

U.S. Intrafirm Trade in Goods

By William J. Zeile

CROSS-BORDER TRANSACTIONS between affiliated units of multinational companies account for a major share of U.S. international trade in goods. In 1994, these transactions—commonly referred to as “intrafirm trade”—accounted for more than one-third of U.S. exports of goods and for more than two-fifths of U.S. imports of goods.

As an aspect of the growing integration of the world economy, intrafirm trade has attracted considerable interest in recent years, particularly in the wake of the surge in international direct investment in the late 1980's.¹ Intrafirm trade plays a critical role in the operations of multinational companies (MNC's): It may help an MNC to reduce the costs of distributing goods abroad or of acquiring inputs from abroad or to integrate production processes on a global scale. Intrafirm trade may respond differently than trade between unrelated parties to changes in economic conditions; for example, it may—at least in the short term—be more insulated from competitive forces in particular markets or from overall changes in prices, exchange rates, or general economic conditions. Furthermore, the prices—often termed “transfer prices”—that govern intrafirm trade may have their own unique characteristics and determinants.

In a previous SURVEY OF CURRENT BUSINESS article, BEA presented aggregate estimates of U.S. intrafirm exports and imports of goods and services for 1982–93.² A disaggregation of the intrafirm-export and -import totals into the trade between U.S. parent companies and their foreign affiliates and the trade between foreign-owned U.S. affiliates and their foreign parent groups showed that intrafirm exports largely consisted of trans-

actions by U.S. MNC's, whereas intrafirm imports largely consisted of transactions by foreign MNC's.

This article presents a more detailed examination of U.S. intrafirm trade in goods by U.S. MNC's and by foreign MNC's operating in the United States.³ The intrafirm transactions are disaggregated by industry of affiliate, by country of destination or origin, and for foreign MNC's, by country of ownership.

In much of the discussion, the U.S. intrafirm trade of U.S. MNC's and of foreign MNC's is examined separately. This separation is warranted not only by the difference in the ownership of the investments (that is, whether it is U.S. or foreign) but also by a fundamental difference in the role that intrafirm trade has played in the operations of the MNC's: The intrafirm trade of U.S. MNC's has mainly been connected with manufacturing production by foreign affiliates, while the U.S. intrafirm trade of foreign MNC's has mainly been connected with marketing and distribution activities.

The following are highlights from the article:

- The intrafirm-trade shares of U.S. exports and imports of goods have changed little over the past two decades. For U.S. exports, the intrafirm-trade shares of both U.S. MNC's and foreign MNC's have fluctuated, with no sustained trend. For U.S. imports, an increase in the share of foreign MNC's was offset by a decrease in the share of U.S. MNC's.
- The intrafirm-trade share of the total trade of U.S. parent companies has increased markedly since 1982. However, because of a pronounced decline in the parents' share of total U.S. trade in goods, the share of U.S. goods trade accounted for by the intrafirm trade of U.S. MNC's has remained relatively flat.
- Since 1982, the intrafirm trade of U.S. MNC's has mainly been with their foreign manufacturing affiliates. However, the manufacturing

1. For a discussion of the worldwide surge in direct investment after 1985, see Edward M. Graham and Paul R. Krugman, “The Surge in Foreign Direct Investment in the 1980s,” in *Foreign Direct Investment*, edited by Kenneth A. Froot (Chicago: University of Chicago Press, 1993): 13–36. For examples of the attention given to intrafirm trade by international organizations, which have shown particular interest in this phenomenon, see United Nations Conference on Trade and Development, Division on Transnational Corporations and Investment, *World Investment Report 1995* (New York: United Nations, 1995): Chapter IV; and Marcos Bonturi and Kiichiro Fukasaku, “Globalization and Intra-firm Trade: An Empirical Note,” in *OECD Economic Studies* 20 (Spring 1993): 145–159.

2. See “An Ownership-Based Disaggregation of the U.S. Current Account, 1982–93,” SURVEY OF CURRENT BUSINESS 75 (October 1995): 52–61.

3. As shown in the October 1995 article, trade in goods has consistently accounted for more than 80 percent of U.S. intrafirm exports of goods and services and for more than 90 percent of U.S. intrafirm imports of goods and services.

affiliates' share of the intrafirm exports of U.S. MNC's has decreased somewhat, while their share of the intrafirm imports has increased.

- The U.S. intrafirm trade of foreign MNC's has mainly been with their U.S. wholesale trade affiliates. The share of intrafirm trade with manufacturing affiliates has increased substantially since the mid-1980's, but it still accounted for less than one-third of both the U.S. intrafirm exports and imports of foreign MNC's in 1994.
- The intrafirm-trade shares of U.S. exports and imports of goods vary widely by trading partner. Among the top six U.S. export markets in 1992, the share ranged from 70 percent for Japan to 12 percent for Taiwan. Among the top six source-countries for U.S. imports, the share ranged from 71 percent for Japan to less than 10 percent for China and Taiwan.

The remainder of this article consists of three parts. The first part discusses trends in the shares of U.S. exports and imports of goods that are accounted for by intrafirm trade and in the shares accounted for by the intrafirm trade of U.S. MNC's and of foreign MNC's. The second part discusses industry patterns in the intrafirm trade of U.S. MNC's and foreign MNC's and examines the industry patterns of intrafirm trade of foreign MNC's by country of ultimate beneficial owner (UBO).⁴ The final part discusses the variation in intrafirm trade shares among U.S. trading partners and explores the relation between these shares and the per capita income levels of the partner countries.

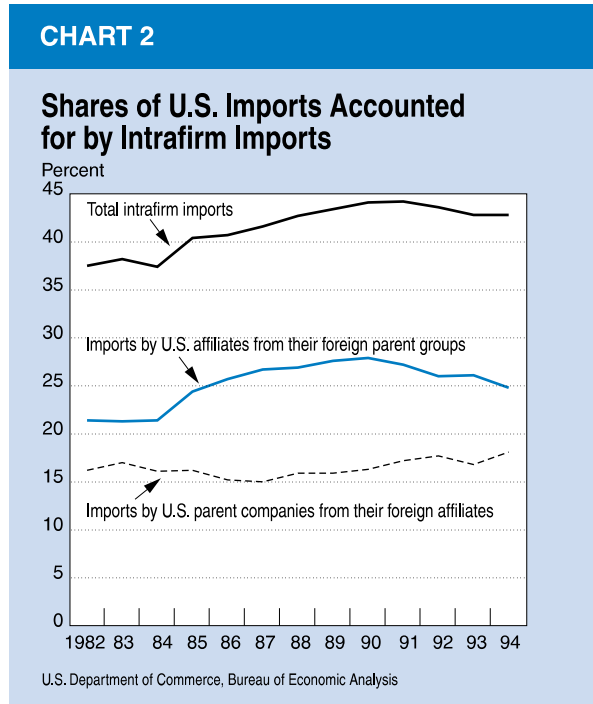
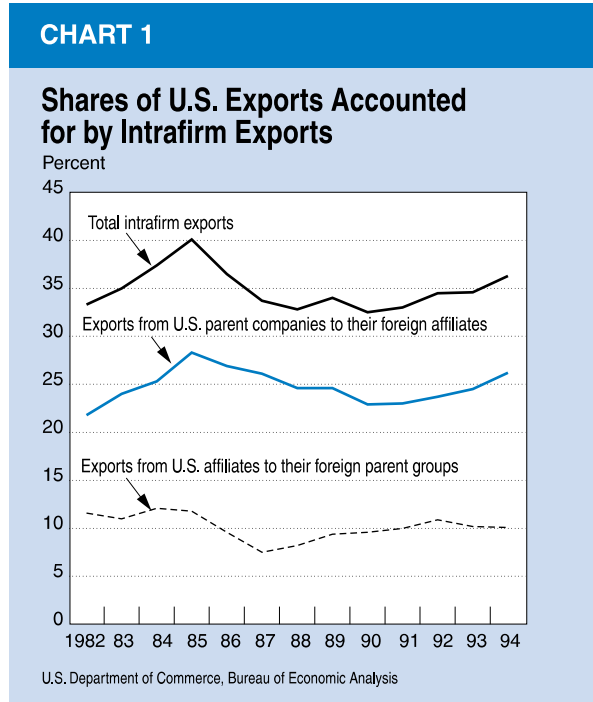
Trends in Intrafirm Trade

Although fluctuating moderately during the past two decades, the shares of intrafirm trade—both by U.S. MNC's and by foreign MNC's—in U.S. exports and imports of goods have changed very little. In 1977 (the earliest year for which trade data for both U.S. MNC's and foreign MNC's are available), intrafirm trade accounted for 35 percent of U.S. exports and 44 percent of U.S. imports. From 1982 to 1993, the share for exports fluctuated between 32 percent and 40 percent (chart 1);

4. The UBO is that person, proceeding up a U.S. affiliate's ownership chain, beginning with and including the foreign parent, that is not owned more than 50 percent by another person. "Person" is broadly defined to include any individual, corporation, branch, partnership, associated group, association, estate, trust, or other organization and any government (including any corporation, institution, or other entity or instrumentality of a government). The foreign parent is the first foreign person in the affiliate's ownership chain. Unlike the foreign parent, the UBO of an affiliate is identified to ascertain the person that ultimately owns or controls the U.S. affiliate and that, therefore, ultimately derives the benefits from owning or controlling the affiliate.

the share for imports—having dropped sharply between 1977 and 1982—increased in most years in the 1980's (chart 2). By 1994 (the latest year for which data are available), the share for exports had risen slightly, to 36 percent, while the share for imports had declined slightly, to 43 percent (table 1, column 7).⁵

5. The data for 1994 are preliminary.



For both exports and imports, intrafirm trade has mainly consisted of shipments from parents to their affiliates rather than shipments to parents from their affiliates. U.S. intrafirm exports have mainly been accounted for by the intrafirm trade of U.S. MNC's—that is, shipments from U.S. parent companies to their foreign affiliates; the share in most years has ranged from two-thirds to three-fourths. Since 1982, U.S. intrafirm imports have mainly been accounted for by shipments from foreign parents and other member-firms of the foreign parent group to their U.S. affiliates.⁶

The share of total U.S. goods exports that is accounted for by the intrafirm trade of U.S. MNC's has fluctuated between 22 percent and 28 percent (table 1, column 8). The share increased substan-

tially in 1982–85, decreased gradually in the late 1980's, and then increased gradually after 1990.⁷

The share of total U.S. goods imports that is accounted for by the intrafirm imports of U.S. MNC's has consistently been smaller than the corresponding share of exports. The share dropped sharply from 24 percent in 1977 to 16 percent in 1982; the drop can be largely attributed to a reduction in intrafirm imports from petroleum affiliates, partly as a result of transfers in the ownership of petroleum-producing assets in Middle Eastern countries to

7. The increase in share in 1982–85, when the dollar was appreciating in world currency markets, and the subsequent decrease in share in 1985–89, when the dollar was depreciating, might suggest that intrafirm exports were less sensitive to exchange-rate changes than were "arm's-length" exports (that is, exports involving unaffiliated parties). For 1985–89, however, Subramanian Rangan and Robert Z. Lawrence have determined that the apparent insensitivity at the aggregate level is due to industry-mix effects, so that once industry mix is taken into account, there is virtually no difference between the growth rates of intrafirm exports and of arm's-length exports; see "The Responses of U.S. Firms to Exchange Rate Fluctuations: Piercing the Corporate Veil," *Brookings Papers on Economic Activity* 2 (1993): 341–379.

