

Merchandise Trade of U.S. Affiliates of Foreign Companies

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U.S. AFFILIATES of foreign companies account for a large share of total U.S. merchandise trade. In 1991, nonbank U.S. affiliates accounted for 23 percent of U.S. merchandise exports and for 37 percent of imports, compared with only 5 percent of the employment and 6 percent of the gross domestic product of all nonbank U.S. businesses. In most recent years, their trade deficit has amounted to more than 50 percent of the total U.S. merchandise trade deficit.

Perhaps because it accounts for such a large share of total U.S. merchandise trade and of the total U.S. merchandise trade deficit, U.S.-affiliate trade has figured prominently in the public dialog on U.S. trade performance and on the economic consequences of foreign direct investment in the United States. Some have expressed concern, for example, that much of this trade may represent imports of parts and components for assembly by foreign-owned plants that are set up in the United States to circumvent trade barriers on finished goods, displacing domestically owned facilities that produce their own components or purchase them from domestic sources.

Examination of the data collected in BEA's annual and benchmark surveys of foreign direct investment in the United States indicates that, although U.S. affiliates in manufacturing do import more than they export, they account for only a small portion—less than one-eighth—of the total affiliate trade deficit. Furthermore, the bulk of the output of these affiliates is composed, not of imports, but of domestic (U.S.) content—that is, content largely attributable to locally obtained labor, capital, and purchased inputs. Most of the deficit for affiliates is accounted for by wholesale trade affiliates rather than manufacturing affiliates. These wholesale trade affiliates have a considerably higher propensity to import, and a correspondingly lower domestic content, than manufacturing affiliates; their primary function typically is to facilitate importation of goods, such as automobiles or consumer electronics, that were manufactured abroad by their foreign par-

ents and that the affiliates resell, with little or no further processing or assembly, to unaffiliated U.S. customers. The overall effect of these wholesale trade affiliates on trade flows is unclear: On the one hand, many of their imports probably would be brought into the country by unaffiliated U.S. wholesalers even in their absence; on the other hand, for some products, such as autos, affiliates allow foreign parent companies to expand their exports to the United States above the levels that otherwise would be possible, by helping to provide services to customers and to obtain information on market conditions in the United States.

This article examines in detail BEA's data on U.S.-affiliate merchandise trade for 1977–91. It compares the merchandise trade of U.S. affiliates with that of all U.S. businesses and analyzes trade patterns by investing country. It also examines the degree to which U.S. affiliates rely on imports as a source of inputs to their U.S. production. The following are highlights from the article:

- Wholesale trade affiliates have consistently accounted for a dominant share of the merchandise exports and imports of U.S. affiliates, and in the past decade they have accounted for more than 70 percent of the affiliate trade deficit. Since the mid-1980's, imports by wholesale trade affiliates have been more than double their exports. (Foreign wholesale trade affiliates of U.S. companies have run similarly large deficits with the United States; in the past decade, their imports from the United States have generally been more than triple their exports to the United States.)
- A large part of the trade deficit of U.S. wholesale trade affiliates is related to imports of motor vehicles. Since 1977, affiliates selling motor vehicles and equipment have accounted for more than one-half of the trade deficit of U.S. wholesale trade affiliates and for more than 40 percent of the total affiliate deficit.

- Among affiliates of the seven major investing countries, Japanese-owned affiliates have consistently accounted for the largest share of affiliate trade—about 40 percent of exports and 50 percent of imports since the mid-1980's. All but a small share of their trade has been by wholesale trade affiliates, which primarily serve as distribution channels for exported and imported goods. In manufacturing, the share of affiliate trade accounted for by Japanese-owned affiliates has been much closer to that by affiliates of the other major investing countries.
- Compared with trade of other affiliates, trade of Japanese-owned affiliates has been very concentrated geographically, most of it being with Japan. Unlike other U.S. affiliates, Japanese-owned U.S. affiliates handle a dominant share of both U.S. exports to, and U.S. imports from, their country of ultimate ownership.
- Much of the merchandise trade of affiliates, particularly on the import side, is intrafirm trade with the affiliates' foreign parent groups. Intrafirm trade has accounted for a particularly large share of the imports by wholesale trade affiliates, reflecting the role of these affiliates as U.S. distributors for their parent companies.
- U.S. affiliates in manufacturing have relied on imports for about one-sixth of their purchased parts and other intermediate inputs, compared with about one-tenth for U.S.-owned manufacturers. Most of the total output of manufacturing affiliates—88 percent of it in 1991—has represented domestic (U.S.) content, in the form either of value added through affiliate production or of inputs purchased from other U.S. companies.

Overview of U.S.-Affiliate Merchandise Trade

The share of U.S. merchandise trade accounted for by U.S. affiliates of foreign companies has been sizable—roughly one-fifth of U.S. exports and one-third of U.S. imports—since at least 1977, when BEA began collecting annual data on trade by U.S. affiliates (table 1). In 1991, the most recent year for which data are available, affiliates' share of U.S. exports was 23 percent, and their share of U.S. imports was 37 percent. The 23-percent export share is approximately equal to the average share for the period as a whole. The

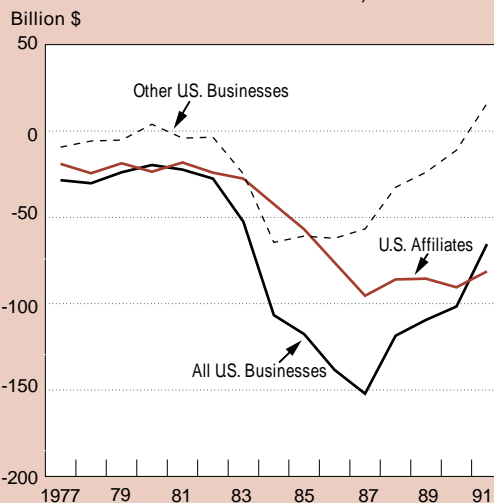
37-percent import share, in contrast, marks the period's high, the result of a steady increase in share during the latter half of the 1980's.

In every year since 1977, U.S. affiliates' total imports have been much larger than their total exports. In all years except 1984 and 1985, their trade deficit amounted to more than one-half of the total U.S. merchandise trade deficit; in 1980 and 1991, their deficit was larger than the total deficit. In interpreting these findings, however, one should keep in mind that the trading behavior of U.S. affiliates of foreign companies, although important, may be overshadowed in the determination of the total U.S. trade deficit by broader factors related to exchange rates, differences between U.S. and foreign rates of economic growth, and differences between rates of saving and investment in the United States and abroad. Even though affiliates import much more than they export, it cannot necessarily be inferred that the U.S. trade deficit would be smaller in the absence of foreign direct investment. As mentioned earlier, U.S. affiliates are often used to facilitate imports that would have been brought into the country even in their absence, and some imports are used by affiliates to support production of goods in the United States that otherwise would have been produced entirely abroad and then imported.

Since 1984, there has been a persistent increase in the affiliate share of the trade deficit. The increase in share since 1986 largely reflects a steady

CHART 1

Merchandise Trade Balances, 1977–91



U.S. Department of Commerce, Bureau of Economic Analysis

improvement in the trade balance of domestically owned U.S. businesses, rather than an increase in the affiliate deficit, which has held at over \$80 billion (chart 1).

Since 1988, the ratio of imports to exports, which measures the relative propensity of U.S. affiliates to import and export, has been about double the ratio for domestically owned U.S. businesses, with both ratios showing a declining trend. The ratio for domestically owned U.S. businesses increased steadily in the early 1980's, to a high of 1.39 in 1984, and then began a steady decline; this pattern closely paralleled the rise and fall of the U.S. dollar in foreign exchange markets.¹ In contrast, the ratio for U.S. affiliates increased dramatically in the mid-1980's, to a high of 2.98 in 1987, before beginning its current downtrend. As of 1991, U.S. affiliates' imports

continued to exceed their exports by more than 80 percent.

The large and sustained trade deficit for U.S. affiliates can be explained largely by the activity of wholesale trade affiliates, many of which serve as the principal distribution channel for products imported from their parent companies. Wholesale trade affiliates dominated the merchandise trade of all U.S. affiliates in each year during 1977-91; in the last decade, they accounted for over 70 percent of the total affiliate trade deficit (table 2). Since 1985, wholesale trade affiliates' imports have been more than twice as large as their exports. In each year during 1985-91, about 80 percent of the imports by these affiliates were from their foreign parent groups.² As might be expected, wholesale trade affiliates—like most

1. The trade-weighted value of the U.S. dollar increased in every year from 1980 to 1985, then generally trended downward through 1991.

2. The foreign parent of a U.S. affiliate is the first person outside the United States in the affiliate's ownership chain that has a direct investment interest in the affiliate. The affiliate's foreign parent group consists of (1) the foreign parent, (2) any person, proceeding up the foreign parent's ownership chain, that owns more than 50 percent of the person below it, up to and including the ultimate beneficial owner (see footnote 8), and (3) any foreign

Table 1.—Total U.S. Merchandise Trade and Merchandise Trade of U.S. Affiliates of Foreign Companies, 1977-91

