the foreign sales of multinationals, but also of positively influencing national exports. This seems especially true, for example, when those exports would benefit from proprietary sales channels and after-sales service. In short, rather than view the outflow of Canadian FDI to the United States as an indicator of national economic decline, as Canadian officials are known to do, an alternative interpretation holds that FDI outflow can also be a maturing sign of national economic resurgence.

The same can be said of US FDI outflows. But in the United States, FDI attracts much less policy attention than does international trade. Witness President Clinton's recent efforts to "talk down the dollar." Hardly a US investment strategy (since it increases the dollar cost of foreign assets), the decline of the dollar is ostensibly focused on reversing US trade deficits. Yet, these pages document the tight interrelationship between trade and investment: For example, investment in offshore production creates new demands for US machinery exports; similarly, investment in overseas distribution supplies after-sales service demanded by foreign importers. In response, government policy should not be to manipulate the value of the dollar upward, to reverse earlier trends. Rather, at a bare minimum, governments should

elevate FDI to the same policy level afforded trade, so that the consequences of each on the other can be better assessed.

What has attracted greater attention in the United States has been the sizeable and sudden inflow of FDI into the country, especially during the 1980s. Here, the decline of the US dollar can now be viewed as part of a national investment strategy, albeit one designed to entice foreigners to buy lower-priced US assets. As in Canada, so too in the United States, these inflows have fed public fears. But once again, they need not prompt public policies designed to restrict trade and investment. For one of the major policy implications flowing from this paper is that FDI inflows are positively associated with the creation and distribution of national wealth --not just through increased investments in local production and distribution, but also through the strong influence these foreign investments exert over international trade.

Notes

* Special thanks to Subramanian Rangan for his extensive and constructive comments.

For an earlier analysis of comparable trends across the Pacific Basin, see Dennis J. Encarnation, Rivals beyond Trade: America versus Japan in Global Competition (Cornell: Cornell University Press, 1992), esp. pp. 1-31, 183-202.

For an earlier comparison of the evolutionary path followed by American and Japanese multinationals, see my "A Common Evolution? A Comparison of United States and Japanese Transnational Corporations," Transnational Corporations (February 1993): pp. 7-31.

3. For a review of these factors, see Richard E. Caves, Multinational Enterprise and Economic Analysis (Cambridge: Cambridge University Press, 1982).

4. For a survey of these assets, see Caves, Multinational Enterprise and Economic Analysis, esp. pp 1-30, 195-211.

5. For a description of the infirmities afflicting the efficient allocation of intangible assets through conventional markets, see Oliver E. Williamson, "Markets and Hierarchies: Some Elementary Considerations," American Economic Review (May 1973): pp. 316-325.

6. US Commerce Department, Office of Business Economics, U.S. Business Investments in Foreign Countries: A Supplement to the Survey of Current Business (Washington: USGPO, 1960): Table 20, p. 108; hereafter cited as Commerce Department, US FDI, 1957 Survey.

7. For example, during 1977, American multinationals reported to the Commerce Department that over 80 percent of their "owners' equity" resided in majority US-owned subsidiaries; see US Commerce Depratment, Bureau of Economic Analysis, U.S. Direct Investment Abroad, 1997 (Washington: USGPO, 1981): Table II.A.18, p. 123, and Table III.A.18, p. 242; hereafter cited as Commerce Department, US FDI, 1977 Benchmark.

8. Robert E. Lipsey, "Changing Patterns of International Investment in and by the United States," in Martin Feldstein, ed., The United States in the World Economy (Chicago: University of Chicago Press for the National Bureau of Economic Research, 1988), pp. 488-92; David J. Goldsbrough, "Investment Trends and Prospects: The Link with Bank Lending," Theodore H. Moran, ed., Investing in Development: New Roles for Private Capital? (Washington, D.C.: Overseas Development Council, 1986).

9. US Commerce Department, Bureau of Economic Analysis, U.S. Direct investment Abroad, 1966: Final Data (Washington: USGPO, 1975), esp. Table J-4, p. 167, and Table L-12, p. 197; heareafter cited as Commerce Department, US FDI, 1966 Benchmark.

