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March 19, 1993

DIRECT INVESTMENT AND TRADE: BEYOND 'BEYOND REVISIONISM'

This note was prompted by a draft of "Beyond Revisionism: Towards a New U.S.-Japan Policy for the Post Cold War Era," by the Wednesday Group. (The final version of the report is scheduled to be released during the week of March 22.) We summarize and comment on the report and investigate, at length, the key issue raised by the report: the role of low U.S. direct investment in Japan in explaining the bilateral U.S. trade deficit with Japan. We explore the various ways that direct investment could affect trade, review the empirical literature on this subject, and present quantitative estimates of the impact of direct investment on trade. Our results support the general Wednesday Group argument that a larger U.S. direct investment presence in Japan would tend to encourage U.S. exports to Japan; however, we conclude that even doubling the U.S. direct investment position there would not be likely to make a large dent in the Japanese trade surplus. The final section presents some observations on Japanese-U.S. direct investment and trade and our conclusions on the policy recommendations of the Wednesday group. Some of their proposals for action by the U.S. government seem reasonable, although of questionable effectiveness. On the other hand, the Group's call for U.S. pressure on Japan to provide significant subsidies to U.S. direct investors conflicts seriously with basic U.S. principles of neutrality and non-discrimination.

Summary of "Beyond Revisionism"

According to "Beyond Revisionism: Towards a New U.S.-Japan Policy for the Post Cold War Era", by the Wednesday Group, the lack of

import penetration by foreign firms in the Japanese market and the resulting Japanese trade surplus are not the result of the usual list of factors subject to trade negotiations. Japan's current government barriers to imports are not, in general, higher than other countries'. Nor frequently is it a lack of competitiveness on the part of foreign firms; some U.S. and European firms do quite well in competition with Japanese firms in third markets. Nor does Japanese culture make it impossible for foreign firms to succeed; some U.S. firms have succeeded in adapting to Japanese culture and are able to receive fair treatment as long as they seek access to business opportunities in the same way that native Japanese firms do.

The Wednesday Group attributes the real problem facing foreign firms that want to compete in Japan to "cost protectionism" discouraging foreign direct investment in Japan. Direct investment is necessary to compete in Japan; "unless a company operates on Japanese soil, it cannot enmesh itself in the dense web of relationships that are the essence of the Japanese economic system. Japan is a 'design-in economy,' where a company wishing to sell a product must usually be intimately familiar with, and even directly involved in, the day-to-day operations of its customers (p. 5)" However, much foreign direct investment in Japan was effectively barred by government policies until the early 1980s, and since then its been deterred by the prohibitively high cost of acquiring or renting real estate. Moreover, the speculative bubble in Japanese real estate and the stock market allowed Japanese-based firms to raise funds at little cost, to expand their investments in plant and equipment at home and their direct investments abroad, and, as a result, to increase the Japanese trade surplus.

The solutions advocated by the Wednesday Group do not involve increased protection by the United States, or managed trade, or competitive industrial policy. Instead, the U.S. should push Japan to end government policies which "irrationally raise the cost structure of the whole economy", particularly the cost of land (p.6). This would both reduce the Japanese saving rate and allow foreign firms to establish operations in Japan. As an interim measure, the Japanese government should be called on to offer significant "bridge incentives" to help minimize the costs of new investment in Japan (pp. 6 and 7), comparable to programs of American states like Kentucky and Tennessee. Finally, remaining fragments of Japan's earlier overt protectionist fabric should be eliminated (p. 7); the U.S. government should reinvigorate the Market-Oriented, Sector-Specific (MOSS) approach to opening Japan's markets. The Wednesday group also calls on the U.S. government to establish new programs to enhance corporate understanding of how the Japanese economy operates and to increase study of the Japanese language (p. 7). They also advocate establishing a U.S.-subsidized trade development center in Japan to promote trade and monitor industry developments (pp. 7 and 8). Finally, they advocate renegotiating U.S.-Japan tax treaties to equalize the tax burden of U.S. companies and their executives in Japan with that of Japanese firms and their Japanese employees in the United States (p. 8).