	U.S. exports			U.S. imports			Balance			Ratio of imports to exports		
	All U.S. businesses	U.S. affiliates	Other U.S. businesses	All U.S. businesses	U.S. affiliates	Other U.S. businesses	All U.S. businesses	U.S. affiliates	Other U.S. businesses	All U.S. businesses	U.S. affiliates	Other U.S. businesses
Millions of dollars												
1977	123,182	24,858	98,324	151,534	43,896	107,638	-28,352	-19,038	-9,314	1.23	1.77	1.09
1978	145,847	32,169	113,678	176,052	56,567	119,485	-30,205	-24,398	-5,807	1.21	1.76	1.05
1979	186,363	44,341	142,022	210,285	63,039	147,246	-23,922	-18,698	-5,224	1.13	1.42	1.04
1980	225,566	52,199	173,367	245,262	75,803	169,459	-19,696	-23,604	3,908	1.09	1.45	.98
1981	238,715	64,066	174,649	260,982	82,259	178,723	-22,267	-18,193	-4,074	1.09	1.28	1.02
1982	216,442	60,236	156,206	243,952	84,290	159,662	-27,510	-24,054	-3,456	1.13	1.40	1.02
1983	205,639	53,854	151,785	258,048	81,464	176,584	-52,409	-27,610	-24,799	1.25	1.51	1.16
1984	223,976	58,186	165,790	330,678	100,489	230,189	-106,702	-42,303	-64,399	1.48	1.73	1.39
1985	218,815	56,401	162,414	336,526	113,331	223,195	-117,711	-56,930	-60,781	1.54	2.01	1.37
1986	227,159	49,560	177,599	365,438	125,732	239,706	-138,279	-76,172	-62,107	1.61	2.54	1.35
1987	254,122	48,091	206,031	406,241	143,537	262,704	-152,119	-95,446	-56,673	1.60	2.98	1.28
1988	322,426	69,541	252,885	440,952	155,533	285,419	-118,526	-85,992	-32,534	1.37	2.24	1.13
1989	363,812	86,316	277,496	473,211	171,847	301,364	-109,399	-85,531	-23,868	1.30	1.99	1.09
1990	393,592	92,308	301,284	495,311	182,936	312,375	-101,719	-90,628	-11,091	1.26	1.98	1.04
1991 ^P	421,730	98,369	323,361	487,129	179,694	307,435	-65,399	-81,325	15,926	1.16	1.83	.95
Percent of all U.S. businesses												
1977	100.0	20.2	79.8	100.0	29.0	71.0	100.0	67.1	32.9	.....	.....	.....
1978	100.0	22.1	77.9	100.0	32.1	67.9	100.0	80.8	19.2	.....	.....	.....
1979	100.0	23.8	76.2	100.0	30.0	70.0	100.0	78.2	21.8	.....	.....	.....
1980	100.0	23.1	76.9	100.0	30.9	69.1	100.0	119.8	-19.8	.....	.....	.....
1981	100.0	26.8	73.2	100.0	31.5	68.5	100.0	81.7	18.3	.....	.....	.....
1982	100.0	27.8	72.2	100.0	34.6	65.4	100.0	87.4	12.6	.....	.....	.....
1983	100.0	26.2	73.8	100.0	31.6	68.4	100.0	52.7	47.3	.....	.....	.....
1984	100.0	26.0	74.0	100.0	30.4	69.6	100.0	39.6	60.4	.....	.....	.....
1985	100.0	25.8	74.2	100.0	33.7	66.3	100.0	48.4	51.6	.....	.....	.....
1986	100.0	21.8	78.2	100.0	34.4	65.6	100.0	55.1	44.9	.....	.....	.....
1987	100.0	18.9	81.1	100.0	35.3	64.7	100.0	62.7	37.3	.....	.....	.....
1988	100.0	21.6	78.4	100.0	35.3	64.7	100.0	72.6	27.4	.....	.....	.....
1989	100.0	23.7	76.3	100.0	36.3	63.7	100.0	78.2	21.8	.....	.....	.....
1990	100.0	23.5	76.5	100.0	36.9	63.1	100.0	89.1	10.9	.....	.....	.....
1991 ^P	100.0	23.3	76.7	100.0	36.9	63.1	100.0	124.4	-24.4	.....	.....	.....

^P Preliminary.

NOTE.—The data on U.S. merchandise exports and imports by all U.S. businesses are from the Census Bureau. The merchandise trade figures for other U.S. businesses were derived through subtraction. The figures shown for all U.S. businesses differ somewhat from the Census-basis figures reported in table 2A of "U.S. International Transactions, First Quarter 1993," SURVEY

OF CURRENT BUSINESS 73 (June 1993); 76. For exports, the major reason for the difference is that the June Survey figures do not include undocumented data on U.S. exports to Canada, which are included in the figures shown in this table. For both exports and imports, an additional reason for the difference is rounding at the commodity level.

wholesalers—simply resell the goods they import: According to data from BEA's last benchmark survey, more than 90 percent of the imports by these affiliates in 1987 were goods for resale without any further processing, assembly, or manufacture by the affiliates.³

Because many wholesale trade affiliates are established expressly to market the products of their parent companies, it is not surprising that they import much more than they export. Indeed, a similar pattern may be observed for the foreign wholesale trade affiliates of U.S. companies, which regularly run large trade deficits with the United States: In the past decade, imports from the United States by these affiliates have generally been more than triple their exports to the United States.⁴

A large part of the trade deficit of U.S. wholesale trade affiliates is related to imports of motor vehicles. In every year during 1977–91, affiliates selling motor vehicles and equipment accounted for more than 30 percent of total imports by U.S. wholesale trade affiliates; in 1984–89, their share was more than 40 percent. Given that their exports are relatively small, these affiliates have consistently accounted for more than one-half of the trade deficit of U.S. wholesale trade affiliates and for more than 40 percent of the total affiliate deficit.

U.S. affiliates in "other industries" have also had a high import/export ratio (more than 3.0 in most years since 1986), but their share of the total affiliate deficit has been much smaller than that for wholesale trade affiliates. Their high import/export ratio reflects large imports and relatively negligible exports by affiliates in petroleum.⁵ In 1979–82, when world oil prices were very high, affiliates in "other industries" accounted for over one-third of the total affiliate deficit, but as oil prices subsequently declined, their share of the deficit also declined; by 1985, it

person, proceeding down the ownership chain(s) of each of these members, that is owned more than 50 percent by the person above it.

3. BEA's benchmark surveys of foreign direct investment in the United States, which are conducted every 5 years, include many data items that are not collected annually. The last benchmark survey covered 1987. Preliminary results of the next benchmark survey, covering 1992, will be available in the summer of 1994.

4. Data on the U.S. merchandise trade of foreign affiliates of U.S. companies are collected in annual and benchmark surveys of U.S. direct investment abroad. For the most recent data, see "U.S. Multinational Companies: Operations in 1991," SURVEY OF CURRENT BUSINESS 73 (July 1993): 52.

5. In all years except 1985 and 1986, petroleum affiliates accounted for more than 80 percent of total imports by affiliates in "other industries."

Table 2.—Merchandise Trade of U.S. Affiliates of Foreign Companies, by Major Industry of Affiliate, 1977–91

	Exports shipped by U.S. affiliates				Imports shipped to U.S. affiliates				Balance				Ratio of imports to exports			
	All industries	Manufacturing	Wholesale trade	Other industries	All industries	Manufacturing	Wholesale trade	Other industries	All industries	Manufacturing	Wholesale trade	Other industries	All industries	Manufacturing	Wholesale trade	Other industries
	Millions of dollars															
1977	24,858	3,557	19,983	1,318	43,896	5,624	31,369	6,903	-19,038	-2,067	-11,386	-5,585	1.77	1.58	1.57	5.24
1978	32,169	4,521	25,898	1,750	56,567	7,193	42,733	6,641	-24,398	-2,672	-16,835	-4,891	1.76	1.59	1.65	3.79
1979	44,341	6,548	35,600	2,193	63,039	8,668	45,621	8,750	-18,698	-2,120	-10,021	-6,557	1.42	1.32	1.28	3.99
1980	52,199	9,048	40,713	2,438	75,803	10,413	54,020	11,370	-23,604	-1,365	-13,307	-8,932	1.45	1.15	1.33	4.66
1981	64,066	13,590	46,487	3,989	82,259	13,226	57,908	11,125	-18,193	364	-11,421	-7,136	1.28	.97	1.25	2.79
1982	60,236	12,883	43,336	4,017	84,290	12,386	61,679	10,225	-24,054	497	-18,343	-6,208	1.40	.96	1.42	2.55
1983	53,854	12,045	38,454	3,355	81,464	14,021	59,048	8,395	-27,610	-1,976	-20,594	-5,040	1.51	1.16	1.54	2.50
1984	58,186	13,078	40,539	4,569	100,489	18,172	72,478	9,839	-42,303	-5,094	-31,939	-5,270	1.73	1.39	1.79	2.15
1985	56,401	12,849	38,257	5,295	113,331	18,635	84,568	10,128	-56,930	-5,786	-46,311	-4,833	2.01	1.45	2.21	1.91
1986	49,560	12,805	33,727	3,028	125,732	20,617	94,517	10,598	-76,172	-7,812	-60,790	-7,570	2.54	1.61	2.80	3.50
1987	48,091	15,487	29,165	3,439	143,537	24,546	107,278	11,713	-95,446	-9,059	-78,113	-8,274	2.98	1.58	3.68	3.41
1988	69,541	25,192	40,035	4,314	155,533	32,762	111,481	11,290	-85,992	-7,570	-71,446	-6,976	2.24	1.30	2.78	2.62
1989	86,316	31,873	49,096	5,347	171,847	40,871	114,049	16,927	-85,531	-8,998	-64,953	-11,580	1.99	1.28	2.32	3.17
1990	92,308	36,069	49,925	6,314	182,936	47,171	113,639	22,126	-90,628	-11,102	-63,714	-15,812	1.98	1.31	2.28	3.50
1991 ^P	98,369	39,432	51,995	6,942	179,694	47,983	112,064	19,647	-81,325	-8,551	-60,069	-12,705	1.83	1.22	2.16	2.83
	Percent of all-industries total															
1977	100.0	14.3	80.4	5.3	100.0	12.8	71.5	15.7	100.0	10.9	59.8	29.3	.....	.....	.....	.....
1978	100.0	14.1	80.5	5.4	100.0	12.7	75.5	11.7	100.0	11.0	69.0	20.0	.....	.....	.....	.....
1979	100.0	14.8	80.3	4.9	100.0	13.8	72.4	13.9	100.0	11.3	53.6	35.1	.....	.....	.....	.....
1980	100.0	17.3	78.0	4.7	100.0	13.7	71.3	15.0	100.0	5.8	56.4	37.8	.....	.....	.....	.....
1981	100.0	21.2	72.6	6.2	100.0	16.1	70.4	13.5	100.0	-2.0	62.8	39.2	.....	.....	.....	.....
1982	100.0	21.4	71.9	6.7	100.0	14.7	73.2	12.1	100.0	-2.1	76.3	25.8	.....	.....	.....	.....
1983	100.0	22.4	71.4	6.2	100.0	17.2	72.5	10.3	100.0	7.2	74.6	18.3	.....	.....	.....	.....
1984	100.0	22.5	69.7	7.9	100.0	18.1	72.1	9.8	100.0	12.0	75.5	12.5	.....	.....	.....	.....
1985	100.0	22.8	67.8	9.4	100.0	16.4	74.6	8.9	100.0	10.2	81.3	8.5	.....	.....	.....	.....
1986	100.0	25.8	68.1	6.1	100.0	16.4	75.2	8.4	100.0	10.3	79.8	9.9	.....	.....	.....	.....
1987	100.0	32.2	60.6	7.2	100.0	17.1	74.7	8.2	100.0	9.5	81.8	8.7	.....	.....	.....	.....
1988	100.0	36.2	57.6	6.2	100.0	21.1	71.7	7.3	100.0	8.8	83.1	8.1	.....	.....	.....	.....
1989	100.0	36.9	56.9	6.2	100.0	23.8	66.4	9.9	100.0	10.5	75.9	13.5	.....	.....	.....	.....
1990	100.0	39.1	54.1	6.8	100.0	25.8	62.1	12.1	100.0	12.3	70.3	17.4	.....	.....	.....	.....
1991 ^P	100.0	40.1	52.9	7.1	100.0	26.7	62.4	10.9	100.0	10.5	73.9	15.6	.....	.....	.....	.....