10. US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1990 Estimates (Washington: USPGO, November 1992), Tables II.E.3 and III.E.3, n.p.: hereafter cited as Commerce Department, US FDI, 1990 Survey.

11. Encarnation, Rivals, esp. pp. 209-212; see also Dennis J. Encarnation and Mark Mason, "Neither MITI nor America: The Political Economy of Capital Liberalization in Japan," International Organization (Winter 1990): pp. 25-54.

12. Commerce Department, US FDI, 1990 Survey, Tables II.E.3 and III.E.3, n.p.

13. Susan Strange, "The Name of the Game," in Nicholas X. Rizopoulos, ed., Sea-Changes: American Foreign Policy in a World Transformed (New York: Council on Foreign Relations Press, 1991), p. 242.

14. For sales data, see Commerce Department, US FDI, 1957 Survey, Table 22, p. 110; for trade data, see US Commerce Department, Bureau of International Commerce, "United States Trade with Major World Areas, 1955 and 1956," Overseas Business Reports (May 1957), 2, 8.

15. For sales data, see Commerce Department, US FDI, 1966 Benchmark, Table L-2, p. 198; for trade data, see US Commerce Department, Bureau of International Commerce, "United States Trade with Major World Areas, 1965 and 1966," Overseas Business Reports (May 1967), 3, 12.

16. For sales data, see Commerce Department, US FDI, 1990 Survey, Table III.E.3, n.p.; for trade data, see US Commerce Department, International Trade Administration, US Foreign Trade Highlights; 1991 (Washihngton, DC: USGPO, May 1992), Table 2, p. 11.

17. For data, see note 15 above.

18. Commerce Department, US Direct Investment Abroad: Preliminary 1990 Estimates, Table III.E.3; Commerce Department, US Foreign Trade Highlights: 1991, p. 88.

19. Commerce Department, US Direct Investment Abroad: Preliminary 1990 Estimates, Table III.E.3; Commerce Department, US Foreign Trade Highlights: 1991, p. 128.

20. Commerce Department, US Direct Investment Abroad: Preliminary 1990 Estimates, Table III.E.3; Commerce Department, US Foreign Trade Highlights: 1991, p. 76.

21. Commerce Department, US Foreign Trade Highlights: 1991, pp. 11, 76, 128. In Canada, the second largest category of US exports consisted of full made-up cars and trucks, US products largely excluded from Mexico as a result of high import tariffs.

22. For sales data, US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States, Volume 2, Report of the Secretary of Commerce, Benchmark Survey, 1974 (Washington, DC: USGPO, various years).

23. Ibid.

24. During 1977, when Japanese exports to the world totaled $85 billion, Japanese affiliates abroad reported foreign sales of roughly $85 billion (Y 22.8 trillion). For sales data, see Japan, Ministry of International Trade and Industry, Industrial Policy Bureau, The 8th Survey of the Overseas Business Activities of Japanese Enterprises [*Dai hachi-kai wagakuni kigyo no kaigai jigyo katsudou*](Tokyo: MITI, 1979), Table 51, p. 54; hereafter cited as MITI, Japanese FDI, 8th Survey. For trade data, see International Monetary Fund, International Trade Statistics Yarbook: 1980 (Washington, DC: IMF, 1981), p. 243.

25. For sales data, see MITI, Japanese FDI, 21st Survey, Table 2-12, pp. 88-89; for trade data, see International Monetary Fund, Direction of Trade Statistics Yearbook: 1992 (Washington, DC: IMF, 1992), p. 158.

26. US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States: 1987 Benchmark Survey, Final Results (Washington, DC: USGPO, August 1990), Tables G-2 and G-24, pp. 120, 142.

27. Commerce Department, US FDI, 1957 Survey, Table 22, p. 110; Commerce Department, US FDI, 1966 Benchmark, Table L-1, p. 197.

28. Commerce Department, US FDI, 1977 Benchmark, Table II.H.1, p. 318; Commerce Department, US FDI, 1988 Survey, Table 34, n.p.; Commerce Department, US FDI, 1990 Survey, Table III.F.2, n.p.

