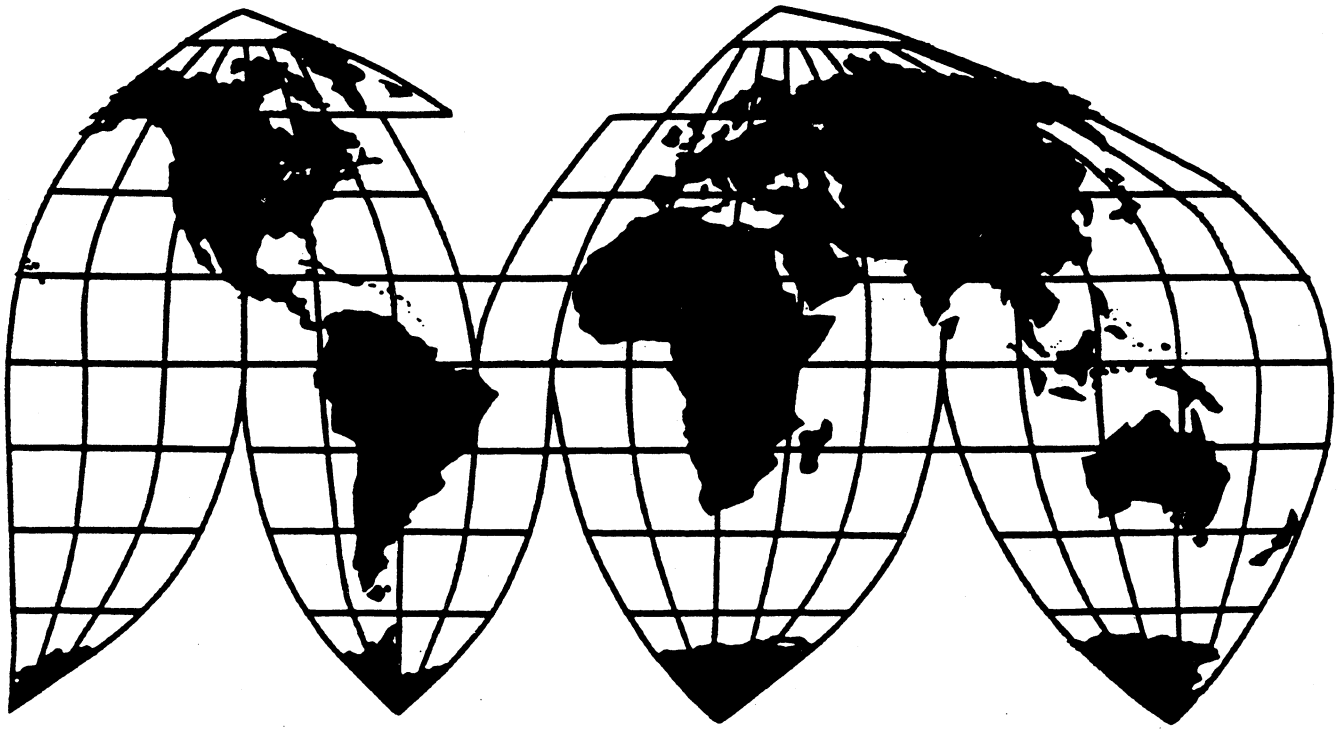
U.S. Trade Shifts in Selected Commodity Areas

1992 Annual Report

Publication 2677 **September 1993**

U.S. International Trade Commission



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U.S. International Trade Commission

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UNITED STATES INTERNATIONAL TRADE COMMISSION

WASHINGTON, DC 20436

September 1993

RE: NEW DISTRIBUTION POLICY FOR *U.S. TRADE SHIFTS IN SELECTED COMMODITY AREAS: 1992 ANNUAL REPORT*

The U.S. International Trade Commission is modifying its distribution of reports. This policy change is a direct result of current initiatives to reduce Federal expenditures.

Attached is a complimentary copy of the report *U.S. Trade Shifts in Selected Commodity Areas: 1992 Annual Report* (published in September 1993). Beginning with next year's issue, covering U.S. trade shifts in 1993, the U.S. Government Printing Office (GPO) will be directly distributing copies of the report for a fee. You can continue to receive this report by ordering them from the Superintendent of Documents, Government Printing Office, Washington, DC 20402-9371. GPO will contact you on how to order this report as the date draws nearer. In the meantime, if you wish information on faxing your order or other, call 202-783-3238.

We thank you for your understanding and look forward to providing you with the same comprehensive and high-quality information on U.S. trade developments.

U.S. International Trade Commission

Washington, DC 20436

U.S. Trade Shifts in Selected Commodity Areas

Publication 2677

September 1993

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CHAPTER 1. Introduction

The trade analysts of the U.S. International Trade Commission routinely monitor trade developments in all agricultural and manufactured commodities. Trade monitoring at the commodity-specific level is a facet of the research and analysis undertaken by the Office of Industries in conjunction with its responsibilities to provide advice and technical information on industry and trade issues. This capability enables the Commission to better anticipate and address the issues of concern in the exercise of its various roles under U.S. trade statutes. These roles include determining whether U.S. industries are materially injured by unfair imports, conducting studies on trade and tariff issues, and advising the President and the Congress on the likely effects of trade-policy changes and proposals. This report, prepared annually, provides a brief analysis of significant trade shifts at the commodity level and on a bilateral basis.

The highlights of trade shifts that have occurred in 1992 relative to 1991 are presented in chapter 1 of the report. These highlights include tables showing the import, export, and trade balance shifts by major sector and shifts with the United States' major trading partners. In addition, the most significant shifts at the detailed commodity level are summarized. Finally, significant bilateral shifts in trade are discussed. Chapters 2 through 9 address specific industrial sectors, providing an overview and commodity-specific analyses. Following each sector analysis is a statistical table summarizing trade for the major commodity groups within the sector.

The report includes two appendixes. Appendix A contains a listing of the commodity groups that the Commission monitors in this report. Appendix B provides estimated data for 1989-92 on domestic consumption, production, employment, trade, and import penetration for nearly 300 commodity groups covered in this report. These data, based on primary and secondary sources including discussions with various government and industry contacts, have been estimated by the Commission's international trade analysts. The estimated data are subject to change either from future secondary sources or from the detailed surveys the Commission often conducts in the course of statutory investigations or other work.

This report does not discuss U.S. trade in services. The United States had a $55.0 billion trade surplus in services with the world in 1992 that offset the U.S. merchandise trade deficit of $100.1 billion and resulted in a total trade deficit of $45.1 billion.

U.S. Trade Performance, 1992

During 1992, the rise of U.S. imports in such industries as computers and parts, apparel, motor-vehicle parts, motor vehicles, and pharmaceuticals and a significant decline of U.S. exports in such product groups as petroleum

products, unwrought aluminum, steel mill products, fertilizers, and textile fibers and waste resulted in a significant decline in the U.S. trade balance.

When compared with 1991, the U.S. merchandise trade deficit increased by $17.2 billion (21 percent) to a level of $100.1 billion (table 1 and figures 1 and 2).[1] This resulted from an increase in U.S. imports of $41.3 billion (9 percent) to $525.1 billion and from a lesser increase in U.S. exports of $24.1 billion (6 percent) to $425.0 billion.

Import growth was experienced in every major commodity sector except in energy-related products. The largest surges were in the electronic technology sector, which experienced absolute import growth of $11.1 billion (15 percent) to reach $87.7 billion, and in the machinery and equipment sector, which grew by $8.0 billion (6 percent) to $140.4 billion. Although the energy-related products sector showed a marginal decline in imports, this sector also experienced the only decline in exports, which decreased by $1.2 billion (8 percent) to $13.0 billion.

Reflecting the above export and import shifts, the most significant absolute change in the trade balance position on a sector basis occurred in the electronic technology sector that had $7.4 billion added to its deficit to reach $24.3 billion, based on demand for computers, semiconductor solid-state devices, office machines, and audio/video consumer electronics products. The trade position in the fibers, textiles, and apparel sector also worsened by $5.2 billion for a deficit of $26.7 billion. Shirts and blouses, textile fibers and waste, and women's and girls' trousers contributed the largest declines. The machinery and equipment and agricultural products sectors showed the most significant improvements in trade position. The trade deficit of $2.4 billion for machinery and equipment became a surplus of $66 million, a positive shift of over $2.4 billion. The trade surplus in agricultural products grew by $2.2 billion to $17.9 billion. During 1992, the United States maintained a positive balance of trade in forest products and chemicals and related products whereas all other sectors continued their long-running negative position.

On a country basis, the U.S. trade balance with most major trading partners worsened except with Mexico and Taiwan. The two most significant developments were the increased $5.6 billion trade deficit with China to $18.2 billion, and the deficit with Japan which jumped by $4.6 billion to reach $49.7 billion, by far the largest bilateral deficit.[2] The United States continued to experience trade deficits with all major partners except with the European Community and Mexico (table 2 and figure 3). Although the U.S. trade surplus with Mexico increased by $3.8 billion and reached $5.7 billion, the $5.5 billion surplus with the EC-12 reflected a $7.0 billion reduction from the prior year.

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[1] Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

[2] The deficit with China was the second largest bilateral deficit.

Table 1
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Agricultural products	45,183	49,639	4,456	9.9
Forest products	19,541	20,728	1,187	6.1
Fibers, textiles, and apparel	12,126	12,741	616	5.1
Chemicals and related products	47,075	49,059	1,984	4.2
Energy-related products	14,121	12,960	-1,161	-8.2
Minerals and metals	28,343	28,369	25	0.1
Machinery and equipment	130,045	140,500	10,455	8.0
Electronic technology	59,734	63,445	3,711	6.2
Miscellaneous manufactures	30,687	33,183	2,496	8.1
Footwear	541	601	60	11.1
Special provisions	13,445	13,746	300	2.2
Total	400,842	424,971	24,129	6.0
U.S. imports for consumption:				
Agricultural products	29,458	31,728	2,270	7.7
Forest products	17,145	18,698	1,553	9.1
Fibers, textiles, and apparel	33,632	39,480	5,848	17.4
Chemicals and related products	32,344	36,340	3,996	12.4
Energy-related products	54,652	54,568	-84	-0.2
Minerals and metals	41,237	42,313	1,076	2.6
Machinery and equipment	132,414	140,434	8,020	6.1
Electronic technology	76,575	87,708	11,133	14.5
Miscellaneous manufactures	41,773	46,670	4,897	11.7
Footwear	9,542	10,140	598	6.3
Special provisions	15,005	17,012	2,007	13.4
Total	483,778	525,091	41,313	8.5
U.S. merchandise trade balance:				
Agricultural products	15,725	17,911	2,186	13.9
Forest products	2,396	2,030	-366	-15.3
Fibers, textiles, and apparel	-21,506	-26,739	-5,233	-24.3
Chemicals and related products	14,731	12,719	-2,012	-13.7
Energy-related products	-40,531	-41,608	-1,077	-2.7
Minerals and metals	-12,894	-13,944	-1,050	-8.1
Machinery and equipment	-2,369	66	2,435	(2)
Electronic technology	-16,841	-24,263	-7,422	-44.1
Miscellaneous manufactures	-11,086	-13,487	-2,401	-21.7
Footwear	-9,001	-9,539	-538	-6.0
Special provisions	-1,560	-3,266	-1,706	-109.4
Total	-82,936	-100,121	-17,185	-20.7

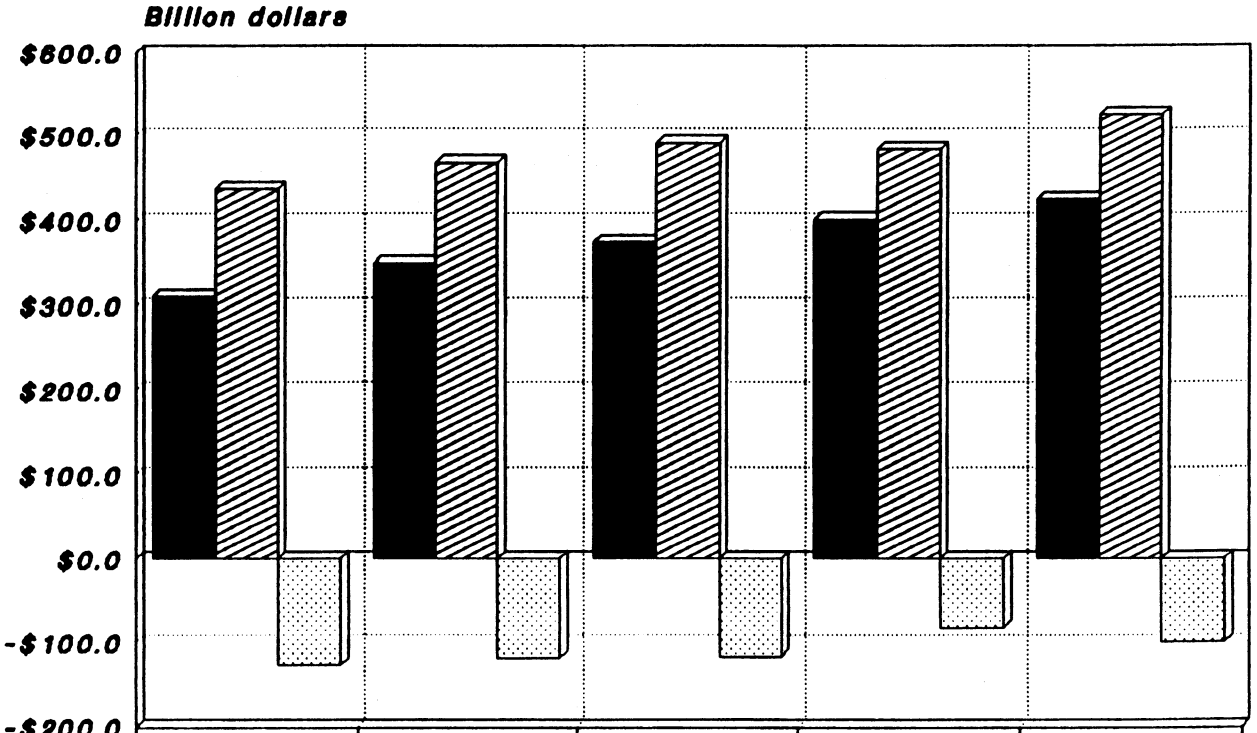
[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] Not applicable.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990. Data shown in this table may differ from those shown in other reports because these data have been revised to include increased U.S. imports of new passenger cars and trucks for 1991-92 omitted from previously released data. See Bureau of the Census notice FTSN 92-12 1001.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 1

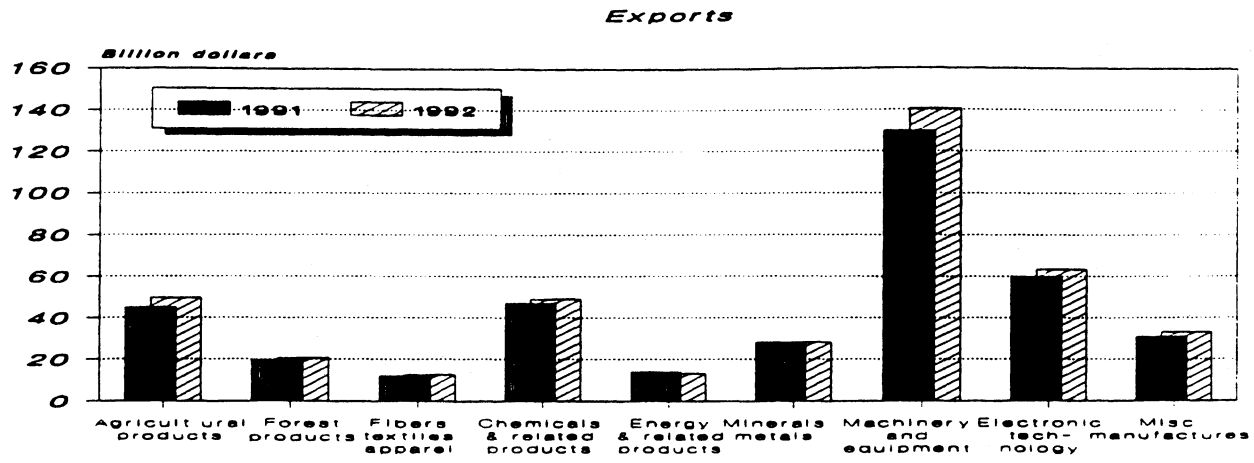
U.S. trade with the world: Exports, imports, and trade balance, 1988-92

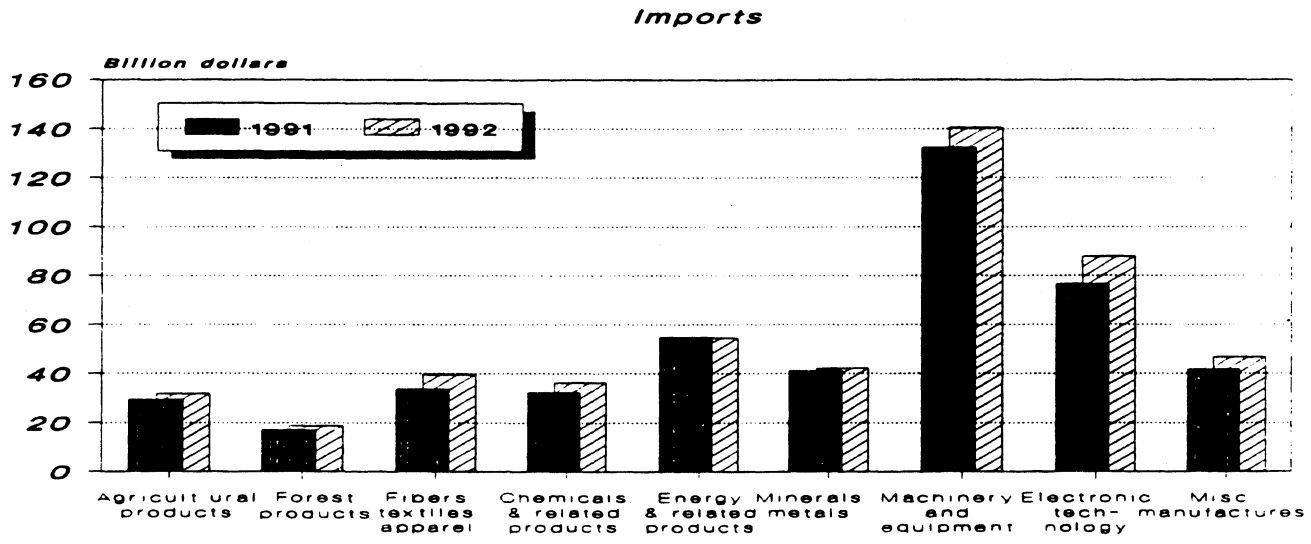


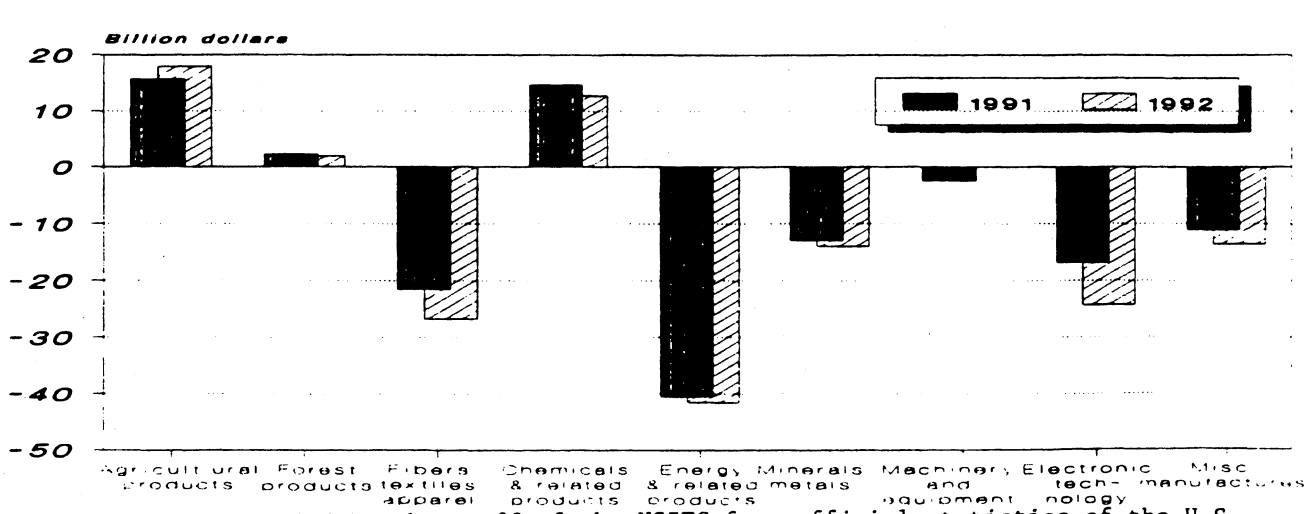
	1988	1989	1990	1991	1992
Exports	$310.3	$349.4	$374.5	$400.8	$425.0
Imports	$437.1	$468.0	$491.3	$483.8	$525.1
Balance	-$126.8	-$118.6	-$116.8	-$82.9	-$100.1

Source: Compiled by the staff of the USITC from official statistics of the U.S. Department of Commerce.