^P Preliminary.

had fallen below 10 percent. Their share of the deficit increased from 8 percent in 1988 to 14 percent in 1989, reflecting a large increase in imports by petroleum affiliates.

U.S. affiliates in manufacturing have consistently accounted for less than one-eighth of the total affiliate deficit. The import/export ratio for these affiliates has generally been much lower than that for wholesale trade affiliates or for affiliates in "other industries." In 1988–91, the imports of manufacturing affiliates exceeded their exports by less than one-third. This deficit partly reflects a reliance on imports for materials and components used in production for the U.S. market. (This topic is examined in the final section of this article.) It may also reflect wholesale trade activities by manufacturing affiliates.⁶

Manufacturing affiliates' shares of both exports and imports of all U.S. affiliates have increased steadily since the late 1970's. Their share of exports rose from 14 percent in 1977 to 40 percent in 1991; the most rapid gains were during 1985–90. Their share of imports rose from 13 percent in 1977 to 27 percent in 1991; the most rapid gains were during 1987–90. The shares of wholesale trade affiliates declined correspondingly, from 80 percent to 53 percent for exports and from 71 percent to 62 percent for imports.

The recent increase in the share of U.S.-affiliate trade accounted for by manufacturing affiliates partly reflects the rapid growth in foreign direct investment in the United States in the late 1980's, particularly in manufacturing. From 1985 to 1990, total assets of manufacturing affiliates increased 152 percent (from \$170 billion to \$429 billion), whereas total assets of wholesale trade affiliates increased 109 percent (from \$77 billion to \$160 billion). During the same period, total sales of manufacturing affiliates increased 113 percent (from \$186 billion to \$396 billion), whereas total sales of wholesale trade affiliates increased only 56 percent (from \$241 billion to \$375 billion).

U.S.-Affiliate Trade by Country of Ownership

This section compares the merchandise trade of U.S. affiliates of the seven largest investing countries: Canada, France, Germany, Japan, the Netherlands, Switzerland, and the United King-

dom.⁷ In every year since 1977, affiliates with ultimate beneficial owners (UBO's) in these countries have accounted for more than 80 percent of total merchandise exports and imports of U.S. affiliates (table 3).⁸ Japanese-owned affiliates have accounted for the largest shares—about 40 percent of exports and 50 percent of imports in most years since the mid-1980's. In terms of exports, French-owned affiliates have consistently ranked second to Japanese-owned affiliates, accounting for 12 percent of affiliate exports in 1991; in terms of imports, German-owned affiliates have generally ranked second, accounting for 10 percent of affiliate imports in 1991.

The large share of total affiliate trade accounted for by Japanese-owned affiliates far exceeds their share of U.S.-affiliate gross product (15 percent in 1991) and predates the dramatic increase in Japanese direct investment in the United States that occurred in the late 1980's. As early as 1977 (when their share of U.S.-affiliate gross product was only 7 percent), Japanese-owned affiliates accounted for 42 percent of U.S.-affiliate exports and 37 percent of U.S.-affiliate imports. Their export share changed little thereafter, but their import share increased significantly—from 36 percent in 1980 to a peak of 51 percent in 1985.

The merchandise trade of Japanese-owned affiliates has been dominated by wholesale trade affiliates. Through the mid-1980's, these affiliates accounted for more than 95 percent of the U.S. exports and imports of Japanese-owned affiliates. Although that share began to decline thereafter, it was still high—84 percent—in 1991.

Most of the exports by Japanese-owned affiliates have been by wholesale trade affiliates of Japanese trading companies, whereas most of the imports have been by wholesale trade affiliates of Japanese manufacturing companies. In 1991, wholesale trade affiliates of Japanese trading companies accounted for 73 percent of the total exports by Japanese-owned affiliates but for only 27 percent of their total imports. More than three-fourths of these exports and imports were by affiliates of the *sogo shosha*, Japan's big general trading companies.⁹ Wholesale trade affiliates

6. The data collected by BEA are on an enterprise basis, with all of the affiliate's activities consolidated on a single report. Because each affiliate is classified by primary industry according to the composition of its sales, an affiliate's operations in secondary industries will appear as part of the data for its primary industry. A number of affiliates whose primary activity is manufacturing are engaged in wholesale trading as a secondary activity.

7. The seven countries are the largest investors in terms of affiliate employment, sales, and gross product. In 1991, affiliates of these countries together accounted for 82 percent of the employment, sales, and gross product of all U.S. affiliates.

8. An affiliate's UBO is that person, proceeding up the affiliate's ownership chain, beginning with and including the foreign parent, that is not owned more than 50 percent by another person.

9. The *sogo shosha* have long served an important role as intermediate agents for much of Japan's trade with other countries, especially for trade in bulk commodities. See Alexander K. Young, *The Sogo Shosha: Japan's Multinational Trading Companies* (Boulder, Colorado: Westview Press, 1979).

Table 3.—Merchandise Trade of All U.S. Affiliates and of U.S. Affiliates in Manufacturing, by Country of UBO, 1977-91