29. MITI, 21st Overseas Survey, pp. 78-79, 88-89; Commerce Department, US FDI, 1990 Annual Survey, Table III.F.2, n.p.

30. Commerce Department, US FDI, 1990 Survey, Table III.F.2, n.p.

31. For supporting data, see Raymond Vernon and Subramanian Rangan, "Foreign Direct Investment in the Adjustment Process," in Ippei Yamazawa and Akira Hirata, eds., Industrial Adjustment in Developed Countries and Its Implications for Developing Countries (Tokyo: Institute of Developing Economies, 1991), pp. 167-81.

32. According to one estimate, generously supplied by Subramanian Rangan, roughly 26 percent of total US merchandise exports to Mexico during 1988 were covered under section 9802. For Canada, the comparable share is less than 10 percent of US exports there.

33. Dennis J. Encarnation, "Investment and Trade by America, ****?? European, and Japanese Multinationals Across the Triad," in Mark Mason and Dennis J. Encarnation, eds., Does Ownership Matter? Japanese Multinationals in Europe (London: Oxford University Press, forthcoming, 1994), Chapter 6.

34. For an early analysis of the relationship between trade policies and foreign direct investment, see Grant L. Reuber et al., Foreign Pirvate Investment in Development (Oxford: Oxford University Press for the Organization of Economic Cooperation and Development, 1973), esp. pp. 120-32; for a more recent analysis, see Stephen E.

Guisinger et al., Investment Incentives and Performance Requirements: Patterns of International Trade, Production and Investment (New York: Praeger, 1985), esp. pp. 48-54.

35. For a recent study of location-specific advantages, see Michael E. Porter, The Competitive Advantage of Nations (New York: the Free Press, 1990).

36. For the impact of such "buyer power," see Michael E. Porter, Competitive Strategy: Techniques for Analyzing Industries and Competitors (New York: The Free Press, 1980).

37. DeAnne Julius, Global Companies and Public Policy, pp. 88-91.

38. For sales data, see the following Commerce Department publications: 1957 Survey, Table 22, p. 110; US FDI, 1966 Benchmark, Table L-3, p. 199; 1977 Benchmark, Table II.H.1, p. 318; US FDI, 1988 Survey, Table 34, n.p.; US FDI, 1990 Survey, Table III.F.2, n.p. For trade data, see Commerce Department, "International Business Indicators," Overseas Business Reports (January 1973), Table 5, p. 14; US Foreign Trae Highlights (various years).

39. Commerce Department, US Foreign Trade Highlights: 1991, p. 88.

40. For Japan, see Figure 2 above. For LDCs, see Commerce Department, US FDI, 1990 Survey, Tables II.E.3 and III.E.3, n.p.; and US Foreign Trade Highlights, 1991, Table 10, p. 28.

41. For US subsidiairies' sales, see Table 3; for US exports, see Commerce Department, US Foreign Trade Highlights: 1991, p. 128.

42. Commerce Department, US Foreign Trade Highlights: 1991, p. 88.

43. Compare the data presented in Table 5 with the following: US Commerce Department, Bureau of Economic Analysis, Foreign Direct investment in the United States, 1980, Washington, DC: USGPO, October 1983), Table E-6, p. 104; and US Commerce Department, International Trade Administration, US Foreign Trade Highlights, 1980 (Washington, DC: USGPO, October, 1983), Table e-6, p. 104; and US Commerce Department, International Trade Administration, US Foreign Trade Highlights, 1980 (Washington, DC: USGPO, July 1989), Table V.2A, p. 87.

44. For data, see note 22 above.

45. Encarnation, "investment and Trade by America (***??), European, and Japanese Multinationals," forthcoming.

46. ibid.

47. For sales data, see MITI, Japanese FDI, 8th Survey, Table 51, p. 54; for trade data, see IMF, Direction of Trade Statistics yearbook: 1980, p. 242. Specifically, in the United States, 1974 estimates of Japanese manufactured exports ranged as high as ten times the value of local production.

48. For trade data, see Commerce Department, US Foreign Trade Highlights: 1991, Table 11, p. 32. For sales data, see US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States: Operations of US Affiliates of Foreign Companies, Preliminary 1990 Estminates (Washington, DC: USGPO, August 1992), Tables E-4, G-2. n.p.; hereafter cited as Commerce Department, FDI in US, 1990 Survey.