Table 1.—Total U.S. Trade in Goods and Intrafirm Trade in Goods, 1977–94

	Millions of dollars					Percent					Addenda:		
	Total ¹	Intrafirm trade			Other trade	Total	Intrafirm trade			Other trade	Intrafirm trade between U.S. parent companies and their foreign affiliates as a percentage of:		Intrafirm trade of U.S. affiliates as a percentage of their total trade
		Total	Between U.S. parent companies and their foreign affiliates	Between U.S. affiliates and their foreign parent groups			Total	Between U.S. parent companies and their foreign affiliates	Between U.S. affiliates and their foreign parent groups		Total trade of U.S. parents	Total U.S. trade with foreign affiliates	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
U.S. exports:													
1977	123,182	43,010	31,319	11,691	80,172	100.0	34.9	25.4	9.5	65.1	33.9	76.8	47.0
1978	145,847	n.a.	n.a.	16,570	n.a.	100.0	n.a.	n.a.	11.4	n.a.	n.a.	n.a.	51.5
1979	186,363	n.a.	n.a.	22,073	n.a.	100.0	n.a.	n.a.	11.8	n.a.	n.a.	n.a.	49.8
1980	225,566	n.a.	n.a.	20,983	n.a.	100.0	n.a.	n.a.	9.3	n.a.	n.a.	n.a.	40.2
1981	238,715	n.a.	n.a.	26,911	n.a.	100.0	n.a.	n.a.	11.3	n.a.	n.a.	n.a.	42.0
1982	216,442	72,150	47,126	25,024	144,292	100.0	33.3	21.8	11.6	66.7	30.6	83.1	41.5
1983	205,639	71,974	49,397	22,577	133,665	100.0	35.0	24.0	11.0	65.0	33.8	85.8	41.9
1984	223,976	83,778	56,706	27,072	140,198	100.0	37.4	25.3	12.1	62.6	35.5	85.5	46.5
1985	218,815	87,752	61,852	25,900	131,063	100.0	40.1	28.3	11.8	59.9	37.7	88.8	45.9
1986	227,159	82,973	61,100	21,873	144,186	100.0	36.5	26.9	9.6	63.5	37.9	86.0	44.1
1987	254,122	85,523	66,414	19,109	168,599	100.0	33.7	26.1	7.5	66.3	39.9	84.2	43.6
1988	322,426	105,803	79,378	26,425	216,623	100.0	32.8	24.6	8.2	67.2	39.7	83.7	38.0
1989	363,812	123,714	89,438	34,276	240,098	100.0	34.0	24.6	9.4	66.0	40.1	87.2	39.7
1990	393,592	127,849	90,085	37,764	265,743	100.0	32.5	22.9	9.6	67.5	40.0	84.6	40.9
1991	421,730	139,346	97,124	42,222	282,384	100.0	33.0	23.0	10.0	67.0	40.5	84.2	43.6
1992	448,164	154,766	105,999	48,767	293,398	100.0	34.5	23.7	10.9	65.5	42.4	86.9	46.9
1993	465,091	161,112	113,762	47,350	303,979	100.0	34.6	24.5	10.2	65.4	44.3	86.4	44.4
1994	512,626	186,033	134,311	51,722	326,593	100.0	36.3	26.2	10.1	63.7	42.3	87.2	45.5
U.S. imports:													
1977	151,534	67,144	36,266	30,878	84,390	100.0	44.3	23.9	20.4	55.7	44.5	87.3	70.3
1978	176,052	n.a.	n.a.	39,466	n.a.	100.0	n.a.	n.a.	22.4	n.a.	n.a.	n.a.	69.8
1979	210,285	n.a.	n.a.	45,295	n.a.	100.0	n.a.	n.a.	21.5	n.a.	n.a.	n.a.	71.9
1980	245,262	n.a.	n.a.	47,010	n.a.	100.0	n.a.	n.a.	19.2	n.a.	n.a.	n.a.	62.0
1981	260,982	n.a.	n.a.	52,196	n.a.	100.0	n.a.	n.a.	20.0	n.a.	n.a.	n.a.	63.5
1982	243,952	91,203	39,288	51,915	152,749	100.0	37.4	16.1	21.3	62.6	36.2	76.4	61.6
1983	258,048	98,434	43,632	54,802	159,614	100.0	38.1	16.9	21.2	61.9	37.9	82.0	67.3
1984	330,678	123,244	52,793	70,451	207,434	100.0	37.3	16.0	21.3	62.7	38.9	83.8	70.1
1985	336,526	135,767	54,027	81,740	200,759	100.0	40.3	16.1	24.3	59.7	38.8	79.2	72.1
1986	365,438	148,430	55,012	93,418	217,008	100.0	40.6	15.1	25.6	59.4	40.2	84.0	74.3
1987	406,241	168,580	60,379	108,201	237,661	100.0	41.5	14.9	26.6	58.5	40.0	79.5	75.4
1988	440,952	187,853	69,491	118,362	253,099	100.0	42.6	15.8	26.8	57.4	42.6	79.6	76.1
1989	473,211	204,664	74,738	129,926	268,547	100.0	43.3	15.8	27.5	56.7	41.9	76.7	75.6
1990	495,310	217,757	80,299	137,458	277,553	100.0	44.0	16.2	27.8	56.0	41.9	78.6	75.1
1991	488,453	215,649	83,483	132,166	272,804	100.0	44.1	17.1	27.1	55.9	43.2	81.2	74.0
1992	532,665	231,692	93,893	137,799	300,973	100.0	43.5	17.6	25.9	56.5	45.8	86.7	74.7
1993	580,659	247,901	97,112	150,789	332,758	100.0	42.7	16.7	26.0	57.3	47.1	84.7	75.2
1994	663,256	283,504	119,438	164,066	379,752	100.0	42.7	18.0	24.7	57.3	49.6	91.8	74.9

n.a. Not available.

1. Data are from the Bureau of the Census.

the host governments.⁸ Since 1982, the import share has been quite stable (in the range of 15 to 18 percent).

Because the U.S.-parent-company share of total U.S. goods trade has declined since the early 1980's (chart 3), the share of U.S. goods trade accounted for by intrafirm trade of U.S. MNC's has not increased substantially, even though the share of total goods trade by U.S. parent companies accounted for by intrafirm trade has increased markedly. From 1982 to 1994, the share of U.S.-parent-company exports that were shipped to their foreign affiliates increased from 31 percent to 42 percent, while the share of U.S.-parent-company imports that were sourced from their foreign affiliates increased from 36 percent to 50 percent (chart 4 and table 1, column 11). The share of U.S. goods exports accounted for by U.S. parent companies decreased substantially in the late 1980's (when the U.S. dollar was depreciating in world currency markets), perhaps as a result of an increased export orientation on the part of smaller U.S. firms in response to new market opportunities overseas. The share of U.S. goods imports accounted for by U.S. parent companies (which include most major U.S. petroleum companies)

8. In 1977, imports from petroleum affiliates accounted for 42 percent of the total goods imported by U.S. parents from their foreign affiliates. Although total U.S. imports of petroleum and products increased \$17 billion from 1977 to 1982, imports by U.S. parents from petroleum affiliates decreased from \$13.8 billion to \$12.6 billion, and intrafirm imports from petroleum affiliates located in the member countries of the Organization of Petroleum Exporting Countries dropped from \$7.9 billion to \$5.0 billion.

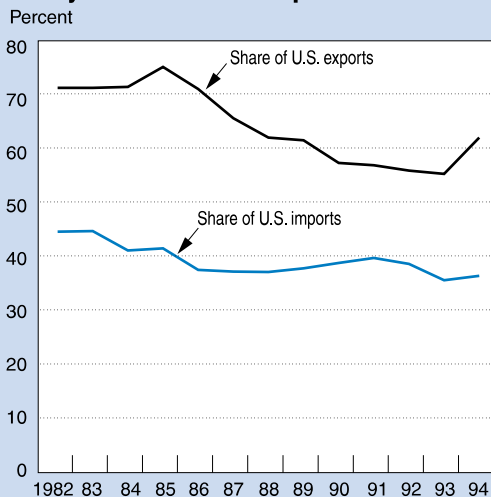
decreased in the early 1980's, when the share of total U.S. goods imports accounted for by petroleum imports declined as a result of a decline in oil prices.

U.S. intrafirm exports of foreign MNC's have accounted for about 10 percent of total U.S. goods exports since 1977; the share has fluctuated between 7 percent and 12 percent (table 1, column 9). In most years before 1986, the share exceeded 11 percent, primarily reflecting the longstanding, dominant role played by Japanese-owned wholesale trade affiliates (particularly affiliates of Japan's largest general trading companies) in handling U.S. exports to Japan. (Japanese-owned affiliates accounted for most of the U.S. intrafirm exports of foreign MNC's throughout 1977-94.) The share dropped below 10 percent in 1986-90, despite the surge in direct investment in the United States, and it has hovered around 10 percent since then.

The U.S. intrafirm imports of foreign MNC's have accounted for a much larger share of total U.S. goods imports—about 20 percent or more—since 1977. The share of imports increased substantially in 1984-90—from 21 percent to 28 percent—but has declined somewhat since. Like exports, a very large share of the U.S. intrafirm imports of foreign MNC's has been accounted for by Japanese-owned affiliates.

CHART 3

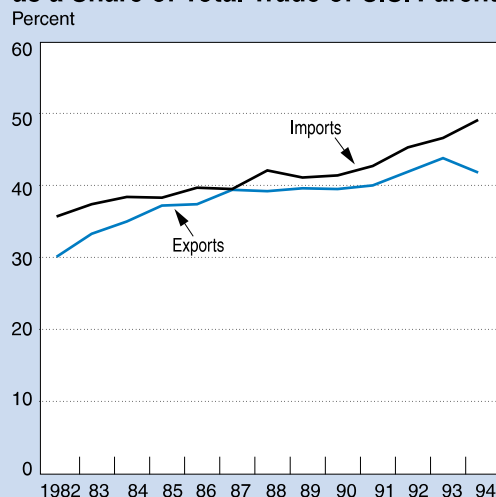
Shares of U.S. Trade Accounted for by U.S. Parent Companies



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

CHART 4

Intrafirm Trade Between U.S. Parent Companies and Their Foreign Affiliates as a Share of Total Trade of U.S. Parents



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

Industry Patterns of Intrafirm Trade

The U.S. intrafirm trade of U.S. MNC's and the U.S. intrafirm trade of foreign MNC's have taken fundamentally different forms and have had quite different industry compositions. The intrafirm trade of U.S. MNC's can be viewed as an aspect of the international division of manufacturing production between affiliated parts of the MNC: For both exports and imports, most of this trade has been between U.S. manufacturing parents and their foreign manufacturing affiliates. The intrafirm exports to these manufacturing affiliates have mainly consisted of materials and components for further processing or assembly.⁹ (Data on the intended use of U.S. imports from these foreign affiliates are not available.) In contrast, U.S. intrafirm trade of foreign MNC's has been

connected largely with distribution and marketing activities: For both exports and imports, this trade has mainly been accounted for by U.S. wholesale trade affiliates. The imports by these affiliates from their foreign parent groups have consisted almost exclusively of goods for resale by the affiliates without further manufacture.¹⁰ (Data on the intended use of exports by these affiliates are not available.)

The rest of this section presents added detail on the pattern of U.S. intrafirm trade associated with U.S. and foreign MNC's by industry of affiliate. In this section, the discussion of the intrafirm trade of U.S. MNC's is necessarily restricted to the intrafirm trade between U.S. parent companies and their majority-owned foreign affiliates (MOFA's); however, in the aggregate, intrafirm trade with MOFA's

9. The data on the intended use of U.S. goods exported to majority-owned foreign affiliates are collected in BEA's benchmark survey of U.S. direct investment abroad. In each of the most recent benchmark survey years—1982, 1989, and 1994—at least three-fourths of the exports by U.S. parents to their majority-owned manufacturing affiliates were goods for further manufacture by the affiliates. In contrast, more than 90 percent of the intrafirm exports to majority-owned affiliates in wholesale trade were goods for resale without further manufacture.