	Affiliate exports by country of UBO									Affiliate imports by country of UBO								
	All countries	Canada	France	Germany ¹	Japan	Netherlands	Switzerland	United Kingdom	Other countries	All countries	Canada	France	Germany ¹	Japan	Netherlands	Switzerland	United Kingdom	Other countries
	Millions of dollars																	
Affiliates in all industries:																		
1977	24,858	854	6,396	682	10,396	827	2,117	1,575	2,011	43,896	3,853	3,271	2,883	16,313	4,464	1,685	5,447	5,980
1978	32,169	1,325	7,618	1,107	13,820	1,016	2,557	2,031	2,695	56,567	4,664	2,423	5,572	22,963	4,160	2,289	5,897	8,599
1979	44,341	1,763	11,222	2,893	17,347	1,364	3,320	2,252	4,180	63,039	5,194	2,605	6,915	25,370	4,933	2,854	7,312	7,856
1980	52,199	1,792	10,209	3,328	19,136	1,934	3,055	3,196	9,549	75,803	5,553	3,749	7,519	27,653	6,436	2,542	8,499	13,852
1981	64,066	4,528	11,832	5,305	22,659	2,319	3,769	3,682	9,972	82,259	8,223	4,359	8,667	33,285	5,427	2,303	8,814	11,181
1982	60,236	4,162	12,947	4,578	21,514	2,182	3,370	3,756	7,727	84,290	6,071	3,886	8,314	35,901	5,332	1,932	8,203	14,651
1983	53,854	4,290	9,253	2,684	22,816	1,532	3,053	3,291	6,935	81,464	5,995	3,575	8,722	36,568	4,309	2,125	7,961	12,209
1984	58,186	4,505	11,673	2,993	23,764	1,594	3,296	3,197	7,164	100,489	7,208	4,024	12,132	47,824	4,375	2,626	8,439	13,861
1985	56,401	4,172	11,169	3,170	22,715	1,658	2,847	3,038	7,632	113,331	6,939	3,921	12,701	58,102	4,540	2,897	9,551	14,680
1986	49,560	4,372	9,565	2,588	21,260	1,272	2,329	3,042	5,132	125,732	7,139	4,391	14,359	63,802	3,608	3,472	10,119	18,842
1987	48,091	4,963	5,422	3,636	20,413	1,485	1,937	3,735	6,500	143,537	8,033	4,330	17,264	72,564	4,268	4,269	10,622	22,187
1988	69,541	5,858	11,026	5,497	26,400	2,752	2,941	4,729	10,338	155,533	9,298	7,032	16,082	77,688	4,951	5,210	11,461	23,811
1989	86,316	6,020	13,598	6,088	34,076	2,379	4,236	6,930	12,989	171,847	10,596	7,873	16,961	84,511	6,292	4,832	12,715	28,067
1990	92,308	6,162	11,748	6,383	39,293	2,739	5,070	8,046	12,867	182,936	10,993	8,239	18,417	87,475	6,612	4,965	13,388	32,847
1991 ^P	98,369	6,402	11,636	7,292	41,212	3,215	5,637	8,405	14,570	179,694	10,383	7,516	17,360	89,675	6,326	4,822	12,189	31,423
Manufacturing affiliates:																		
1977	3,557	533	(D)	377	325	311	(D)	815	453	5,624	1,729	599	641	281	423	395	829	727
1978	4,521	731	(D)	754	442	(D)	(D)	910	519	7,193	2,330	836	916	411	482	493	918	807
1979	6,548	961	(D)	1,247	713	527	(D)	1,132	699	8,668	2,383	720	1,334	562	(D)	987	(D)	1,013
1980	9,048	999	1,447	1,520	761	637	700	1,628	1,356	10,413	2,809	1,446	1,670	642	556	769	1,461	1,060
1981	13,590	3,725	1,656	1,675	1,153	821	533	1,908	2,119	13,226	4,020	1,590	1,775	894	725	763	1,763	1,696
1982	12,883	3,308	(D)	1,705	991	803	(D)	1,927	2,073	12,386	2,952	1,958	1,795	997	860	626	1,843	1,355
1983	12,045	3,385	(D)	1,555	957	529	(D)	1,792	2,046	14,021	3,071	1,838	2,289	1,197	884	719	1,861	2,162
1984	13,078	3,682	(D)	1,761	948	656	(D)	1,833	2,273	18,172	3,982	2,034	3,329	1,739	1,193	938	2,377	2,580
1985	12,849	3,367	(D)	1,808	850	465	619	2,078	(P)	18,635	3,701	1,654	3,577	2,365	1,179	1,096	2,496	2,567
1986	12,805	3,511	1,220	1,818	911	572	724	2,009	2,040	20,617	3,691	1,932	3,830	2,751	1,556	1,292	2,759	2,806
1987	15,487	4,042	937	2,798	1,126	707	770	2,631	2,476	24,546	4,274	1,773	4,312	4,195	1,443	1,632	3,339	3,578
1988	25,192	4,807	4,136	4,480	2,033	1,696	1,068	3,456	3,516	32,762	4,625	4,036	5,325	5,887	2,324	2,230	4,457	3,878
1989	31,873	4,854	4,918	5,145	4,146	1,481	1,967	4,895	4,467	40,871	5,759	4,112	5,965	10,063	2,522	2,268	5,061	5,121
1990	36,069	5,401	5,278	5,260	5,295	1,423	2,819	5,719	4,874	47,171	5,794	4,887	6,693	14,056	2,580	2,370	5,144	5,647
1991 ^P	39,432	5,504	5,568	5,830	6,085	1,759	3,235	6,194	5,257	47,983	5,825	4,078	6,692	13,933	2,509	2,696	5,325	6,925
Percent of all-countries total																		
Affiliates in all industries:																		
1977	100.0	3.4	25.7	2.7	41.8	3.3	8.5	6.3	8.1	100.0	8.8	7.5	6.6	37.2	10.2	3.8	12.4	13.6
1978	100.0	4.1	23.7	3.4	43.0	3.2	7.9	6.3	8.4	100.0	8.2	4.3	9.9	40.6	7.4	4.0	10.4	15.2
1979	100.0	4.0	25.3	6.5	39.1	3.1	7.5	5.1	9.4	100.0	8.2	4.1	11.0	40.2	7.8	4.5	11.6	12.5
1980	100.0	3.4	19.6	6.4	36.7	3.7	5.9	6.1	18.3	100.0	7.3	4.9	9.9	36.5	8.5	3.4	11.2	18.3
1981	100.0	7.1	18.5	8.3	35.4	3.6	5.9	5.7	15.6	100.0	10.0	5.3	10.5	40.5	6.6	2.8	10.7	13.6
1982	100.0	6.9	21.5	7.6	35.7	3.6	5.6	6.2	12.8	100.0	7.2	4.6	9.9	42.6	6.3	2.3	9.7	17.4
1983	100.0	8.0	17.2	5.0	42.4	2.8	5.7	6.1	12.9	100.0	7.4	4.4	10.7	44.9	5.3	2.6	9.8	15.0
1984	100.0	7.7	20.1	5.1	40.8	2.7	5.7	5.5	12.3	100.0	7.2	4.0	12.1	47.6	4.4	2.6	8.4	13.8
1985	100.0	7.4	19.8	5.6	40.3	2.9	5.0	5.4	13.5	100.0	6.1	3.5	11.2	51.3	4.0	2.6	8.4	13.0
1986	100.0	8.8	19.3	5.2	42.9	2.6	4.7	6.1	10.4	100.0	5.7	3.5	11.4	50.7	2.9	2.8	8.0	15.0
1987	100.0	10.3	11.3	7.6	42.4	3.1	4.0	7.8	13.5	100.0	5.6	3.0	12.0	50.6	3.0	3.0	7.4	15.5
1988	100.0	8.4	15.9	7.9	38.0	4.0	4.2	6.8	14.9	100.0	6.0	4.5	10.3	49.9	3.2	3.3	7.4	15.3
1989	100.0	7.0	15.8	7.1	39.5	2.8	4.9	8.0	15.0	100.0	6.2	4.6	9.9	49.2	3.7	2.8	7.4	16.3
1990	100.0	6.7	12.7	6.9	42.6	3.0	5.5	8.7	13.9	100.0	6.0	4.5	10.1	47.8	3.6	2.7	7.3	18.0
1991 ^P	100.0	6.5	11.8	7.4	41.9	3.3	5.7	8.5	14.8	100.0	5.8	4.2	9.7	49.9	3.5	2.7	6.8	17.5
Manufacturing affiliates:																		
1977	100.0	15.0	(D)	10.6	9.1	8.7	(D)	22.9	12.7	100.0	30.7	10.7	11.4	5.0	7.5	7.0	14.7	12.9
1978	100.0	16.2	(D)	16.7	9.8	(D)	(D)	20.1	11.5	100.0	32.4	11.6	12.7	5.7	6.7	6.9	12.8	11.2
1979	100.0	14.7	(D)	19.0	10.9	8.0	(D)	17.3	10.7	100.0	27.5	8.3	15.4	6.5	(D)	11.4	(D)	11.7
1980	100.0	11.0	16.0	16.8	8.4	7.0	7.7	18.0	15.0	100.0	27.0	13.9	16.0	6.2	5.3	7.4	14.0	10.2
1981	100.0	27.4	12.2	12.3	8.5	6.0	3.9	14.0	15.6	100.0	30.4	12.0	13.4	6.8	5.5	5.8	13.3	12.8
1982	100.0	25.7	(D)	13.2	7.7	6.2	(D)	15.0	16.1	100.0	23.8	15.8	14.5	8.0	6.9	5.1	14.9	10.9
1983	100.0	28.1	(D)	12.9	7.9	4.4	(D)	14.9	17.0	100.0	21.9	13.1	16.3	8.5	6.3	5.1	13.3	15.4
1984	100.0	28.2	(D)	13.5	7.2	5.0	(D)	14.0	17.4	100.0	21.9	11.2	18.3	9.6	6.6	6.2	13.1	14.2
1985	100.0	26.2	(D)	14.1	6.6	3.6	4.8	16.2	(P)	100.0	19.9	8.9	19.2	12.7	6.3	5.9	13.4	13.8
1986	100.0	27.4	9.5	14.2	7.1	4.5	5.7	15.7	15.9	100.0	17.9	9.4	18.6	13.3	7.5	6.3	13.4	13.6
1987	100.0	26.1	6.1	18.1	7.3	4.6	5.0	17.0	16.0	100.0	17.4	7.2	17.6	17.1	5.9	6.6	13.6	14.6
1988	100.0	19.1	16.4	17.8	8.1	6.7	4.2	13.7	14.0	100.0	14.1	12.3	16.3	18.0	7.1	6.8	13.6	11.8
1989	100.0	15.2	15.4	16.1	13.0	4.6	6.2	15.4	14.0	100.0	14.1	10.1	14.6	24.6	6.2	5.5	12.4	12.5
1990	100.0	15.0	14.6	14.6	14.7	3.9	7.8	15.9	13.5	100.0	12.3	10.						

of Japanese manufacturing companies accounted for 57 percent of the total imports by Japanese-owned affiliates; more than 90 percent of the imports by these wholesale trade affiliates were by affiliates specializing in motor vehicles, electrical goods, or office equipment.

For each of the other major investing countries, wholesale trade affiliates have generally accounted for a much smaller share of affiliate trade. They have, however, accounted for a large share of the exports by French-owned affiliates and of the imports by German-owned affiliates. In 1991, they accounted for about 50 percent of the exports by French-owned affiliates (down from 78 percent in 1987); almost all of the exports by French-owned wholesale trade affiliates were by affiliates specializing in farm-product raw materials. Wholesale trade affiliates accounted for 57 percent of the imports by German-owned affiliates; most of the imports by German-owned wholesale trade affiliates were by affiliates of Germany's major automobile manufacturers. For each of the other four major investing countries, wholesale trade affiliates accounted for less than one-third of both the exports and the imports by U.S. affiliates.

In manufacturing, the affiliate-trade shares among the major investing countries have been much more evenly distributed than in all industries combined. For exports, affiliates with UBO's in five of the countries (the United Kingdom, Japan, Germany, France, and Canada) each accounted for roughly 15 percent of the total exports by manufacturing affiliates in 1991. For imports, Japanese-owned affiliates accounted for the largest share (29 percent), followed by German-owned affiliates (14 percent). The sizable share

of Japanese-owned affiliates in manufacturing-affiliate trade is a fairly recent phenomenon: In 1987, their export share was only 7 percent (much lower than the shares for Canadian-, German-, and British-owned affiliates), and their import share was 17 percent (slightly below the shares for German- and Canadian-owned affiliates). The increase in share for Japanese-owned affiliates after 1987 reflects the substantial increase in Japanese ownership in U.S. manufacturing industries that occurred in the late 1980's.¹⁰ The trade share for French-owned affiliates increased sharply in 1988 after a large French electronics company acquired the consumer electronics business of a large U.S. company. For most of the 1980's, Canadian-owned affiliates accounted for the largest share of manufacturing-affiliate exports and imports; a significant part of this trade, however, was by a large minority-owned company.

In every year since 1977, imports have exceeded exports for affiliates with UBO's in Canada, Germany, Japan, the Netherlands, and the United Kingdom. This pattern can be traced mainly to the strong import orientation of the wholesale trade affiliates of these countries; in 1991, imports by these affiliates exceeded exports by more than 2 to 1 (table 4). In some cases, the import/export ratio was much higher: Imports by German-owned wholesale trade affiliates exceeded exports by more than 10 to 1, and imports by Canadian-owned wholesale trade affiliates exceeded exports by more than 5 to 1. For affiliates with UBO's in the Netherlands and the United Kingdom, a sub-

10. The share of Japanese-owned manufacturing affiliates in the gross product of all manufacturing affiliates increased every year from 1987 to 1990, from 6 percent in 1987 to 12 percent in 1990.