49. US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States: 1987 Benchmark Survey, Final Results (Washington, DC: USGPO, August 1990), Table G-31, p. 149; Commerce Department, US Foreign Trade Highlights , 1991, p. 89.

50. For evidence, see Dennis J. Encarnation, "Cross-Investment," in Thomas K. McCraw, America versus Japan (Boston: Harvard Business School Press, 1986), Tables 4-2 and 4-3, pp. 120,126; and "American-Japanese Cross-Investment," in Stephan Haggard and Chung-in Moon, eds., Pacific Dynamics: The International Politics of Industrial Change (Boulder: Westview Press, 1989), Tables 8.2 and 8.4, pp. 212, 232. Also see Yamawaki Hiroyuki, "Exports and Direct Investment in Distribution: Evidence on Japanese Firms in the United States," discussion Paper FS 111, Wissenschaftszentrum, Berlin, n.d.

51. For intracompany trade within Europe, the most recent data are for 1989; see US Commerce Department, Bureau of Economic Analysis, US Direct Investment Abroad: 1989 Benchmark Survey, Final Results (Washington, DC: USGPO, October 1992), Tables III.F.10 and III.F.11, pp. 198-199. for third-country sales during 1990, see Commerce Department, US FDI: 1990 Annual Survey, Tables III.F.8, n.p.

52. For sales data, see Commerce Department, US FDI, 1990 Survey, Table II.H.22, n.p.; for trade data, see Commerce Department, US Foreign Trade Highlights: 1991, Table 3, p. 15.

53. For sales data, see MITI, 21st Overseas Survey, Table 2-12, pp. 78-79, 88-89; for trade data, see IMF, Direction of Trade Statistics: 1992, Table 158, p. 240.

54. For an early survey of these barriers, see Michael Yoshino, The Japanese Marketing System: Adaptations and Innovations (Cambridge, MA: MIT Press, 1971); for more recent surveys, see the following chapters in Paul Krugman, ed., The US and Japan: Trade and Investment (Cambridge, MA: MIT Press for the National Bureau of Economic Research, forthcoming, 1991): Itoh Motoshige, "The Japanese Distribution System and Access to the Japanese Market," and Ito Takahashi and Maruyama Masayoshi, "Is the Japanese Distribution System Really Inefficient?"

55. See, for example, Encarnation, Rivals beyond Trade, esp. pp. 26-31, 190-197; Leo Sleuwaegen and Yamawaki Hideki, "Foreign Direct Investment and Intra-Firm Trade: Evidence from Japan," discussion Paper #9002/G, Institute for Economic Research, Erasmus University (Rotterdam), n.d.

56. Commerce Department, US Foreign Trade Highlights: 1991, pp. 11, 15, 76-77.

57. Ibid., pp. 11, 15, 128-129.

58. Ibid., pp. 11, 15, 79; US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States: 1987 Benchmark Survey, Final Results Washington, DC: USGPO, August 1990), Table G-31, p. 149; hereafter cited as Commerce Department, FDI in US: 1987 Benchmark.

59. For US exports to US affiliates abroad, and overall sales data, see Commerce Department, US FDI, 1990 Survey, Tables II.E.3, II.H.22, III.H.2, n.p.; for overall US exports, see Commerce Department, US Foreign Trade Highlights: 1991, Table 2, p. 11.

60. Ibid.

61. Commerce Department, US Foreign Trade Highlights: 1991, pp. 15, 89; Commerce Department, FDI in US: 1987 Benchmark, Table G-31, p. 149.

TABLE 1

FOREIGN OWNERSHIP BY MULTINATIONALS INVESTING IN NORTH AMERICA AND WESTERN EUROPE, LATE 1980's[a]

US MULTINATIONALS (MNCs) ABROAD

Equity	In Canada	In the EC	In Japan	In Mexico
$ value	$68.7	$196.3b	$35.6b	$10.7b
of which:				
% US	92.3%	86.6%	36.5%	48.6%
% Local	7.7%	13.4%	63.5%	51.4%

FOREIGN MULTINATIONALS (MNCs) IN THE US

Equity	Canadian MNCs	European MNCs[b]	Japanese MNCs
Total	$27.1b	$76.5b	$21.0b
of which:			
% Foreign	73.4%	89.8%	74.3%
% Local	26.6%	10.2%	25.7%

Notes:

[a]Data on US MNCs for 1989; data on foreign MNCs in the US for 1987.