Connection Between Direct Investment and Trade

"Beyond Revisionism" points to the low penetration of foreign direct investment in Japan as a crucial factor explaining low foreign exports to Japan. Historically, Japan clearly has been an outlier

compared to most other countries. Lack of comparable data precludes exact comparisons, but as suggested by table 1, as recently as 1986 direct investment played a much larger role in major European economies, and even in the United States, than in Japan.

The reasons for the lack of foreign direct investment in Japan are complex, but foreign exchange controls, trade barriers, and refusals by the Japanese government to approve many investments during the first 30 years after World War II certainly played a crucial role in preventing foreign firms from establishing a foothold in Japanese markets. (See Mason, 1992.) The Japanese laws governing foreign investments were liberalized in 1980, but no flood of foreign investment followed. It is plausible that the high costs of establishing operations in Japan in recent years have served to discourage investments, although other factors probably were important as well.

The Wednesday Group's analysis of the impact of direct investment on U.S. and Japanese trade is partial equilibrium. There is nothing wrong with a partial equilibrium approach, per se, but the wider general equilibrium impacts also should be considered when policy recommendations are evaluated. Even if larger U.S. direct investment in Japan tended to increase U.S. exports to Japan, it would not necessarily produce a smaller U.S. trade deficit overall or a smaller Japanese trade surplus. As the Wednesday Group recognizes, a country's trade balance reflects the macroeconomic balance between domestic investment and savings; direct investment cannot affect the trade balance ultimately unless it alters savings or investment behavior. Thus, in a general equilibrium context, any desired shift in direct investment capital inflows or the international pattern of production and trade has

Table 1 Measures of the role of foreign direct investment in the economies of the Group of Five countries, 1977 and 1986 (percentages)

Share of foreign-owned firms	1977	1986
United States		
Sales	5	10
Mfg. employment	3	7
Assets	5	9
Japan		
Sales	2	1
Mfg. employment	2	1
Assets	2	1
France		
Sales	24	27
Mfg. employment	18	21
Assets	n.a.	n.a.
Germany		
Sales	17	18
Mfg. employment	14	13
Assets	17	17
United Kingdom		
Sales	22	20
Mfg. employment	15	14
Assets	n.a.	14

n.a. = not available.

Source: D. Julius and S. Thomsen, "Foreign-owned Firms, Trade, and Economic Integration," *Tokyo Club Papers* 2. London: Royal Institute of International Affairs, 1988.

implications for exchange rates, interest rates, inflation, GNP growth, and so on, and these implications will vary also depending on government policy reactions. Observed trade flows and direct investment will reflect these general equilibrium adjustments.

This is not to say that direct investment does not matter or cannot be affected by policy. Changes in the international pattern of production and trade could have important implications for countries' terms of trade and welfare. Even if direct investment did not alter the net trade balance, it could result in larger gross flows of trade between countries, increased international specialization, more rapid diffusion of technology, and improved welfare. The ripple effect of direct investment on exchange rates, rates of return, and other macro variables could alter the savings and investment balance, and hence the trade balance. Thus, a partial equilibrium analysis of direct investment and trade is only a limited first step in analyzing implications.

Review of the Empirical Literature

With this caveat in mind, let us turn to the partial equilibrium implications of direct investment for trade, a subject of over 25 years of academic research efforts. First, it is important to note that the general rubric "direct investment" covers a wide variety of activities by nationals of one country in another country. Some investments, such as investment in real estate, banking, or finance would be expected to have no major direct implications for trade in goods (although there might be some implications for trade in services). In contrast, direct investment in wholesale trade facilities to market, distribute, and service the exports of one country in another would tend to increase those exports

(insofar as these services were not already provided by local importers). On the other hand, if a company establishes production facilities in a foreign country, substituting production abroad for production at home, exports of the home country could fall. In the short run, however, this substitution effect might be counteracted by the heavy use of home country capital goods in equipping the foreign production facilities. Moreover, by setting up production and marketing facilities abroad, the direct investor may be able to expand its market share enough to more than offset any reduction in finished goods exports from the home country with exports of intermediate products. As a result of these conflicting forces, it is well established that the overall impact of direct investment on trade cannot be decided a priori.