Figure 2
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1991 and 1992







Source: Compiled by the staff of the USITC from official statistics of the U.S. Department of Commerce.

Table 2
All merchandise sectors: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	78,712	83,218	4,506	5.7
Japan	46,144	45,850	-294	-0.6
Mexico	32,279	39,605	7,326	22.6
Germany	19,961	19,935	-26	-0.1
United Kingdom	20,911	21,380	469	2.2
Taiwan	12,718	14,533	1,815	14.2
Republic of Korea	15,211	14,220	-991	-6.5
France	14,561	13,812	-749	-5.1
Italy	8,174	8,291	117	1.4
China	6,238	7,339	1,101	17.6
Singapore	8,278	8,949	671	8.1
All other	137,656	147,839	10,183	7.3
Total	400,842	424,971	24,129	6.0
EC-12	97,598	97,345	-253	-0.2
OPEC	18,607	21,324	2,717	14.6
ASEAN	19,829	22,618	2,789	14.0
CBERA	9,742	10,721	979	10.0
Eastern Europe	1,537	1,975	456	30.0
U.S. imports for consumption:				
Canada	90,924	98,242	7,318	8.0
Japan	91,219	95,520	4,301	4.7
Mexico	30,445	33,935	3,490	11.4
Germany	25,632	27,585	1,953	7.6
United Kingdom	18,152	19,617	1,465	8.0
Taiwan	22,942	24,531	1,589	6.9
Republic of Korea	16,862	16,523	-339	-2.0
France	13,231	14,725	1,494	11.2
Italy	11,618	12,094	476	4.0
China	18,855	25,514	6,659	35.3
Singapore	9,903	11,234	1,331	13.4
All other	133,995	145,572	11,577	8.6
Total	483,778	525,091	41,313	8.5
EC-12	85,098	91,826	6,728	7.9
OPEC	32,653	32,349	-304	-0.9
ASEAN	28,969	35,666	6,697	23.1
CBERA	8,170	9,357	1,187	14.5
Eastern Europe	1,644	1,684	40	2.4
U.S. merchandise trade balance:				
Canada	-12,212	-15,024	-2,812	-23.0
Japan	-45,075	-49,670	-4,595	-10.1
Mexico	1,834	5,670	3,836	209.1
Germany	-5,671	-7,650	-1,979	-34.8
United Kingdom	2,759	1,763	-996	-36.1
Taiwan	-10,224	-9,998	226	2.2
Republic of Korea	-1,651	-2,303	-652	-39.4
France	1,330	-913	-2,243	(2)
Italy	-3,444	-3,803	-359	-10.4
China	-12,617	-18,175	-5,558	-44.0
Singapore	-1,625	-2,285	-660	-40.6
All other	3,661	2,267	-1,394	-38.0
Total	-82,936	-100,121	-17,185	-20.7
EC-12	12,500	5,519	-6,981	-55.8
OPEC	-14,046	-11,025	3,021	21.5
ASEAN	-9,140	-13,048	-3,908	-42.7
CBERA	1,572	1,364	-208	-13.2
Eastern Europe	-107	291	416	(2)

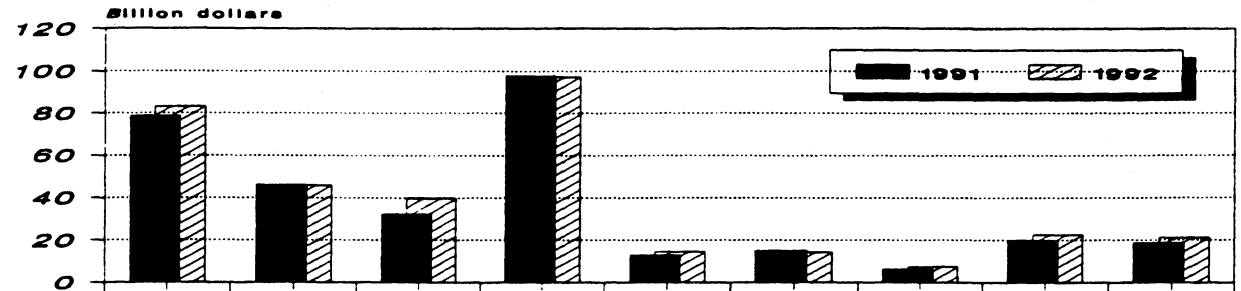
[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] Not applicable.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990. Data shown in this table may differ from those shown in other reports because these data have been revised to include increased U.S. imports of new passenger cars and trucks for 1991-92 omitted from previously released data. See U.S. Bureau of the Census, notice FTSN 92-12 1001.

Source: Compiled from official statistics of the U.S. Department of Commerce.

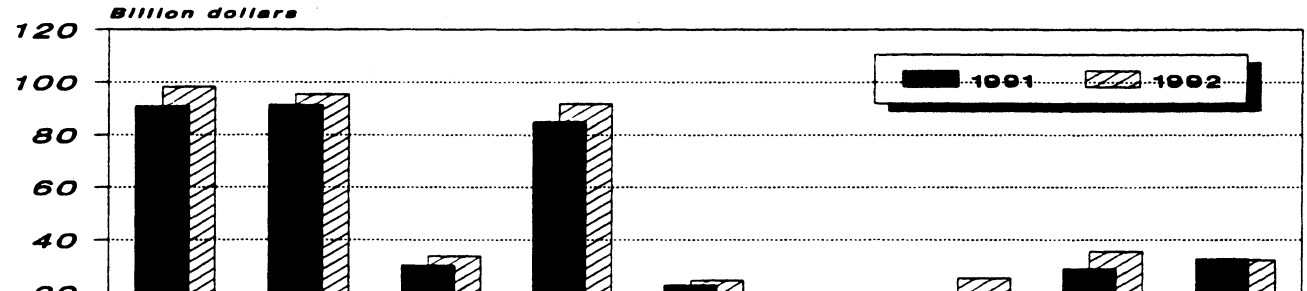
Figure 3
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major trading partners, 1991 and 1992

Exports



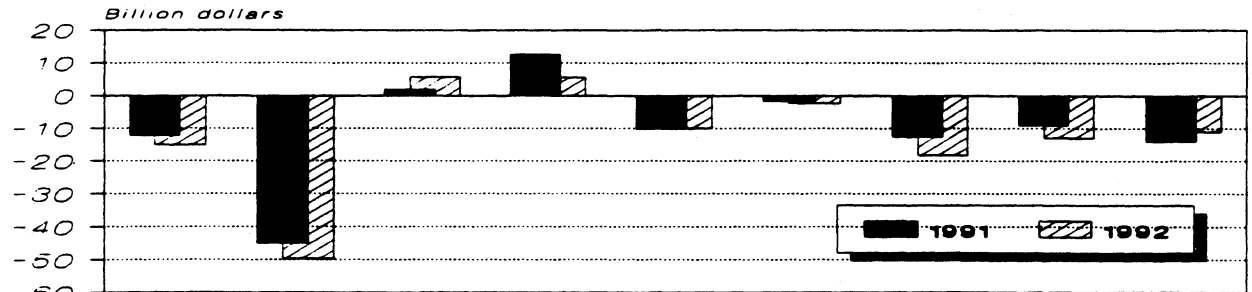
	Canada	Japan	Mexico	EC-12	Taiwan	South Korea	China	ASEAN	OPEC
1991	78.7	46.1	32.3	97.6	12.7	15.2	6.2	19.8	18.6
1992	83.2	45.9	39.6	97.3	14.5	14.2	7.3	22.6	21.3

Imports



	Canada	Japan	Mexico	EC-12	Taiwan	South Korea	China	ASEAN	OPEC
1991	90.9	91.2	30.4	85.1	22.9	16.9	18.9	29	32.7
1992	98.2	95.5	33.9	91.8	24.5	16.5	25.5	35.7	32.3

Trade Balance



	Canada	Japan	Mexico	EC-12	Taiwan	South Korea	China	ASEAN	OPEC
1991	-12.2	-45.1	1.8	12.5	-10.2	-1.7	-12.6	-9.1	-14
1992	-15	-49.7	5.7	5.5	-10	-2.3	-18.2	-13	-11

Source: Compiled by the staff of the USITC from official statistics of the U.S. Department of Commerce.

The significant bilateral shifts in the trade balance position of the United States with its major trading partners noted in table 2, and discussed in greater detail later in this chapter, should be considered in the context of the gross domestic product (GDP) of the United States. A comparison of U.S. bilateral trade balances with the U.S. GDP (table 3) provides perspective. The total U.S. merchandise trade deficit represented -1.7 percent of U.S. GDP in 1992. The bilateral deficit with Japan represented -0.8 percent of U.S. GDP.

Figure 4 shows the leading U.S. exports to major markets in 1992, and figure 5 identifies the leading U.S. imports from major sources in 1992.

Exchange Rate Shifts

The exchange rate between two freely convertible currencies is determined by the supply and demand for each currency, which reflects the supply and demand for goods, services, and assets. Changes in supply or demand of currencies cause changes in the exchange rate. Real changes in exchange rates, which are sometimes referred to as changes in "real exchange rates," are nominal changes adjusted for different rates of inflation.

Although caused by changes in supply or demand, movements in exchange rates themselves affect trade between countries through the effects of rates on prices. Depreciation of the dollar makes U.S. exports less expensive to foreigners and imports more expensive to U.S. citizens. As a result, the apparent competitiveness of U.S. exporters increases relative to their importer competitors.

Since the early 1980s, the United States has had sizable deficits in merchandise trade. These sustained deficits have been possible because of substantial U.S. exports of financial assets. That is, the United States has been a net exporter of assets and a net importer of goods and services. The rest of the world has been willing to supply capital to the United States, and the United States has been willing to supply financial assets in exchange, which supported the dollar exchange rate at a higher level than it would have been without the flow of capital. The decline in the exchange rate since the mid-1980s is probably a result, in large part, of reduced demand by foreigners for U.S. financial assets and has, in turn, contributed to the improvement in the trade balance.

The value of the U.S. dollar showed a marginal average decline against world currencies in real terms in 1992 according to the real exchange rate index prepared by the Federal Reserve Bank of Dallas, shown in table 4. The value of the dollar, adjusted for inflation, declined on average by 0.2 percent with respect to foreign currencies in 1992. The average real value of the dollar against "all nations" increased in the early months of 1992 compared with its value at the end of 1991, but declined every month from March until August before increasing again in each of the final 4 months. The average annual change, calculated with trade value weights, had declined by 0.37 percent in 1991.

Two events in 1992 contributed to the real depreciation of the dollar. One is that the United States, emerging from recession, had a higher rate of economic growth than most other major world economies. Relative

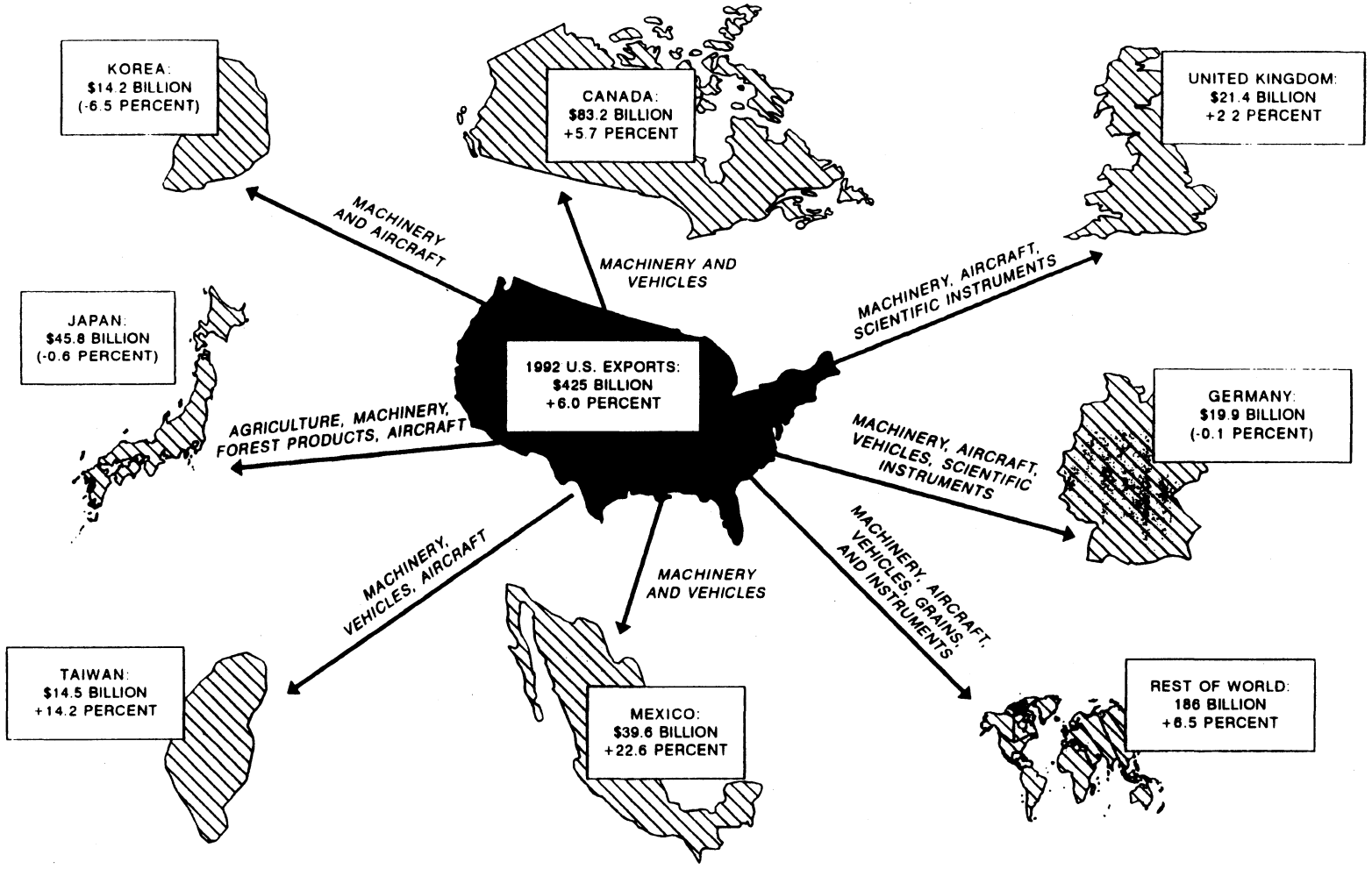
Table 3
U.S. bilateral trade balances with major partner countries, in dollars and as a ratio to U.S. gross domestic product (GDP), 1992

Country	GDP[1]	U.S. exports	U.S. imports	U.S. merchandise trade balance	Ratio of the merchandise trade balance to U.S. GDP
	Billion dollars	------*Million dollars*------			*Percent*
United States (total) . .	5,950.7	424,971	525,091	-100,121	-1.68
Mexico	319.0	39,605	33,935	5,670	0.10
Canada	595.8	83,218	98,242	-15,024	-0.25
China	441.4	7,339	25,514	-18,175	-0.31
Japan	3,725.9	45,850	95,520	-49,670	-0.83
Malaysia	43.9	4,034	8,176	-4,142	-0.07
Germany	1,717.5	19,935	27,585	-7,650	-0.13
Taiwan	206.6	14,533	24,531	-9,978	-0.17
France	1,270.0	13,812	14,725	-913	-0.02
United Kingdom	900.0	21,380	19,617	1,763	0.03
Thailand	103.0	3,770	7,487	-3,717	-0.06
Singapore	45.6	8,949	11,234	-2,285	-0.04
Colombia	37.3	3,200	2,888	312	0.01
Argentina	153.0	2,984	1,225	1,759	0.03
Korea	293.9	14,220	16,523	-2,303	-0.04
Indonesia	110.2	2,732	4,426	-1,694	-0.03

[1] The GDP data for Mexico, Taiwan, Thailand, and Argentina are from the U.S. House, Committee on Foreign Affairs and Committee on Ways and Means, and U.S. Senate, Committee on Foreign Relations and Committee on Finance, Country Reports on Economic Policy and Trade Practices, prepared by the Department of State in accordance with section 2202 of the Omnibus Trade and Competitiveness Act of 1988 (Washington, DC: GPO, 1993), pp. 167, 481, and 603. The information for China represents estimated gross national product because GDP data were not available. The GDP figure for Colombia is for 1991 because the estimate for 1992 was not available.