Table 4.— Merchandise Trade of U.S. Affiliates, by Major Industry of Affiliate and Country of UBO, 1990 and 1991

(Millions of dollars)

	All countries		Canada		France		Germany		Japan		Netherlands		Switzerland		United Kingdom		Other countries	
	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P
Exports shipped by U.S. affiliates:																		
All industries	92,308	98,369	6,162	6,402	11,748	11,636	6,383	7,292	39,293	41,212	2,739	3,215	5,070	5,637	8,046	8,405	12,867	14,570
Manufacturing	36,069	39,432	5,401	5,504	5,278	5,568	5,260	5,830	5,295	6,085	1,423	1,759	2,819	3,235	5,719	6,194	4,874	5,257
Wholesale trade	49,925	51,995	407	551	(^D)	(^D)	881	939	33,687	34,760	481	467	1,629	1,546	1,063	1,205	(^D)	(^D)
Other	6,314	6,942	354	347	(^D)	(^D)	242	523	311	367	835	989	622	856	1,264	1,006	(^D)	(^D)
Imports shipped to U.S. affiliates:																		
All industries	182,936	179,694	10,993	10,383	8,239	7,516	18,417	17,360	87,475	89,675	6,612	6,326	4,965	4,822	13,388	12,189	32,847	31,423
Manufacturing	47,171	47,983	5,794	5,825	4,887	4,078	6,693	6,692	14,056	13,933	2,580	2,509	2,370	2,696	5,144	5,325	5,647	6,925
Wholesale trade	113,639	112,064	3,594	2,871	2,948	3,059	11,005	9,860	73,141	75,426	1,041	1,045	1,368	1,269	5,277	3,970	15,265	14,564
Other	22,126	19,647	1,605	1,687	404	379	719	808	278	316	2,991	2,772	1,227	857	2,967	2,894	11,935	9,934
Ratio of imports to exports:																		
All industries	1.98	1.83	1.78	1.62	.70	.65	2.89	2.38	2.23	2.18	2.41	1.97	.98	.86	1.66	1.45	2.55	2.16
Manufacturing	1.31	1.22	1.07	1.06	.93	.73	1.27	1.15	2.65	2.29	1.81	1.43	.84	.83	.90	.86	1.16	1.32
Wholesale trade	2.28	2.16	8.83	5.21	(^D)	(^D)	12.49	10.50	2.17	2.17	2.16	2.24	.84	.82	4.96	3.29	(^D)	(^D)
Other	3.50	2.83	4.53	4.86	(^D)	(^D)	2.97	1.54	.89	.86	3.58	2.80	1.97	1.00	2.35	2.88	(^D)	(^D)

^P Preliminary.

^D Suppressed to avoid disclosure of data of individual companies.

UBO Ultimate beneficial owner

stantial portion of the trade deficit was in "other industries," reflecting large imports and minimal exports by affiliates in petroleum.

In contrast to the pattern for affiliates of the other five countries, exports have usually exceeded imports for affiliates with UBO's in France and Switzerland. French-owned affiliates had trade surpluses every year during 1977-91, primarily because of substantial exports by a few wholesale trade affiliates in farm-product raw materials, which are major exporters of grain. Swiss-owned affiliates had surpluses prior to 1985 and again in 1990 and 1991.

In manufacturing, the import/export ratio in 1991 was close to unity for affiliates of most of the major investing countries; affiliates with UBO's in France, Switzerland, and the United Kingdom had moderate trade surpluses. In contrast, Japanese-owned affiliates imported more than twice as much as they exported, reflecting their reliance on imports as inputs to production (see the final section of this article).

Merchandise Trade by Product, 1987

This section discusses data on U.S.-affiliate trade by broad product category, which are available from the 1987 benchmark survey. Table 5 presents the product-level data on exports and imports by all U.S. affiliates, by affiliates of the seven major investing countries, and by all U.S. businesses.

Exports.—In 1987, U.S. affiliates accounted for roughly one-half or more of total U.S. exports in food, petroleum and products, and metal manufactures. For each of these product categories, more than three-fourths of the affiliate exports were by wholesale trade affiliates. In contrast, the affiliate shares of U.S. exports of road vehicles and of other transport equipment were very low, at less than 5 percent each.

By country, Japanese-owned affiliates accounted for the largest share of affiliate exports in 8 of the 11 product groups—including petroleum (over 80 percent), metal manufactures (70 percent), crude materials (58 percent), and food (47

Table 5.—Total U.S. Merchandise Trade and Merchandise Trade of U.S. Affiliates, by Product and by Country of UBO, 1987

[Millions of dollars]

	All U.S. businesses	U.S. affiliates by country of UBO									Other U.S. businesses
		All countries	Canada	France	Germany, Federal Republic of	Japan	Netherlands	Switzerland	United Kingdom	Other countries	
Exports											
Total	243,859	48,091	4,963	5,422	3,636	20,413	1,485	1,937	3,735	6,500	195,768
Food	19,179	9,835	82	(^D)	28	4,617	54	613	408	(^D)	9,344
Beverages and tobacco	3,667	869	(^D)	4	3	(^D)	(^D)	(^D)	(^D)	233	2,798
Crude materials	20,416	6,103	222	(^D)	98	3,521	(^D)	411	188	821	14,313
Petroleum and products	4,283	2,564	57	5	(^D)	(^D)	6	(^D)	(^D)	122	1,719
Coal and coke	3,430	1,327	514	1	225	(^D)	(^D)	0	(^D)	118	2,103
Chemicals	26,381	8,055	(^D)	332	1,409	1,670	526	431	771	(^D)	18,326
Machinery	69,637	7,465	430	394	1,010	2,736	(^D)	111	770	(^D)	62,172
Road vehicles and parts	21,004	793	18	(^D)	181	163	1	2	76	(^D)	20,211
Other transport equipment ..	17,955	775	(^D)	(^D)	79	(^D)	0	0	64	78	17,180
Metal manufactures	6,896	3,412	292	194	94	2,401	11	21	59	340	3,484
Other	51,012	6,895	1,278	338	(^D)	(^D)	68	(^D)	883	1,403	44,117
Imports											
Total	405,900	143,537	8,033	4,330	17,264	72,564	4,268	4,269	10,622	22,187	262,363
Food	20,547	6,400	475	226	204	1,054	8	294	2,036	2,103	14,147
Beverages and tobacco	4,105	1,739	400	(^D)	1	(^D)	(^D)	748	141	2,386	
Crude materials	11,526	4,193	548	(^D)	110	1,472	182	(^D)	298	1,252	7,333
Petroleum and products	44,033	10,915	1,476	(^D)	(^D)	1,031	(^D)	(^D)	(^D)	3,292	33,118
Coal and coke	186	23	2	0	(^D)	2	0	(^D)	0	2	163
Chemicals	16,213	7,112	392	460	1,601	1,687	218	821	1,132	801	9,101
Machinery	99,433	35,790	858	451	2,555	25,619	1,395	990	875	3,047	63,643
Road vehicles and parts	72,709	47,416	8	(^D)	9,314	31,446	3	5	300	(^D)	25,293
Other transport equipment ..	5,667	1,544	82	(^D)	148	588	(^D)	0	(^D)	42	4,123
Metal manufactures	25,144	10,662	1,894	492	1,304	4,237	14	127	490	2,104	14,482
Other	106,337	17,747	1,898	1,403	(^D)	(^D)	270	846	(^D)	3,349	88,590

^D Suppressed to avoid disclosure of data of individual companies.

UBO Ultimate beneficial owner

NOTE.—The data for all U.S. businesses are from the Bureau of the Census, U.S. Exports: Schedule E Commodity Groupings by World Area and Country (FT450/1987) and U.S. General Imports: Schedule A Commodity Groupings by World Area and Country (FT150/1987). The figures for other U.S. businesses were derived through subtraction. The totals for U.S. exports and im-

ports shown in this table do not agree with those shown in table 1, partly because, unlike the totals shown in table 1, the figures for U.S. trade by Schedule A and Schedule E commodity group have not been revised since their initial publication in 1988. Also, for U.S. exports, the Schedule E figures are only for U.S. domestic exports, whereas the revised total reported in table 1 is for total exports including re-exports.

percent). In each of these eight product groups, most of the exports by Japanese-owned affiliates were by wholesale trade affiliates of Japanese trading companies.

Among affiliates of the seven major investing countries, French-owned affiliates had the least diversified exports by product: Over one-half of their exports were of food products, shipped mostly by a few wholesale trade affiliates specializing in grain. Affiliates of the other six countries had exports that were considerably more diversified. Exports by Japanese- and British-owned affiliates were the most diverse: No one product group accounted for more than one-fourth of their exports.

Imports.—In 1987, U.S. affiliates accounted for almost two-thirds of total U.S. imports of road vehicles and parts and for over 40 percent of total imports of chemicals, beverages and tobacco, and metal manufactures. Wholesale trade affiliates accounted for 97 percent of the affiliate imports of road vehicles and parts and for most of the affiliate imports of metal manufactures; manufacturing affiliates accounted for most of the affiliate imports of chemicals and of beverages and tobacco.

By country, Japanese-owned affiliates accounted for the largest share of affiliate imports in 8 of the 11 product categories; they had majority shares in machinery (72 percent) and road vehicles and parts (66 percent). German-owned affiliates also accounted for a sizable share of U.S.-affiliate imports in road vehicles and parts (20 percent).

Among affiliates of the seven major investing countries, affiliates with UBO's in the Netherlands, Germany, and Japan had the least diversified imports by product. For Netherlands-owned affiliates, petroleum and machinery made up over three-fourths of total imports. For German-owned affiliates, over one-half of the imports were of road vehicles and parts, nearly all of which were imported by wholesale trade affiliates of German automobile manufacturers. For Japanese-owned affiliates, over three-fourths of the imports were of machinery or of road vehicles and parts, most of which were imported by wholesale trade affiliates of Japanese manufacturing companies.

Merchandise Trade by Country of Destination and Origin, 1987

This section discusses data on the geographic destination and origin of U.S.-affiliate trade, which

are available from the 1987 benchmark survey. Table 6 presents two summary measures of the geographic pattern of exports and imports for U.S. affiliates of the seven major investing countries. The first measure is an index of the geographic diversification of affiliate exports and imports across all countries of destination or origin. The index is one that has been used in studies of industrial organization to measure industrial diversification within large corporations. As used here, the index reflects both the number of countries with which the affiliates of a given country engage in trade and the degree of equality among the merchandise trade shares of the different countries; it may range from 0 to 1, and the higher its value, the more geographically diversified are the exports or imports of a country's affiliates (see footnote to table 6). The second measure is the share of affiliate trade with the country of UBO.

In 1987, exports by Japanese-owned affiliates were the least geographically diversified; their diversification index is only 0.399, reflecting the fact that more than three-fourths of their exports were shipped to Japan. In contrast, the diversification index for the exports of affiliates of each of the other six countries is higher than 0.850, partly reflecting the fact that the share of exports shipped to any one country was less than one-third.