10. The data on the intended use of U.S. goods imported by foreign-owned U.S. affiliates are collected in BEA's benchmark surveys of foreign direct investment in the United States. In each of the benchmark survey years—1980, 1987, and 1992—more than 90 percent of the imports received by U.S. wholesale trade affiliates from their foreign parent groups were goods for resale. In contrast, goods for resale accounted for less than one-third of the intrafirm imports by manufacturing affiliates.

Table 2.—Intrafirm Trade in Goods Between U.S. Parent Companies and Their Majority-Owned Foreign Affiliates, by Major Industry of Affiliate, 1977 and 1982–94

	Millions of dollars				Percent				Addendum: Intrafirm trade as a percentage of total U.S. trade with MOFA's			
	All industries	Manufacturing	Wholesale trade	Petroleum and other industries	All industries	Manufacturing	Wholesale trade	Petroleum and other industries	All industries	Manufacturing	Wholesale trade	Petroleum and other industries
Exports to MOFA's:												
1977	29,275	20,510	6,607	2,158	100.0	70.1	22.6	7.4	81.7	81.6	86.6	71.1
1982	44,320	28,882	12,834	2,604	100.0	65.2	29.0	5.9	84.0	83.1	91.3	66.1
1983	45,107	31,304	11,588	2,215	100.0	69.4	25.7	4.9	82.8	83.4	88.6	57.8
1984	52,726	37,396	12,989	2,341	100.0	70.9	24.6	4.4	82.9	82.7	89.2	61.7
1985	57,567	40,513	14,640	2,414	100.0	70.4	25.4	4.2	86.6	86.0	92.9	66.5
1986	58,916	41,557	15,417	1,942	100.0	70.5	26.2	3.3	87.0	85.9	93.8	65.4
1987	65,248	45,516	17,559	2,173	100.0	69.8	26.9	3.3	87.1	85.8	94.8	65.6
1988	78,204	53,409	22,505	2,290	100.0	68.3	28.8	2.9	86.1	84.6	92.4	69.0
1989	86,050	57,707	25,247	3,096	100.0	67.1	29.3	3.6	88.3	86.8	94.2	73.7
1990	88,375	56,662	28,363	3,350	100.0	64.1	32.1	3.8	88.2	86.2	94.3	75.4
1991	95,779	62,915	29,128	3,736	100.0	65.7	30.4	3.9	88.0	86.2	94.0	76.8
1992	100,737	65,272	31,501	3,964	100.0	64.8	31.3	3.9	87.2	85.2	93.9	73.8
1993	106,827	66,051	37,091	3,685	100.0	61.8	34.7	3.4	86.1	82.5	94.6	75.9
1994	125,423	74,578	45,873	4,972	100.0	59.5	36.6	4.0	84.9	80.3	95.2	74.3
Imports from MOFA's:												
1977	30,880	14,492	1,322	15,066	100.0	46.9	4.3	48.8	81.3	82.1	78.6	80.7
1982	38,533	22,839	2,148	13,546	100.0	59.3	5.6	35.2	83.6	86.5	83.7	79.1
1983	41,551	27,584	2,679	11,288	100.0	66.4	6.4	27.2	86.0	88.1	87.2	80.9
1984	49,316	34,388	3,302	11,626	100.0	69.7	6.7	23.6	85.7	88.6	88.2	77.7
1985	51,751	36,687	3,433	11,631	100.0	70.9	6.6	22.5	85.8	88.7	88.0	80.0
1986	49,961	38,912	4,292	6,757	100.0	77.9	8.6	13.5	87.2	88.9	89.6	77.5
1987	55,867	41,492	5,629	8,746	100.0	74.3	10.1	15.7	85.2	87.5	85.9	75.7
1988	65,464	51,404	6,491	7,569	100.0	78.5	9.9	11.6	86.6	89.0	90.0	71.2
1989	71,283	57,070	6,069	8,144	100.0	80.1	8.5	11.4	84.6	87.6	80.4	70.3
1990	75,251	59,427	5,895	9,929	100.0	79.0	7.8	13.2	84.9	86.9	82.2	75.7
1991	77,578	60,448	7,178	9,952	100.0	77.9	9.3	12.8	85.7	87.9	82.9	76.0
1992	83,260	67,241	7,803	8,216	100.0	80.8	9.4	9.9	86.6	88.8	88.7	72.4
1993	93,205	76,579	8,677	7,949	100.0	82.2	9.3	8.5	86.3	89.0	89.4	65.0
1994	103,502	85,762	10,173	7,567	100.0	82.9	9.8	7.3	87.6	90.9	88.9	61.4

MOFA Majority-owned foreign affiliate

accounts for a very high share of U.S. intrafirm trade with all foreign affiliates.¹¹

Intrafirm trade with MOFA's

Since 1982, MOFA's in manufacturing have consistently accounted for a dominant share of both U.S. intrafirm exports to MOFA's and U.S. intrafirm imports from MOFA's (table 2). The share of intrafirm exports to MOFA's that is accounted for by manufacturing affiliates has declined somewhat since the mid-1980's, when it exceeded 70 percent, while the share of exports to wholesale trade affiliates has increased. In contrast, the share of intrafirm imports from MOFA's that is accounted for by manufacturing affiliates has increased markedly—from less than 50 percent in 1977 to more than 80 percent in

1994—while the share of imports from petroleum affiliates has declined.

Much of the intrafirm trade with manufacturing affiliates has consisted of trade with motor vehicle affiliates: In 1982–94, the share of total intrafirm trade with manufacturing MOFA's that was accounted for by motor vehicle affiliates ranged from 38 to 48 percent for exports and from 44 to 54 percent for imports. Much of this trade was with affiliates in Canada, reflecting the large volume of auto-related trade since the U.S.-Canada Automobile Agreement of 1965. Intrafirm trade with affiliates in machinery industries (industrial and electronic and other electric machinery manufacturing) has also been substantial, accounting for 27 to 32 percent of intrafirm exports to, and for 30 to 37 percent of intrafirm imports from, manufacturing MOFA's.

The share of intrafirm exports that was to MOFA's in wholesale trade increased substantially

11. In BEA's annual surveys of U.S. direct investment abroad, intrafirm-trade data by industry and by country of affiliate are collected only for MOFA's. (The data on intrafirm trade with all foreign affiliates, not broken down by industry or country of affiliate, are collected on reports for U.S. parent companies.) In 1977 and 1982–94, intrafirm trade between U.S. parents and their MOFA's accounted for more than 90 percent of the intrafirm exports to, and for more than 85 percent of the intrafirm imports from, all foreign affiliates.

Table 3.—Intrafirm Trade in Goods Between U.S. Affiliates of Foreign Companies and Their Foreign Parent Groups by Major Industry of Affiliate, 1977–94

	Millions of dollars				Percent				Addendum: Intrafirm trade of U.S. affiliates as a percentage of their total trade			
	All industries	Manu- facturing	Wholesale trade	Petroleum and other industries	All industries	Manu- facturing	Wholesale trade	Petroleum and other industries	All industries	Manu- facturing	Wholesale trade	Petroleum and other industries
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Exports to foreign parent groups:												
1977	11,691	1,365	9,588	738	100.0	11.7	82.0	6.3	47.0	38.4	48.0	56.0
1978	16,570	1,597	13,977	996	100.0	9.6	84.4	6.0	51.5	35.3	54.0	56.9
1979	22,073	2,019	18,761	1,293	100.0	9.1	85.0	5.9	49.8	30.8	52.7	59.0
1980	20,983	2,643	17,258	1,082	100.0	12.6	82.2	5.2	40.2	29.2	42.4	44.4
1981	26,911	2,945	22,416	1,550	100.0	10.9	83.3	5.8	42.0	21.7	48.2	38.9
1982	25,024	3,112	20,341	1,571	100.0	12.4	81.3	6.3	41.5	24.2	46.9	39.1
1983	22,577	3,108	18,033	1,436	100.0	13.8	79.9	6.4	41.9	25.8	46.9	42.8
1984	27,072	3,713	22,117	1,242	100.0	13.7	81.7	4.6	46.5	28.4	54.6	27.2
1985	25,900	3,671	20,768	1,461	100.0	14.2	80.2	5.6	45.9	28.6	54.3	27.6
1986	21,873	3,894	16,661	1,318	100.0	17.8	76.2	6.0	44.1	30.4	49.4	43.5
1987	19,109	4,491	13,370	1,248	100.0	23.5	70.0	6.5	39.7	29.0	45.8	36.3
1988	26,425	6,544	18,257	1,624	100.0	24.8	69.1	6.1	38.0	26.0	45.6	37.6
1989	34,276	7,926	24,782	1,568	100.0	23.1	72.3	4.6	39.7	24.9	50.5	29.3
1990	37,764	9,067	26,636	2,061	100.0	24.0	70.5	5.5	40.9	25.1	53.4	32.6
1991	42,222	10,445	28,887	2,890	100.0	24.7	68.4	6.8	43.6	27.7	55.2	41.8
1992	48,767	11,574	34,612	2,581	100.0	23.7	71.0	5.3	46.9	28.7	62.2	32.4
1993	47,350	12,092	33,336	1,922	100.0	25.5	70.4	4.1	44.4	27.8	59.5	26.7
1994	51,722	13,827	35,513	2,382	100.0	26.7	68.7	4.6	45.5	28.6	62.2	28.7
Imports from foreign parent groups:												
1977	30,878	4,512	23,791	2,575	100.0	14.6	77.0	8.3	70.3	80.2	75.8	37.3
1978	39,466	5,761	31,453	2,252	100.0	14.6	79.7	5.7	69.8	80.1	73.6	33.9
1979	45,295	6,444	36,082	2,769	100.0	14.2	79.7	6.1	71.9	74.3	79.1	31.6
1980	47,010	7,808	36,068	3,134	100.0	16.6	76.7	6.7	62.0	75.0	66.8	27.6
1981	52,196	8,019	41,981	2,196	100.0	15.4	80.4	4.2	63.5	60.6	72.5	19.7
1982	51,915	7,680	41,083	3,152	100.0	14.8	79.1	6.1	61.6	62.0	66.6	30.8
1983	54,802	9,202	43,208	2,392	100.0	16.8	78.8	4.4	67.3	65.6	73.2	28.5
1984	70,451	11,397	57,071	1,983	100.0	16.2	81.0	2.8	70.1	62.7	78.7	20.2
1985	81,740	12,432	66,898	2,410	100.0	15.2	81.8	2.9	72.1	66.7	79.1	23.8
1986	93,418	14,626	75,498	3,294	100.0	15.7	80.8	3.5	74.3	70.9	79.9	31.1
1987	108,201	17,570	85,092	5,539	100.0	16.2	78.6	5.1	75.4	71.6	79.3	47.3
1988	118,362	21,952	90,649	5,761	100.0	18.5	76.6	4.9	76.1	67.0	81.3	51.0
1989	129,926	27,587	93,243	9,096	100.0	21.2	71.8	7.0	75.6	67.5	81.8	53.7
1990	137,458	33,221	91,441	12,796	100.0	24.2	66.5	9.3	75.1	70.4	80.5	57.8
1991	132,166	32,730	88,289	11,147	100.0	24.8	66.8	8.4	74.0	69.6	78.9	56.2
1992	137,799	37,259	89,202	11,338	100.0	27.0	64.7	8.2	74.7	69.9	81.4	52.8
1993	150,789	39,866	99,649	11,274	100.0	26.4	66.1	7.5	75.2	66.9	83.2	52.8
1994	164,066	45,105	109,634	9,327	100.0	27.5	66.8	5.7	74.9	67.3	83.5	44.6

in 1984–94—from 25 percent to 37 percent. Much of this trade was in machinery products.¹²

In 1977, petroleum affiliates accounted for 49 percent of total intrafirm imports from MOFA's; however, by 1982, their share had dropped to 35 percent, partly as a result of the transfers in the ownership of petroleum-producing assets in Middle Eastern countries to host governments. The share continued to decline in 1982–86, reflecting a fall in the U.S.-import price of crude oil.