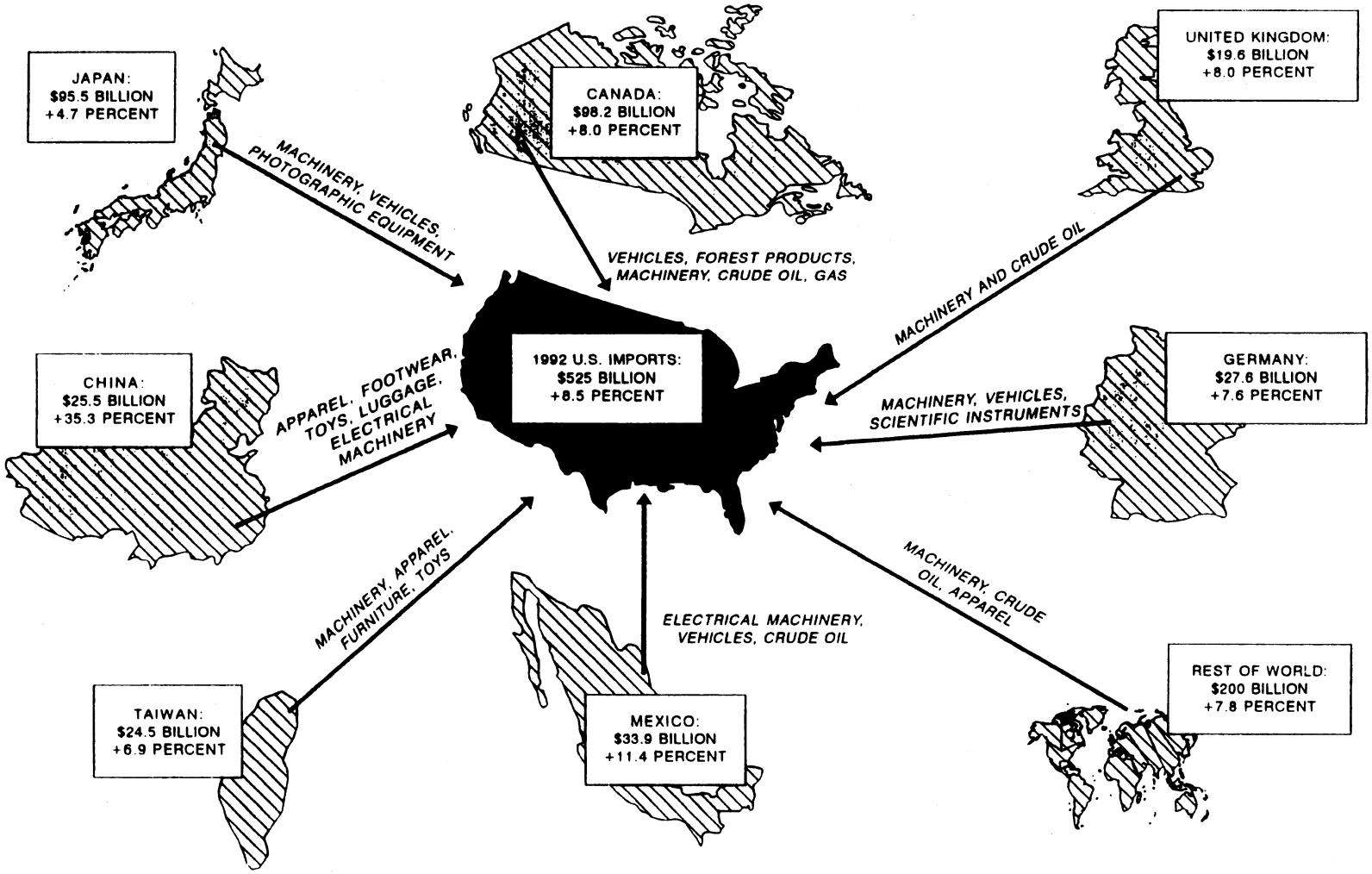
Source: U.S. trade data from official statistics of the U.S. Department of Commerce; GDP from International Monetary Fund, International Financial Statistics, August 1993, (Washington, D.C.: IMF Publications Services, 1993), country tables, except as noted.

Figure 4
U.S. exports, 1992: Leading U.S. exports, by major markets, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Figure 5
U.S. imports, 1992: Leading U.S. imports, by major sources, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Table 4
Real exchange rate indexes of foreign currencies or of baskets of currencies against the U.S. dollar, annual averages 1990-92[1]

Year	Total[2]	Western Hemishpere	Canada	Mexico	Europe	Japan	Pacific NICs	Taiwan	Korea	Singapore
1990	75.8	94.3	84.1	105.0	56.3	64.2	88.6	75.9	79.1	93.6
1991	75.5	98.2	81.5	95.8	57.3	60.4	89.8	76.3	77.9	89.9
1992	75.3	99.6	87.3	87.3	55.3	57.5	88.9	70.4	80.4	85.4
Percent change, 1990-91.	-0.37	4.08	-3.07	-8.83	1.88	-6.03	1.37	0.47	-1.44	-3.89
Percent change, 1991-92.	-0.20	1.48	7.08	-8.66	-3.52	-4.82	-1.01	-7.67	3.16	-5.03

1 Index numbers: 1985 (first quarter)= 100.
2 The Dallas Fed's index of real exchange rates weighted by U.S. bilateral trade with 101 trading partners (RX-101).

Source: Federal Reserve Bank of Dallas.

prosperity in the United States caused an increase in U.S. demand for imports compared with world demand for U.S. exports. The other is that U.S. interest rates declined in 1992, reducing demand for U.S. financial assets. As the dollar depreciated, the U.S. deficit in net merchandise trade increased by $17.2 billion in 1992, or 21 percent. The increase in the trade deficit, combined with depreciation of the dollar, probably resulted from an increased demand for U.S. imports relative to exports.

The dollar depreciated in real value in 1992 in relation to the currencies of Mexico by 8.66 percent; Taiwan, 7.67 percent; Singapore, 5.03 percent; Japan, 4.82 percent; Europe, 3.52 percent; and the Pacific Newly Industrializing Countries (NICs) as a group, 1.01 percent. The dollar appreciated in real value in relation to the Canadian dollar by 7.08 percent, to the Korean currency by 3.16 percent, and to all currencies in the Western Hemisphere by 1.48 percent. The depreciation of the dollar with respect to Japan and Europe coincided with decreases in U.S. net merchandise trade with Japan and with many of the major economies in Europe—Germany, the United Kingdom, France, and Italy. The main causal factor for both was probably the relatively low economic growth in those countries. In the case of Japan, a decline in Japanese investment in the United States also contributed. The depreciation of the dollar probably mitigated the decrease in U.S. net trade.

The dollar appreciated with respect to Canada and Korea, but U.S. net merchandise trade with these countries decreased. The appreciation of the dollar probably contributed to the reduction in net trade.

U.S. net trade with Mexico increased by $3.8 billion, or by over 200 percent, in spite of the substantial appreciation of the peso. An increase in investment in Mexico by the United States and other countries following its successful economic reform program and the anticipation of the proposed North American Free-Trade Agreement contributed to the trade increase. The trade agreement will increase Mexico's access to the U.S. market. Increased investment buttressed the peso exchange rate and increased demand

for some U.S. goods. In addition, increased prosperity in Mexico and employment in plants on the Mexican side of the U.S.-Mexico border have increased demand for U.S. consumer exports.

Summaries Of Significant Commodity Shifts

Numerous important commodity shifts occurred in the periods under review within each of the major industrial sectors. These shifts are discussed in detail in chapters 2 through 9, and tabular summaries of the most significant of these shifts are presented on the following pages in tables 5 through 10. These six tables provide listings of the most significant export, import, and trade balance shifts in rank order, including an indication of the absolute and percentage changes between the two periods under consideration.

Table 5
Domestic export growth: Ranking of top 20 commodity groups, 1991 and 1992

USITC code	Commodity group	U.S. exports 1991	U.S. exports 1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		--------Million dollars---------			
Rank order based on change in absolute value growth:					
ME039	Certain motor-vehicle parts	13,732	16,046	2,314	16.9
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	5,398	17,699	2,301	14.9
ME042	Aircraft, spacecraft, and related equipment	34,403	35,712	1,309	3.8
AG030	Cereals	10,096	11,245	1,149	11.4
ST018	Automatic data processing machines	24,001	24,985	984	4.1
ST002	Telephone and telegraph apparatus	3,234	4,170	936	28.9
CH028	Medicinal chemicals, except antibiotics	4,456	5,246	790	17.7
ME002	Internal combustion piston engines, other than for aircraft	5,853	6,640	787	13.4
GM014	Medical goods	6,206	6,940	734	11.8
MM022	Precious metals and related articles	4,216	4,869	653	15.5
GM034	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	10,976	11,617	641	5.8
ST006	Records, tapes, compact discs, computer software, and other recored media	2,201	2,756	555	25.2
ME041	Miscellaneous vehicles and transportation-related equipment	2,225	2,709	484	21.8
GM019	Furniture and selected furnishings	2,256	2,700	444	19.7
AG032	Oilseeds	4,124	4,564	440	10.7
GM031	Measuring, testing, controlling, and analyzing instruments	7,756	8,185	429	5.5
ME028	Electric motors, generators, and related equipment	2,338	2,752	414	17.7
CH050	Miscellaneous rubber or plastics products	1,997	2,407	410	20.5
ME023	Semiconductor equipment, robots, and other machinery	7,339	7,696	357	4.9
ME036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators	2,145	2,492	347	16.2
Rank order based on change in percentage growth:					
AG010	Dairy produce	325	593	268	82.5
TX022	Women's and girls' dresses	65	98	33	50.8
CH004	Coal chemicals	268	398	130	48.5
MM021	Natural and synthetic gemstones	321	470	149	46.4
TX019	Shirts and blouses	451	658	207	45.9
TX018	Women's and girls' trousers	215	312	97	45.1
GM024	Dolls	21	29	8	38.1
TX024	Hosiery	98	135	37	37.8
AG028	Coffee and tea	102	135	33	32.4
AG003	Swine and pork	304	400	96	31.6
GM026	Games and fairground amusements	684	884	200	29.2
ST002	Telephone and telegraph apparatus	3,234	4,170	936	28.9
AG033	Animal or vegetable fats and oils	1,123	1,439	316	28.1
MM017	Glass containers	119	152	33	27.7
TX021	Women's and girls' suits, skirts, and coats	203	259	56	27.6
TX016	Men's and boys' coats and jackets	81	103	22	27.2
TX017	Men's and boy's trousers	663	843	180	27.1
GM030	Apparel fasteners	59	75	16	27.1
TX010	Certain textile articles and fabrics suitable for industrial use	211	268	57	27.0
AG035	Cocoa, chocolate, and confectionery	345	438	93	27.0

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 6
Domestic export declines: Ranking of top 20 commodity groups, 1991 and 1992

USITC code	Commodity group	U.S. exports 1991	U.S. exports 1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		--------Million dollars---------			
Rank order based on change in absolute value decline:					
CH006	Petroleum products	7,587	6,603	-984	-13.0
MM039	Unwrought aluminum	1,842	1,154	-688	-37.4
MM027	Steel mill products, all grades	3,681	3,034	-647	-17.6
CH019	Fertilizers	3,287	2,644	-643	-19.6
TX001	Textile fibers and waste	3,398	2,810	-588	-17.3
CH003	Coal and other carbonaceous materials	4,721	4,325	-396	-8.4
MM038	Copper and related articles	1,843	1,528	-315	-17.1
CH038	Polypropylene resins in primary forms	788	522	-266	-33.8
CH011	Benzenoid commodity chemicals	1,362	1,131	-231	-17.0
CH037	Polyethylene resins in primary forms	1,460	1,255	-205	-14.0
ME012	Construction and mining equipment	6,025	5,864	-161	-2.7
GM031	Miscellaneous articles	1,503	1,352	-151	-10.0
ST008	Radio navigational aid, radar, and remote control apparatus	1,244	1,111	-133	-10.7
MM025	Iron and steel waste and scrap	1,244	1,115	-129	-10.4
CH014	Selected inorganic chemicals and elements	893	768	-125	-14.0
ST019	Photographic supplies	1,791	1,669	-122	-6.8
CH017	Chlor-alkali chemicals	912	803	-109	-12.0
MM043	Certain base metals and chemical elements	1,005	905	-100	-10.0
TX002	Spun yarns	338	270	-68	-20.1
ME001	Aircraft engines and gas turbines	8,330	8,264	-66	-0.8
Rank order based on change in percentage decline:					
MM002	Certain miscellaneous mineral substances	19	3	-16	-84.2
MM039	Unwrought aluminum	1,842	1,154	-688	-37.4
CH038	Polypropylene resins in primary forms	788	522	-266	-33.8
MM041	Lead and related articles	113	78	-35	-31.0
CH005	Crude petroleum	35	27	-8	-22.9
TX002	Spun yarns	338	270	-68	-20.1
CH019	Fertilizers	3,287	2,644	-643	-19.6
MM042	Zinc and related articles	91	75	-16	-17.6
MM027	Steel mill products, all grades	3,681	3,034	-647	-17.6
TX001	Textile fibers and waste	3,398	2,810	-588	-17.3
MM038	Copper and related articles	1,843	1,528	-315	-17.1
AG012	Sugar and other sweeteners	362	300	-62	-17.1
CH011	Benzenoid commodity chemicals	1,362	1,131	-231	-17.0
MM005	Lead ores and residues	38	32	-6	-15.8
CH023	Synthetics tanning agents	13	11	-2	-15.4
CH014	Selected inorganic chemicals and elements	893	768	-125	-14.0
CH037	Polyethylene resins in primary forms	1,460	1,255	-205	-14.0
CH052	Natural rubber	36	31	-5	-13.9
CH006	Petroleum products	7,587	6,603	-984	-13.0
AG045	Furskins	154	134	-20	-13.0

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 7
Domestic import growth: Ranking of top 20 commodity groups, 1991 and 1992

USITC code	Commodity group	U.S. imports 1991	U.S. imports 1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
Rank order based on change in absolute value growth:					
ST018	Automatic data processing machines	25,986	31,564	5,578	21.5
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	13,081	15,452	2,371	18.1
TX019	Shirts and blouses	7,410	9,173	1,763	23.8
ME039	Certain motor-vehicle parts	11,565	13,304	1,739	15.0
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	58,834	60,378	1,544	2.6
CH028	Medicinal chemicals, except antibiotics	3,915	4,886	971	24.8
AG047	Lumber	2,644	3,481	837	31.7
ME001	Aircraft engines and gas turbines	5,373	6,177	804	15.0
ST002	Telephone and telegraph apparatus	4,861	5,617	756	15.6
CH005	Crude petroleum	37,374	38,104	730	2.0
GM025	Toys and models	2,880	3,597	717	24.9
GM026	Games and fairground amusements	2,091	2,729	638	30.5
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	4,809	5,444	635	13.2
ST001	Office machines	3,960	4,578	618	15.6
AG041	Unmanufactured tobacco	736	[1]1,352	616	83.7
TX018	Women's and girls' trousers	2,737	3,342	605	22.1
ST007	Radio transmission and reception apparatus, and combinations thereof	5,356	5,958	602	11.2
GM035	Footwear and footwear parts	9,542	10,141	599	6.3
GM019	Furniture and selected furnishings	4,981	5,555	574	11.5
CH050	Miscellaneous rubber or plastics products	2,929	3,447	518	17.7
Rank order based on change in percentage growth:					
GM022	Prefabricated buildings	21	64	43	204.8
AG041	Unmanufactured tobacco	736	[1]1,352	616	83.7
CH009	Other olefins	19	32	13	68.4
AG043	Cigarettes	121	200	79	65.3
MM006	Zinc ores and residues	28	46	18	64.3
MM004	Copper ores and concentrates	67	107	40	59.7
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal	41	64	23	56.1
ST020	Exposed photographic plates, film, and paper	81	124	43	53.1
CH039	PVC resins in primary forms	54	82	28	51.9
CH040	Styrene polymers in primary forms	132	199	67	50.8
GM011	Optical fibers, optical fiber bundles and cables	57	85	28	49.1
MM041	Lead and related articles	80	119	39	48.8
AG030	Cereals	354	513	159	44.9
TX028	Headwear	495	687	192	38.8
AG049	Structural panel products	857	1,189	332	38.7
CH034	Miscellaneous chemical specialties	430	596	166	38.6
ST006	Records, tapes, compact discs, computer software, and other recored media	379	522	143	37.7
ME040	Motorcycles, mopeds, and parts	584	803	219	37.5
CH003	Coal and other carbonaceous materials	309	420	111	35.9
ME043	Ships, tugs, pleasure boats, and similar vessels	279	378	99	35.5

[1] These data have been amended from official statistics based on revised information from the U.S. Department of Commerce.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 8
Domestic import declines: Ranking of top 20 commodity groups, 1991 and 1992

USITC code	Commodity group	U.S. imports 1991	U.S. imports 1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		--------Million dollars---------			
Rank order based on change in absolute value decline:					
CH006	Petroleum products	12,524	11,260	-1,264	-10.1
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	2,755	2,236	-519	-18.8
AG057	Newsprint	3,979	3,599	-380	-9.6
MM022	Precious metals and related articles	4,406	4,083	-323	-7.3
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools	2,213	1,960	-253	-11.4
ME042	Aircraft, spacecraft, and related equipment	7,501	7,262	-239	-3.2
MM043	Certain base metals and chemical elements	1,865	1,636	-229	-12.3
CH014	Selected inorganic chemicals and elements	1,573	1,363	-210	-13.4
MM044	Nonpowered handtools	1,620	1,450	-170	-10.5
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	5,612	5,445	-167	-3.0
AG007	Frozen fish	1,467	1,302	-165	-11.2
AG028	Coffee and tea	1,987	1,840	-147	-7.4
AG003	Swine and pork	573	436	-137	-23.9
TX024	Hosiery	314	178	-136	-43.3
ME023	Semiconductor equipment, robots, and other machinery	5,433	5,328	-105	-1.9
AG001	Certain miscellaneous live animals, meat, offals, and animal products	1,004	905	-99	-9.9
ME035	Electric and gas welding and soldering equipment	435	345	-90	-20.7
MM009	Certain nonmetallic minerals and articles	1,392	1,304	-88	-6.3
AG018	Fresh, chilled, or frozen vegetables	1,041	959	-82	-7.9
AG008	Fish canned, cured, or otherwise prepared, and live fish	760	683	-77	-10.1
Rank order based on change in percentage decline:					
MM008	Precious metal ores and concentrates	11	4	-7	-63.6
TX024	Hosiery	314	178	-136	-43.3
MM005	Lead ores and residues	3	2	-1	-33.3
ME027	Boilers, turbines, and related machinery	305	230	-75	-24.6
AG003	Swine and pork	573	436	-137	-23.9
AG005	Poultry	28	22	-6	-21.4
ME019	Metal rolling mills and parts thereof	130	103	-27	-20.8
ME035	Electric and gas welding and soldering equipment	435	345	-90	-20.7
CH004	Coal chemicals	144	116	-28	-19.4
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	2,755	2,236	-519	-18.8
TX030	Fur apparel and other fur articles	172	140	-32	-18.6
TX012	Sacks and bags of textile materials	52	43	-9	-17.3
MM028	Steel pipe and tube fittings, and certain cast products	346	290	-56	-16.2
CH015	Inorganic acids	168	142	-26	-15.5
CH011	Benzenoid commodity chemicals	351	297	-54	-15.4
CH014	Selected inorganic chemicals and elements	1,573	1,363	-210	-13.4
MM043	Certain base metals and chemical elements	1,865	1,636	-229	-12.3
MM002	Certain miscellaneous mineral substances	41	36	-5	-12.2
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools	2,213	1,960	-253	-11.4
AG007	Frozen fish	1,467	1,302	-165	-11.2

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 9
U.S. trade position improvements: Ranking of top 30 commodity groups, 1991 and 1992

(Millions of dollars)