Exports to the country of UBO accounted for the largest share of exports by affiliates of all of the major investing countries except France and the Netherlands. For Netherlands-owned affiliates, the share of exports shipped to the Netherlands (20 percent) was slightly lower than the share shipped to the United Kingdom (22

Table 6.—Measures of Geographic Diversification of Merchandise Trade of U.S. Affiliates, by Country of UBO, 1987

	Index of geographic diversification of affiliate trade ¹		Trade with country of UBO as a percentage of total affiliate trade	
	Exports	Imports	Exports	Imports
Canada	0.876	0.456	30.7	73.4
France .....	.935	.671	6.4	55.7
Germany, Federal Republic of .....	.863	.318	30.2	82.5
Japan .....	.399	.132	77.3	93.1
Netherlands .....	.882	.915	19.7	16.6
Switzerland .....	.922	.795	15.2	42.8
United Kingdom .....	.909	.852	19.7	33.0

1. This index is expressed as $1 - \sum s_i^2$, where s_i is the share of country i in the total exports or imports of U.S. affiliates of the given country of UBO. The index may take on a value ranging from 0 to 1, with values closer to 1 indicating greater diversification in the destination of exports, or in the origin of imports, across all 190 countries identified in the 1987 benchmark survey. A similar index has been employed in studies of industrial diversification. See Charles H. Berry, "Corporate Growth and Diversification," *Journal of Law and Economics* 14 (October 1971): 371-83. UBO: Ultimate beneficial owner

percent). For French-owned affiliates, the share of exports shipped to France (only 6 percent) was much lower than the shares shipped to Japan (17 percent) and to the Soviet Union. The data by country of destination cannot be cross-classified by product; however, it is likely that some, perhaps most, of the exports to Japan and the Soviet Union represented shipments of grain: Both countries were large grain importers, and, as noted earlier, most of the exports by French-owned affiliates consisted of food products shipped by wholesale traders specializing in grain.

Imports were considerably less geographically diversified than exports for affiliates of most of the major investing countries. Imports by Japanese-owned affiliates were the least diversified, with an index of 0.132; more than 90 percent of these imports originated in Japan. Imports from the country of UBO also accounted for the largest share of imports by affiliates of the other six countries; they accounted for a majority share of the imports by affiliates with UBO's in Germany, Canada, and France. The geographic pattern of affiliate imports was most diversified for Netherlands-owned affiliates: The share of imports received from the Netherlands was only 17 percent (which was still a higher share than that received from any other country). Petroleum, a relatively homogeneous commodity that can easily be imported from a number of different countries, accounted for a large share of the imports by Netherlands-owned affiliates. Almost

one-third of their imports were from member nations of the Organization of Petroleum Exporting Countries.

Table 7 shows the U.S.-affiliate share of total trade between the United States and each of the seven major investing countries in 1987. It indicates the share of U.S. trade with each country that was accounted for by the country's U.S. affiliates, by other countries' U.S. affiliates, and by other U.S. companies. The addenda show, for comparison, the share of U.S. trade with each country that was accounted for by U.S.-owned affiliates located in that country.

Japanese-owned affiliates accounted for a dominant share of both U.S. exports to, and U.S. imports from, Japan—their country of ultimate ownership: These affiliates handled 56 percent of all U.S. exports to Japan and 80 percent of all U.S. imports from Japan. In contrast, for each of the other six countries, less than 10 percent of total U.S. exports to the country were shipped by U.S. affiliates with UBO's in that country; the corresponding shares for imports ranged from 52 percent for Germany to 8 percent for Canada.

For each of the major investing countries except Japan, more than 25 percent of total U.S. exports to the country consisted of shipments to the country's U.S.-owned affiliates, compared with a share of less than 10 percent shipped by U.S. affiliates with UBO's in the country. The share of U.S. exports to Canada accounted for by Canadian affiliates of U.S. companies was particularly large, at 57 percent. In contrast, the

Table 7.—U.S. Merchandise Trade with Major Countries Accounted for by U.S. Affiliates of Foreign Companies and by Other U.S. Companies, 1987

	Millions of dollars					Percent of total U.S. trade					Addenda: Trade with foreign affiliates of U.S. companies in partner country	
	Total U.S. trade	Trade by U.S. affiliates			Trade by other U.S. companies	Total U.S. trade	Trade by U.S. affiliates			Trade by other U.S. companies	Millions of dollars	Percent of total U.S. trade
		Total	By affiliates with UBO located in partner country	By affiliates with UBO located elsewhere			Total	By affiliates with UBO located in partner country	By affiliates with UBO located elsewhere			
U.S. exports to:												
Canada	59,814	4,169	1,522	2,647	55,645	100.0	7.0	2.5	4.4	93.0	34,010	56.9
France	7,943	826	348	478	7,117	100.0	10.4	4.4	6.0	89.6	2,526	31.8
Germany, Federal Republic of	11,802	2,164	1,099	1,065	9,638	100.0	18.3	9.3	9.0	81.7	3,503	29.7
Japan	28,249	18,983	15,773	3,210	9,266	100.0	67.2	55.8	11.4	32.8	4,907	17.4
Netherlands	8,217	1,181	293	888	7,036	100.0	14.4	3.6	10.8	85.6	3,343	40.7
Switzerland	3,151	617	294	323	2,534	100.0	19.6	9.3	10.3	80.4	926	29.4
United Kingdom	14,114	2,568	737	1,831	11,546	100.0	18.2	5.2	13.0	81.8	5,292	37.5
U.S. imports from:												
Canada	71,085	7,952	5,898	2,054	63,133	100.0	11.2	8.3	2.9	88.8	30,670	43.1
France	10,730	3,189	2,412	777	7,541	100.0	29.7	22.5	7.2	70.3	1,475	13.7
Germany, Federal Republic of	27,155	16,372	14,239	2,133	10,783	100.0	60.3	52.4	7.9	39.7	2,158	7.9
Japan	84,575	69,266	67,580	1,686	15,309	100.0	81.9	79.9	2.0	18.1	8,739	10.3
Netherlands	3,964	1,173	707	466	2,791	100.0	29.6	17.8	11.8	70.4	504	12.7
Switzerland	4,249	2,421	1,825	596	1,828	100.0	57.0	43.0	14.0	43.0	298	7.0
United Kingdom	17,341	4,754	3,506	1,248	12,587	100.0	27.4	20.2	7.2	72.6	5,288	30.5

NOTE.—The data on total U.S. trade with each country are from the Census Bureau; the data on trade by other U.S. companies were derived through subtraction. The data in the addenda are from BEA's 1987 annual survey of U.S. direct investment abroad. Because U.S. companies with foreign affiliates may themselves be affiliates of foreign companies, these data may partly duplicate the trade data for U.S. affiliates shown in other columns.

share of U.S. exports to Japan accounted for by Japanese affiliates of U.S. companies was only 17 percent.

Intrafirm Merchandise Trade

Much of the merchandise trade of U.S. affiliates of foreign companies, particularly on the import side, is intrafirm trade between U.S. affiliates and their foreign parent groups. In 1987–91, intrafirm trade accounted for about 40 percent of the exports and 75 percent of the imports of all U.S. affiliates.

By industry, intrafirm trade has accounted for a particularly large share of the trade by wholesale trade affiliates. In 1991, the share of exports by wholesale trade affiliates that was shipped to their foreign parent groups was 55 percent, compared with shares of 26 percent for manufacturing affiliates and 39 percent for affiliates in “other industries.” The share of imports that was shipped from their foreign parent groups was 79

percent for wholesale trade affiliates, 71 percent for manufacturing affiliates, and 55 percent for affiliates in “other industries.”

Among affiliates of the major investing countries, Japanese-owned affiliates have shipped a majority of their exports to their foreign parent groups in every year since 1977 (table 8). In 1991, the share of exports by these affiliates that was shipped to their foreign parent groups was 59 percent. Most of these intrafirm exports were by wholesale trade affiliates of Japanese trading companies. Netherlands-owned affiliates had the second largest intrafirm export share, at 40 percent.

For nearly all of the major investing countries, the share of imports received by affiliates from their foreign parent groups has consistently been higher than the share of exports shipped by affiliates to their foreign parent groups; the sole exception is intrafirm trade by Netherlands-owned affiliates prior to 1989. The shares of imports from foreign parent groups have been especially large for Japanese- and German-owned affiliates (more than 80 percent in most years). These sizable shares reflect the dominant role of wholesale trade affiliates as domestic distributors for their foreign parent companies. Imports from foreign parent groups also constituted a large share of total imports by Canadian-, French-, and Swiss-owned affiliates.

Trade between a U.S. affiliate and its foreign parent group need not be with the country of the affiliate's UBO, because the foreign parent group may include companies located in other countries. According to data from the 1987 benchmark survey, less than one-half of exports by French-, Netherlands-, Swiss-, and British-owned affiliates to their foreign parent groups were shipped to the UBO's country. In contrast, the share of exports to foreign parent groups that was shipped to the UBO's country was 94 percent for Japanese-owned affiliates, 90 percent for Canadian-owned affiliates, and 68 percent for German-owned affiliates.

U.S.-affiliate imports from their foreign parent groups show a greater tendency to be from the country of UBO. For U.S. affiliates of each of the seven major investing countries except the Netherlands, a majority of the 1987 imports from foreign parent groups were from the UBO's country. For Japanese-, Canadian-, and German-owned affiliates, more than 90 percent of the imports from their foreign parent groups were from the UBO's country.

Table 8.—Intrafirm Merchandise Trade by Country of UBO, 1977–91
[Percent]