Intrafirm trade of U.S. affiliates

Unlike the intrafirm trade of U.S. MNC's, which has been dominated by trade with manufacturing affiliates, the intrafirm trade of foreign MNC's—between U.S. affiliates and their foreign parent groups—has been mostly with wholesale trade affiliates. Through the mid-1980's, these affiliates accounted for more than three-fourths of the intrafirm exports and imports of foreign-owned U.S. affiliates; in more recent years, the share has been closer to two-thirds (table 3).

Until recently, the intrafirm exports by wholesale trade affiliates largely consisted of homogeneous commodities—such as food and crude materials—shipped by affiliates of Japan's general trading companies or by French-owned affiliates specializing in farm products.¹³ The share of the intrafirm

exports of wholesale trade affiliates that was accounted for by food and crude materials was 59 percent in 1980 and 50 percent in 1987 (table 4). By 1992, however, this share had declined to 41 percent, reflecting an increase in the importance of manufactured goods in intrafirm exports.

In contrast, the intrafirm imports of wholesale trade affiliates have mainly consisted of heterogeneous manufactured products, such as machinery products or road vehicles and parts. For such products, a local presence in the form of wholesale trade affiliates may be required to provide specialized after-sales service or to obtain continuous feedback on customer requirements and tastes. Most of these affiliates were set up by foreign manufacturers to facilitate the marketing of their own products; in most years, intrafirm imports from their foreign parents have accounted for more than three-fourths of the total imports by these affiliates (table 3, column 11).

The shares of U.S.-affiliate intrafirm exports and imports accounted for by manufacturing affiliates have increased substantially. For exports, the share increased gradually from 12 percent in 1977 to 27 percent in 1994. For imports, the increase largely coincided with the surge in foreign direct investment in U.S. manufacturing industries in

12. In each of the most recent benchmark survey years—1982, 1989, and 1992—machinery exports accounted for more than one-half of the intrafirm exports to MOFA's in wholesale trade. (Data on U.S. trade with MOFA's by product are collected only in benchmark survey years.)

13. Japan's largest general trading companies have historically handled a substantial share of Japan's imports of bulk commodities from other countries. See Alexander K. Young, *The Sogo Shosha: Japan's Multinational Trading Companies* (Boulder, Colorado: Westview Press, 1979).

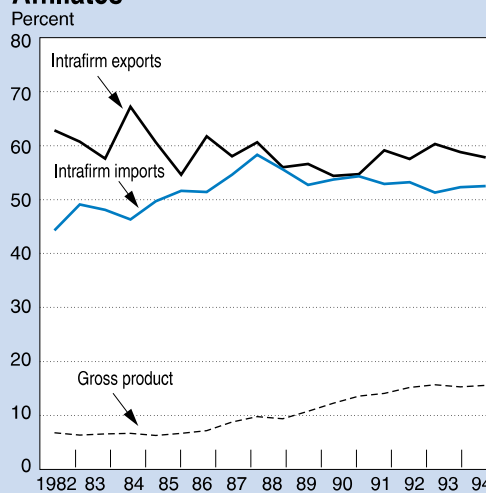
Table 4.—Intrafirm Trade in Goods Between U.S. Wholesale Trade Affiliates and Their Foreign Parent Groups, by Product, for Selected Years

	Millions of dollars			Percent		
	1980	1987	1992	1980	1987	1992
Exports, total	17,258	13,370	34,612	100.0	100.0	100.0
Food	6,246	3,708	8,772	36.2	27.7	25.3
Crude materials, inedible, except fuels	3,910	3,029	5,280	22.7	22.7	15.3
Chemicals	953	1,057	2,422	5.5	7.9	7.0
Machinery	1,436	1,676	5,745	8.3	12.5	16.6
Road vehicles and parts	203	236	2,156	1.2	1.8	6.2
Other transport equipment ...	397	(P)	2,698	2.3	(P)	7.8
Metal manufactures	1,068	734	1,463	6.2	5.5	4.2
Other	3,045	(P)	6,076	17.6	(P)	17.6
Imports, total	36,068	85,092	89,202	100.0	100.0	100.0
Food	1,692	1,888	1,532	4.7	2.2	1.7
Crude materials, inedible, except fuels	836	1,526	2,059	2.3	1.8	2.3
Chemicals	827	1,403	2,595	2.3	1.6	2.9
Machinery	7,606	25,526	33,489	21.1	30.0	37.5
Road vehicles and parts	(P)	39,340	27,639	(P)	46.2	31.0
Other transport equipment ...	511	396	1,960	1.4	0.5	2.2
Metal manufactures	5,682	4,607	4,891	15.8	5.4	5.5
Other	(P)	10,406	15,037	(P)	12.2	16.9

(P) Suppressed to avoid the disclosure of data of individual companies.

CHART 5

Share of U.S. Affiliate Intrafirm Exports, Intrafirm Imports, and Gross Product Accounted for by Japanese-Owned Affiliates



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

the mid-to-late 1980's; the share increased from 15 percent in 1985 to 27 percent in 1992.¹⁴

Within manufacturing, the industry composition of intrafirm trade with U.S. affiliates has been somewhat more diversified than that of intrafirm trade with MOFA's; however, affiliates in chemicals and in electronic and other electric equipment have generally accounted for the largest shares of intrafirm exports and imports by U.S. manufacturing affiliates.¹⁵

14. The share of total U.S. goods imports that was accounted for by the intrafirm imports by U.S. manufacturing affiliates also increased—from 4 percent in 1985 to 7 percent in 1992. The share of intrafirm exports by U.S. manufacturing affiliates increased from 1 percent in 1977 to 3 percent in 1994.

15. In 1977–94, the share for affiliates in chemicals remained in the range of 27 to 37 percent for exports and 18 to 22 percent for imports. The share for affiliates in electronic equipment was less stable, fluctuating in the range of 12 to 30 percent for exports and 17 to 25 percent for imports.

By country of UBO.—Since 1977, affiliates with UBO's in Japan have accounted for a dominant share of U.S.-affiliate intrafirm exports: The share has fluctuated in the range of 55 to 68 percent—many times larger than their share of U.S.-affiliate gross product (chart 5). Since 1982, Japanese-owned affiliates have also accounted for more than one-half of U.S.-affiliate intrafirm imports. For both exports and imports, this dominance mainly reflects trade by Japanese-owned wholesale trade affiliates, which function as intermediate agents for much of Japan's trade with the United States.

Within wholesale trade, Japanese-owned affiliates have accounted for about three-fourths of U.S.-affiliate intrafirm exports and for nearly two-thirds of U.S.-affiliate intrafirm imports (table 5).

Table 5.—Intrafirm Trade in Goods Between U.S. Affiliates and Their Foreign Parent Groups, by Major Industry of Affiliate and by Country of UBO, for Selected Years

	Millions of dollars								Percent of all-countries total							
	Exports to foreign parent groups				Imports from foreign parent groups				Exports				Imports			
	1984	1988	1992	1994	1984	1988	1992	1994	1984	1988	1992	1994	1984	1988	1992	1994
All industries:																
All countries	27,072	26,425	48,767	51,722	70,451	118,362	137,799	164,066	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Canada	881	1,109	1,569	1,835	4,844	6,899	7,125	8,237	3.3	4.2	3.2	3.5	6.9	5.8	5.2	5.0
France	4,367	1,283	4,219	5,140	2,801	4,486	4,673	5,368	16.1	4.9	8.7	9.9	4.0	3.8	3.4	3.3
Germany	1,050	1,795	2,471	2,778	9,324	13,835	15,422	18,840	3.9	6.8	5.1	5.4	13.2	11.7	11.2	11.5
Netherlands	765	1,405	1,546	1,773	1,314	2,237	4,297	4,095	2.8	5.3	3.2	3.4	1.9	1.9	3.1	2.5
Sweden	176	289	404	791	2,581	4,168	3,798	4,288	.7	1.1	.8	1.5	3.7	3.5	2.8	2.6
Switzerland	771	757	1,417	1,850	1,507	3,829	3,877	4,830	2.8	2.9	2.9	3.6	2.1	3.2	2.8	2.9
United Kingdom	854	1,291	2,170	2,051	3,479	5,594	6,804	7,446	3.2	4.9	4.4	4.0	4.9	4.7	4.9	4.5
Japan	15,775	14,463	29,551	30,049	38,688	63,903	71,152	86,674	58.3	54.7	60.6	58.1	54.9	54.0	51.6	52.8
Korea, Republic of	555	1,400	1,305	1,271	1,387	4,542	3,857	6,563	2.0	5.3	2.7	2.5	2.0	3.8	2.8	4.0
Other countries	1,877	2,634	4,115	4,184	4,525	8,869	16,794	17,725	6.9	10.0	8.4	8.1	6.4	7.5	12.2	10.8
Manufacturing:																
All countries	3,713	6,544	11,574	13,827	11,397	21,952	37,259	45,105	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Canada	434	503	1,055	1,345	2,285	2,962	3,706	4,670	11.7	7.7	9.1	9.7	20.0	13.5	9.9	10.4
France	150	527	1,014	(D)	1,185	2,107	2,427	2,806	4.0	8.1	8.8	(D)	10.4	9.6	6.5	6.2
Germany	674	1,420	1,934	2,297	2,169	4,034	6,513	7,192	18.2	21.7	16.7	16.6	19.0	18.4	17.5	15.9
Netherlands	300	876	911	961	721	1,167	1,734	1,961	8.1	13.4	7.9	7.0	6.3	5.3	4.7	4.3
Sweden	86	251	315	738	439	(D)	(D)	(D)	2.3	3.8	2.7	5.3	3.9	(D)	(D)	(D)
Switzerland	290	425	1,131	1,585	780	1,866	2,532	3,043	7.8	6.5	9.8	11.5	6.8	8.5	6.8	6.7
United Kingdom	532	1,060	1,466	1,597	1,230	2,186	3,883	4,945	14.3	16.2	12.7	11.5	10.8	10.0	10.4	11.0
Japan	364	786	2,731	3,184	1,327	5,144	12,315	14,488	9.8	12.0	23.6	23.0	11.6	23.4	33.1	32.1
Korea, Republic of	(D)	(D)	(D)	(D)	46	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	(D)	(D)	(D)
Other countries	(D)	(D)	(D)	1,129	1,216	1,680	2,910	4,092	(D)	(D)	(D)	8.2	10.7	7.7	7.8	9.1
Wholesale trade:																
All countries	22,117	18,257	34,612	35,513	57,071	90,649	89,202	109,634	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Canada	115	118	282	384	2,002	3,178	2,412	2,345	.5	.6	.8	1.1	3.5	3.5	2.7	2.1
France	(P)	745	(P)	(P)	1,600	2,287	1,994	2,387	(P)	4.1	(P)	(P)	2.8	2.5	2.2	2.2
Germany	351	347	481	440	7,116	9,749	8,694	11,434	1.6	1.9	1.4	1.2	12.5	10.8	9.7	10.4
Netherlands	64	(D)	83	176	176	385	1,520	1,521	.3	(D)	.2	.5	.3	.4	1.7	1.4
Sweden	(D)	(D)	87	(D)	2,125	3,457	2,940	2,806	(D)	(D)	.3	(D)	3.7	3.8	3.3	2.6
Switzerland	(D)	259	159	156	719	1,363	1,226	(P)	(D)	1.4	.5	.4	1.3	1.5	1.4	(P)
United Kingdom	123	150	466	270	1,973	2,574	2,330	2,030	.6	.8	1.3	.8	3.5	2.8	2.6	1.9
Japan	15,314	13,572	26,533	26,714	37,140	58,617	58,684	72,038	69.2	74.3	76.7	75.2	65.1	64.7	65.8	65.7
Korea, Republic of	551	1,084	1,263	989	1,342	4,199	3,444	5,765	2.5	5.9	3.7	2.8	2.4	4.6	3.9	5.3
Other countries	840	1,723	(P)	2,174	2,879	4,838	5,958	(D)	3.8	9.4	(P)	6.1	5.0	5.3	6.7	(P)
Petroleum and other industries:																
All countries	1,242	1,624	2,581	2,382	1,983	5,761	11,338	9,327	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Canada	332	488	232	106	557	759	1,007	1,222	26.7	30.1	9.0	4.5	28.1	13.2	8.9	13.1
France	(P)	11	(P)	14	16	92	252	175	(P)	.7	(P)	.6	.8	1.6	2.2	1.9
Germany	25	28	56	41	39	52	215	214	2.0	1.7	2.2	1.7	2.0	.9	1.9	2.3
Netherlands	401	(D)	552	636	417	685	1,043	613	32.3	(D)	21.4	26.7	21.0	11.9	9.2	6.6
Sweden	(D)	(D)	2	(D)	17	(D)	(D)	(D)	(D)	(D)	.1	(D)	.9	(D)	(D)	(D)
Switzerland	(D)	73	127	109	9	600	119	336	(D)	4.5	4.9	4.6	.5	10.4	1.0	(D)
United Kingdom	198	81	238	184	276	835	591	471	16.0	5.0	9.2	7.7	13.9	14.5	5.2	5.0
Japan	97	105	287	151	222	142	153	148	7.8	6.5	11.1	6.3	11.2	2.5	1.3	1.6
Korea, Republic of	(D)	(D)	(D)	(D)	(*)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(*)	(D)	(D)	(D)
Other countries	(D)	(D)	(D)	880	430	2,350	7,926	(D)	(D)	(D)	(D)	37.0	21.7	40.8	69.9	(D)