Empirical work has reached the following broad consensus with respect to the multiple interactions between trade and direct investment:

(1) The initial effect of the establishment or expansion of a foreign subsidiary on capital goods exports from the home country is virtually zero; this is the case specifically for U.S.-owned subsidiaries in Japan and Japanese-owned affiliates in the United States.

(2) From studies primarily of U.S. direct investment abroad, it turns out that the impact of direct investment in production facilities on exports from the home to the host country is small, but positive; the negative effect on finished-goods imports by the host country has typically been more than offset by increased imports of components by the foreign subsidiary. However, when the probable negative effect on imports from third countries is taken into account, the overall effect on imports into the host country may turn negative.

1. Capital Goods Imports Related to U.S. Affiliate Expansion

Studies on U.S. direct investment abroad have consistently shown that the percentage of total capital expenditures filled by imports is quite small.¹ The most recent Census data for U.S. direct investment activities in Japan, for 1989, shows that total capital equipment exported from the United States amounted to be only \$105 million, only 1.3 percent of the plant and equipment expenditures of U.S. affiliates there.²

There are no comparable figures for Japanese direct investors in the United States. However, the figures for all direct investors in the United States show a similarly small value for the percentage of plant and equipment expenditures accounted for by imports of capital goods; the latest available data directly on this question, in the 1980 Census, showed the overall percentage to be only 1.7 percent.³ The total value of capital goods imports by foreign-owned affiliates in 1980 was \$447 million, less than 1 percent of total imports by affiliates into the United States. Thus, unless there has been a dramatic change since 1980, the effect of an expansion of direct investment by investors of any nationality on U.S. capital goods imports can be expected to continue to be virtually zero.

2. Effects on Imports Related to Ongoing Affiliate Operations

On first blush one might expect that production by foreign affiliates in any country would, to a large extent, replace imports from the host country. The most straight-forward case would have foreign

1. One of the earliest such studies was Hufbauer and Adler (1968).

2. U.S. Department of Commerce (1991), Tables 26 and 70.

3. Calculated from Tables G-1, p.141, and D-7, p.67, of Foreign Direct Investment in the United States, 1980.

affiliate production replace one-to-one imports of the same product. There has been little empirical work to test this hypothesis for direct investment in the United States, but extensive work on U.S. multinational operations abroad suggests that, somewhat surprisingly, production by foreign affiliates and exports from the home country are on the average mildly complementary, rather than substitutes.

Both theoretical and empirical work on direct investment abroad indicate that a number of complicating factors must be taken into account. First, direct investors rarely eliminate imports of parts and components; moreover, particularly in the early years of production, direct investment operations are likely to include a large percentage of assembly and distribution activities, both of which have a high import ratio. However, except for a pure distribution facility, at a given level of production, a subsidiary will almost always substitute some local factors of production for imports. The finding of mild complementarity must, therefore, imply a higher level of output for the foreign subsidiary than would have been the case with exporting alone from the home country. The higher output could be either because of lower costs of production or because of the impact of subsidiary activities on the demand curve. It is possible, for example, that producing in the host country, closer to the market, with enhanced marketing and servicing capabilities, typically shifts out the demand curve as compared to the exporting alternative. This shift would have to be great enough to increase imports of parts and components enough to surpass the value of finished goods that would have been exported in the absence of direct investment.