	Country of UBO								
	All countries	Canada	France	Germany ¹	Japan	Netherlands	Switzerland	United Kingdom	Other countries
Share of affiliate exports shipped to foreign parent groups									
1977	47.0	53.2	(P)	27.4	71.0	57.8	37.9	32.1	(P)
1978	51.5	54.0	30.9	21.0	73.1	49.0	38.7	32.1	38.0
1979	49.8	54.7	(P)	47.7	73.6	51.2	40.5	26.8	(P)
1980	40.2	53.2	3.1	31.9	74.0	41.6	32.1	21.7	21.0
1981	42.0	20.5	10.2	46.7	72.4	36.6	37.3	25.4	27.2
1982	41.5	17.8	24.0	46.0	63.9	43.8	23.4	20.0	36.8
1983	41.9	18.9	25.6	34.5	61.3	49.7	18.5	22.6	34.8
1984	46.5	19.6	37.4	35.1	66.4	48.0	23.4	26.7	36.4
1985	45.9	20.8	29.8	44.5	69.5	43.4	24.8	27.3	29.7
1986	44.1	19.1	33.5	46.8	58.0	43.4	26.6	26.8	45.1
1987	39.7	17.7	17.2	38.0	53.2	50.2	30.5	30.1	39.8
1988	38.0	18.9	11.6	32.7	54.8	51.1	25.7	27.3	41.8
1989	39.7	25.0	22.2	33.2	55.3	39.1	25.8	25.3	39.3
1990	40.9	18.7	24.9	32.1	57.1	42.7	30.6	22.9	36.2
1991 ^P	42.3	18.9	27.8	33.1	58.5	39.8	32.0	24.9	37.3
Share of affiliate imports shipped from foreign parent groups									
1977	70.3	85.6	90.6	88.9	84.4	41.2	49.8	37.6	59.5
1978	69.8	83.7	82.0	87.1	84.9	39.4	45.3	39.2	49.3
1979	71.9	84.1	76.9	88.2	86.4	37.2	38.7	40.4	63.7
1980	62.0	82.8	72.5	88.4	79.3	36.1	45.6	32.4	35.3
1981	63.5	66.4	64.4	84.7	78.4	20.1	53.9	34.0	46.3
1982	61.6	69.5	71.4	76.8	75.0	38.8	55.8	40.0	35.3
1983	67.3	72.7	74.3	81.1	77.5	28.7	55.7	40.6	55.2
1984	70.1	62.2	69.6	76.9	80.9	30.0	57.4	41.2	61.3
1985	72.1	68.7	67.8	82.3	82.4	31.3	62.3	38.2	62.1
1986	74.3	70.5	66.9	88.0	81.9	40.4	60.5	37.6	70.1
1987	75.4	71.2	75.4	86.9	79.0	39.5	76.3	46.9	76.4
1988	76.1	74.2	63.8	86.0	82.3	45.2	73.5	48.8	73.8
1989	75.6	67.6	65.5	84.0	83.9	40.9	73.6	49.0	71.6
1990	75.1	66.8	57.4	80.8	83.5	43.3	78.6	50.9	72.6
1991 ^P	74.1	62.7	61.2	80.9	80.6	46.3	78.6	48.5	73.2

^D Suppressed to avoid disclosure of data of individual companies.

^P Preliminary.

1. For the years prior to 1990, includes data only for the Federal Republic of Germany. Beginning with 1990, also includes the former German Democratic Republic (GDR). This change has no effect on the data because there were no U.S. affiliates of the former GDR prior to 1990.

UBO Ultimate beneficial owner

Import Content of Inputs Purchased by Affiliates

In this section, the data on U.S.-affiliate imports are used in conjunction with other data from BEA surveys on foreign direct investment in the United States to examine the degree to which U.S. affiliates draw on foreign, rather than domestic, sources for the inputs used in their production. The primary measure employed is the share of imports in total intermediate inputs purchased by U.S. affiliates, with intermediate inputs being computed as the difference between total output (sales plus inventory change) and gross product (value added in production).¹¹ Alternatively, one could look at the domestic content of affiliates' purchased inputs—one minus the import-content share—which shows the share of affiliates' purchased inputs accounted for by their purchases from other U.S. companies. A broader measure of domestic content—the domestic content of total output—takes account of both affiliates' purchases of intermediate inputs from other U.S. companies and their employment of labor and other primary factors of production; it is measured as the share of total output accounted for by affiliates' domestic purchases and gross product combined.

In 1991, the import content of purchased inputs for all U.S. affiliates was 20 percent, and the domestic content was 80 percent (table 9). For manufacturing affiliates, 17 percent of the content was accounted for by imports, and 83 percent by domestic content. The domestic content of total output was 85 percent for all affiliates and 88 percent for manufacturing affiliates. Although U.S. affiliates' reliance on imported goods appears to be somewhat higher than that of domestic firms, U.S. affiliates' output nonetheless largely represents production in the United States by U.S. labor and other domestic inputs. Because the focus of this article is on trade, the remainder of this section focuses on the import content of purchased inputs.

Table 9 shows the import-content shares for U.S. affiliates by broad industry of affiliate in 1987–91. Shown for comparison, as a proxy for the import-content share of domestically owned

U.S. businesses, is the import-content share of U.S. parent companies of foreign affiliates in 1989.¹²

In 1989, the share of imports in purchased inputs for U.S. affiliates (20 percent) was about twice as large as the share for U.S. parent companies (9 percent). This difference partly reflects industry mix—in particular, the fact that companies in wholesale trade, which had the highest import share among the major industry divisions, accounted for 40 percent of total U.S.-affiliate purchases but for only 10 percent of total U.S.-parent-company purchases. It also reflects the higher import-content shares of U.S. affiliates relative to U.S. parent companies in some industries, particularly wholesale trade, petroleum, and manufacturing.

The import-content shares for U.S. affiliates and U.S. parent companies in wholesale trade were 35 percent and 17 percent, respectively.¹³ The comparable shares in petroleum were 20 percent and 11 percent.

12. The share is computed from data from BEA's 1989 benchmark survey of U.S. direct investment abroad. In the absence of industry-level data on imported inputs by all U.S. businesses, the import-content share for U.S. parent companies is the best available measure for domestically owned U.S. businesses. In the petroleum and manufacturing industries, in which U.S. parent companies have accounted for a dominant share of total industry gross product, the shares for U.S. parent companies can be taken to be representative of that for large domestically owned businesses in general.

13. The share for wholesale trade affiliates is only 35 percent because this group includes some wholesale trade affiliates (such as the French-owned grain traders and the affiliates of Japanese trading companies) that export considerably more than they import. As a result, the share of imports in purchases for the industry as a whole is much lower than that for many individual affiliates.

Table 9.—Share of Imports in Total Purchased Inputs of U.S. Affiliates,
by Industry of Affiliate, 1987–91

	[Percent]					
	1987	1988	1989	1990	1991 ^P	Addendum: Share for U.S. parent companies 1989
All industries	24.2	22.0	20.4	19.4	19.6	8.6
Petroleum	16.8	14.7	20.3	20.4	19.5	10.9
Manufacturing	16.0	16.6	16.1	16.7	17.3	11.3
Food and kindred products	9.9	8.7	7.2	6.6	8.0	2.8
Chemicals and allied products	11.1	12.4	12.3	12.1	13.2	8.8
Primary and fabricated metals	18.8	14.2	13.0	14.0	14.1	8.3
Machinery	26.5	28.3	27.5	30.8	29.4	16.5
Machinery, except electrical	30.3	21.3	22.4	31.0	30.4	17.9
Electric and electronic equipment	24.7	33.3	32.7	30.7	28.6	14.8
Other manufacturing	15.1	16.3	17.1	16.5	18.2	13.0
Transportation equipment	38.3	42.7	42.4	36.0	39.5	19.2
Other	11.3	11.9	10.3	11.2	12.1	5.2
Wholesale trade	41.0	37.2	35.0	32.3	33.9	17.0
Retail trade	5.6	4.6	3.2	3.6	3.6	4.7
Finance (except banking), insurance, and real estate ....	.1	(*)	(*)	(*)	(*)	.3
Services	1.0	4.0	1.2	1.3	1.0	.6
Other industries	3.0	2.9	2.3	2.4	2.7	1.9

* Less than 0.05 percent.

^P Preliminary.

11. This measure captures direct (or first-round) imports only; it excludes imports embodied in purchases from domestic distributors and manufacturers. It also excludes any purchases of services from foreigners because the data for imports are for merchandise imports only. It should be noted that a small upward bias in the measure may exist to the extent that the numerator of the ratio includes imports of capital equipment for use in affiliate production, which—not being an intermediate input embodied in total output—is excluded from the denominator. For most U.S. affiliates, however, it is likely that only a negligible share of their total imports consisted of capital equipment.

In manufacturing, the difference between the import-content shares for U.S. affiliates and U.S. parent companies was more modest (16 percent, compared with 11 percent). In all manufacturing industries shown in table 9, the import-content share for U.S. affiliates was higher than that for U.S. parent companies; it was more than twice as high in three industries—food and kindred products, electric and electronic equipment, and transportation equipment.

For total manufacturing and for each of the industries within manufacturing shown in table 9,

the import-content share for affiliates changed little in 1987–91. This result does not necessarily refute the proposition that foreign-owned manufacturers tend to purchase more of their inputs from domestic sources as they mature: Because there was substantial new direct investment in U.S. manufacturing industries in 1987–90, the average age of U.S. manufacturing affiliates may not have increased during this period.

The import-content share for U.S. affiliates in all industries shows a modest decline in 1987–90 because of a drop in the share for affiliates

Table 10.—Share of Imports in Total Purchased Inputs of U.S. Affiliates, by Industry and by Country of UBO, 1990 and 1991
[Percent]