USITC code	Commodity group	U.S. balance 1991	U.S. balance 1992	Absolute change from 1992 to 1991
ME042	Aircraft, spacecraft, and related equipment	26,902	28,450	1,548
AG030	Cereals	9,742	10,732	990
MM022	Precious metals and related articles	-190	786	976
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	-43,436	-42,679	757
ME039	Certain motor-vehicle parts	2,167	2,742	575
ME041	Miscellaneous vehicles and transportation-related equipment	1,031	1,556	525
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	-2,519	-2,007	512
GM024	Medical goods	2,444	2,943	499
ME023	Semiconductor equipment, robots, and other machinery	1,906	2,368	462
AG057	Newsprint	-3,591	-3,132	459
AG032	Oilseeds	4,006	4,442	436
ST006	Records, tapes, compact discs, computer software, and other recored media	1,822	2,234	412
AG007	Frozen fish	174	584	410
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools	-1,081	-690	391
ME002	Internal combustion piston engines, other than for aircraft	687	1,022	335
AG054	Pulp and wastepaper	1,440	1,724	284
AG013	Animal feeds	2,924	3,206	282
CH006	Petroleum products	-4,937	-4,657	280
MM044	Nonpowered handtools	-529	-258	271
AG003	Swine and pork	-269	-36	233
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	-742	-521	221
ST002	Telephone and telegraph apparatus	-1,627	-1,447	180
AG028	Coffee and tea	-1,885	-1,705	180
AG010	Dairy produce	-431	-252	179
GM018	Arms and ammunition	1,796	1,971	175
TX024	Hosiery	-216	-43	173
ME043	Ships, tugs, pleasure boats, and similar vessels	895	1,063	168
ME021	Machine tools for metal forming and parts thereof	66	227	161
ME004	Air-conditioning equipment and parts	550	709	159
CH004	Coal chemicals	124	282	158

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 10
U.S. trade position declines: Ranking of top 30 commodity groups, 1991 and 1992

(Millions of dollars)

USITC code	Commodity group	U.S. balance 1991	U.S. balance 1992	Absolute change from 1992 to 1991
ST018	Automatic data processing machines	-1,985	-6,579	-4,594
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	-2,105	-3,835	-1,730
TX019	Shirts and blouses	-6,959	-8,515	-1,556
ME001	Aircraft engines and gas turbines	2,957	2,087	-870
MM039	Unwrought aluminum	-179	-966	-787
CH005	Crude petroleum	-37,339	-38,077	-738
AG047	Lumber	-424	-1,144	-720
CH019	Fertilizers	1,558	869	-689
MM027	Steel mill products, all grades	-4,180	-4,865	-685
GM025	Toys and models	-2,493	-3,170	-677
TX001	Textile fibers and waste.....	2,806	2,149	-657
ST001	Office machines	-2,007	-2,575	-568
GM035	Footwear and footwear parts	-9,000	-9,538	-538
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	-4,293	-4,817	-524
GM031	Miscellaneous articles	-1,844	-2,366	-522
TX018	Women's and girls' trousers	-2,522	-3,030	-508
CH003	Coal and other carbonaceous materials ...	4,412	3,905	-507
ST007	Radio transmission and reception apparatus, and combinations thereof ...	-2,007	-2,454	-447
GM026	Games and fairground amusements	-1,407	-1,845	-438
CH013	Miscellaneous organic chemicals	1,947	1,516	-431
MM038	Copper and related articles	21	-380	-401
AG041	Unmanufactured tobacco	692	299	-393
ME012	Construction and mining equipment	4,613	4,234	-379
ME018	Textile machinery and parts	-511	-843	-332
GM027	Sporting goods	-838	-1,164	-326
TX021	Women's and girls' suits, skirts, and coats	-2,432	-2,752	-320
CH038	Polypropylene resins in primary forms ...	724	439	-285
TX033	Other wearing apparel	-972	-1,251	-279
ST009	Television receivers and video monitors and combinations including television receivers	-1,999	-2,273	-274
ME007	Electrical household appliances and certain heating equipment	-1,253	-1,520	-267

Source: Compiled from official statistics of the U.S. Department of Commerce.

Significant Bilateral Shifts

Mexico

The economic reforms of the Carlos Salinas de Gortari administration (control over inflation, opening industry sectors to foreign investment, privatization, and unilateral tariff reductions) continued to boost U.S. exports to Mexico in 1992. U.S. export growth exceeded import growth in almost every major industry sector. The $7.3 billion rise in total U.S. exports to $39.6 billion (a 23 percent increase) was more than double the $3.5 billion growth (by 11 percent) in U.S. imports from Mexico, which totaled $33.9 billion in 1992. The net result was an expansion of the U.S. trade surplus with Mexico from $1.8 billion to $5.7 billion (a $3.8 billion increase) in just 1 year. This contrasts sharply with a U.S. trade deficit with Mexico of $5.7 billion in 1987 and $2.0 billion as recently as 1990. This improvement in the trade position with Mexico was the largest positive bilateral shift with any U.S. trading partner. Mexico was able to finance its growing demand for goods from the United States, while at the same time experiencing an appreciation of the Mexican peso versus the U.S. dollar, by attracting substantial sums of foreign investment (and the return of capital that had left Mexico during the early 1980s)[3] in response to the Salinas economic reforms and in anticipation of implementation of the North American Free-Trade Agreement.

Mexico's maquiladora industry (assembly of foreign components for re-export) accounted for 34 percent of total U.S.-Mexico trade in 1992. These in-bond assembly plants were the destination for 21 percent ($8.7 billion) of U.S. exports to Mexico and the source of 49 percent ($16.5 billion) of U.S. imports from Mexico. In recent years, however, U.S. exports for consumption in Mexico have grown much faster than those to the maquila sector. Because maquila-related exports have accounted for a declining share of total U.S. exports to Mexico, the net bilateral trade balance with Mexico has improved markedly. Subtracting out maquiladora trade, net U.S. exports to Mexico grew by $5.9 billion (24 percent) in 1992, to $30.9 billion, while net imports from Mexico rose by just $1.3 billion (8 percent) in 1992, to $17.4 billion. These adjusted data result in a U.S. trade surplus with Mexico of $13.5 billion in 1992.

Mexico is both the third largest market for U.S. exports and the third leading supplier of U.S. imports. However, the $7.3 billion rise in U.S. exports to Mexico was by far the largest bilateral expansion in U.S. exports in 1992, greatly exceeding the second leading export boost to Canada ($4.5 billion). By contrast, the $3.5 billion growth in U.S. imports from Mexico was

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[3] There was significant capital flight from Mexico during the debt crisis that manifested itself in 1982. To a large extent, the debt crisis was caused by unrealistic expectations of future export earnings from petroleum. Temporarily high petroleum prices in the late 1970s led the Mexican Government to commit the country to expensive development programs (both social and physical) for which the country had to borrow money from foreign banks. With the plunge in petroleum prices in 1981, Mexico was unable to service its foreign debt. In order to conserve foreign exchange income to service debt, Mexico placed stringent controls on imports. Gradual, but earnest, liberalization of import restrictions began in 1986.

smaller than the bilateral U.S. import increases from Canada ($7.3 billion), China ($6.7 billion), and Japan ($4.3 billion). On net, Mexico was clearly the brightest feature on the U.S. foreign trade horizon in 1992.

Further integration of the North American automobile industry, combined with the Salinas economic reforms, led to the most substantial increases in U.S. exports in 1992: selected motor vehicle parts (by $667 million); piston-type internal combustion engines—chiefly for motor vehicles (by $202 million); and insulated wire and cable—chiefly parts for assembly into ignition wiring sets for motor vehicles (by $200 million). Increased business activity in Mexico also boosted the demand for aircraft: U.S. exports of aircraft to Mexico rose by 79 percent ($308 million) in 1992. Reflecting expanded production in Mexico and the related increase in energy consumption, U.S. exports of refined petroleum and petroleum gases (including natural gas) to Mexico grew by a combined $374 million in 1992. Selected agricultural products also fared well in 1992, reflecting reduced trade barriers in Mexico and growing overall consumption. Together, U.S. exports of grain sorghum and soybeans to Mexico rose by 39 percent ($288 million).

Motor vehicles, auto parts, and televisions led the growth in U.S. imports from Mexico in 1992. All of these products are made chiefly in either the maquiladora industry or other assembly plants,[4] with the bulk of the parts imported into Mexico from the United States and Japan. The rise in imports of cars, trucks, and parts reflects the integration of the North American motor vehicle industry—General Motors, Ford, and their principal auto parts suppliers have moved many labor-intensive operations to Mexico to reduce production costs. Imports of cars and trucks from Mexico grew by $409 million (13 percent) in 1992 to $3.7 billion; certain motor vehicle parts rose by $460 million (35 percent) to $1.8 billion; wire harnesses (led by ignition wiring sets) grew by $287 million (18 percent) to $1.9 billion; and seats (mostly car seats and seat covers) increased by $120 million (29 percent) to $531 million.

U.S. imports of television receivers from Mexico grew by $281 million (30 percent) in 1992, to $1.2 billion. Concerned that trade tensions with the United States might cause trade measures to be taken against electronic goods from Japan, the major Japanese television manufacturers relocated assembly plants from Japan to Mexico (chiefly Tijuana) in the second half of the 1980s. The trend was accelerated by the rising labor costs in Japan, as well as in Taiwan and Korea. Some Korean television makers have also moved production to Tijuana. Televisions assembled in Japanese and Korean maquiladoras currently lack sufficient North American content under rules of origin requirements to qualify for staged tariff elimination under the North American Free-Trade Agreement (NAFTA). All of the top U.S.-name-plate television producers have had assembly plants in Mexico to complement their U.S. production facilities for several years: Zenith (which is U.S.-owned); RCA (French-owned); and Magnavox (Dutch-owned). As a result, Mexico has become the world's leading producer/assembler of televisions.

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[4] Nonmaquiladora assembly plants are allowed complete access to the Mexican market, but they have to pay duty on imported components and machinery. Maquiladoras are allowed duty-free, but in-bond, entry of parts and equipment, but must export the bulk of the assembly plant's production to maintain this duty-free, maquiladora status. Access to the Mexican market for maquiladoras is highly restricted and is afforded only on a permit basis.

Canada

In 1992, U.S.-Canada merchandise trade grew at a pace almost identical to that of trade between the United States and the rest of the world. U.S. imports from Canada rose 8 percent ($7.3 billion) in 1992,[5] whereas U.S. exports to Canada increased 6 percent ($4.5 billion), resulting in a $2.8 billion expansion in the U.S. bilateral trade deficit with Canada to $15 billion. The increase in the trade deficit was indicative of economic recovery in the United States while the Canadian economy grew very slowly. Thus, imports from Canada were particularly strong in the U.S. commercial transportation and construction markets. Meanwhile, Canada's large budget deficit, accumulated national debt, and 11 percent unemployment rate contributed to suppress import demand and to thwart the aspirations of U.S. exporters.

Canada is the leading trading partner of the United States, accounting for 20 percent ($83.2 billion) of total U.S. exports in 1992 and 19 percent ($98.2 billion) of U.S. imports. Such factors as physical proximity, resource endowment, infrastructure development, communication and media linkages, and common culture and language promote trade between the two countries. Such trade has also benefited from growing integration of the North American automobile industry (greatly facilitated by duty-free U.S.-Canada trade in motor vehicles and parts permitted by the Automotive Products Trade Act) and staged tariff elimination under the U.S.-Canada Free-Trade Agreement (all tariffs on trade between the two countries will be reduced to zero by January 1, 1998).

Gradual renewal of confidence in the U.S. economy in 1992 and a lowering of interest rates combined to stimulate investment in construction and commercial infrastructure. A sharp rise in imports of trucks (up 26 percent and $1.5 billion) accounted for one-fifth of the total increase in imports from Canada in 1992. Imports of selected motor vehicle parts grew by $609 million (13 percent), reflecting the recovery in the U.S. market and the improved competitiveness on the part of U.S. automakers. At least three factors were involved in the $807 million (32-percent) rise in imports of lumber from Canada: a growth in construction in the United States; a short-term hedge in buying lumber contracts based on concerns that court-ordered restrictions on logging in the Pacific Northwest to protect the spotted owl habitat would restrict the supply of lumber; and the sharply increased prices for lumber in the fourth quarter of 1992 that resulted from the temporary surge in demand. Other product categories exhibiting strong growth in imports from Canada in 1992 were live cattle (up $313 million); integrated circuits and microassemblies ($305 million); natural gas ($298 million), crude oil ($171 million), and electrical energy ($103 million); telephone and computer equipment ($239 million); and furniture ($198 million). Increased imports in these categories more than offset significant decreases in imports from Canada in printed circuits (down $557 million), newsprint ($364 million), aircraft parts ($338 million), and refined petroleum ($260 million).

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[5] This was the largest bilateral increase in U.S. imports in 1992.

Despite the expansion in the U.S. bilateral trade deficit with Canada in 1992, the $4.5 billion rise in exports to Canada was the second largest bilateral increase in U.S. exports that year, trailing only the $7.3 billion climb in exports to Mexico. Considering the economic challenges that faced Canada in 1992, it is not surprising that the largest increase in exports was in selected motor vehicle parts and engines, most of which return to the United States in the form of either completed vehicles or further-assembled parts. Such exports grew by $1.1 billion in 1992 and amounted to one-fourth of the total increase in U.S. exports to Canada. Exports of telephone equipment and computers grew by $408 million in 1992; aircraft and jet engines, by $245 million; integrated circuits and microassemblies, by $226 million; tractors and furniture increased by $204 million each. Except for cattle, lumber, energy, and aircraft, the basket of goods exported to Canada in increasing amounts closely resembled (or were related to) the basket of goods that experienced strong growth in imports from Canada. The sluggish Canadian economy hurt U.S. exports of finished vehicles more than any other major product category: exports of trucks dropped by $501 million; cars, $165 million; aircraft parts, $157 million; and printed circuits, $189 million.

China

Southern China continued to experience explosive economic growth in 1992.[6] Much like the maquiladora industry in Mexico, the bulk of South China's exports of manufactured goods are assembled from imported parts.[7] Although China had a bilateral merchandise trade surplus of $18.2 billion with the United States in 1992, it had a trade deficit of $13.8 billion with the rest of the world (for a net trade surplus of $4.4 billion).[8] Businesses in foreign countries (chiefly Japan, Taiwan, Hong Kong, and Korea) ship components to China for assembly and reexport to the United States.[9] The prime attraction for investing in China is low labor costs; the bulk of foreign investment occurs in industries where production methods are labor intensive. To a large extent, the increase in production in China reflects the rising labor and land costs in the countries now supplying it with components and the shifting of production from these countries to China.[10]

Because China's export-oriented assembly plants target the United States, U.S. imports from China rose by $6.7 billion (35 percent) in 1992, to $25.5 billion. These imports of chiefly labor-intensive consumer items greatly exceeded the $1.1 billion (18 percent) increase in U.S. exports to China, which totaled $7.3 billion. The resulting $5.6 billion expansion in the U.S. trade deficit with China was the largest bilateral trade deficit increase with any U.S. trading partner in 1992.

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[6] Gross domestic product for China, as a whole, grew an estimated 12.8 percent in 1992.

[7] China established special zones in South China in 1980 in which foreign investment would be encouraged. U.S. International Trade Commission, *East Asia: Regional Economic Integration and Implications for the United States*, USITC publication 2651, May 1993, p. 39.

[8] The Economist Intelligence Unit, *Country Report: China, Mongolia, 2nd Quarter 1993* (London, United Kingdom, 1993), p. 4.

[9] USITC, *East Asia*, USITC publication 2621, p. 49.

[10] The Economist Intelligence Unit Limited, *China, Mongolia: Country Report No. 1 1993* (London, United Kingdom, 1993), p. 29.

The product categories experiencing the greatest growth in imports from China in 1992 require labor-intensive manufacturing processes; for several, the U.S. market had already absorbed large volumes of imports from other countries before the surge in imports from China. Imports of apparel from China rose by $1.2 billion (36 percent) to $4.8 billion; toys and sporting goods, by $1.0 billion (42 percent) to $3.5 billion; footwear, by $864 million (34 percent) to $3.4 billion; and luggage, handbags, and personal leather goods by $194 million (21 percent) to $1.1 billion. For the most part, the increase in imports of these articles from China in 1992 outweighed decreased imports from such traditional suppliers as Taiwan, Hong Kong, and Korea.

U.S. exports of aircraft to China more than doubled in 1992, rising by $970 million to $1.8 billion, reflecting the leading role that U.S. aircraft manufacturers play in supplying the national airlines of developing countries.[11] This growth accounted for almost nine-tenths of the total increase in U.S. exports to China in 1992.[12] U.S. exports of refined petroleum rose $140 million to $194 million. U.S.-made cars took a significant step in the Chinese market, with exports climbing from $7 million in 1991 to $112 million in 1992. On the other hand, U.S. exports of fertilizers dropped by $353 million to $629 million; cotton fell by $133 million to $186 million; and wheat decreased by $90 million to $273 million.[13]

Japan

Japan has experienced large, persistent trade and current account surpluses with the world and with the United States for many years. Those surpluses have elicited requests from its major trading partners seeking structural adjustments in its economy that would allow increased imports. Japan's global trade surplus peaked at nearly $100 billion in 1986, then declined in each of the next 4 years. However, as the Japanese economy slowed in 1991, Japan's demand for imported goods decreased, and its surplus expanded. The current account surplus began to rise in 1991 simultaneously with an appreciation in the value of the yen that increased the dollar value of U.S. imports from Japan.[14] A significant slowdown in the rate of growth

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[11] The number of U.S. aircraft exported to China increased from 23 planes in 1991 to 35 planes in 1992.

[12] China's system of import license requirements covering 53 broad product categories severely restricts U.S. exports to China, except for products that the Government of China determines to be necessary for the nation. USITC, *East Asia,* USITC publication 2621, p. 42.

[13] The decrease in the value of U.S. exports of wheat to China reflected (1) a reduction in the volume of exports of wheat as China enjoyed its second largest grain harvest on record in 1992, and (2) lower prices in 1992 than in 1991 because of a decline in world market prices and a still lower subsidized price offered to China under the U.S. Department of Agriculture's Export Enhancement Program (EEP). For a discussion of decreased exports of cotton and fertilizers to China, see the respective commodity analyses on pages 70 and 81.

[14] U.S. House, Committee on Foreign Affairs and Committee on Ways and Means, and U.S. Senate, Committee on Foreign Relations and Committee on Finance, *Country Reports on Economic Policy and Trade Practices,* prepared by the Department of State in accordance with section 2202 of the Omnibus Trade and Competitiveness Act of 1988 (Washington, DC: GPO, 1993), pp. 107-108.

of the economy in Japan in 1992 while the U.S. economy experienced moderate growth contributed to a deterioration in the U.S. merchandise trade deficit with Japan in 1992. The decrease in the rate of growth in Japan occurred because monetary tightening had been used since late 1989 to contain sharp increases in land and stock market share prices. The success of this policy caused a deflation of share and land prices in the middle of 1991 that led in turn to slowed residential investment, plant and equipment investment, and personal consumption. In an effort to reverse these conditions, the official discount rate was cut many times, and the Government announced a fiscal stimulus policy in August 1992. However, weak corporate demand for funds continued, and banks were reluctant to lend on collateral, usually land, the value of which was falling.[15] Although Japan experienced 1.3-percent real growth in its GDP in 1992, industrial production and construction decreased. Those decreases were offset by growth in exports and increased Government expenditures.[16]

The worsening of the U.S. deficit with Japan continued the trend begun in 1991, when it increased by $1.6 billion (4 percent) to $45.1 billion followed by a further deterioration of $4.6 billion (10 percent) in 1992, to $49.7 billion.[17] The trade deficit with Japan in 1992 was by far the largest bilateral deficit that the United States had with any other country, the next largest being that with China ($18.2 billion) followed closely by Canada ($15.0 billion).[18] The trade deficit worsened primarily because U.S. imports from Japan increased by $4.3 billion (5 percent) in 1992, to $95.5 billion, and exports to Japan decreased by $294 million (1 percent) to $45.8 billion.[19] U.S. imports from Japan were more than twice as large as U.S. exports after decreasing as recently as 1990. In contrast, although U.S. exports to Japan increased only $6 million between 1990 and 1991, such exports had been increasing by notable amounts in each year since 1986 before they finally decreased in 1992.