(D) Suppressed to the avoid disclosure of data of individual companies.

(*) Less than \$500,000 or less than .05 percent, as appropriate.

UBO Ultimate beneficial owner

French-owned affiliates, mainly farm-product trading companies, have generally accounted for the second-largest share of the intrafirm exports; German-owned affiliates, mainly wholesale trade affiliates of motor vehicle manufacturers, have generally accounted for the second-largest share of the intrafirm imports.

In manufacturing, the shares of the intrafirm trade of affiliates have been much more evenly distributed among investing countries. Japanese-owned affiliates accounted for the largest shares of both intrafirm exports and imports in 1994, but their share of exports was less than one-fourth, and their share of imports was less than one-third. German-owned affiliates accounted for the second-largest shares—about one-sixth of both exports and imports. In the 1980's, the shares of Japanese-owned affiliates were substantially smaller: In 1984, their share of exports was exceeded by the shares of German-, British-, and Canadian-owned affiliates, and their share of imports was exceeded by the shares of Canadian- and German-owned affiliates. The increased share of Japanese-owned affiliates after 1984 reflects the large increase in Japanese ownership in U.S. manufacturing industries in the late 1980's.¹⁶

Geographic Patterns of Intrafirm Trade

The importance of intrafirm trade in total U.S. international trade in goods varies widely by trading partner. This section examines the shares of total U.S. trade in goods with major trading-partner countries that are accounted for by total intrafirm trade, by intrafirm trade between U.S. parent companies and MOFA's, and by intrafirm trade between U.S. affiliates and their foreign parent groups. The shares are computed for 1992, the most recent year for which geographic data on U.S.-affiliate intrafirm trade are available.¹⁷

The presentation is in two parts. The first part discusses differences in the intrafirm-trade shares for trade with 62 major partner countries, and the second explores the relation between these shares and the income levels of the partner countries.¹⁸

16. During 1987–90, the share of Japanese-owned manufacturing affiliates in the gross product of all manufacturing affiliates doubled—from 6 percent to 12 percent.

17. The data for intrafirm trade of U.S. affiliates are from the 1992 benchmark survey of foreign direct investment in the United States. Data on U.S.-affiliate trade by country of destination and by country of origin are collected in benchmark surveys, but not in annual surveys.

18. In this section, as in the previous section, total intrafirm trade is defined as the sum of the intrafirm trade between U.S. parents and MOFA's and the intrafirm trade between U.S. affiliates and their foreign parent groups (see footnote 11).

Intrafirm trade shares

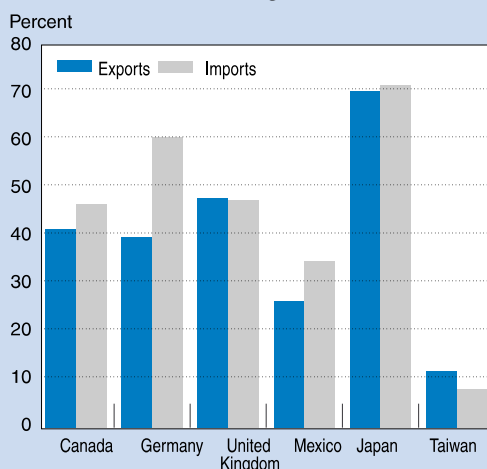
Exports.—In 1992, the share of U.S. exports accounted for by intrafirm exports varied widely across countries of destination. For example, among the top six U.S. export markets—Canada, Japan, Mexico, the United Kingdom, Germany, and Taiwan—the intrafirm share ranged from 70 percent for Japan to 12 percent for Taiwan (chart 6 and table 6, column 7). In addition, the intrafirm-trade shares were particularly high for Switzerland (74 percent) and Russia (64 percent). For 24 of the 62 countries, the intrafirm share was less than 10 percent.

For most countries, U.S. intrafirm exports consisted mainly of exports by U.S. parent companies to their MOFA's rather than exports by U.S. affiliates to their foreign parent groups. Intrafirm exports to MOFA's accounted for more than 20 percent of total U.S. exports to 13 countries, many of which were among the largest U.S. export markets (table 6, column 8). The shares were highest for Switzerland (56 percent), Canada (37 percent), and the United Kingdom (34 percent). The intrafirm exports to MOFA's in Switzerland were mainly shipped to wholesale trade affiliates (table 7). Exports to manufacturing affiliates accounted for a dominant share of intrafirm exports to MOFA's in most other countries, including Canada and the United Kingdom.

Text continues on page 36.

CHART 8

Intrafirm Trade Shares of U.S. Trade with Selected Trading Partners, 1992



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

Table 6.—Total U.S. Trade in Goods and Intrafirm Trade in Goods by Country of Destination and Origin, 1992

	Exports by country of destination									
	Millions of dollars					Percent				
	Total ¹	Intrafirm exports			Other exports	Total	Intrafirm exports			Other exports
		Total	By U.S. parent companies to their majority-owned foreign affiliates	By U.S. affiliates to their foreign parent groups			Total	By U.S. parent companies to their majority-owned foreign affiliates	By U.S. affiliates to their foreign parent groups	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
All countries	448,164	149,504	100,737	48,767	298,660	100.0	33.4	22.5	10.9	66.6
Canada	90,594	37,484	33,878	3,606	53,110	100.0	41.4	37.4	4.0	58.6
Europe	122,617	43,500	32,829	10,671	79,117	100.0	35.5	26.8	8.7	64.5
Austria	1,256	313	223	90	943	100.0	24.9	17.8	7.2	75.1
Belgium and Luxembourg	10,047	3,053	2,598	455	6,994	100.0	30.4	25.9	4.5	69.6
Denmark	1,473	194	160	34	1,279	100.0	13.2	10.9	2.3	86.8
Finland	785	142	74	68	643	100.0	18.1	9.4	8.7	81.9
France	14,593	4,947	3,975	972	9,646	100.0	33.9	27.2	6.7	66.1
Germany	21,249	8,446	6,544	1,902	12,803	100.0	39.7	30.8	9.0	60.3
Greece	901	32	26	6	869	100.0	3.6	2.9	.7	96.4
Ireland	2,862	887	834	53	1,975	100.0	31.0	29.1	1.9	69.0
Italy	8,721	2,060	1,614	446	6,661	100.0	23.6	18.5	5.1	76.4
Netherlands	13,752	5,212	4,412	800	8,540	100.0	37.9	32.1	5.8	62.1
Norway	1,279	209	124	85	1,070	100.0	16.3	9.7	6.6	83.7
Poland	641	12	(*)	12	629	100.0	1.9	(*)	1.9	98.1
Portugal	1,025	141	111	30	884	100.0	13.8	10.8	2.9	86.2
Russia	2,112	1,341	0	1,341	771	100.0	63.5	0	63.5	36.5
Spain	5,537	1,272	1,028	244	4,265	100.0	23.0	18.6	4.4	77.0
Sweden	2,845	780	604	176	2,065	100.0	27.4	21.2	6.2	72.6
Switzerland	4,540	3,374	2,539	835	1,166	100.0	74.3	55.9	18.4	25.7
Turkey	2,735	70	52	18	2,665	100.0	2.6	1.9	.7	97.4
United Kingdom	22,800	10,895	7,823	3,072	11,905	100.0	47.8	34.3	13.5	52.2
Other	3,464	120	88	32	3,344	100.0	3.5	2.5	.9	96.5
Latin America and Other Western Hemisphere	75,800	15,750	14,110	1,640	60,050	100.0	20.8	18.6	2.2	79.2
Argentina	3,223	408	368	40	2,815	100.0	12.7	11.4	1.2	87.3
Bahamas	712	107	107	0	605	100.0	15.0	15.0	0	85.0
Brazil	5,751	1,594	1,103	491	4,157	100.0	27.7	19.2	8.5	72.3
Chile	2,466	186	155	31	2,280	100.0	7.5	6.3	1.3	92.5
Colombia	3,286	357	301	56	2,929	100.0	10.9	9.2	1.7	89.1
Costa Rica	1,357	99	94	5	1,258	100.0	7.3	6.9	.4	92.7
Dominican Republic	2,100	63	57	6	2,037	100.0	3.0	2.7	.3	97.0
Ecuador	999	69	52	17	930	100.0	6.9	5.2	1.7	93.1
El Salvador	742	67	62	5	675	100.0	9.0	8.4	.7	91.0
Guatemala	1,205	130	123	7	1,075	100.0	10.8	10.2	.6	89.2
Honduras	811	115	113	2	696	100.0	14.2	13.9	.2	85.8
Jamaica	938	88	80	8	850	100.0	9.4	8.5	.9	90.6
Mexico	40,592	10,687	10,096	591	29,905	100.0	26.3	24.9	1.5	73.7
Netherlands Antilles	766	15	12	3	751	100.0	2.0	1.6	.4	98.0
Panama	1,103	332	169	163	771	100.0	30.1	15.3	14.8	69.9
Peru	1,005	46	37	9	959	100.0	4.6	3.7	.9	95.4
Trinidad and Tobago	448	(D)	(D)	1	(D)	100.0	A	A	2	F
Venezuela	5,444	938	870	68	4,506	100.0	17.2	16.0	1.2	82.8
Other	2,852	(D)	(D)	137	(D)	100.0	A	A	4.8	F
Africa	9,907	682	306	376	9,225	100.0	6.9	3.1	3.8	93.1
Algeria	688	0	0	0	688	100.0	0	0	0	100.0
Angola	158	(D)	(D)	0	(D)	100.0	A	A	0	F
Egypt	3,088	59	25	34	3,029	100.0	1.9	.8	1.1	98.1
Nigeria	1,001	288	44	244	713	100.0	28.8	4.4	24.4	71.2
South Africa	2,434	218	167	51	2,216	100.0	9.0	6.9	2.1	91.0
Other	2,538	(D)	(D)	47	(D)	100.0	A	A	1.9	F
Middle East	16,873	679	187	492	16,194	100.0	4.0	1.1	2.9	96.0
Israel	4,077	116	36	80	3,961	100.0	2.8	.9	2.0	97.2
Kuwait	1,337	(D)	(D)	65	(D)	100.0	A	A	4.9	F
Saudi Arabia	7,167	316	14	302	6,851	100.0	4.4	.2	4.2	95.6
United Arab Emirates	1,553	78	69	9	1,475	100.0	5.0	4.4	.6	95.0
Other	2,739	(D)	(D)	36	(D)	100.0	A	A	1.3	F
Asia and Pacific	132,070	50,786	19,365	31,421	81,284	100.0	38.5	14.7	23.8	61.5
Australia	8,876	3,062	2,788	274	5,814	100.0	34.5	31.4	3.1	65.5
Bangladesh	188	4	(*)	4	184	100.0	2.1	(*)	2.1	97.9
China	7,418	1,456	148	1,308	5,962	100.0	19.6	2.0	17.6	80.4
Hong Kong	9,077	3,358	2,746	612	5,719	100.0	37.0	30.3	6.7	63.0
India	1,917	78	18	60	1,839	100.0	4.1	.9	3.1	95.9
Indonesia	2,779	305	163	142	2,474	100.0	11.0	5.9	5.1	89.0
Japan	47,813	33,525	7,592	25,933	14,288	100.0	70.1	15.9	54.2	29.9
Korea, Republic of	14,639	1,970	631	1,339	12,669	100.0	13.5	4.3	9.1	86.5
Malaysia	4,363	857	744	113	3,506	100.0	19.6	17.1	2.6	80.4
New Zealand	1,307	209	180	29	1,098	100.0	16.0	13.8	2.2	84.0
Pakistan	881	(D)	12	(D)	(D)	100.0	A	1.4	A	F
Philippines	2,759	192	126	66	2,567	100.0	7.0	4.6	2.4	93.0
Singapore	9,626	3,109	2,485	624	6,517	100.0	32.3	25.8	6.5	67.7
Taiwan	15,250	1,791	1,053	738	13,459	100.0	11.7	6.9	4.8	88.3
Thailand	3,989	813	658	155	3,176	100.0	20.4	16.5	3.9	79.6
Other	1,188	(D)	21	(D)	(D)	100.0	A	1.8	A	F
Unallocated		623	61	562						