The magnitude of this demand effect depends, of course, on the characteristics of the market in question -- on the elasticities and cross-elasticities of demand -- and, quite likely, on the reactions of local firms (owned by nationals of the country in question). These demand conditions have been investigated theoretically for years, but are notoriously difficult to quantify.⁴ That they continue to be difficult to quantify and are of overriding importance has been made clear by a recent GAO study on the Japanese penetration of the U.S. auto industry (U.S. General Accounting Office (1988)). Depending on the "displacement ratio," i.e., the degree to which Japanese sales displace the sales of U.S. producers, the GAO estimate of the net impact on American jobs could vary from a loss of 360 thousand jobs to a gain of 112 thousand. A similar range from negative to positive is theoretically likely in an assessment of the impact of U.S. direct investment in Japan on U.S. exports.

Much empirical work has been completed on the import-direct-investment nexus for foreign investment abroad, all of it trying to narrow the wide range of theoretical possibilities. While none of the work is faultless, all of the better studies come to a similar conclusion: on average, exports from the home to host country and direct investment are complements rather than substitutes. That is, holding all other determinants of these exports constant, a higher level of production by direct investors is associated with a higher level of exports from the home country of the direct investor. This conclusion has been reached for U.S. investment abroad by Bergsten, Horst and Moran

4. The various theoretical alternatives were first investigated by Hufbauer and Adler (1968) and examined more fully by Adler and Stevens (1974).

(1978), Lipsey and Weiss (1981, 1984), and Blomstrom, Lipsey, and Kulchycky (1988). The last study and Swedenborg (1979) reached the same conclusion for Swedish multinational firms. Lipsey and Weiss (1981) discovered an important amendment to the general finding when they found that U.S. operations abroad frequently reduced the exports to the host country from third countries; thus, it is possible that the net effect of direct investment on overall host country imports could still be negative, while imports from the country of the direct investor are positive.

Estimates of the Average Impact of Direct Investment on Trade

Based on the literature reviewed above, it is plausible to assume that higher U.S. direct investment in Japan would tend to be associated with higher U.S. exports to Japan. However, in order to get some idea of the average quantitative impact of direct investment on trade, we have tried several cross section regressions using recent U.S. data. The basic framework for these regressions is a "gravity" model of bilateral trade; holding other factors constant, we expect the share of country "i" in U.S. exports to be equal to the share of country i's imports in world trade.⁵ Obviously geographic proximity (indicating transportation costs) is likely to be one of the other factors that

5. If a log-linear relationship is assumed, the denominator of the dependent variable (total U.S. exports) and the denominator of the explanatory variable (world trade) can be combined with the constant term since they would not vary across country observations. The resulting regression equation includes log (U.S. exports to country i) as the dependent variable and log (country i's total imports) as an explanatory variable. The trade data used were averages for 1990 and 1991.

should be taken into account.⁶ Another factor we have added is the direct investment position of the United States in country i .⁷ On the basis of the past research cited above, we expect that the sign of the direct investment position variable in the regression will be positive; the size of the coefficient would provide a crude estimate of the average increase in U.S. exports that could be expected from a given increase in U.S. direct investment in a particular country. Analogous regressions were run for U.S. imports as a function of foreign direct investment in the United States.

The regression results are shown in table 2. In the equation explaining U.S. exports, the coefficient on the U.S. direct investment position is positive and statistically significant. The size of the coefficient implies that if the U.S. direct investment position in Japan had been twice its 1990 size (\$42 billion instead of \$21 billion), U.S. exports to Japan would, on average, have been about one-quarter larger (or about \$12 billion larger). Nevertheless, the bilateral U.S. trade deficit with Japan (\$44 billion in 1991) would have remained very large.

In the equation explaining U.S. imports, the coefficient on the foreign investment position in the United States is positive, but the t -value is only about 1. Moreover, this result was obtained only when the sample was adjusted to include only developed countries; when the larger number of countries was included, the coefficient was essentially zero. The coefficient in the equation presented implies that if Japanese direct

6. As a rough approximation of the impact of geography we used a dummy variable equal to 1 for Canada and Mexico and equal to zero for all other countries.