Electronic products, transportation equipment, and certain machinery led the commodity groups with the largest increases in U.S. imports from Japan in 1992, reflecting the pickup in the U.S. economy. Many of these groups also experienced decreases in exports, reflecting the slowdown in Japan. Imports of computers jumped by $1.7 billion (18 percent) to $11.1 billion.

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[15] Ibid. See also, Organisation for Economic Co-Operation and Development, *OECD Economic Surveys: Japan* (Paris, France: OECD publications, 1992), pp. 9 and 11-26.

[16] The Economist Intelligence Unit, *Country Report: Japan, No 4 1992* (London, United Kingdom, 1992), pp. 6-8.

[17] This was the second largest bilateral trade deficit increase with any U.S. trading partner in 1992, exceeded only by China. The United States accounted for nearly 30 percent of all Japanese exports in recent years and was by far its largest market. The Economist Intelligence Unit, *Country Profile: Japan, 1992-93* (London, United Kingdom, 1992), p. 12.

[18] The trade deficit with Japan accounted for 50 percent of the $100.1 billion total U.S. merchandise trade deficit in 1992, down from 54 percent of $82.9 billion in 1991.

[19] The value of the increase in imports was the third largest bilateral increase in 1992, behind increases from Canada and China, respectively. Total U.S. trade with Japan equaled $141.4 billion in 1992, making it the second largest trading partner behind Canada. It also ranked second behind Canada, both as a market for U.S. exports and as a source of imports.

Imports of diodes and similar semiconductor solid-state devices rose by $724 million (20 percent) to $4.4 billion; certain motor-vehicle parts rose by $469 million (16 percent) to $3.5 billion; motor vehicle engines, by $433 million (32 percent) to $1.8 billion;[20] video games, by $396 million (31 percent) to $1.6 billion; office machines, by $306 million (13 percent) to $2.7 billion; telephone and telegraph apparatus, by $216 million (13 percent) to $1.9 billion; motorcycles, mopeds, and parts, by $187 million (37 percent) to $688 million; and construction and mining equipment, by $154 million (36 percent) to $587 million.

Certain commodity groups had large decreases in imports from Japan that offset the large increases. Since U.S.-based Japanese-owned producers of motor vehicles increased production in the United States and increased imports of parts from Japan, they decreased imports of certain motor vehicles by $1.2 billion (4 percent) to $25.5 billion in 1992. Imports of television apparatus, except receivers and monitors, decreased by $585 million (25 percent) to $1.8 billion; semiconductor equipment, robots, and certain other industrial machinery, dropped by $223 million (12 percent) to $1.6 billion; nonpowered handtools, by $208 million (40 percent) to $317 million; and all machine tools commodity groups combined, declined by $171 million (13 percent) to $1.2 billion.

Agricultural products and transportation equipment had the leading commodity group gainers in exports to Japan in 1992. Exports of aircraft expanded by $647 million (21 percent) in 1992 to $3.8 billion; frozen fish rose by $316 million (27 percent) to $1.5 billion; beef, by $235 million (27 percent) to $1.1 billion; certain motor vehicles, by $163 million (24 percent) to $836 million; unmanufactured tobacco, by $148 million (66 percent) to $372 million; cereals, by $136 million (6 percent); certain motor-vehicle parts and engines combined, by $133 million (24 percent) to $681 million;[21] and pork, by $101 million (51 percent) to $299 million.

The commodity groups that had the largest decreases in exports to Japan in 1992 reflected the hardship experienced in the construction and industrial manufacturing portions of the Japanese economy in 1992. Exports of unwrought aluminum plummeted by $607 million (47 percent) to $693 million; copper and related articles dropped by $250 million (54 percent) to $211 million; steel mill products, by $156 million (73 percent) to $57 million; diodes and similar solid-state devices, by $138 million (13 percent) to $923 million; miscellaneous organic chemicals, by $122 million (20 percent) to $499 million; natural gas and components, by $122 million (49 percent) to $128 million; and semiconductor equipment, robots, and certain other industrial machinery dropped by $113 million (17 percent) to $558 million.

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[20] Imports of certain motor-vehicle parts represented mostly imports by Japanese-owned manufacturers producing in the United States, and imports of engines were by these companies and by Chrysler, Ford, and General Motors.

[21] The United States has encouraged Japan in recent years in the Structural Impediments Initiative negotiations to import more U.S. auto parts.

Malaysia

Malaysia has become one of the world's preferred locations for production-sharing operations.[22] U.S. and other foreign firms send components and materials from the United States and other sources to Malaysia for assembly into finished goods. A large share of these goods are exported to the United States. Because of the value added to imports in Malaysia, the nature of these assembly operations has contributed to the U.S. deficit with Malaysia for several years. However, a surge in U.S. imports in 1992 led to an almost doubling of the trade deficit that had averaged $2.1 billion during 1989-91 to $4.1 billion in 1992. U.S. imports from Malaysia climbed $2.1 billion (35 percent) to $8.2 billion in 1992, reflecting rapid growth in Malaysia's electronics industry. Meanwhile, U.S. exports to Malaysia increased by only $256 million (7 percent) to $4.0 billion. The shifting of labor-intensive electronics assembly operations from Asian countries with escalating labor costs (Japan, Korea, Taiwan, and Singapore) to Malaysia, which has relatively low labor costs, and the greater use of Asian-made components rather than U.S.-made parts in Malaysian assembly operations, has accelerated the widening of the U.S. trade deficit with Malaysia.

Malaysia's trade composition has changed significantly in the last decade. The share of total exports accounted for by manufactures increased from 19 percent in 1980 to over 40 percent in recent years, reflecting a number of export promotion measures introduced by the Malaysian Government. One of the more successful measures was the establishment of free-trade zones (FTZs),[23] and, by the late 1980s, FTZs accounted for more than half of Malaysia's manufactured exports. The share of total Malaysian world exports held by manufactures reached 44 percent in 1990, with the greatest increases seen in both consumer and industrial electronic equipment, wood products, and apparel. Japanese investment in Malaysia has also shown rapid growth, and such investment has recently shifted from import-substituting industries to export-oriented industries, such as motorcycle engines. Electronics companies from Singapore have expanded production in Malaysia as well, and firms from Korea and Taiwan have also increased their investment presence. These factors have largely influenced the pattern of trade between Malaysia and the United States.

Reflecting Malaysia's growing export-oriented industries, U.S. imports of electronic machinery and television, video, and sound equipment increased by $2.0 billion (70 percent) to $4.6 billion during 1989-92. Imports of such articles increased by $1.2 billion (34 percent) in 1992 alone. U.S. imports of other machinery and equipment, especially automatic data processing machines and parts of office machines, also showed rapid gains during 1989-92, as imports increased threefold to $1.1 billion. The sharpest increases in U.S. imports in 1992 over 1991 were in computer equipment ($420 million), integrated circuits and microassemblies ($340 million), stereo receivers ($244 million), and video recording apparatus ($145 million).

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[22] Malaysia ranked fourth (behind Canada, Mexico, and the Dominican Republic) in 1992 in terms of the value of U.S.-made components assembled abroad and returned to the United States.

[23] FTZs in Malaysia provide a way for firms to move merchandise into specified locations with the following benefits: duty-free imports of raw materials, parts, and components; streamlined customs formalities; infrastructure facilities; and tax exemptions.

Signifying the assembly aspect of trade with Malaysia, electronic machinery and television, video, and sound equipment were also the leading U.S. exports to Malaysia, accounting for 43 percent of the total in 1992. Such exports totaled $1.7 billion in 1992, a 6-percent increase over 1990, but a decline of 1 percentage point from 1991. U.S. exports of aircraft showed the most substantial growth in 1992, increasing by one-third ($177 million) to $722 million. This rise in U.S. aircraft exports was indicative of the continued increase in business activity in Malaysia.

Germany

The German economy continued to experience slow-growth and unification-related problems in 1992, including higher interest rates relative to most other industrialized nations, increasing unemployment, and a general appreciation of the Deutschemark against other currencies in the European Monetary System (particularly during the third quarter of 1992) and against the U.S. dollar. The nascent U.S. economic recovery contributed to modest upturns in industry shipments and capacity utilization between 1991 and 1992. Moreover, sluggish economic conditions in the United States were not as bad as conditions in other industrialized countries in the first half of 1992, and the U.S. economic recovery preceded that of other industrialized countries during the second half of 1992. These factors undoubtedly attracted higher imports from Germany while the slow growth abroad posed a barrier to U.S. exports.

The U.S. merchandise trade deficit with Germany, having narrowed between 1990 and 1991, widened between 1991 and 1992 by $2.0 billion (35 percent) to $7.6 billion. Virtually all of the increase occurred because U.S. imports from Germany increased by an amount comparable to the increase in the trade deficit while U.S. exports to Germany remained flat. Overall imports grew by $2.0 billion (8 percent) in 1992, to $27.6 billion. The rise in imports from Germany was focused on products that supported an expansion of production in the United States. The largest increase in U.S. imports from Germany occurred in articles of machinery and equipment and chemicals. Imports of machinery and equipment, including automobiles and auto parts, gas turbines (including turbojet engines), textile-preparation machinery, and x-ray apparatus increased by 8 percent to $13.7 billion between 1991 and 1992. U.S. imports of chemicals and preparations, including heterocyclic compounds with a nitrogen hetero-atom,[24] and synthetic organic dies and brightening agents increased 11 percent to $4 billion. Imports of flat-rolled steel mill products rose nearly one-third to $132 million.

Total U.S. exports decreased slightly by $26 million (0.1 percent) in 1992 to $19.9 billion. A $200 million increase in U.S. exports of selected goods, including medical instruments, motor vehicle parts (for cars manufactured by subsidiaries of General Motors and Ford in Germany), records, and tobacco products could not compensate for a decline in U.S. exports exceeding $1 billion that included aircraft and related parts (including engines), office machine parts, and military weapons.

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[24] These compounds are used in a wide variety of applications including pesticides and pharmaceuticals. The production process is subject to increasing worker-health and environmental regulations in the United States, and U.S. companies have been moving their production offshore. Hence, the doubling of imports from 1989 to 1992 suggests that this is a structural shift.

Taiwan

Taiwan is increasingly becoming a significant export market for U.S. products.[25] Largely as a result of recent trade and investment liberalization policies instituted by the Government of Taiwan,[26] U.S. exports increased by $1.8 billion (14 percent) to $14.5 billion in 1992, reducing the trade deficit by $226 million to $10.0 billion. In recent efforts, to encourage continued economic development and growth, the Government of Taiwan initiated a 6-year economic plan,[27] applied for membership in the GATT, and streamlined application procedures for investments both domestic and foreign.

The majority of the increase in U.S. exports between 1991 and 1992 to Taiwan were automobiles (up $781 million); gold (up $431 million); airplanes (up $279 million);[28] integrated circuits and microprocessors (up $193 million); and radioactive chemicals (up $130 million). U.S. automobile producers controlled nearly 30 percent of the Taiwanese automobile market[29] either through subsidiaries in Taiwan or through direct exports. The 1992 surge in U.S. exports was the result of a Taiwanese ban on imports of automobiles from Japan and the shipment of Japanese-brand automobiles from U.S assembly plants.[30] The jump in U.S. exports of gold reflects increased demand in China for gold jewelry manufactured in Taiwan from U.S.-origin gold bullion. Gold jewelry is used as a hedge against inflation in China which has become a persistent problem in China over the past few years.

Because of Taiwan's export-oriented economy, U.S. imports from Taiwan increased by $1.6 billion to $24.5 billion in 1992, a 7-percent increase over 1991. The product categories experiencing the largest increase were such

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[25] Taiwan ranked sixth (behind Canada, Japan, Mexico, Germany, and the United Kingdom) in 1992 in terms of value.

[26] The Taiwan Trade Action Plan, instituted in 1989, was designed to counteract the bilateral trade imbalance with the United States and to improve foreign access to Taiwan's market. The plan included a 3-year schedule of tariff reductions for Taiwan. As of December 1991, Taiwan's nominal and effective tariff rates were 8.92 percent and 4.0 percent respectively. USITC, *The Year in Trade, Operation of the Trade Agreement Program,* USITC publication 2554 (Washington, DC, Aug. 1992), p. 126.

[27] In 1990, Taiwan initiated a 6-year (1991-96) development plan. The plan calls for 1) an annual GNP growth rate of 7 percent; 2) a rise in GNP per capita to nearly $14,000 per year; 3) a reduction in the trade surplus; 4) an inflation of 3.5 percent or lower; and 5) increased expenditures on public work projects and industrial projects. Ibid., p. 125.

[28] The $279 million rise in U.S. exports to Taiwan of airplanes was nearly offset by the $227 million decrease in exports of airplane parts.

[29] Ford Company and General Motors are the major U.S.-owned companies that comprised this market share. USITC, *East Asia,* USITC publication 2651, p. 103.

[30] GM's share of the Taiwan automobile market fell from 8 percent in 1990 to less than 5 percent in 1991 as imports of Japanese-brand automobiles made in the United States increased to 15 percent. Japanese-brand automobiles made in the United States accounted for about 35 percent of the Taiwan market in 1991. Ibid.

"high-tech" products as computer equipment (up $824 million),[31] integrated circuits and micro assembly parts (up $246 million), and games (up $125 million).[32] Meanwhile, imports of apparel and footwear, which are relatively "low-tech," decreased by $533 million, reflecting Taiwan's transition from a low-wage, labor-intensive economy, concentrating on such activities as the manufacture of food, beverage, tobacco processing, and textiles, to more capital, skill-intensive industries, such as electronics. Rising real wages have made Taiwan's labor-intensive industries less competitive relative to other East Asian countries, such as China, Thailand, Malaysia, Indonesia, and the Philippines. The manufacturing sector accounted for nearly all of Taiwan's exports and for an estimated 34 percent of GDP in 1992.[33]

The Government efforts to promote exports have led to considerable incentives to improve production techniques and product diversification. The move "upmarket" into higher value added capital intensive industries is the cornerstone of the Government's strategy for the 1990s.[34]

France

Industry rationalization, concentration, and restructuring in France has enabled French industries to become more competitive, resulting in a U.S. bilateral trade deficit with France of $0.9 billion in 1992, a decline in the trade position of $2.2 billion. The United States had enjoyed a $1.3 billion trade surplus in 1991.[35] U.S. imports from France increased $1.5 billion (11 percent) to $14.7 billion in 1992 while U.S. exports to France declined $0.7 billion (5 percent) to $13.8 billion.

During the 1980s and into the 1990s, the socialist government in France emphasized industrial reorganization as a means of increasing the scale of operations and competitiveness. The result has been a move to high-tech

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[31] Taiwan is a major producer of computer parts (such as monitors, printers, hard disk drives, and microcomputers), radios, televisions, tape recorders, and calculators. A significant portion of Taiwan's computer products are made by subsidiaries of foreign companies such as IBM, Logitech, Philips, DEC, NEC, and Groupe Bull.

[32] A rise in U.S. imports of video game cartridges was responsible for most of the increase in imports of games from Taiwan.

[33] *Country Reports on Economic Policy and Trade Practices Report,* submitted to the Committee on Foreign Affairs, Committee on Ways and Means of the U.S. House of Representatives and to the Committee on Foreign Relations, Committee on Finance of the U.S. Senate, Feb. 1993, p. 167.

[34] Strategic industries receive low interest loans, the right to retain earnings of up to 200 percent of paid-in capital, and the right to defer the start of a 5-year income tax holiday for up to 4 years. Special export-processing zones in Kaohsiung, Taichung, and Nantze were established. Other governmental efforts include sponsoring the Hsinchu Science Based Industrial Park and constructing a world trade center. The Economist Intelligence Unit, *Taiwan: Country Profile 1992-93, Annual Survey of Political and Economic Background* (London, United Kingdom, 1992), p. 30.

[35] U.S. exports to France in 1991 totaled $14.5 billion, imports of French goods were $13.2 billion.

industries, like aeronautics, computers, and telecommunications. The French aircraft industry is part of the European Airbus consortium, which has become one of the two largest aircraft producers in the world. French aircraft and parts sales in the United States increased $683 million (21 percent) to $3.9 billion in 1992.[36] Likewise, telecommunications and computer equipment/integrated circuits exports to the United States increased $24 million (47 percent) and $76 million (39 percent), respectively, in 1992. France is the world's largest exporter of wine; sales to the United States of alcoholic beverages (including wine) increased $160 million (24 percent) in 1992.

U.S. exports to France fell primarily in those product categories where imports from France rose. Although U.S. aircraft exports fell $539 million (36 percent), exports of aircraft parts increased by $74 million (3 percent) in 1992. Likewise, computer exports fell $104 million (10 percent) whereas office machinery parts increased by $55 million (11 percent). Reflecting both France's economic stagnation and the French move out of traditional industries, like iron and steel, and into high-tech, less labor-intensive industries, U.S. exports of coal and scrap metal fell $169 million (25 percent).

United Kingdom

Increased export competitiveness of industries in the United Kingdom began in 1992 to reduce the U.S. bilateral trade surplus with this country that had been growing in recent years but fell by $996 million in 1992 to $1.8 billion. Although U.S. exports increased $469 million (2 percent) to $21.4 billion in 1992, U.S. imports from the United Kingdom jumped $1.5 billion (8 percent) to $19.6 billion. In contrast, the U.S. bilateral trade surplus had jumped from $1.7 billion in 1989 to $2.8 billion in 1991.

Economic conditions in the United Kingdom improved steadily during the 1980s under the leadership of Margaret Thatcher. The Thatcher philosophy, based on free enterprise, competition, and less state intervention, aimed at creating a framework in which private industries could flourish. Traditionally, the United Kingdom has been an exporter of manufactured goods while importing the raw materials needed for production. However, in recent years typical British industries, like iron and steel, passenger cars, and textiles, have been severely hampered by increased international competition. The 1990s has brought about a restructuring of the British economy, with the services sector now holding a larger share of the GDP than the manufacturing sector; however, the chemical and aeronautics industries exhibited strong growth in 1992.

U.S. imports from the United Kingdom averaged $18.7 billion annually during 1989-91 before rising to $19.6 billion in 1992. By far the largest increase in 1992 was the $419 million (30 percent) jump in aircraft parts from the United Kingdom.[37] However, the growing efficiency and

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[36] Northwest Airlines is the largest Airbus customer in the United States.

[37] The United Kingdom is part of the Airbus consortium along with France, Germany, and Spain. According to State Department sources, the strong governmental support accorded to Airbus enabled Airbus to capture nearly 39 percent of the total value of all new aircraft orders worldwide by 1992.

competitiveness in the chemicals industry also resulted in a $312 million (50 percent) increase in British exports to the United States in 1992. Likewise, personal computers and parts from the United Kingdom increased their U.S. market penetration by $252 million (27 percent) in 1992.