[b]Data for European MNCs in the US available only for investors based in France, Germany, the Netherlands, and the United Kingdom.

Sources: US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results (Washington, DC: USGPO, October 1992), Tables II.B.11 and III.B.11, pp. 56, 154; and Foreign Direct Investment in the United States: 1987 Benchmark Survey, Final Results (Washington, DC: USGPO, August 1990), Tables C-3, C-4, C-5, C-7, and C-9, pp. 34-40.

TABLE 2

THE RATIO OF FOREIGN SALES BY MULTINATIONAL SUBSIDIARIES TO US TRADE, 1990

THE RATIO OF US SUBSIDIARIES' SALES ABROAD TO US EXPORTS

Location of Subsidiaries	Foreign Sales by Majority US Subsidiaries (A)	US Exports (B)	Ratio of Sales to Exports (A/B)
All Countries	$1,191.8b	$393.6b	3.03
of which:			
The EC	$615.2b	$98.1b	6.27
Canada	$177.2b	$83.7b	2.12
Japan	$62.1b	$48.6b	1.28
Mexico	$19.3b	$28.3b	0.68

THE RATIO OF FOREIGN SUBSIDIARIES' SALES IN THE US TO US IMPORTS

National Origin of Subsidiaries:	US Sales by Foreign Subsidiaries (A)	US Imports (B)	Ratio of Sales to Imports (A/B)
All Countries	$1,168.5b	$495.3b	2.36
of which:			
The EC	$494.9b	$91.9b	5.39
Canada	$127.1b	$91.4b	1.39
Canada (adjusted*)	$127.1b	$51.4b	2.47
Japan	$313.1b	$89.7b	3.49

Notes:
*Adjusted to subtract from US imports from Canada shipments made by US subsidiaries in Canada back to the United States.

Sources: US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1990 Estimates (Washington: USGPO, September 1992), Table III.E.3, n.p.; and Foreign Direct Investment in the United States: Operations of US Affiliates of Foreign Companies, Preliminary 1990 Estimates (Washington: USGPO, August 1992), Table E-4, n.p.; and International Trade Administration, Office of Trade and Investment Analysis, US Foreign Trade Highlights: 1991 (Washington, DC: USGPO, May 1992), Table 2, p. 11.

TABLE 3

THE DESTINATION OF SALES BY MAJORITY US SUBSIDIARIES IN CANADA, MEXICO, AND THE EC, 1990

ALL INDUSTRIES

Sales:	Canada	Mexico	The EC
Total ($b)	$177.2b	$19.3b	$615.2b
of which, %:			
Local	73.2%	69.6%	67.0%
Back to the US	23.4%	26.2%	3.6%
To 3rd Countries	3.4%	4.2%	29.4%

AUTOMOBILE INDUSTRY ONLY

Sales:	Canada	Mexico	The EC
Total ($b)	$39.5b	$6.6b	$66.0b
of which, %:			
Local	36.5%	50.0%	53.9%
Back to the US	60.0%	45.0%	3.5%
To 3rd Countries	3.5%	5.0%	42.6%

Source: US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1990 Estimates (Washington: USGPO, September 1992), Table III.F.2, n.p.

TABLE 4

OFFSHORE PRODUCTION, MANUFACTURED EXPORTS, AND OVERSEAS DISTRIBUTION BY US CORPORATIONS, 1990

Location of Sales	Sales by Majority US Subsidiaries Engaged Principally in Manufacturing	US Exports of Manufactured Goods	Sales by Majority US Subsidiaries Engaged Principally in Wholesaling
Canada	$96.6b	$73.9b	$18.2b
Mexico	$16.5b	$25.0b	$1.7b
The EC	$339.4b	$81.3b	$119.9b

Sources: US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1990 Estimates (Washington: USGPO, September 1990), Table III.E.3, n.p.; and International Trade Administration, Office of Trade and Investment Analysis, US Foreign Trade Highlights: 1991 (Washington, DC: USGPO, May 1992), Tables 10 and 11, pp. 28, 32.