7. The position data were measured as of the end of 1990. BEA does not calculate positions on a market value or current cost basis for individual countries; only positions based on historic cost (book values) are available.

Table 2
Trade and Direct Investment : Regression Results

I. Dependant variable : Log (US exports to country i)

	<u>Coefficient</u>	<u>T-ratio</u>
Intercept	0.90	1.11
Log (imports of country i)	0.51	4.67
Log (U.S. direct investment position in country i)	0.25	2.57
Dummy for proximity	1.72	4.10

R-square = 0.79

Sample size = 35

II. Dependant variable : Log (US imports from country i)

	<u>Coefficient</u>	<u>T-ratio</u>
Intercept	-1.80	0.92
Log (exports of country i)	0.83	3.50
Log (country i's direct investment position in the U.S.)	0.12	0.98
Dummy for proximity	2.14	3.64

R-square = 0.83

Sample size = 16

investment in the United States were half its 1990 size (\$41 billion instead of \$82 billion), U.S. imports from Japan would have been \$5 billion lower.

These estimates are, undoubtedly, very crude. All the factors that influence the direction of trade have not been included in the regressions or accurately measured. Moreover, the estimates assume that marginal changes in U.S. direct investment in Japan would have the same impact on trade as the average of U.S. investments worldwide. Policy could, in theory, target investments that would have a larger than average impact on trade. Moreover, these regressions only indicate association, and not necessarily causation. Firms may tend to invest in countries where they have substantial export markets; or large investments and trade may both reflect the influence of third factors. Under these circumstances it would be incorrect to infer that the estimated coefficient indicates the size of the increase in U.S. exports that could be expected if direct investment increased. In addition, the total direct investment position of the U.S. in a country, measured at book value, may be a poor measure of U.S. direct investment activity in that country; the extent to which operations are financed from sources other than the parent may vary from country to country. Moreover, old investments are likely to be undervalued. A final caveat is that the predicted change in U.S. exports to a country associated with an increase in U.S. direct investment in that country need not be fully reflected in a change in that country's overall trade balance; part of the gain of the United States may come at the expense of other exporters. In fact, as discussed earlier, Lipsey and Weiss (1981) found evidence that third country exports were reduced by U.S. direct investment abroad.

Conclusions

Despite the limitations of the empirical evidence presented above, it seems reasonable to assume that a successful effort to increase U.S. direct investment in Japan probably would increase U.S. exports to Japan. However, it appears that even an across-the-board doubling of the U.S. direct investment position in Japan would make only a small dent in the U.S. bilateral trade deficit with Japan. A more powerful stimulus to trade might result from the concentration of direct investment flows to certain "high tech" industries, such as computers, electronic components, and scientific and medical instruments, which have been shown to have high import components.⁸

On the basis of the empirical evidence presented above, it also seems likely that Japanese direct investment in the United States has tended to increase U.S. imports from Japan, although on average the estimated quantitative impact is small. Comparisons of data for the manufacturing affiliates of foreign direct investors in the United States with data for U.S. firms suggest that foreign-owned firms do have a tendency to import significantly more than U.S.-owned firms. (See Graham and Krugman, 1989, pp. 55-58.) However, the importance of other factors besides the partial-equilibrium impact of direct investment on the trade balance is underlined by fact that the large increase in the U.S. trade deficit with Japan in the 1980s preceded the huge increase in Japanese direct investment in the United States in the late 1980s. (See table 3.)