Additionally, the United Kingdom's bilateral trade with the United States benefited from both the higher world oil prices in the 1990s and the stepped-up exploration activities and production. Oil exports to the United States grew by $386 million (27 percent) in 1992. The United States is one of the primary markets for the United Kingdom's North Sea oil.[38]

U.S. exports to the United Kingdom grew by less than half a billion dollars in 1992; the $473 million increase (97 percent) in gold exports accounted for the majority of that gain. As a leading financial center for precious metals, London tends to attract inflows of gold during periods of economic and political instability. Additionally, exports of passenger cars and their parts increased $76 million (25 percent) in 1992 since the domestic industry in the United Kingdom is in decline. Other U.S. export increases appeared in electronic equipment used in the chemicals and computer industries. However, with the British airline industry expanding, the United States faced a $423 million (14 percent) decline in export sales in that product group in 1992.

Thailand

The Government of Thailand places a strong emphasis on promoting manufactured exports, and data on its export structure clearly reflects this policy. Exports as a share of Thailand's GDP reached an estimated 40 percent in 1990. In addition to investments by Taiwan and Hong Kong in the traditional labor-intensive industries, Thailand's continued encouragement of foreign direct investment (primarily from Japan) has led to the growth of export-oriented ventures in such industries as electrical appliances, machinery, transportation equipment, food processing, and chemicals.[39] Such factors have clearly influenced the pattern of trade between Thailand and the United States. The United States is Thailand's most important export market, and, in recent years, the U.S. merchandise trade deficit with Thailand has grown annually. In 1992, U.S. imports from Thailand reached a record $7.5 billion (up $1.4 billion, or 23 percent from 1991). By contrast, U.S. exports totaled $3.8 billion (up $234 million, or 7 percent). The 1992 U.S. trade deficit of $3.7 billion (up $1.2 billion, or 48 percent) demonstrated in large part the steady growth in U.S. imports of electrical appliances and machinery, particularly goods that require labor-intensive manufacturing processes.

The merchandise exhibiting the sharpest growth in U.S. imports from Thailand in 1992 were computer equipment (up $262 million), television receivers (up $110 million), video recording apparatus (up $68 million), and telecommunication equipment (up $63 million). All of these reflected growth in the Thailand electronics assembly industry. To a large extent, import

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[38] North Sea oil exports go mainly to other European Community nations and to the United States.

[39] A substantial part of this investment is indicative of an attempt by Asian companies located in countries with escalating labor costs to reduce their costs of production by shifting labor-intensive production/assembly to Thailand where labor costs are significantly lower.

gains in these products can be attributed to the new Japanese-financed enterprises in Thailand. Imports of crustaceans (lobsters, shrimps, and crabs) from Thailand also grew strongly in 1992, rising by $86 million (25 percent) to $433 million.

Before slowing to a 7-percent growth in 1992, U.S. exports to Thailand had increased rapidly the previous 2 years, climbing 60 percent (from $2.2 billion in 1989 to $3.5 billion in 1991). A portion of the increase during 1989-92 is credited to the Thai Government's import liberalization program, especially the renovation of the country's import tax regulations, which has provided increased opportunities for U.S. exports to the Thai market. The most significant shift in U.S. exports to Thailand in 1992 occurred in aircraft trade which grew by one-third ($210 million) in 1992 over 1991, to $829 million. Exports of jet engines nearly tripled, rising by $58 million to $95 million. The growth in aircraft exports to Thailand reflected increased business travel in the region.

Singapore

Trade is the central force in Singapore's economy, and Singapore is one of the few countries whose trade is greater than its GDP. Singapore's exports totaled $59 billion in 1991, reflecting entrepôt[40] trade, which accounts for about 35 percent of total exports. Singapore acts as a regional processing and distribution center, as well as an international manufacturing center. The Government, however, strongly promotes an economy based on manufacturing, financing, and exporting domestically produced goods. Foreign investment has been fundamental in providing Singapore with sophisticated technology that has enabled the country to promote its export base. In particular, Singapore's electronics industry, which relies heavily on imported technology and components, has grown in importance. The recent restructuring in Singapore's significant disk drive industry is also partially credited for the accelerated export expansion.

The United States is Singapore's largest single-country export market, purchasing 20 percent of all Singapore's exports. The U.S merchandise trade deficit with Singapore in 1992 was $2.3 billion, up $660 million (41 percent) from the 1991 deficit. The increasing deficit resulted from the mounting U.S. imports in the electronic technology sector. This merchandise sector, nearly three-quarters ($8.3 billion) of the total U.S. imports from Singapore in 1992, accounted for 82 percent ($1.1 billion) of the increase in imports in 1992. The increase in the U.S. bilateral trade deficit in the electronic technology sector in 1992 ($676 million) exceeded the increase in the total bilateral trade deficit.

Total U.S. imports from Singapore increased by $1.3 billion (13 percent) in 1992 over 1991, rising to $11.2 billion in 1992. Electronic machinery and equipment (i.e, computer equipment, integrated circuits, and parts for office machines) accounted for over 80 percent of the total imports. The products exhibiting the sharpest growth in U.S. imports from Singapore in 1992 were computer equipment (up $765 million over 1991), parts of office machines (up $234 million), integrated circuits and microassemblies (up $84 million),

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[40] A trading center where goods are stored and from which they are distributed, i.e., reexported.

medical instruments (up $43 million), and video-recording equipment (up $42 million). Shipments of organic chemicals destined to the United States also posted a significant import gain during the period as imports climbed to $528 million in 1992 (twice the amount shipped in 1989), up 20 percent over the 1991 level of $89 million.

Singapore's lenient trade polices have benefited U.S. exports. Currently, over 90 percent of imports enter Singapore duty free, and the remainder face duties of about 5 percent. The last import quota was removed in 1988, and other import barriers are virtually nonexistent. U.S. exports to Singapore reached a record $8.9 billion in 1992, an 8-percent ($671 million) increase over 1991. The sharpest increases in U.S. exports in 1992 over 1991 were products destined for Singapore's assembly industry: integrated circuits and microassemblies (up $242 million), blank tapes and other recording media (up $96 million), and parts of construction and mining machinery (up $72 million). Notable declines were posted in U.S. exports of aircraft (down $151 million) and jet engines (down $47 million) since Singapore Airlines neared completion of a series of major purchases. Singapore now has one of the youngest fleets of aircraft of any national airline.

Colombia

Further trade liberalization in Colombia continued to support the dramatic improvement of the U.S. bilateral trade balance with Colombia in 1992. Although U.S. imports from Colombia edged upward $164 million (6 percent) in 1992 to $2.9 billion, U.S. exports jumped $1.3 billion (67 percent) to $3.2 billion. The export surge turned a U.S. bilateral trade deficit of $824 million in 1991 into a surplus of $312 million in 1992, a $1.1 billion improvement in the trade position.

Trade liberalization in Colombia began in earnest in 1989 with the announcement of the Government's 5-year economic plan, popularly known as the "Apertura" (opening). Implementation of the plan gained momentum after the current President, Cesar Gaviria, took office in August 1990. The plan is designed to open the economy to encourage foreign competition and investment. The Government liberalized policies regarding foreign direct investment, reduced tariffs, removed most import-licensing requirements, and lifted restrictions on profit remittances abroad by foreign firms. Tariffs on capital goods not made in Colombia and duties on most raw materials and intermediate goods were reduced to zero.

U.S. exports to Colombia averaged $1.9 billion annually during 1989-91, before exploding to $3.2 billion since the effects of the Aperatura policies began to take hold. One of the effects of increased foreign investment is greater demand for capital equipment, which is reflected in the substantial growth of U.S. exports in a wide array of products used in transportation, construction, and manufacturing, as well as office equipment and measuring and controlling instruments (particularly those used in computer-controlled production processes).[41] Specifically, the largest increase in U.S. exports was

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[41] Colombia's economy suffered greatly from the drought effects of "El Niño" in 1992. (El Niño is the name for a periodic weather condition that is responsible for droughts in some areas and heavy rains and flooding in others. It is caused by a shift in the jet stream that in turn creates a

a $342 million boost in aircraft sales (from $21 million to $363 million). Most of the growth is believed to be directed toward replacement aircraft and upgrades for Colombia's national airlines.[42] However, some of the expanded sales are probably in response to rising business travel in private aircraft for legitimate commercial activity and for smuggling. One of the Aperatura reforms was the opening up of the automobile assembly industry to foreign-made parts. This helped U.S. exports of electrical-generating sets (chiefly for motor vehicle engines) jump by $70 million (from $7 to $77 million) and motors and generators (again chiefly for motor vehicles) rise by $30 million (from $7 to $37 million). Also in the transportation sector, tractor exports grew $44 million (from $12 to $56 million).

Leading increases in U.S. exports to Colombia in 1992 in the construction and mining equipment group included parts of construction and mining equipment, which nearly doubled, climbing $71 million (from $77 to $148 million); certain earth-moving equipment and mining equipment, up $48 million (from $8 to $56 million); and floating docks, cranes, and oil-drilling platforms, up $25 million (from $623,000 to $25.4 million). Also reflecting expanding business in Colombia, U.S. exports of computers and accessories nearly doubled in 1992, rising $71 million (from $77 to $148 million).

Although U.S. imports from Colombia increased only incrementally in 1992, imports of coffee continued a robust rise, growing $68 million (or by 20 percent), from $342 to $410 million. Other significant increases in imports included a $45 million (83 percent) rise in precious stones other than diamonds (from $53 to $97 million) and a $24 million jump in unfinished platinum, from $627,000 to $25 million. The largest decrease in imports was a $49 million (21 percent) drop in refined petroleum (from $229 to $180 million).

Argentina

Economic reforms implemented shortly after Argentine President Carlos Menem took office in July 1989 continued to benefit U.S. exporters in 1992. As a result, the U.S. bilateral trade surplus with Argentina nearly tripled in 1992 to $1.8 billion—a sharp contrast to a $351 million deficit in 1990.

41—*Continued*
persistent high pressure area in the eastern Pacific Ocean, usually off the western coast of South America.) Not only did the drought cause rationing of hydroelectric power, including daily power outages at factories, but also the lack of rainfall reduced harvests of certain crops. Colombia had to supplement domestic production of some agricultural staples with imports. As a partial consequence, U.S. exports of corn to Colombia jumped from $4 million in 1991 to $59 million in 1992. While much of this $55 million increase should be viewed as a weather-related aberration, two other factors also contributed to the growth in corn exports to Colombia: (1) the Apertura reduced Colombian import levies on U.S. corn, and (2), since promotion of the poultry industry in Colombia has increased demand for feedgrains (primarily corn), imports now supply over half of Colombia's consumption of feedgrains. U.S. Department of State, "Colombia's Restriction on Corn and Sorghum," telegram, message reference No. 05793, prepared by U.S. Embassy, Bogota, Apr. 4, 1993.

42 Most of Colombia's major cities, aside from coastal ports, are located in valleys of the three north-south cordilleras (ranges) of the Andes. Air travel is important in Colombia because the mountains present significant

With U.S. imports stable at $1.23 billion in 1992 (down 2 percent from $1.25 billion in 1991), the $1.1 billion rise in U.S. exports (up 57 percent to $3.0 billion) also yielded a $1.1 billion increase in the trade surplus.

The 1982 Falklands War with the United Kingdom left Argentina virtually bankrupt, and a succession of presidents who were unable to successfully tackle the problems of unbalanced public accounts and massive public debt. As a result, the rest of the decade was marked by deficit spending, extreme inflation, capital flight, rising foreign debt, and further erosion of public confidence in governmental policies. In 1989 though, the Menem economic team instituted a radical shift in Argentina's economic policies. The changes included acceleration of economic liberalization, privatizing Government-owned enterprises, liberalizing trade and investment regimes,[43] replacing the Austral with the Argentine peso, and linking the currency to the U.S. dollar. The privatization program and the deregulation of the oil and gas industries spurred foreign direct investment, particularly in the energy, motor vehicle, food and beverage, machinery, and banking services sectors.

Most major U.S. industries have experienced strong growth in exports to Argentina in the last 2 years. In 1992, the industries benefiting most from the Menem reforms were transportation, computers, and televisions. Reflecting the influx of foreign capital investment because of privatization of Argentina's national airlines, and the need to replace aging aircraft in order to service expanding air travel because of the new commercial boom, U.S. exports of aircraft to Argentina climbed $190 million in 1992 (soaring from $11 million to $201 million).[44] Although still highly protected, access to Argentina's motor vehicle market opened sufficiently for U.S. exports of passenger cars to jump by $55 million (from $9 million to $64 million) and for certain motor vehicle parts to grow by $9 million to $32 million (compared with $23 million in 1991 and $13 million in 1990).[45] Since increased commercial activity also spurred investment in office equipment, U.S. exports of computers and parts grew $82 million (36 percent) to $306 million. Market reforms, economic recovery, and pent-up demand led U.S. exports of television transmitting and receiving apparatus and parts to more than double, increasing by $59 million to $109 million.

42—*Continued*
obstacles for both highways and railroads, although flying and landing can be hazardous. Consequently, Avianca, the national airlines of Colombia, has a high turnover in aircraft. In 1992, Avianca purchased 11 airplanes from McDonnell Douglas and 2 from Boeing, an investment valued over $100 million.

43 Major reforms include the sharp, unilateral reduction of tariffs, the abolition of import-licensing requirements on nearly all products except on those in the automotive sector, and the removal of restrictions on remittances of profits from foreign investments.

44 After Aerolinas Argentinas was privatized in November 1990, the purchasing consortium, Cielos de Sur (Southern Skies), announced plans to purchase 15 U.S.-made aircraft valued at $557 million over the 1990-95 period.

45 In response both to the Menem economic reforms and to opportunities to export to Brazil through MERCOSUR (regional economic integration linking Argentina, Brazil, Paraguay, and Uruguay), Fiat, Ford, General Motors, Peugeot, and Renault are modernizing and rationalizing their facilities in both Argentina and Brazil. Complementing these activities, Argentina's Decree 569

Petroleum and agriculture were the top stories on the import side of the trade ledger with Argentina. U.S. imports of refined petroleum dropped by $36 million in 1992 (having dropped by $143 million the previous year), to $67 million whereas imports of crude oil grew $120 million (from $32 to $152 million). In agriculture, a $48 million increase in U.S. imports of fruit juice from Argentina (to $150 million) was more than offset by an $82 million decrease in imports of meat, except of sausages, to $146 million. These four products accounted for 42 percent of the total U.S. imports from Argentina in 1992.

Republic of Korea

Economic rationalization by the Korean Government led to a reduction in U.S. exports to Korea in 1992 and a commensurate increase in the bilateral trade deficit even though U.S. imports from Korea also decreased. The U.S. merchandise trade deficit with Korea was $2.3 billion in 1992, up $652 million (39 percent) from the $1.7 billion deficit in 1991, in effect, reversing the recent downward trend. Previously, the trade deficit was falling annually from $9.7 billion in 1988 to $1.7 billion in 1991. The United States had benefited from the Korean Government's policy of market liberalization that was implemented in the latter part of the 1980s following a period of export-led growth and import restrictions, as evidenced by the increasing volume of exports during those years.[46] By opening its market, the Korean Government hoped to move toward a more mature economy. Recent market liberalization allowed for more import consumption to satisfy rising domestic demand. Leading products exported to Korea have been aircraft and parts; computer equipment, electronic integrated circuits and microassemblies; certain raw materials, like cotton and leather for its apparel and footwear industries, as well as certain other agricultural and forest products; chemicals; and noncrude oil.

However, the Korean Government began an economic stabilization program in 1991 because of the growing concern over the widening current account deficit, the decreasing worldwide export competitiveness, and the increasing inflation rates. Its primary aim was to decrease the domestic consumption that had been rising since trade regulations had been eased in the late 1980s. This effort led to a decrease in U.S. exports of $991 million (7 percent) in 1992, to $14.2 billion. The Korean Government took such measures as withholding building permits for large commercial buildings in order to slow growth in the construction industry, effecting a $560 million (37 percent) reduction in U.S. exports in the minerals and metals sector, particularly steel, but also copper and copper scrap. Additionally, U.S. machinery and equipment exports dropped by $275 million (6 percent) in 1992, to $4.2 billion, largely because of a $142 million (9 percent) decline in exports of aircraft and their parts. This decline was caused, in turn, by curtailed governmental subsidies on aircraft imports in order to try to control the growing Korean balance of payments deficit.[47] Moreover, the Korean

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[45]—*Continued*
of October 1991, under Law 21.932, permits increased trade in parts and in finished vehicles by easing export performance requirements, thus improving U.S. access to Argentina's motor vehicle market.

[46] U.S. exports to Korea grew from $10.4 billion in 1988 to $15.2 billion in 1991.

[47] According to State Department sources, these subsidies were worth $800 million in 1992.

Transportation Ministry imported aircraft on a lease basis in 1992 rather than on a cash, thus postponing some imports and the accumulation of the full value of the foreign debt until 1993.

Korea and the United States signed a "Super 301" agreement in 1989 with Korea agreeing to eliminate most of its structural barriers to trade over a 3-year period. However, the United States is still hampered by secondary barriers, such as approval and testing requirements. These barriers have adversely affected U.S. electronic technology exports, which fell by $108 million (5 percent) in 1992, to $2 billion. According to State Department sources, exports from the United States of chemicals and related products fell by $133 million (8 percent) in 1992, to $1.6 billion, because of the implementation of Korea's Toxic Chemical Control Law that year, requiring U.S. firms to release detailed proprietary information on the composition of their products in order to gain access to the Korean market. Many firms chose to exit the market rather than release the information.

On the import side of the bilateral trade ledger, U.S. imports from Korea continued to contract in 1992 (by $339 million, or by 2 percent, to $16.5 billion) reflecting: (1) rising costs of production in Korea, partly because of sharply increased labor costs, thus hurting Korea in competition with both U.S. producers and third-country suppliers in the U.S. market, and (2) the movement of production of labor-intensive goods destined for the U.S. market to locations with lower labor costs. In the electronics category, the movement has been to Southeast Asia and Mexico; for apparel, sewing operations have been moved to Central America and the Caribbean Basin. Topping the list of products experiencing decreased U.S. imports from Korea in 1992 were footwear, with a $460 million decrease from $2 billion in 1991 (23 percent); passenger cars, with a $307 million dollar drop (29 percent),[48] certain leather apparel, with an $84 million decrease (10 percent); and computer equipment, which experienced a $69 million dollar decline (7 percent).

Indonesia

The Government of Indonesia entered an era of deregulation and trade liberalization in 1983 to stimulate economic growth at a time when oil prices were low (oil and gas exports have been the major foreign exchange earners) and high population growth rates required the creation of more than 2 million jobs each year. The goals of this program include stimulating domestic and foreign private investment and decreasing dependence on oil exports by encouraging growth in the nonoil and gas exporting industries. In June 1991 and July 1992, import duties were lowered, and other barriers to trade were either eased or eliminated on hundreds of products. These policies have increased opportunities for exports of American goods to Indonesia as well as increased exports of Indonesian goods to the United States. Both imports and exports between the two countries rose in 1992 in almost equal volumes. In 1992, U.S. imports rose $960 million (28 percent) to $4.4 billion whereas exports increased $864 million (46 percent) to $2.7 billion. The U.S. trade deficit with Indonesia averaged $1.75 billion annually during 1989-92.

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[48] Korean auto exports to the United States were hurt by increased labor costs in Korea, work stoppages and other actions at certain Hyundai factories, a soft U.S. market for most types of cars, and the improved competitiveness of U.S.-made vehicles.