See footnotes at the end of the table.

Table 6.—Total U.S. Trade in Goods and Intrafirm Trade in Goods by Country of Destination and Origin, 1992—Continued

	Imports by country of origin									
	Millions of dollars					Percent				
	Total ¹	Intrafirm imports			Other imports	Total	Intrafirm imports			Other imports
		Total	By U.S. parent companies from their majority-owned foreign affiliates	By U.S. affiliates from their foreign parent groups			Total	By U.S. parent companies from their majority-owned foreign affiliates	By U.S. affiliates from their foreign parent groups	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
All countries	532,665	221,059	83,260	137,799	311,606	100.0	41.5	15.6	25.9	58.5
Canada	98,630	46,061	36,613	9,448	52,569	100.0	46.7	37.1	9.6	53.3
Europe	112,707	52,226	12,967	39,259	60,481	100.0	46.3	11.5	34.8	53.7
Austria	1,307	(P)	(P)	415	(P)	100.0	B	A	31.8	E
Belgium and Luxembourg	4,703	(P)	(P)	1,767	(P)	100.0	C	A	37.6	C
Denmark	1,667	565	68	497	1,102	100.0	33.9	4.1	29.8	66.1
Finland	1,185	(P)	(P)	354	(P)	100.0	B	A	29.9	E
France	14,797	5,717	1,829	3,888	9,080	100.0	38.6	12.4	26.3	61.4
Germany	28,820	17,438	2,558	14,880	11,382	100.0	60.5	8.9	51.6	39.5
Greece	370	(P)	2	(P)	(P)	100.0	A	.5	(P)	F
Ireland	2,262	1,255	1,053	202	1,007	100.0	55.5	46.6	8.9	44.5
Italy	12,314	1,907	616	1,291	10,407	100.0	15.5	5.0	10.5	84.5
Netherlands	5,300	3,421	891	2,530	1,879	100.0	64.5	16.8	47.7	35.5
Norway	1,969	402	129	273	1,567	100.0	20.4	6.6	13.9	79.6
Poland	375	20	0	20	355	100.0	5.3	0	5.3	94.7
Portugal	664	33	7	631	50	100.0	5.0	3.9	1.1	95.0
Russia	481	211	0	211	270	100.0	43.9	0	43.9	56.1
Spain	3,002	557	351	206	2,445	100.0	18.6	11.7	6.9	81.4
Sweden	4,716	3,085	157	2,928	1,631	100.0	65.4	3.3	62.1	34.6
Switzerland	5,645	4,315	316	3,999	1,330	100.0	76.4	5.6	70.8	23.6
Turkey	1,110	31	18	13	1,079	100.0	2.8	1.6	1.2	97.2
United Kingdom	20,093	9,522	4,008	5,514	10,571	100.0	47.4	19.9	27.4	52.6
Other	1,927	308	(P)	(P)	(P)	100.0	A	2.7	A	F
Latin America and Other Western Hemisphere	68,755	19,992	13,960	6,032	48,763	100.0	29.1	20.3	8.8	70.9
Argentina	1,256	147	63	84	1,109	100.0	11.7	5.0	6.7	88.3
Bahamas	605	(P)	(P)	(P)	592	100.0	2.1	A	A	97.9
Brazil	7,609	2,506	1,466	1,040	5,103	100.0	32.9	19.3	13.7	67.1
Chile	1,388	140	90	50	1,248	100.0	10.1	6.5	3.6	89.9
Colombia	2,837	231	153	78	2,606	100.0	8.1	5.4	2.7	91.9
Costa Rica	1,412	(P)	58	(P)	(P)	100.0	A	4.1	A	F
Dominican Republic	2,373	(P)	71	(P)	(P)	100.0	A	3.0	A	F
Ecuador	1,344	179	139	40	1,165	100.0	13.3	10.3	3.0	86.7
El Salvador	384	15	(P)	(P)	369	100.0	3.9	A	A	96.1
Guatemala	1,081	(P)	(P)	11	(P)	100.0	A	A	1.0	F
Honduras	782	(P)	91	(P)	(P)	100.0	A	11.6	A	F
Jamaica	599	196	(P)	(P)	403	100.0	32.7	B	A	67.3
Mexico	35,211	12,209	10,739	1,470	23,002	100.0	34.7	30.5	4.2	65.3
Netherlands Antilles	856	49	5	44	807	100.0	5.7	.6	5.1	94.3
Panama	254	35	15	20	219	100.0	13.8	5.9	7.9	86.2
Peru	738	(P)	14	(P)	(P)	100.0	A	1.9	A	F
Trinidad and Tobago	848	475	(P)	(P)	373	100.0	56.0	C	A	44.0
Venezuela	8,181	(P)	(P)	3,102	(P)	100.0	B	A	37.9	E
Other	997	363	359	4	634	100.0	36.4	36.0	.4	63.6
Africa	14,346	2,922	1,957	966	11,424	100.0	20.4	13.6	6.7	79.6
Algeria	1,586	(P)	0	(P)	(P)	100.0	A	0	A	F
Angola	2,303	(P)	(P)	0	(P)	100.0	A	A	0	F
Egypt	434	(P)	(P)	0	(P)	100.0	A	A	0	F
Nigeria	5,103	2,133	1,402	731	2,970	100.0	41.8	27.5	14.3	58.2
South Africa	1,727	131	9	122	1,596	100.0	7.6	.5	7.1	92.4
Other	3,193	(P)	207	(P)	(P)	100.0	A	6.5	A	F
Middle East	15,726	4,329	579	3,750	11,397	100.0	27.5	3.7	23.8	72.5
Israel	3,815	803	400	403	3,012	100.0	21.0	10.5	10.6	79.0
Kuwait	281	(P)	0	(P)	(P)	100.0	A	0	A	F
Saudi Arabia	10,371	(P)	1	(P)	(P)	100.0	B	(*)	B	E
United Arab Emirates	812	(P)	(P)	(P)	(P)	100.0	B	(*)	A	E
Other	447	(P)	(P)	2	(P)	100.0	A	A	.4	F
Asia and Pacific	222,502	94,802	17,185	77,617	127,700	100.0	42.6	7.7	34.9	57.4
Australia	3,688	1,223	546	677	2,465	100.0	33.2	14.8	18.4	66.8
Bangladesh	831	0	0	0	831	100.0	0	0	0	100.0
China	25,728	(P)	(P)	502	(P)	100.0	A	A	2.0	F
Hong Kong	9,793	4,823	3,481	1,342	4,970	100.0	49.2	35.5	13.7	50.8
India	3,780	(P)	(P)	20	(P)	100.0	A	A	.5	F
Indonesia	4,529	(P)	(P)	119	(P)	100.0	A	A	2.6	F
Japan	97,414	69,447	1,991	67,456	27,967	100.0	71.3	2.0	69.2	28.7
Korea, Republic of	16,682	3,761	264	3,497	12,921	100.0	22.5	1.6	21.0	77.5
Malaysia	8,294	2,671	2,151	520	5,623	100.0	32.2	25.9	6.3	67.8
New Zealand	1,218	262	24	238	956	100.0	21.5	2.0	19.5	78.5
Pakistan	866	0	(*)	0	866	100.0	0	(*)	0	100.0
Philippines	4,355	611	337	274	3,744	100.0	14.0	7.7	6.3	86.0
Singapore	11,313	7,573	6,023	1,550	3,740	100.0	66.9	53.2	13.7	33.1
Taiwan	24,596	1,985	1,104	1,104	22,611	100.0	8.1	3.6	4.5	91.9
Thailand	7,529	1,075	762	313	6,454	100.0	14.3	10.1	4.2	85.7
Other	1,886	15	11	5	1,871	100.0	.8	.6	.3	99.2
Unallocated		727	0	727						

¹ Suppressed to avoid the disclosure of data of individual companies.

* Less than \$500,000 or less than 0.05 percent, as appropriate.

1. Data are from the Bureau of the Census.

NOTES.—The countries listed in this table are the 62 U.S. trading partners for which the sum of U.S. exports and U.S. imports was at least \$1 billion in 1992.

Size ranges are given in the percentage cells that are suppressed; these ranges are A—0.01 to 19.9; B—20.0 to 39.9; C—40.0 to 59.9; E—60.0 to 79.9; F—80.0 to 100.