While we agree with the Wednesday Group that larger U.S. direct investment in Japan would probably be associated with a somewhat smaller bilateral trade deficit with Japan, we have serious reservations about

8. See Blomstrom et. al., Table 9.A.5., p. 281.

Table 3
Direct Investment Capital Flows and Trade with Japan*
(billions of dollars)

	<u>Japanese DI in US</u>	<u>US DI in Japan</u>	<u>US Exports to Japan</u>	<u>US Imports from Japan</u>	<u>Net Trade</u>
1982	2.0	0.3	20.7	37.7	-17.0
1983	1.6	1.0	21.8	42.8	-21.1
1984	4.4	-0.2	23.2	60.2	-37.0
1985	3.4	0.3	22.1	65.7	-43.5
1986	7.0	0.3	26.4	80.8	-54.4
1987	8.8	1.2	27.6	84.6	-57.0
1988	17.2	1.1	37.2	89.8	-52.6
1989	18.7	0.2	43.9	93.5	-49.7
1990	17.4	0.8	47.8	89.6	-41.8
1991	5.2	0.1	47.2	91.5	-44.3
1992	1.5	1.2	47.0	96.8	-49.8

* At the end of 1982, the Japanese direct investment position in the United States was \$9.7 billion and the U.S. direct investment position in Japan was \$6.4 billion (both on a book value basis).

some of their major policy recommendations designed to increase U.S. direct investment flows to Japan. If funds were available, some of the suggestions of the Wednesday Group, such as subsidization of language study, expanded U.S. government efforts at export and direct investment promotion, might be worthwhile. The latter have had some success in aiding the initial investment of small firms that are unable to absorb the relatively high search costs associated with invading a foreign market; however, there is no reason to believe that such a policy would have a high quantitative payoff.

The other proposals by the Wednesday Group are much more problematic. It seems unrealistic and counter to fundamental principles of U.S. economic policy to pressure the Japanese government to subsidize U.S. corporations in order to give them a competitive edge. Unless it can be established that the costs the Wednesday Group complains about -- particularly high land costs -- are in some way levied on U.S. direct investors in a discriminatory fashion, official calls for subsidies would violate the basic U.S. principle of neutrality. The Wednesday Group presents no evidence that high Japanese costs are any different, at the margin, for local firms or foreign investors.

Thus, the Wednesday Group's major proposals for promoting more direct investment to Japan are either misguided or of limited impact. However, we would support continued U.S. pressure on the Japanese to eliminate specific policies that discriminate against U.S. exports and direct investors.

Finally, the existing situation with respect to Japanese imports from the United States and U.S. direct investment in Japan may be better

than the Wednesday Group and many other observers imply -- perhaps at least partly the result of past and present U.S. policies.

First, both U.S. exports to Japan and U.S. direct investment sales in Japan have, in the last decade, increased rapidly -- much faster than the growth of Japanese GNP. Moreover, this growth has been most rapid in the high technology industries. Table 4 presents the relevant growth rates. For the sales of U.S. direct investors in Japan, the growth rates are calculated between the years of the last two Censuses, 1982 and 89. Total sales of the majority-owned U.S. affiliates grew at a compound rate of about 12 percent per annum, almost twice the annual growth rate of Japanese (nominal) GNP at international prices. Moreover, sales in manufacturing grew at 21 percent and sales in electrical equipment (which includes computers) and electronic components both grew even faster, at 26 percent per year. The other part of the table shows the growth rate of various categories of U.S. exports to Japan over the decade, 1982-1991. Once again the picture is of rapid growth overall, with the most rapid growth in technology-intensive industries such as computers, peripherals and semiconductors (end use category 213) and scientific and medical machinery (216).