Over two-thirds of the $864 million dollar increase in U.S. exports can be attributed to the machinery and equipment sector, including airplanes and their parts, industrial machinery, equipment used in infrastructure building, and mining equipment. After the agreement of the Indonesian State Aircraft Industry (IPTN) with General Electric (GE) to produce turboprop engines under a license with GE, U.S. exports of aircraft and their parts in 1992 increased by $560 million (395 percent). Indonesia is expanding its manufacturing sector, particularly in the area of apparel and footwear, and the demand for machinery and equipment used in their production is on the rise. In 1992, the United States had a $140 million jump (67 percent) in exports of industrial machinery. According to State Department sources, with the Indonesian Government's help in improving its infrastructure for industrial development, U.S. exports of equipment for telecommunications, electric power generation, and road building increased by $89 million (59 percent) in 1992. Another sector that is growing in Indonesia is mining,[49] which led to a $24 million increase (59 percent) in U.S. exports of mining equipment in 1992.

Other increases in U.S. exports have been in raw materials that are used in the textile and footwear industries, that is, leather and rubber. Additionally, the Indonesian Government is easing its protection of the domestic wood products industry by decreasing regulations on the imports and exports of these products. Certain wood and wood products from the United States increased their penetration of the Indonesian market by about $55 million (61 percent) in 1992.

The three areas that accounted for the largest increases in U.S. imports from Indonesia were apparel, footwear, and electronic products. The apparel and footwear industries have strong governmental backing including investment incentives to encourage exports. U.S. imports of apparel rose $330 million (47 percent) to $1 billion in 1992, and footwear imports continued their rising trend by a $248 million (60 percent) increase to $663 million. Together, these products accounted for 38 percent of the total U.S. imports from Indonesia. All of these industries are relatively labor intensive giving Indonesia a competitive advantage because of its low labor costs. Apparel and footwear require numerous manual operations for cutting and sewing. The bulk of the labor in the electronics industry involves the assembly of components into final goods and their packaging.

Indonesia's $198 million (179 percent) increase in exports to the United States in 1992 of certain electronic goods to $308 million was led by a $133 million (1300 percent) jump in video equipment to $143 million. Likewise, exports to the United States of integrated circuits and certain telecommunications equipment increased by $39 million (49 percent) to $120 million in 1992. The assembly of electronic equipment is an area that Indonesia hopes to promote as a new source of export revenues. At present, Indonesia must import most of the parts for this assembly; however, as the industry matures, the share of production costs accounted for by domestic content should increase. Additionally, in 1992, Indonesia increased exports to the United States of computer equipment by $39 million (2400 percent) to $41 million.

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[49] Indonesia is a major producer and exporter of bauxite, tin, copper, silver, nickel, and coal. Because of new mines in Kalimantan, coal mining activities increased 40 percent in 1992 to reach 20 million tons of production annually.

CHAPTER 2. Agricultural Products

The agricultural products sector traditionally registers the largest trade surplus among the major trade sectors under analysis. In 1992, this surplus increased for the first time since 1989 and reached $17.9 billion. This was in sharp contrast with the 21 percent increase in the overall trade deficit which reached $100 billion in 1992.[1] U.S. exports of agricultural products increased by $4.5 billion (10 percent) to $49.6 billion in 1992 (table 11). The most favorable export increases were to Japan and Mexico, accounting for $1.1 billion (10 percent) and $770 million (26 percent), respectively. U.S. imports of agricultural products increased by 8 percent, or by $2.3 billion, to $31.7 billion in 1992. Canada was the leading contributor to this increase in imports, accounting for 35 percent ($786 million) of the total increase in 1992.

Significant trade position improvements (of over $170 million) in agricultural commodity groups occurred in cereals (food and feed grains), oilseeds, frozen fish, animal feeds, swine and pork, coffee, and dairy produce. With the exception of coffee and swine and pork, these trade improvements reflected increased U.S. exports. A decline in imports in coffee, swine and pork, and, to some extent, frozen fish, contributed to the trade position improvement in these groups. A significant trade position decline (of $393 million) occurred in the unmanufactured tobacco group. Although exports of unmanufactured tobacco increased by $223 million, imports increased by $616 million.

Food and feed grains (cereals), oilseeds, cigarettes, and animal feeds are the leading U.S. agricultural commodity groups exported and, together, account for about one-half of the value of all agricultural exports. In 1992, U.S. exports of these products amounted to $11.2 billion, $4.6 billion, $4.2 billion, and $3.7 billion, respectively. U.S. exports of food and feed grains, oilseeds, and animal feeds each increased by around 10 percent in value between 1991 and 1992, whereas the level of U.S. cigarette exports remained virtually unchanged. Increased U.S. exports of oilseeds and grains were encouraged by an especially good domestic harvest, competitive U.S. prices, increased foreign demand, and assistance from U.S. Government export programs.

Other agricultural commodity groups that experienced increased exports of over $200 million between 1991 and 1992 include animal and vegetable fats and oils, cattle and beef, dairy produce, frozen fish, edible preparations, and unmanufactured tobacco. Only one agricultural commodity group, sugar and other sweeteners, posted an export decline of over $50 million between 1991 and 1992. Lower world sugar prices, a reduction in margins for refined sugar, and Mexico's reduced imports from the United States contributed to the fall in U.S. sugar exports.

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[1] While the trade balance in the agricultural products sector improved by $2.2 billion in 1992, the balance in every other industry sector, except in the machinery and equipment sector, shifted toward imports by a combined $21.8 billion.

Table 11
Agricultural, animal, and vegetable products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Japan	10,824	11,958	1,135	10.5
Canada	4,868	5,209	341	7.0
Mexico	2,975	3,745	770	25.9
Netherlands	1,762	1,940	178	10.1
Korea	2,077	2,150	73	3.5
Taiwan	1,992	1,973	-18	-0.9
Germany	1,128	1,209	81	7.2
France	677	689	12	1.8
United Kingdom	928	1,011	83	8.9
Thailand	216	277	60	27.9
All other	17,737	19,478	1,741	9.8
Total	45,183	49,639	4,456	9.9
EC-12	8,574	8,839	265	3.1
OPEC	1,920	2,042	122	6.3
ASEAN	1,079	1,383	304	28.2
CBERA	1,558	1,618	60	3.9
Eastern Europe	241	278	37	15.5
U.S. imports for consumption:				
Japan	371	370	-1	-0.1
Canada	5,099	5,885	786	15.4
Mexico	2,901	2,729	-171	-5.9
Netherlands	771	839	68	8.8
Korea	201	180	-22	-10.7
Taiwan	357	326	-31	-8.7
Germany	598	650	53	8.9
France	968	1,159	191	19.7
United Kingdom	721	792	72	10.0
Thailand	1,305	1,458	153	11.8
All other	16,168	17,339	1,172	7.2
Total	29,458	31,728	2,270	7.7
EC-12	5,448	6,032	584	10.7
OPEC	1,451	1,449	-2	-0.1
ASEAN	2,588	2,991	403	15.6
CBERA	1,972	2,135	163	8.3
Eastern Europe	335	377	43	12.8
U.S. merchandise trade balance:				
Japan	10,453	11,588	1,135	10.9
Canada	-231	-676	-445	-192.9
Mexico	74	1,016	942	1,277.8
Netherlands	991	1,101	110	11.1
Korea	1,876	1,970	94	5.0
Taiwan	1,634	1,647	13	0.8
Germany	530	559	28	5.4
France	-291	-470	-179	-61.3
United Kingdom	208	219	11	5.4
Thailand	-1,089	-1,182	-93	-8.6
All other	1,570	2,139	569	36.3
Total	15,724	17,911	2,186	13.9
EC-12	3,126	2,807	-319	-10.2
OPEC	469	592	123	26.3
ASEAN	-1,509	-1,608	-99	-6.6
CBERA	-414	-517	-103	-24.9
Eastern Europe	-94	-99	-6	-5.9

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

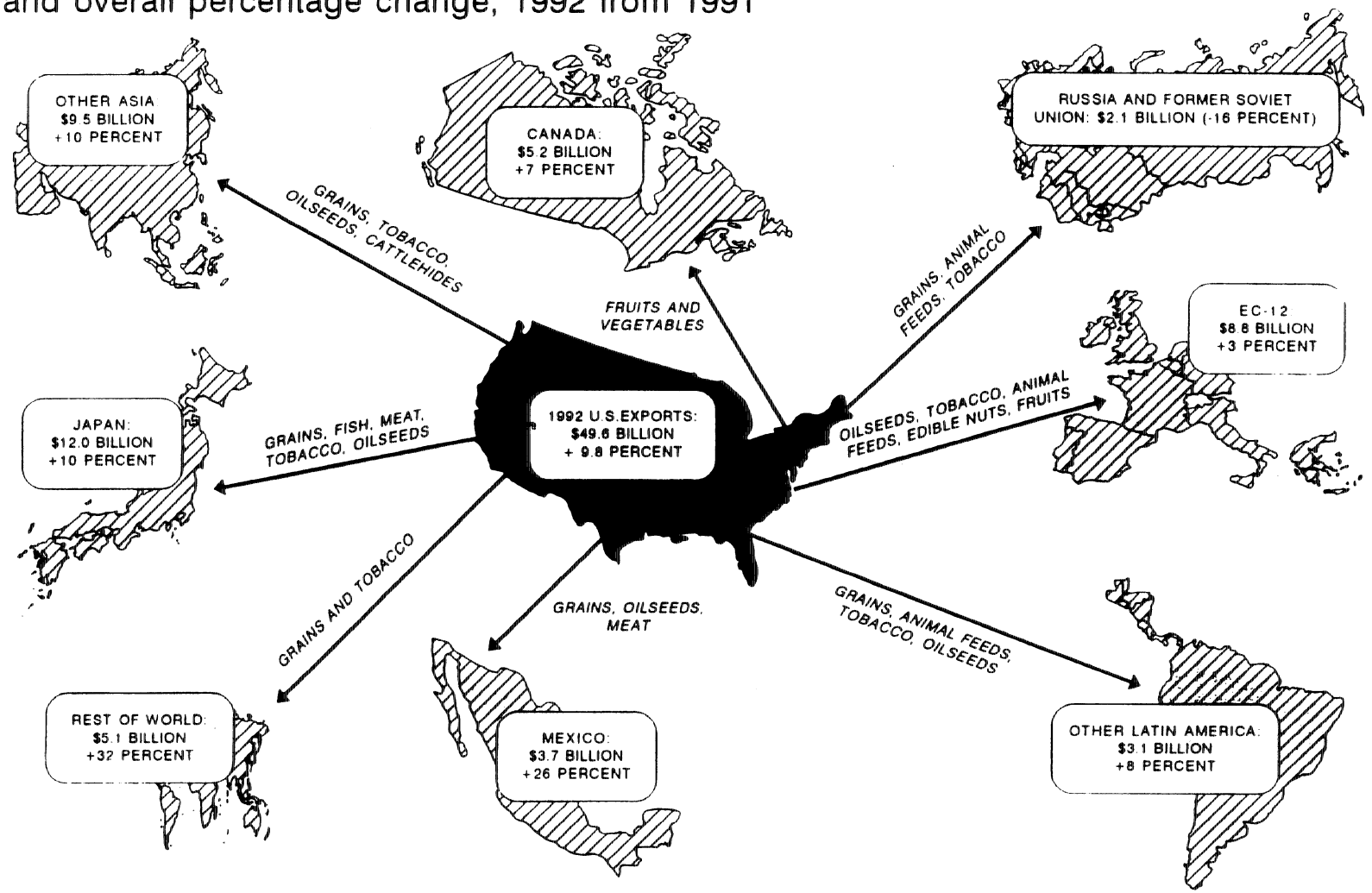
Source: Compiled from official statistics of the U.S. Department of Commerce.

Agricultural product imports increased by $2.3 billion (8 percent) to $31.7 billion in 1992. The leading U.S. agricultural import groupings are shellfish ($3.1 billion); cattle and beef ($2.9 billion); coffee and tea ($1.8 billion); distilled spirits ($1.6 billion); unmanufactured tobacco ($1.4 billion); cocoa, chocolate, and confectionery ($1.3 billion); frozen fish ($1.3 billion); edible preparations ($1.3 billion); and tropical fruit ($1.2 billion). These nine agricultural commodity groupings combined represented one-half of all agricultural imports during 1992. U.S. imports of unmanufactured tobacco, shellfish, cattle and beef, distilled spirits, and animal or vegetable fats and oils each increased by more than $200 million over the import levels posted in 1991. U.S. imports of frozen fish and coffee experienced the largest declines from the levels registered in 1991. The decline in coffee imports was the result of lower world coffee prices; the quantity of U.S. coffee imports actually increased between 1991 and 1992. The plunge in U.S. imports of frozen fish, primarily cod, flatfish, and Atlantic pollock from Canada and Scandinavia, reflects the shortage of fish in the heavily fished Atlantic waters off Canada. The swine and pork grouping (especially live animals from Canada) also experienced a significant import decline (of over $100 million). Trade industry sources reported that uncertainties associated with U.S. countervailing duties relating to both live swine and pork discouraged Canadian exports.

U.S. Bilateral Trade

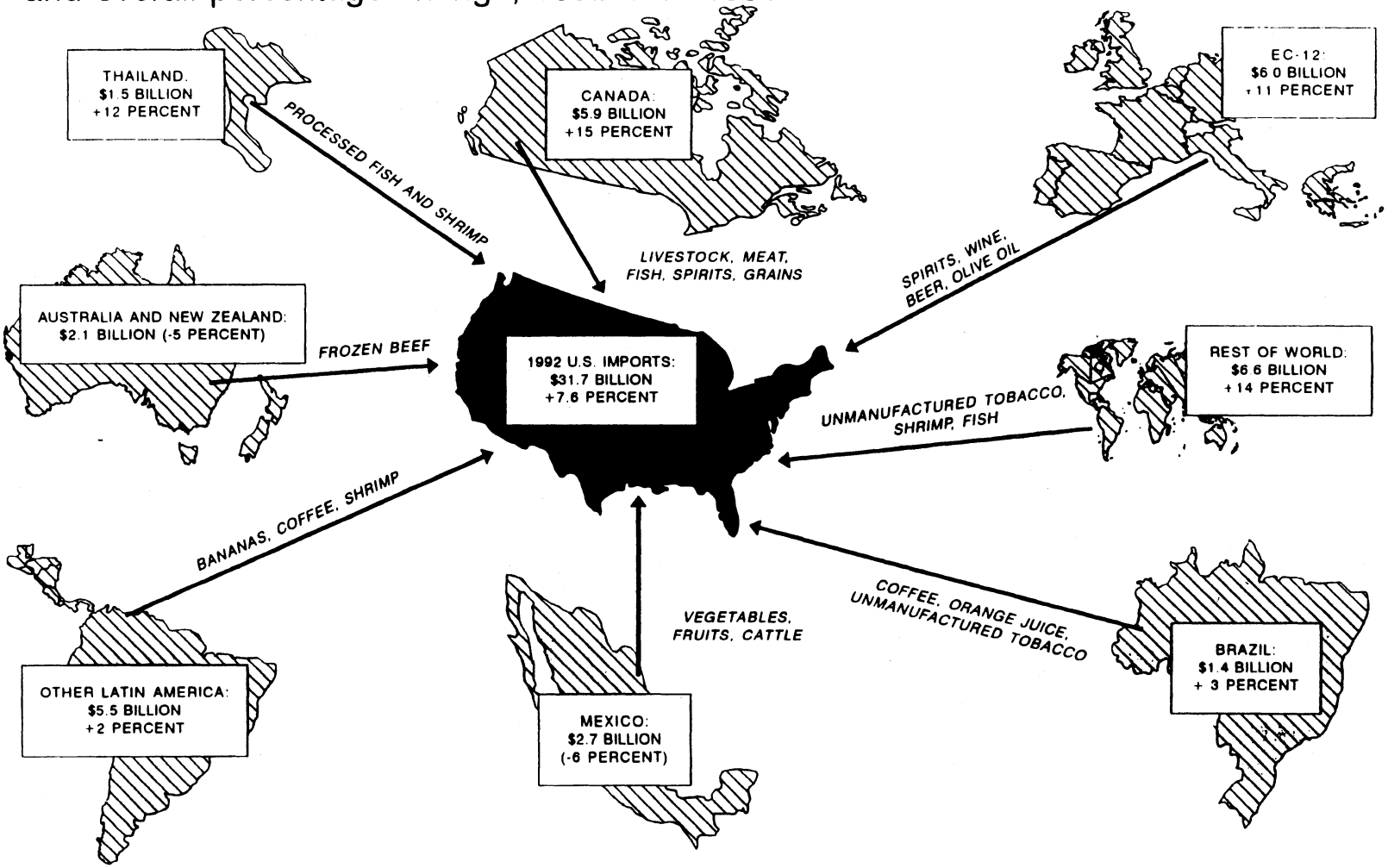
The major U.S. trading partners in agricultural products during 1992 were the EC, Japan, Canada, and Mexico, which, together, accounted for $44.8 billion in agricultural trade, or 55 percent of the U.S. total (table 11). Japan, by far the largest U.S. agricultural export market, accounted for $12.0 billion, or about one-quarter of all U.S. agricultural exports, during 1992. In 1992, the EC accounted for just under one-fifth of all U.S. exports and supplied nearly the same portion of U.S. agricultural imports. Bilateral trade with Canada increased by 11 percent, from $10.0 billion in 1991 to $11.1 billion in 1992. Likewise, bilateral trade with Mexico increased by 10 percent from $5.9 billion in 1991 to $6.5 billion in 1992; U.S. exports to Mexico accounted for 58 percent of this trade. Figure 6 illustrates U.S. exports to these four major markets and other major regions. This figure also depicts the overall percentage change from 1991 to 1992 in U.S. exports to these major trading regions, and it highlights the major U.S. agricultural exports to these regions. Figure 7 illustrates U.S. imports from the major agricultural import sources, highlights major agricultural imports, and depicts the overall percentage change in U.S. imports from these regions from 1991 to 1992.

Figure 6
U.S. agricultural products exports, 1992: Leading U.S. exports, by major markets, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Figure 7
U.S. agricultural products imports, 1992: Leading U.S. imports, by major sources, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Commodity Analysis[2]

Cereals (food and feed grains)

The positive U.S. trade balance in food and feed grain improved by $990 million, reaching $10.7 billion in 1992. This sector experienced the second largest improvement in trade balance in all merchandise sectors in 1992. Exports in this traditionally very large agricultural export grouping increased by $1.1 billion (11 percent) to $11.2 billion in 1992. The increased trade balance was fueled by large U.S. crops (particularly of wheat and corn), strong foreign demand, and poor harvests in major competitor nations (including Australia and Argentina).

Wheat accounted for about 40 percent of the total U.S. exports in this sector in 1992. The largest shifts in wheat trade were increases in exports of $433 million (105 percent) to the former Soviet Union (FSU), $165 million to Egypt (58 percent), $162 million to Japan (39 percent), and $61 million to the Philippines (43 percent); exports of wheat to China declined by $69 million (19 percent). Exports of corn accounted for about 44 percent of total U.S. exports in this sector in 1992. Exports to the FSU dropped by $620 million (52 percent) in 1992 from what they amounted to in 1991. This sharp drop in exports was primarily the result of credit problems in the FSU. Exports to Canada nearly tripled to $72 million in 1992, following a very poor quality harvest in Canada in 1992. Exports to the largest U.S. market, Japan, decreased by $43 million (3 percent) in 1992, and exports to Mexico declined $24 million (19 percent).