Table 7.—Intrafirm Trade in Goods Between U.S. Parent Companies and Their Majority-Owned Foreign Affiliates by Country of Destination or Origin and by Major Industry of Affiliate, 1992

	Millions of dollars				Percent			
	All industries	Manufacturing	Wholesale trade	Petroleum and other industries	All industries	Manufacturing	Wholesale trade	Petroleum and other industries
Exports by country of destination:								
All countries	100,737	65,272	31,501	3,964	100.0	64.8	31.3	3.9
Canada	33,878	28,177	5,285	416	100.0	83.2	15.6	1.2
Europe	32,829	17,335	13,769	1,725	100.0	52.8	41.9	5.3
Belgium and Luxembourg	2,598	1,626	(D)	(D)	100.0	62.6	B	A
France	3,975	1,830	2,058	87	100.0	46.0	51.8	2.2
Germany	6,544	4,423	1,969	152	100.0	67.6	30.1	2.3
Ireland	834	778	54	2	100.0	93.3	2	6.5
Italy	1,614	876	716	22	100.0	54.3	44.4	1.4
Netherlands	4,412	2,115	1,939	358	100.0	47.9	43.9	8.1
Spain	1,028	495	523	10	100.0	48.2	50.9	1.0
Sweden	604	156	440	8	100.0	25.8	72.8	1.3
Switzerland	2,539	185	2,321	33	100.0	7.3	91.4	1.3
United Kingdom	7,823	4,533	2,449	841	100.0	57.9	31.3	10.8
Other	858	318	(D)	(D)	100.0	37.1	C	A
Latin America and Other Western Hemisphere	14,110	11,700	1,487	923	100.0	82.9	10.5	6.5
Brazil	1,103	1,064	19	20	100.0	96.5	1.7	1.8
Mexico	10,096	9,335	672	89	100.0	92.5	6.7	.9
Venezuela	870	678	164	28	100.0	77.9	18.9	3.2
Other	2,041	623	632	786	100.0	30.5	31.0	38.5
Africa	306	147	67	92	100.0	48.0	21.9	30.1
Nigeria	44	13	8	23	100.0	29.5	18.2	52.3
Other	262	134	59	69	100.0	51.1	22.5	26.3
Middle East	187	23	57	107	100.0	12.3	30.5	57.2
Asia and Pacific	19,365	7,890	10,835	640	100.0	40.7	56.0	3.3
Australia	2,788	1,186	1,549	53	100.0	42.5	55.6	1.9
Hong Kong	2,746	581	2,102	63	100.0	21.2	76.5	2.3
Indonesia	163	26	15	122	100.0	16.0	9.2	74.8
Japan	7,592	2,408	4,929	255	100.0	31.7	64.9	3.4
Korea, Republic of	631	406	206	19	100.0	64.3	32.6	3.0
Malaysia	744	599	145	(*)	100.0	80.5	19.5	(*)
Singapore	2,485	1,530	897	58	100.0	61.6	36.1	2.3
Taiwan	1,053	513	517	23	100.0	48.7	49.1	2.2
Thailand	658	457	187	14	100.0	69.5	28.4	2.1
Other	505	184	288	33	100.0	36.4	57.0	6.5
Unallocated	61			61				
Imports by country of origin:								
All countries	83,260	67,241	7,803	8,216	100.0	80.8	9.4	9.9
Canada	36,613	31,789	1,166	3,658	100.0	86.8	3.2	10.0
Europe	12,967	9,956	2,498	513	100.0	76.8	19.3	4.0
Belgium and Luxembourg	(D)	(D)	109	1	100.0	F	A	A
France	1,829	890	933	6	100.0	48.7	51.0	.3
Germany	2,558	2,431	91	36	100.0	95.0	3.6	1.4
Ireland	1,053	1,037	16	0	100.0	98.5	1.5	0
Italy	616	492	(D)	(D)	100.0	79.9	A	A
Netherlands	891	781	94	16	100.0	87.7	10.5	1.8
Spain	351	257	94	(*)	100.0	73.2	26.8	(*)
Sweden	157	155	2	(*)	100.0	98.7	1.3	(*)
Switzerland	316	73	242	1	100.0	23.1	76.6	.3
United Kingdom	4,008	2,923	802	283	100.0	72.9	20.0	7.1
Other	(D)	(D)	(D)	(D)	100.0	E	A	B
Latin America and Other Western Hemisphere	14,770	12,271	543	1,956	100.0	83.1	3.7	13.2
Brazil	1,466	1,464	(*)	2	100.0	99.9	0	.1
Mexico	10,739	10,423	266	50	100.0	97.1	2.5	.5
Venezuela	(D)	9	1	(D)	100.0	E	A	B
Other	(D)	375	276	(D)	100.0	A	A	E
Africa	1,957	(D)	(D)	(D)	100.0	A	A	F
Nigeria	1,402	0	0	1,402	100.0	0	0	100.0
Other	554	(D)	(D)	(D)	100.0	A	A	F
Middle East	579	(D)	(D)	(D)	100.0	E	A	B
Asia and Pacific	17,185	12,776	3,576	833	100.0	74.3	20.8	4.8
Australia	546	363	(D)	(D)	100.0	66.5	B	A
Hong Kong	3,481	867	2,609	5	100.0	24.9	74.9	.1
Indonesia	(D)	5	0	(D)	100.0	A	0	F
Japan	1,991	1,447	(D)	(D)	100.0	72.7	B	A
Korea, Republic of	264	(D)	(D)	0	100.0	F	A	0
Malaysia	2,151	2,150	1	0	100.0	100.0	(*)	0
Singapore	6,023	5,777	(D)	(D)	100.0	95.9	A	A
Taiwan	881	829	50	2	100.0	94.1	5.7	.2
Thailand	762	(D)	1	(D)	100.0	F	.1	A
Other	(D)	405	1	(D)	100.0	F	A	A

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

* Less than \$500,000 or less than .05 percent, as appropriate.

NOTES.—The countries listed in this table are the U.S. trading partners in table 6 for which intrafirm U.S. exports to or imports from majority-owned foreign affiliates was at least \$500 million in 1992.

Size ranges are given in the percentage cells that are suppressed; these ranges are A—0.1 to 19.9; B—20.0 to 39.9; C—40.0 to 59.9; E—60.0 to 79.9; F—80.0 to 100.

Table 8.—Intrafirm Trade in Goods Between U.S. Affiliates and Their Foreign Parent Groups by Country of Destination or Origin and by Major Industry of Affiliate, 1992

	Millions of dollars				Percent				Addendum: Percentage of U.S.-affiliate intrafirm trade with country accounted for by affiliates with UBO's in the country
	All industries	Manufacturing	Wholesale trade	Petroleum and other industries	All industries	Manufacturing	Wholesale trade	Petroleum and other industries	
Exports by country of destination:									
All countries	48,767	11,574	34,612	2,581	100.0	23.7	71.0	5.3	
Canada	3,606	2,166	1,130	310	100.0	60.1	31.3	8.6	38.9
Europe	10,671	4,934	5,136	601	100.0	46.2	48.1	5.6	
Belgium and Luxembourg	455	301	101	53	100.0	66.2	22.2	11.6	20.2
France	972	728	153	91	100.0	74.9	15.7	9.4	64.4
Germany	1,902	1,286	499	117	100.0	67.6	26.2	6.2	66.8
Italy	446	187	189	70	100.0	41.9	42.4	15.7	62.8
Netherlands	800	463	301	36	100.0	57.9	37.6	4.5	48.9
Russia	1,341	1	1,341	0	100.0	.1	100.0	0	0
Sweden	176	125	36	15	100.0	71.0	20.5	8.5	68.2
Switzerland	835	655	166	14	100.0	78.4	19.9	1.7	73.1
United Kingdom	3,072	874	2,049	149	100.0	28.5	66.7	4.9	30.9
Other	672	314	301	56	100.0	46.7	44.8	8.3	
Latin America and Other Western Hemisphere	1,640	477	721	442	100.0	29.1	44.0	27.0	
Brazil	491	81	(P)	(P)	100.0	16.5	A	E	E
Mexico	591	259	311	21	100.0	43.8	52.6	3.6	34.0
Venezuela	68	35	(P)	(P)	100.0	51.5	A	B	A
Other	490	102	346	42	100.0	20.8	70.6	8.6	
Africa	376	123	80	173	100.0	32.7	21.3	46.0	
Nigeria	244	(P)	0	(P)	100.0	B	0	E	0
Other	132	28	80	24	100.0	21.2	60.6	18.2	
Middle East	492	20	124	348	100.0	4.1	25.2	70.7	
Saudi Arabia	302	2	(P)	(P)	100.0	.7	A	F	F
Other	190	18	121	51	100.0	9.5	63.7	26.8	
Asia and Pacific	31,421	3,489	27,262	670	100.0	11.1	86.8	2.1	
Australia	274	182	59	33	100.0	66.4	21.5	12.0	18.6
China	1,308	38	1,242	28	100.0	2.9	95.0	2.1	C
Hong Kong	612	374	203	35	100.0	61.1	33.2	5.7	4.7
Japan	25,933	2,350	23,240	343	100.0	9.1	89.6	1.3	97.6
Korea, Republic of	1,339	38	1,203	98	100.0	2.8	89.8	7.3	72.4
Malaysia	113	45	68	0	100.0	39.8	60.2	0	A
Singapore	624	197	367	60	100.0	31.6	58.8	9.6	2.6
Taiwan	738	198	510	30	100.0	26.8	69.1	4.1	27.8
Other	480	67	370	43	100.0	14.0	77.1	9.0	
Unallocated	562	364	158	40					
Imports by country of origin:									
All countries	137,799	37,259	89,202	11,338	100.0	27.0	64.7	8.2	
Canada	9,448	4,311	3,538	1,599	100.0	45.6	37.4	16.9	70.0
Europe	39,259	17,417	20,248	1,594	100.0	44.4	51.6	4.1	
Belgium and Luxembourg	1,767	598	1,077	92	100.0	33.8	61.0	5.2	31.6
France	3,888	2,085	1,592	211	100.0	53.6	40.9	5.4	79.4
Germany	14,880	6,069	8,542	269	100.0	40.8	57.4	1.8	93.7
Italy	1,291	457	653	181	100.0	35.4	50.6	14.0	77.4
Netherlands	2,530	1,038	1,451	41	100.0	41.0	57.4	1.6	82.2
Russia	211	0	(P)	(P)	100.0	0	F	A	F
Sweden	2,928	599	2,291	38	100.0	20.5	78.2	1.3	95.7
Switzerland	3,999	3,006	975	18	100.0	75.2	24.4	.5	75.1
United Kingdom	5,514	2,455	2,402	657	100.0	44.5	43.6	11.9	80.0
Other	2,251	1,110	1,056	85	100.0	49.3	46.9	3.8	
Latin America and Other Western Hemisphere	6,032	605	1,814	3,613	100.0	10.0	30.1	59.9	
Brazil	1,040	217	(P)	(P)	100.0	20.9	B	C	66.8
Mexico	1,470	342	1,099	29	100.0	23.3	74.8	2.0	38.7
Venezuela	3,102	(*)	(P)	(P)	100.0	(*)	A	F	F
Other	420	46	308	66	100.0	11.0	73.3	15.7	
Africa	966	129	87	750	100.0	13.4	9.0	77.6	
Nigeria	731	0	(P)	(P)	100.0	0	A	F	0
Other	235	129	79	27	100.0	54.9	33.6	11.5	
Middle East	3,750	68	207	3,475	100.0	1.8	5.5	92.7	
Saudi Arabia	3,331	0	0	3,331	100.0	0	0	100.0	100.0
Other	419	68	207	144	100.0	16.2	49.4	34.4	
Asia and Pacific	77,617	14,394	62,929	294	100.0	18.5	81.1	.4	
Australia	677	117	523	37	100.0	17.3	77.3	5.5	43.1
China	502	68	419	15	100.0	13.5	83.5	3.0	E
Hong Kong	1,342	218	1,086	38	100.0	16.2	80.9	2.8	30.2
Japan	67,456	12,149	55,153	154	100.0	18.0	81.8	.2	99.5
Korea, Republic of	3,497	507	2,968	22	100.0	14.5	84.9	.6	92.6
Malaysia	520	283	237	0	100.0	54.4	45.6	0	0
Singapore	1,550	310	1,239	1	100.0	20.0	79.9	.1	2.6
Taiwan	1,104	331	761	12	100.0	30.0	68.9	1.1	62.6
Other	969	411	543	15	100.0	42.4	56.0	1.5	
Unallocated	727	336	(P)	(P)					

^D Suppressed to avoid the disclosure of data of individual companies.
^{*} Less than \$500,000 or less than .05 percent, as appropriate.