	All countries		Canada		France		Germany		Japan		Netherlands		Switzerland		United Kingdom	
	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p	1990	1991 ^p
All industries	19.4	19.6	12.7	12.7	12.1	10.7	21.6	19.9	30.2	31.7	12.3	11.5	10.4	10.1	9.6	9.2
Petroleum	20.4	19.5	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	0	0	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)
Petroleum and coal products manufacturing	19.1	17.1	(^D)	(^D)	(^D)	(^D)	0	0	0	0	(^D)	(^D)	0	0	(^D)	(^D)
Other	22.2	22.6	38.2	34.6	(^D)	(^D)	(^D)	(^D)	0	0	(^D)	(^D)	(^D)	(^D)	(^D)	0
Manufacturing	16.7	17.3	15.7	16.5	17.3	16.2	21.4	20.9	28.4	28.0	14.4	14.0	10.5	11.9	9.4	10.0
Food and kindred products	6.6	8.0	15.2	18.6	7.3	7.4	9.6	7.4	2.4	3.2	1.5	1.7	(^D)	(^D)	8.2	9.1
Beverages	5.6	6.6	(^D)	(^D)	(^D)	(^D)	(^D)	7.4	2.1	3.7	n.a.	n.a.	(^D)	(^D)	(^D)	(^D)
Other	7.0	8.6	6.0	9.2	6.8	6.7	(^D)	7.0	2.4	3.1	1.5	1.7	(^D)	(^D)	8.7	(^D)
Chemicals and allied products	12.1	13.2	(^D)	(^D)	9.6	9.5	18.4	18.5	5.1	7.2	3.4	3.1	15.8	17.4	11.6	13.2
Industrial chemicals and synthetics	12.9	14.5	(^D)	(^D)	(^D)	(^D)	21.2	22.5	4.2	6.0	(^D)	(^D)	21.2	21.4	(^D)	(^D)
Drugs	15.4	17.4	0	0	(^D)	(^D)	10.7	(^D)	3.2	3.8	(^D)	1.0	17.3	18.8	(^D)	(^D)
Soap, cleaners, and toilet goods	3.0	2.7	(^D)	(^D)	(^D)	(^D)	1.4	1.0	5.1	7.9	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)
Other	15.7	14.1	3.6	6.0	(^D)	7.0	19.1	(^D)	15.0	18.5	(^D)	(^D)	12.1	11.9	(^D)	(^D)
Primary and fabricated metals	14.0	14.1	26.7	(^D)	7.3	6.9	20.0	21.4	6.6	5.9	4.1	2.2	18.9	13.5	7.2	7.3
Primary metal industries	15.2	16.0	(^D)	29.0	8.8	11.2	24.2	21.9	5.3	3.7	n.a.	0	(^D)	(^D)	(^D)	7.6
Ferrous	7.9	10.3	8.4	11.6	(^D)	(^D)	(^D)	53.2	4.7	2.8	n.a.	0	n.a.	n.a.	1.4	(^D)
Nonferrous	22.4	22.5	(^D)	(^D)	(^D)	(^D)	16.6	12.8	16.0	17.9	n.a.	n.a.	(^D)	(^D)	(^D)	(^D)
Fabricated metal products	11.1	10.4	(^D)	(^D)	(^D)	(^D)	18.4	21.2	18.6	20.9	4.1	2.2	(^D)	(^D)	(^D)	6.5
Machinery	30.8	29.4	22.7	21.5	49.2	33.3	37.5	33.5	46.7	43.1	(^D)	(^D)	12.2	13.8	12.1	11.5
Machinery, except electrical	31.0	30.4	(^D)	(^D)	(^D)	20.3	25.9	25.5	48.5	45.3	20.8	21.8	19.3	21.1	12.9	9.5
Computer and office equipment	45.5	45.5	5.2	(^D)	(^D)	(^D)	.7	.6	62.1	58.3	4.9	3.1	(^D)	(^D)	(^D)	(^D)
Other	22.7	22.8	17.8	11.2	(^D)	15.5	27.4	27.2	32.0	30.1	30.2	29.8	(^D)	(^D)	(^D)	7.8
Electric and electronic equipment	30.7	28.6	(^D)	(^D)	(^D)	37.5	43.7	39.2	41.4	38.1	(^D)	(^D)	(^D)	(^D)	11.3	14.3
Audio, video, and communications equipment	46.6	43.4	(^D)	(^D)	(^D)	(^D)	0	(^D)	51.1	50.2	(^D)	(^D)	(^D)	(^D)	12.9	(^D)
Electronic components and accessories	35.2	31.1	(^D)	9.8	(^D)	(^D)	(^D)	43.7	43.5	39.2	1.0	.9	15.5	(^D)	20.0	25.7
Other	16.5	18.0	10.3	(^D)	(^D)	(^D)	(^D)	26.7	32.5	18.9	24.4	(^D)	(^D)	(^D)	6.1	(^D)
Other manufacturing	16.5	18.2	12.0	11.9	14.9	17.1	14.1	14.8	36.4	36.9	12.6	11.4	(^D)	(^D)	7.5	7.8
Textile products and apparel	10.5	10.3	(^D)	2.9	25.0	25.2	21.6	23.6	12.7	10.4	(^D)	17.7	1.0	3.3	4.3	3.4
Lumber, wood, furniture and fixtures	9.4	7.9	18.6	8.5	29.9	2.6	7.0	5.6	20.1	12.5	n.a.	n.a.	26.8	9.9	1.7	1.0
Paper and allied products	13.0	13.8	37.1	(^D)	.2	(^D)	23.5	23.0	(^D)	(^D)	(^D)	0	(^D)	(^D)	(^D)	(^D)
Printing and publishing	1.7	2.8	1.7	4.4	(^D)	(^D)	1.5	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	1.8	2.1
Newspapers	(^D)	(^D)	(^D)	(^D)	n.a.	n.a.	0	0	0	0	n.a.	n.a.	n.a.	n.a.	(^D)	(^D)
Other	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	1.5	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)
Rubber products	18.7	22.1	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	48.3	65.8	(^D)	(^D)
Miscellaneous plastics products	18.2	11.7	(^D)	(^D)	5.3	6.7	9.9	27.9	12.6	(^D)	(^D)	34.2	46.7	1.6	2.5	
Stone, clay, and glass products	8.5	8.1	(^D)	(^D)	9.0	9.4	19.4	17.5	16.0	14.2	19.0	12.2	8.9	9.5	(^D)	(^D)
Transportation equipment	36.0	39.5	(^D)	(^D)	22.4	27.4	(^D)	32.5	49.2	52.7	(^D)	0	21.5	n.a.	19.7	31.2
Motor vehicles and equipment	40.4	45.1	(^D)	(^D)	(^D)	(^D)	(^D)	(^D)	49.3	52.8	n.a.	n.a.	21.5	n.a.	(^D)	(^D)
Other transportation equipment, nec	16.3	16.7	1.5	(^D)	(^D)	(^D)	(^D)	(^D)	10.4	9.4	(^D)	0	n.a.	n.a.	(^D)	(^D)
Instruments and related products	14.6	12.8	(^D)	(^D)	28.7	26.5	19.2	22.6	24.0	25.9	35.6	35.1	26.1	24.0	9.4	6.9
Other	17.0	31.9	(^D)	13.7	20.7	(^D)	19.8	6.7	(^D)	37.9	79.6	74.5	(^D)	(^D)	(^D)	(^D)
Wholesale trade	32.3	33.9	44.6	39.8	11.6	12.1	39.9	39.6	34.6	38.3	(^D)	19.9	21.6	19.7	15.3	12.2
Retail trade	3.6	3.6	(^D)	2.0	1.9	1.7	3.1	3.5	14.6	3.2	(^D)	3.8	(^D)	(^D)	3.7	5.8
Finance, except banking	([*])	([*])	0	0	.7	.5	0	0	([*])	0	0	0	0	0	0	0
Insurance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Real estate	([*])	([*])	([*])	([*])	0	0	.1	.1	([*])	.1	0	0	0	0	0	0
Services	1.3	1.0	1.1	1.1	(^D)	(^D)	.8	.5	.7	.8	.4	([*])	0	0	1.4	.9
Other industries	2.4	2.7	2.8	(^D)	(^D)	2.7	(^D)	(^D)	.2	.4	(^D)	(^D)	(^D)	(^D)	(^D)	.7

* Less than 0.05 percent.

^p Preliminary.

^D Suppressed to avoid disclosure of data of individual companies.

n.a. No affiliates in cell.

1. Computed ratio in cell is distorted by the exit in 1990 of one or more affiliates that were very large in 1989.

UBO Ultimate beneficial owner

in wholesale trade. The drop for wholesale trade affiliates, which mirrors the drop in their import/export ratio shown in table 2, can be attributed mainly to a reduction in U.S. consumer demand for imports following the decline of the dollar in foreign exchange markets in the late 1980's.

Table 10 presents import-content shares in more detail by industry for all affiliates and for affiliates of each of the seven major investing countries. Within manufacturing, imports generally have constituted a large share of the affiliate purchases in the machinery and transportation equipment industries—industries in which purchased inputs consist mainly of manufactured components rather than raw materials. In contrast, the share was quite low for affiliates in industries that intensively use raw materials subject to high transportation costs. Such industries include beverages; primary ferrous metals; lumber, wood, furniture, and fixtures; and stone, clay, and glass products.

The shares shown in table 10 are supplemented by frequency distributions for each of the seven major investing countries in table 11; the frequency distributions show the number of manufacturing industries that appear in each of six size ranges for the affiliates' import-content share. The distributions in the upper portion of the table are across the 26 most detailed manufacturing industries shown in table 10. The lower portion

of the table shows distributions across the eight industries in machinery, transportation equipment, and instruments—industries characterized by high shares of manufactured components in total purchased inputs.

Among affiliates of the major investing countries, Japanese-owned affiliates had high import-content shares in the largest number of industries. In 1991, the share for Japanese-owned affiliates exceeded 30 percent in 7 of the 26 industries. It was 50 percent or more in computer and office equipment; audio, video, and communications equipment; and motor vehicles and equipment. For motor vehicles and equipment, the share was somewhat lower in 1991—53 percent—than it had been in earlier years—56 percent in 1989 and 63 percent in 1988.


Affiliates of the other major investing countries show high import-content shares in relatively few industries. The share was less than 10 percent in more than one-half of the industries with direct investment activity for affiliates with UBO's in Canada, the Netherlands, and the United Kingdom. For Canadian- and British-owned affiliates, the share was less than 20 percent in most of the eight industries in machinery, transportation equipment, and instruments, indicating a tendency by these affiliates to purchase manufactured components from domestic rather than foreign suppliers. 

Table 11.—U.S. Affiliates of All Countries and of Seven Major Investing Countries: Number of Manufacturing Industries Distributed by Size of Affiliate Share of Imports in Total Purchased Inputs, 1990 and 1991

[Number of industries]

Share of imports in total purchased inputs (percent)	All countries		Canada		France		Germany		Japan		Netherlands		Switzerland		United Kingdom	
	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P	1990	1991 ^P
All manufacturing industries (26 industries):																
0–9.9	8	7	14	13	10	9	8	12	9	10	11	12	8	8	15	18
10.0–19.9	12	11	6	7	7	6	10	4	6	7	3	3	6	7	9	4
20.0–29.9	2	3	2	2	5	6	4	6	5	2	1	3	5	3	1	3
30.0–39.9	1	2	3	3	0	1	0	2	1	4	2	1	1	1	0	0
40.0–49.9	3	3	1	0	2	0	2	1	2	0	1	1	2	2	1	0
50.0 or more	0	0	0	0	1	2	1	1	3	3	1	1	0	1	0	1
Addenda:																
Industries with no foreign direct investment	0	0	0	0	1	1	0	0	0	0	6	5	3	4	0	0
Industries for which computed ratio is not meaningful	0	0	0	1	0	1	1	0	0	0	1	0	1	0	0	0
Machinery, transportation equipment and instruments industries (8 industries):																
0–9.9	0	0	4	4	0	1	3	3	0	1	2	3	2	1	1	4
10.0–19.9	3	3	3	3	5	2	1	0	1	0	1	0	2	2	4	1
20.0–29.9	1	1	1	1	1	3	1	2	2	1	1	2	3	2	1	2
30.0–39.9	1	1	0	0	0	0	0	2	1	3	2	1	0	1	0	0
40.0–49.9	3	3	0	0	1	0	2	1	2	0	1	1	0	0	1	0
50.0 or more	0	0	0	0	1	2	1	0	2	3	0	0	0	0	0	1
Addendum:																
Industries with no foreign direct investment	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0

^P Preliminary.