Table 5 attempts to compare the penetration of U.S. exports and direct investment sales into Japan with three other developed countries: Canada, the United Kingdom, and Germany. With respect to U.S. exports, in all categories, the U.S. penetration of the Japanese economy has increased substantially between 1982 and 1989; and once again, the ratio has changed the most in high technology industries. Perhaps of more interest, it appears that in these high technology industries especially, U.S. export penetration of Japan approximates and even surpasses our

Table 4
Sales of U.S. Majority Owned
Subsidiaries in Japan 1982 - 1989:
Values and Growth Rates
(millions of dollars)

	<u>1982</u>	<u>1989</u>	<u>Annual Growth Rate</u>
Total Affiliate Sales	25788	57810	12.2%
Wholesale Trade	5170	17269	18.8%
Manufacturing Sales	5880	22421	21.1%
Chemicals	1659	4117	13.9%
Industrial	305	841	15.6%
Other	1354	3276	13.5%
Drugs	708	2057	16.5%
Electronic Equipment	536	2680	25.8%
Components	520	2600	25.8%
Food & Kindred Products	648	1756	15.3%
<u>Memo:</u>			
Japanese Nominal GDP*	1028790	1627174	6.8%

U.S. Exports to Japan:
Values and Growth Rates
(millions of dollars)

	<u>1982</u>	<u>1991</u>	<u>Annual Growth Rate</u>
Total	20966	47799	9.6%
Manufactures [20-41]**	5869	22546	16.1%
Computers etc. [213]**	1000	5113	19.9%
Scientific Medical Machinery [216]**	301	1320	17.9%
Chemicals	1502	2814	7.2%

* GDP is measured in current U.S. dollars, using the internationally comparable price weights presented in Summers and Heston (1991).

** End use categories

Table 5
Penetration of Foreign Markets by
U.S. Exports and Direct Investment

	Exports/GDP* (Percent)							
	1982				1989			
	Japan	UK	Ger.	Canada	Japan	UK	Ger.	Canada
Total Exports	2.00	2.30	1.50	12.40	2.70	2.20	1.70	14.00
Computers etc [213]**	0.10	0.26	0.19	0.49	0.26	0.40	0.27	1.00
Semiconductors [21320]**	0.02	0.03	0.03	0.08	0.07	0.07	0.04	0.35
Scientific & Medical Machinery [216]**	0.03	0.04	0.04	0.15	0.07	0.05	0.08	0.15
Chemicals [125]**	0.15	0.10	0.07	0.72	0.16	0.10	0.08	0.73

Majority Owned Direct Investment Sales/GDP
(Percent)

	1982				1989			
	Japan	UK	Ger.	Canada	Japan	UK	Ger.	Canada
Total								
Manufacturing	0.57	8.57	6.14	19.50	1.38	5.20	7.07	17.60
Electronic Equipment (including computers)	0.05	0.50	0.56	1.51	0.17	0.60	0.37	0.99
Electronic Components	0.05	NA	NA	NA	0.16	0.15	NA	NA
Chemicals	0.16	1.38	0.97	2.74	0.25	1.03	1.05	2.16

* GDP is measured in current U.S. dollars, using the internationally comparable price weights presented in Summers and Heston (1991).

** End use categories

penetration of U.K. and German markets. In view of the export growth and penetration, and the growth of direct investment sales, it might be argued that the rather lower direct investment penetration shown in the lower panel of the table should be of less concern. The table shows, for example, that even though direct investment is growing much faster in Japan than in the United Kingdom, for total manufacturing, the ratio of direct investment sales to GDP in Britain is 3.7 times that in Japan; however, the table also shows that this ratio has decreased from 15 only seven years before. Moreover, for electronic components, penetration of the Japanese market is actually higher now than in the United Kingdom. Finally, it should be noted that these direct investment penetration figures do not include the sales of minority-owned foreign affiliates in Japan; it is hard to assess their role in the penetration of Japanese markets, but the sales of minority-owned affiliates were almost double those of majority-owned affiliates.

There is evidence, therefore, that the penetration of Japanese markets by U.S. export and direct investment sales has increased substantially -- particularly in the high-technology markets we care most about. This is one more reason to resist the Wednesday Group's proposal to press Japan for special treatment; instead, a better course would be to press for equal access in cases where it is not currently available.

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