TABLE 5

US PRODUCTION, MANUFACTURED IMPORTS, AND US DISTRIBUTION BY FOREIGN CORPORATIONS, 1990

National Origin of Subsidiaries or Source of Imports	Sales by Foreign Subsidiaries Engaged Principally in US Manufacturing	US Imports of Manufactured Goods	Sales by Foreign Subsidiaries Engaged Principally in US Wholesaling
The EC	$195.4b	$81.2b	$111.5b
Canada	$58.2b	$69.6b	$28.4b
Japan	$59.3b	$89.1b	$219.4b

Sources: US Commerce Department, Bureau of Economic Analysis, Foreign Direct Investment in the United States: Operations of US Affiliates of Foreign Companies, Preliminary 1990 Estimates (Washington: USGPO, August 1992), Table E-4, n.p.; and International Trade Administration, Office of Trade and Investment Analysis, US Foreign Trade Highlights: 1991 (Washington, DC: USGPO, May 1992), Tables 10 and 11, pp. 28, 32.

TABLE 6

US BILATERAL TRADE WITH AMERICA'S TOP-4 TRADING PARTNERS: INTRACOMPANY VS. ARM'S LENGTH SHIPMENTS, 1990*

TRADE WITH CANADA ($ billion)

Direction of Trade	US Parents to/from Majority US Subsidiaries in Canada	Canadian Affiliates in US to/from Canadian Parents	US Parents to/from Unaffiliated Buyers in Canada	Canadian Affiliates in US to/from Unaffiliated Buyers in Canada	All Other Trade
US Exports	30.6	1.1	14.7	1	36.3
US Imports	33.2	6.8	11.4	0.7	39.3

TRADE WITH MEXICO ($ billion)

Direction of Trade	US Parents to/from Majority US Subsidiaries in Mexico	Mexican Affiliates in US to/from Mexican Parents	US Parents to/from Unaffiliated Buyers in Mexico	Mexican Affiliates in US to/from Unaffiliated Buyers in Mexico	All Other Trade
US Exports	7.1	0.1	4.7	0.1	16.3
US Imports	7.2	0.6	3.6	1.6	17.2

TRADE WITH THE EUROPEAN COMMUNITY ($ billion)

Direction of Trade	US Parents to/from Majority US Subsidiaries in the EC	EC Affiliates in the US to/from EC Parents	US Parents to/from Unaffiliated Buyers in the EC	EC Affiliates in the US to/from Unaffiliated Buyers in the EC	All Other Trade
US Exports	26.6	8.7	33.6	7.5	21.6
US Imports	11.2	31.8	17.8	3.7	31.0

TRADE WITH JAPAN ($ billion)

Direction of Trade	US Parents to/from Majority US Subsidiaries in Japan	Japanese Affiliates in US to/from Japanese Parents	Japanese Affiliates in US to/from Unaffiliated Buyers in Japan	All Other Trade
US Exports	7.1	22.5	6.8	12.2
US Imports	1.3	73.2	12.5	2.2

TABLE 6 (continued)

Notes:
*MNC-related arm's length trade estimated for 1990 using data from 1989 (for US MNCs) and 1987 (for Canadian, EC, Japanese, and Mexican MNCs).

Sources: US Commerce Department, Bureau of Economic Analysis, U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and their Foreign Affiliates, Preliminary 1990 Estimates (Washington: USGPO, September 1992), Table III.H.1, n.p.; and Foreign Direct Investment in the United States: Operations of US Affiliates of Foreign Companies, Preliminary 1990 Estimates (Washington: USGPO, August 1992), Table G-2, n.p.; and U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results (Washington, DC: USGPO, October 1992), Tables II.Q.2 and II.Q.5, pp. 113, 116; and Foreign Direct Investment in the United States: 1987 Benchmark Survey, Final Results (Washington, DC: USGPO, August 1990), Tables G-24, G-28, G-30, G-34, pp. 142-152; and International Trade Administration, Office of Trade and Investment Analysis, US Foreign Trade Highlights: 1991 (Washington, DC: USGPO, May 1992), Tables 2 and 3, pp. 11, 15.