NOTES.—The countries listed in this table are the U.S. trading partners in table 6 for which intrafirm exports or imports by U.S. affiliates was at least \$500 million in 1992.
 Size ranges are given in the percentage cells that are suppressed; these ranges are A—0.1 to 19.9; B—20.0 to 39.9; C—40.0 to 59.9; E—60.0 to 79.9; F—80.0 to 100.

Text continues from page 31.

For all but a few countries, the share of U.S. exports accounted for by intrafirm exports by foreign-owned U.S. affiliates was small—less than 10 percent (table 6, column 9). However, for Japan, the second largest U.S. export market in 1992, the share was 54 percent. The large share for Japan underscores the importance of wholesale trade affiliates in handling Japanese trade with the United States: About 90 percent of total U.S.-affiliate intrafirm exports to Japan was accounted for by Japanese-owned wholesale trade affiliates (table 8). Intrafirm exports by U.S. affiliates also accounted for a majority of U.S. exports to Russia and for about one-fourth of U.S. exports to Nigeria; however, these exports were all shipped by affiliates with owners in other countries.¹⁹ The exports to Russia were mainly by French-owned wholesale trade affiliates, and the exports to Nigeria were mainly by European-owned affiliates in the petroleum industry.²⁰

Imports.—The intrafirm-trade share of U.S. imports also varied substantially across countries. Among the top six source-countries for U.S. imports—Canada, Japan, Mexico, Germany, China, and Taiwan—the share ranged from 71 percent for Japan to less than 10 percent for China and Taiwan (table 6, column 7). For Germany, the share was 61 percent. In addition to Japan and Germany, intrafirm trade accounted for a majority of U.S. imports from seven other countries; the share was highest for Switzerland (76 percent). In addition to China and Taiwan, intrafirm trade accounted for less than 10 percent of U.S. imports from 19 other countries.

For slightly more than one-half of the countries shown in table 6, imports by U.S. affiliates from their foreign parent groups accounted for a majority of U.S. intrafirm imports. The share of total U.S. imports that was accounted for by U.S.-affiliate intrafirm imports (26 percent) was much higher than the share accounted for by U.S. intrafirm imports from MOFA's (16 percent). This difference in shares reflects the large U.S.-affiliate shares for a few countries, including some of the largest source-countries for U.S. imports: Intrafirm imports by U.S. affiliates accounted for 69 percent of U.S. imports from Japan and 52 percent

of U.S. imports from Germany (table 6, column 9). The shares were also very large for Switzerland (71 percent), Sweden (62 percent), and the Netherlands (48 percent). The imports from Switzerland were mainly by manufacturing affiliates (particularly affiliates in the pharmaceutical industry), and the imports from Japan, Germany, Sweden, and the Netherlands were mainly by wholesale trade affiliates (table 8).²¹ For Germany and Sweden, a large share of the imports were by wholesale trade affiliates of motor vehicle companies headquartered in those countries.

Intrafirm imports from MOFA's accounted for a substantial share of U.S. imports from a number of major trading partners, including Canada, Mexico, and three rapidly industrializing countries in Southeast Asia—Singapore, Hong Kong, and Malaysia (table 6, column 8). The shares were particularly high for Singapore (53 percent) and Canada (37 percent). Most of the intrafirm imports from Canada and Mexico were from manufacturing affiliates, particularly affiliates in the motor vehicle industry (table 7). Manufacturing affiliates also accounted for virtually all of the intrafirm imports from Singapore and Malaysia; most of these imports were from MOFA's in the computer and electronic components industries. In contrast, the intrafirm imports from Hong Kong were mainly from MOFA's in wholesale trade.

Relation to trading-partner income levels

Intrafirm transactions—particularly shipments flowing from parent companies to their affiliates—tend to be relatively more important in U.S. trade with higher income countries. Among 59 major trading partners, there is a pronounced tendency for the shares of both U.S.-MNC intrafirm exports in total U.S. exports and foreign-MNC intrafirm imports in total U.S. imports to increase as the per capita gross national product (GNP) of the trading partners increases (table 9). For U.S.-MNC intrafirm trade, the average share of U.S. exports increases from 4 percent for the 11 trading partners with a per capita GNP of less than \$1,000 to 23 percent for the 14 trading partners with a per capita GNP of at least \$20,000. For foreign-MNC intrafirm trade, the average share of U.S. imports increases from less than 3 percent for the 11 countries with

19. Intrafirm trade between a U.S. affiliate and its foreign parent group need not be trade with the country of the affiliate's UBO, because some member firms of the foreign parent group may be located in other countries.

20. Exports to France accounted for only 15 percent of the intrafirm exports by French-owned affiliates.

21. As shown in the addendum to table 8, the U.S.-affiliate intrafirm imports from these five countries were predominantly by affiliates with UBO's in those countries. In addition, imports originating in the UBO country accounted for a dominant share of the intrafirm imports by affiliates with UBO's in all of the countries except the Netherlands: Imports from the UBO country accounted for more than 90 percent of the intrafirm imports by Japanese- and German-owned affiliates and for more than 70 percent of the intrafirm imports by Swiss- and Swedish-owned affiliates.

the lowest per capita GNP to 35 percent for the 14 countries with the highest per capita GNP.

The positive relation between the intrafirm-trade shares and trading-partner income levels partly reflects shipments by parent firms to their wholesale trade affiliates: The shares in trade of both exports by U.S. parent companies to their wholesale trade MOFA's and imports by U.S. wholesale trade affiliates from their foreign parent groups are strongly correlated with the per capita GNP of U.S. trading partners (table 10). A local presence in overseas markets through the establishment of wholesale trade affiliates—and the associated replacement of arm's-length transactions with intrafirm trade—is often required for the marketing of sophisticated, heterogeneous manufactured products (such as automobiles and advanced machinery products), which tend to be both supplied from and sold to higher income countries.²²

For U.S. MNC's, most intrafirm trade is between U.S. parents and their manufacturing MOFA's. The share of U.S. exports accounted for by intrafirm exports to manufacturing MOFA's is positively correlated with the per capita GNP of U.S. trading partners; however, the relation is not as strong as that for intrafirm exports to wholesale trade MOFA's. The positive correlation is consistent with the fact that U.S.-MNC manufacturing production is largely concentrated in high-income countries:

22. As mentioned earlier, these products may require the establishment of wholesale trade affiliates to monitor customer requirements or tastes and to provide on-site after-sales service.

In 1992, 74 percent of the gross product of manufacturing MOFA's was accounted for by MOFA's in Canada and Europe. Among the 59 trading partners, Canada and several high-income countries in Europe had the highest shares of U.S. exports accounted for by intrafirm exports to manufacturing MOFA's. The share was also sizable for a few middle-income countries (most notably Mexico and Brazil), but it was generally very small for low-income countries.

In contrast, the share of U.S. imports accounted for by intrafirm imports from manufacturing MOFA's is not significantly related to the per capita GNP of the trading partners. This result reflects the local-market orientation of U.S. multinational production in most high-income countries: The intrafirm share of imports, in contrast to that of exports, is substantially lower for a number of high-income countries in Europe, where affiliates produce mainly for the local market, and substantially higher for the several middle-income countries where affiliates tend to export much of their output to the United States.²³ Like intrafirm exports, intrafirm imports from manufacturing affiliates generally account for a small share of U.S. imports from the trading partners

23. To illustrate this contrast, the share of U.S. goods trade with Germany that is accounted for by intrafirm trade with manufacturing MOFA's is 21 percent for exports and 8 percent for imports. For U.S. trade with Malaysia, the shares are 14 percent for exports and 26 percent for imports. According to 1992 data from BEA's annual survey of U.S. direct investment abroad, the share of sales that were to the United States was 3 percent for manufacturing MOFA's in Germany and 56 percent for manufacturing MOFA's in Malaysia.

Table 10.—Cross-Country Correlations Between Per Capita GNP and the Intrafirm Share of U.S. Trade in Goods with Trading Partners

	U.S. exports to country	U.S. imports from country
Coefficient of correlation across 59 countries between per capita GNP and the percentage of U.S. exports to or imports from country accounted for by:		
Total intrafirm trade	0.601***	0.672***
Intrafirm trade between U.S. parent companies and their majority-owned foreign affiliates:		
Affiliates in all industries .....	.659***	.122
Manufacturing affiliates .....	.332**	.183
Wholesale trade affiliates .....	.731***	.240*
Affiliates in petroleum and other industries	-.191	-.135
Intrafirm trade between U.S. affiliates and their foreign parent groups:		
Affiliates in all industries .....	.211	.709***
Manufacturing affiliates .....	.649***	.716***
Wholesale trade affiliates .....	.077	.588***
Affiliates in petroleum and other industries	-.062	-.077

*** Statistically significant at the 99-percent confidence level.
 ** Statistically significant at the 95-percent confidence level.
 * Statistically significant at the 90-percent confidence level.
 NOTE.—The sample of 59 countries consists of all of the trading partners shown in table 6 except the Netherlands Antilles, Angola, and Kuwait (see note to table 9).
 GNP Gross national product

Table 9.—Average Intrafirm Shares of U.S. Trade in Goods with Trading Partners Grouped by Per Capita GNP, 1992


	Number of countries	Intrafirm trade of U.S. MNC's		Intrafirm trade of foreign MNC's	
		As a percentage of U.S. exports to country	As a percentage of U.S. imports from country	As a percentage of U.S. exports to country	As a percentage of U.S. imports from country
All countries	59	13.0	10.8	6.2	14.5
GNP per capita (U.S. dollars):					
20,000 or more	14	22.6	10.7	9.9	35.1
10,000 to 19,999	9	22.1	21.7	4.5	13.4
2,000 to 9,999	15	9.6	10.5	7.9	12.9
1,000 to 1,999	10	5.9	6.8	1.2	2.3
Less than 1,000	11	4.3	6.1	5.3	2.6

NOTES.—Countries are grouped by their per capita GNP. The average intrafirm-trade shares shown are unweighted averages for all countries in a given size group.
 The 59 countries consist of all of the trading partners shown in table 6 except the Netherlands Antilles, Angola, and Kuwait (countries for which 1992 data on per capita GNP are not available).
 The data on GNP per capita for all of the countries except Taiwan are from the World Bank, *World Development Report, 1994*. For Taiwan, the U.S.-dollar value of GNP per capita, from Taiwan Government sources, was provided by the International Trade Administration.
 GNP Gross national product

with the lowest incomes. If some U.S. companies rely extensively on low-income countries for production operations requiring low-skilled labor, it would appear that the associated trade flows commonly take the form of market transactions with unrelated parties rather than intrafirm trade.

For foreign MNC's, the share of U.S. imports accounted for by intrafirm imports by U.S. manufacturing affiliates is strongly correlated with the per capita GNP of U.S. trading partners, reflecting the fact that foreign direct investment in U.S. manufacturing has come largely from high-income countries. Much of this investment has been in advanced manufacturing industries, such as chemicals or electronic equipment, where firms might be expected to possess some proprietary technology. In such industries, the parent firms may pro-

duce specialized materials or components that they then supply to their affiliates through intrafirm trade.²⁴

Although the correlation for the share of intrafirm exports by manufacturing affiliates is also positive and significant, the overall correlation for intrafirm exports by U.S. affiliates is insignificant, because of the very weak correlation for wholesale trade affiliates (which account for the bulk of U.S.-affiliate trade). The insignificant correlation for exports by wholesale trade affiliates partly reflects intrafirm exports to lower income countries by French-owned trading companies. 

24. Although most foreign direct investment in the United States has taken the form of acquisitions of existing companies rather than the establishment of new companies, the reliance of foreign-owned manufacturing affiliates on their foreign parents for intermediate products is considerable: In 1992, intrafirm imports accounted for 12 percent of the total purchased inputs of U.S. manufacturing affiliates.