U.S. imports of food and feed grains increased by 24 percent in value (45 percent in quantity) to $513 million (3.6 million metric tons) in 1992 compared with 1991. Imports from Canada, the primary source of U.S. grain imports, increased significantly, paced by increased imports of durum and other wheat, barley, corn, and oats.

U.S. grain exports were constrained by large competitor supplies and by reduced global trade, particularly by the sharp drop in FSU imports of corn. The FSU has experienced commodity purchasing credit problems. Although some of the smaller exporters had reduced supplies, this was offset by larger supplies in such major competitors as the EC, Canada, and Australia. The EC participated in the wheat market with large stocks on hand, a near record harvest, and a large budget to "encourage" exports. Canada and Australia (both of which sell wheat through government grain boards) were aggressive competitors in world markets during the period in question.

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[2] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 12 at the end of the chapter.

Tobacco[3]

During 1991-92, the U.S. trade surplus in tobacco and tobacco products fell from $5.1 billion to $4.5 billion. An increase in U.S. imports of unmanufactured tobacco, from $736 million to $1.4 billion, was the primary reason for this trade shift. U.S. exports of tobacco and tobacco products, on the other hand, remained relatively stable during 1991-92, rising by 3 percent to $6.2 billion in 1992. Cigarette exports remained almost unchanged at $4.2 billion in 1992, but cigar and manufactured tobacco product exports fell by 11 percent to less than $300 million. Exports of unmanufactured tobacco rose by 16 percent to $1.7 billion.

During both 1991 and 1992, well over half of all U.S. cigarette exports were destined for Japan and Belgium, while an additional 20 percent went to Hong Kong, Saudi Arabia, Turkey, and the United Arab Emirates. In 1992, U.S. cigarette exports to the FSU nearly tripled over the 1991 level, because of production shortages throughout this region. The FSU became the U.S. industry's fourth largest export market, with imports of $250 million in U.S. cigarettes in 1992.

While Japan, Germany, and the Netherlands remained the largest export markets for unmanufactured tobacco (most of which consisted of flue-cured and burley tobaccos) during 1991-92, much of the growth in exports can be attributed to trade with Japan and Turkey. U.S. exports of unmanufactured tobacco to Japan grew by 66 percent to $148 million in 1992. Most of this increase was in flue-cured tobacco imported by Japan Tobacco Incorporated (JTI), Japan's tobacco monopoly. These imports replaced JTI's depleted inventories of flue-cured tobacco which were caused by lower than usual Japanese tobacco yields in 1991. U.S. unmanufactured tobacco exports to Turkey more than doubled, reaching $78 million, during 1991-92 because of that country's recent success in marketing American-blend cigarettes.

U.S. imports of tobacco and tobacco products rose by 75 percent to $1.6 billion during 1991-92. Only a small portion of this increase was due to cigarette imports, which rose by 65 percent to $200 million in 1992.[4] Most of the sharp increase in import value was due to unmanufactured tobacco, particularly oriental tobacco from Turkey, Greece, the former Yugoslavia (especially Macedonia), and Bulgaria; and flue-cured and burley tobaccos from Brazil, Zimbabwe, and Malawi.

U.S. imports of oriental tobacco more than doubled to approximately $770 million in 1992,[5] largely because of the release of oriental tobacco from U.S. bonded warehouses after it was granted duty-free treatment under the Generalized System of Preferences (GSP) on July 2, 1992. In anticipation of oriental tobacco gaining GSP-eligibility, many U.S. dealers and

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[3] Combines three commodity groups: unmanufactured tobacco, cigars and certain other manufactured tobaccos, and cigarettes.

[4] Over 90 percent of the escalating U.S. cigarette imports are from Canada. They are allegedly imported into the United States for subsequent return to Canada, where they are sold on the black market, thus, escaping Canadian excise taxes on cigarettes.

[5] U.S. tobacco import data have been amended from official statistics based on revised information from the U.S. Department of Commerce.

manufacturers had reduced their stocks of this tobacco in previous years, but replenished the stocks during the latter half of 1992.[6] Furthermore, importers may have purchased additional stocks of oriental tobacco during this period in anticipation of the GSP program expiring on July 4, 1993.

Another factor contributing to the value growth of oriental tobacco imports was the increasing prices of oriental tobacco from Turkey in 1992, resulting from an increase in Turkey's domestic support prices and reduced export subsidies for the 1991 tobacco crop. U.S. imports of oriental tobacco from Turkey represented 71 percent of all U.S. imports of oriental tobacco in 1992. Imports of oriental tobacco from Turkey grew, in value terms, by 127 percent to $548.3 million, and in quantity terms, by 92 percent from 1991 to 1992. Turkey was able to nearly double its exports of oriental tobacco to the United States in 1992 despite a sizeable price increase because many of its U.S. customers had reduced inventories in 1991 in anticipation of designation of GSP eligibility for imports from Balkan suppliers that compete with Turkey. Since that eligibility was not granted to a leading competitor, Bulgaria, until the end of the year, customers ended up restocking their 1992 inventories from Turkey anyway.

Imports of flue-cured tobacco doubled to nearly $260 million, and burley imports rose by more than one-third to nearly $200 million during 1991-92. These imports grew in response to increasing demand for low-cost tobacco by producers of discount cigarettes. Unlike oriental tobacco, which is not produced in the United States nor is substitutable for U.S.-grown tobacco, imports of flue-cured and burley tobaccos compete heavily with domestically produced tobacco and have raised concerns among U.S. tobacco growers.

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Oilseeds

The oilseed grouping, like the food and feed grains grouping, is one of the larger agricultural export groupings, and imports are small when compared to exports. The U.S. trade balance in oilseeds further improved by $436 million in 1992 and the United States had a $4.4 billion trade surplus. The improvement in U.S. oilseed exports in 1992 was responsible for most of rising trade surplus since imports changed little.

The second largest U.S. soybean crop on record boosted U.S. oilseed exports in 1992. The higher volume of U.S. oilseed exports in 1992 offset slightly lower prices, and U.S. exports of oilseeds rose by $440 million (11 percent) to $4.6 billion, as compared with exports in 1991. U.S. exports of soybeans accounted for 96 percent of total exports of oilseeds in 1992. The volume of U.S. exports of soybeans rose by 13 percent to 20 million metric tons in 1992, and its export price (export unit value) fell by 2 percent to $221 per metric ton of soybeans during the year. The 1992 U.S. soybean crop was 11 percent above the crop harvested in 1991.

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[6] Since Turkey maintained GSP status throughout 1992, Bulgaria was granted GSP status on December 21, 1992, and several of the former Yugoslav republics, including Macedonia, recaptured GSP status on September 11, 1992; imports of oriental tobacco from nearly all major sources were duty free by the end of 1992.

World imports of soybeans rose by 13 percent during 1992, stimulating U.S. soybean exports. The EC, the leading U.S. market, purchased about 39 percent of U.S. oilseed exports in 1992. The lower U.S. price, and rising demand for animal feed within the EC (the leading world market) boosted U.S. soybean sales. Soybean exports from Brazil (the second-leading soybean exporter) recovered from the prior year's drop, but the third- and fourth-leading producers, Argentina and China, had smaller soybean crops in 1992.

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Frozen fish

The U.S. trade surplus for frozen fish grew to $584 million, an increase of $410 million over the 1991 level. Both rising exports and declining imports contributed to this trade improvement as total exports grew by $245 million (15 percent) in 1992 and imports declined by $165 million (11 percent) below the 1991 level.

On the export side, the big gainer was Pacific salmon in frozen, whole form. U.S. exports of this product grew by $227 million, or 56 percent, to $632 million in 1992. Japan is the primary U.S. market for frozen Pacific salmon, purchasing $558 million in 1992. Rising exports to Japan accounted for virtually all of the overall export growth for this product.

Two frozen fish products figured significantly in the decline in imports in 1992. Frozen whole tropical tuna, which tuna canneries import as raw material, have grown scarce on the import market mainly because of the so-called "dolphin-safe" controversy; much of the imports in the past came from the Eastern Pacific region, which is where the greatest concentrations of "dolphin-unsafe" tuna (which are banned from importation by most canneries) are found. U.S. imports of tropical tuna declined by $39 million, or 49 percent, in 1992, with much of the slack being taken up by U.S. fishermen operating in the Western Pacific. Imports of groundfish (cod, flounders, and related species) also declined significantly in 1992. The North Atlantic fisheries for these species suffer from severe resource depletion because of overfishing; as a result, U.S. imports from the major suppliers—mainly Canada and Scandinavia—declined by over $6 million, or 38 percent, in 1992. Depleted groundfish fisheries in northeast U.S. waters have largely prevented U.S. fishermen from filling this supply shortage.

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Animal feeds

The animal feeds grouping, like the food and feed grain grouping and the oilseeds grouping, is primarily an export sector. Nonetheless, the positive U.S. trade balance in animal feeds increased by $282 million, reaching $3.2 billion in 1992. This was the result of strong foreign demand, increased U.S. supplies (particularly of corn wet milling industry byproducts), and decreased availability of foreign competitor feeds (particularly soybean meal from Brazil and Argentina).

U.S. exports of animal feeds rose 9 percent in quantity (to 17.7 million metric tons) and 10 percent in value (to $3.7 billion).[7] U.S. exports of animal feeds to the EC, Canada, and Japan increased in 1992. Corn gluten feed and corn gluten meal were the principal animal feeds exhibiting increased exports.

Although U.S. imports of animal feeds increased from 1.6 million metric tons in 1991 to 1.7 million metric tons in 1992 (from $399 million to $450 million), they represented only about 10 percent of total U.S. trade (in terms of value) in animal feeds in 1992. In 1992, 64 percent of U.S. imports of animal feeds came from Canada, primarily in the form of prepared feeds, milling by-products, pet food, and rape oilcake and meal.

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Swine and pork

The U.S. trade balance for live swine and pork improved from a $269 million deficit in 1991 to a $36 million deficit in 1992, as exports rose and imports declined. U.S. imports of live swine (on a carcass-weight equivalent basis) and pork decreased 20 percent in quantity (to 233,000 metric tons) and 24 percent in value (to $436 million) in 1992, largely the result of reduced imports of live swine from Canada. U.S. exports increased 52 percent in quantity in 1992, (to 116,000 metric tons) and 32 percent in value (to $400 million).

Imports of live swine and pork from Canada declined 14 percent in quantity (to 199,000 metric tons) and 17 percent in value (to $354 million) in 1992. Such imports from Canada accounted for 85 percent of the total quantity of total imports and 81 percent of the value. Increased swine slaughter in Canada and application of U.S. countervailing duties contributed to a decline in U.S. imports of live swine from Canada between 1991 and 1992.[8] U.S. imports of pork from Canada did not change significantly between 1991 and 1992 as increased Canadian consumption and increased exports to third-country markets offset increased Canadian production.[9] Also, trade and industry sources report that uncertainties associated with U.S. countervailing duties related to live swine and pork discouraged Canadian exports.

Imports of Danish pork declined as high EC prices and a general desire to shift away from reliance on non-EC markets encouraged increased trade within the EC.[10] Political instability in the former Yugoslavia and drought in both Hungary and Poland limited the ability of those countries to export pork. In addition, increased domestic demand for pork in Poland limited exports.[11]

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[7] Average unit values for animal feed exports increased from $190.33/MT to $194.72/MT.

[8] USDA, Foreign Agricultural Service (FAS), *Livestock*, semiannual report, American Embassy, Ottawa, (AGR No. CA3011), Jan. 29, 1993, p. 20.

[9] Ibid, pp. 20-23.

[10] USDA, Economic Research Service, (ERS), *Livestock and Poultry Situation and Outlook Report* (LPS-58), Feb. 1993, p. 14.

[11] Ibid.

U.S. exports to Japan, which accounted for three-fourths of the value of all U.S. exports of live swine and pork in 1992, increased 80 percent in quantity (to 72,000 metric tons) and 51 percent in value (to $299 million) in 1992. According to the U.S. Department of Agriculture (USDA), the U.S. share of the Japanese market was larger than it otherwise would have been because of the relatively low prices of U.S. pork compared with pork from Denmark and Taiwan.[12] Denmark, Taiwan, and Canada are major U.S. competitors in the Japanese market. Pork accounts for virtually all U.S. exports of live swine and pork exports to Japan. U.S. exports of live swine to Japan have been high value animals for breeding purposes and, such exports averaged less than $2 million annually during 1991-92.

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Dairy produce

The U.S. trade balance for dairy produce improved from a $431 million deficit in 1991 to a $252 million deficit in 1992 due to an increase in exports which exceeded the rise in imports. According to the USDA, a number of U.S. Government programs contributed to the increase in exports.[13] U.S. exports of dairy produce jumped 83 percent in 1992 to $593 million. Awards under the Dairy Export Incentive Program (DEIP) increased from $46.4 million in 1991 to $155.5 million in 1992.[14] Nonfat dry milk accounted for $89.4 million (57 percent) of the $155.5 million; butteroil, for $26.8 million (17 percent); and dry whole milk, for $17.9 million (12 percent). Exports to Mexico and Algeria accounted for about 75 percent of the awards under the DEIP. Other U.S. Government programs that contributed to the increase in U.S. exports of dairy produce include Commodity Credit Corporation (CCC) direct sales and donations and sales, under Public Law 480 (the Food for Peace Program) and section 416 of the Food for Progress Program.[15] CCC direct sales were valued at $133 million in 1992.[16] Russia and Mexico were the primary markets, and sales consisted mostly of butter and nonfat dry milk. Donations and sales under Public Law 480 and section 416 in 1992 included butter and butteroil to Russia and other members of the former Soviet Union.[17]

In 1992, about 20 percent of the value of all dairy produce, including the exports under the previously described U.S. Government programs, consisted of butter and milk fat; 15 percent consisted of nonfat dry milk; and ice

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[12] USDA, FAS *U.S. Dairy, Livestock and Poultry Trade* (FDLP 2-92), Mar. 1993, pp. 3-4.

[13] Ibid., pp. 5-6.

[14] Under the DEIP, USDA pays cash to U.S. exporters of certain dairy produce to selected countries. The Food, Agriculture, Conservation, and Trade Act of 1990 extended the current DEIP through December 31, 1995.

[15] Ibid.

[16] FAS, facsimile transmission to the USITC, May 7, 1993.

[17] Officials of the USDA, ERS, conversation with USITC staff, May 6, 1993.

cream and whey each accounted for slightly less than 10 percent.[18] Mexico was the leading market for U.S. exports of dairy produce in 1992, accounting for 25 percent ($150.1 million) of the total value; other major markets included Russia, 15 percent ($88.0 million); Japan, 8 percent ($46.2 million); Canada, 6 percent ($34.7 million); and Algeria, 5 percent ($32 million). U.S. exports to each of these markets grew by more than 30 percent in 1992.

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Coffee

U.S. coffee imports[19] in 1992 increased by 15 percent to about 1.3 billion kilograms while declining in value by about 10 percent to $1.6 billion, as world coffee prices continued their 4-year decline. Since the suspension of the economic provisions of the International Coffee Agreement in July 1989, the composite indicator (or average) price for coffee traded on world markets has fallen nearly 50 percent. The drop in world coffee prices between yearend 1991 and 1992 was 25 percent. Colombia, Brazil, Mexico, and Guatemala were the four leading coffee suppliers to the U.S. market in 1992. Imports from Colombia increased, in value, by 16 percent whereas imports from Brazil and Mexico fell by 46 and 32 percent, respectively. Imports from Guatemala were off by 57 percent.

U.S. coffee production is small and limited to Hawaii and Puerto Rico, from where most is sent to the continental United States for domestic consumption. However, owing to such factors as the impassability of the Saint Lawrence Seaway in the winter months and the New York location of the spot coffee market, it is not uncommon for coffee traders to enter green coffee at New York and later reexport the coffee to Canada. Total 1992 U.S. reexports amounted to 573,524 bags, or about 10 percent more than in 1991. Canada was the primary destination for these transhipments.

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Animal or vegetable fats and oils

The U.S. trade balance in animal and vegetable oils and fats and greases ("fats and oils") in 1992 improved by $83 million from the prior year; the United States posted a $473 million trade surplus in 1992. Increased U.S. fats and oils exports in 1992 offset rising imports and led to the improved trade surplus in fats and oils.

U.S. exports of fats and oils rose by 28 percent in 1992 to $1.4 billion as the volume sold abroad rose by 30 percent to 3.2 million metric tons. U.S.

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[18] FAS, *U.S. Dairy, Livestock and Poultry Trade* (FDLP 2-92), p. 42.

[19] U.S. imports are the overwhelming component in the trade shift grouping, "coffee and tea." Furthermore, coffee, by far, is the dominant import component. Consequently, a coffee import analysis provides a more accurate measurement of trends than the standard digest trade balance analysis. Trade shift analysis on the tea and maté portion of grouping AG028 (coffee and tea) is relatively inconsequential.

Government export assistance programs, particularly the credit-guarantee program and the Export Enhancement program, restored competitiveness to U.S. soybean, sunflower-seed, and cottonseed oils. Russia purchased slightly over $60 million of vegetable oil from the United States in 1992, its first purchases of U.S. fats and oils in decades. U.S. exports of fats and oils to most of the leading markets rose, with the largest increases going to Mexico, the EC, Algeria, Canada, and Turkey.

U.S. imports of fats and oils (consisting mostly of olive, coconut, and canola oils) increased by 32 percent to $966 million. The volume of imported fats and oils rose by 18 percent to 1.4 million metric tons. A 23-percent increase in the volume of coconut oil and a nearly 66-percent rise in the price of coconut oil in 1992 boosted U.S. imports from the leading U.S. supplier, the Philippines, by $120 million, claiming over half of the $233-million increase in U.S. fats and oils imports during 1992. Imports supply all U.S. demand for coconut oil, which tends to be rather price inelastic. U.S. imports of canola oil from Canada continued to increase in 1992, benefiting from the lower tariffs under the Free-Trade Agreement and from the rising U.S. demand for this less saturated vegetable oil.

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Sugar and other sweeteners

The negative U.S. trade balance in sugar and other sweeteners increased $75 million between 1991 and 1992, largely because of reduced exports to Mexico, and lower world refined sugar prices, resulting in decreased returns for U.S. refined sugar exports. U.S. exports of sugar and other sweeteners declined 17 percent from $362 million to $300 million. Sugar imports, which are limited by a tariff-rate quota, kept pace with the general population increase of less than 2 percent ($844 million in 1991 to $857 million in 1992).

U.S. exports of sugar and other sweeteners are composed mainly of refined sugar under the USDA's reexport program.[20] World raw sugar prices in 1992 were slightly higher than in 1991; however, world refined sugar prices declined approximately 8 percent from 1991 to 1992. The combination of slightly higher prices for the raw sugar imported into the United States for refining and reexport, together with lower refined sugar prices, contributed to the increase in the U.S. sugar and other sweetener trade deficit. Mexico, the major market for U.S. refined sugar under the reexport program from October 1990 through June 1991, reduced its imports of U.S. refined sugar in 1992. The reduction in exports to Mexico stemmed from higher import tariffs and a drawdown of its high stocks. The low world sugar prices also contributed to the decline in U.S. exports of high fructose corn syrup (HFCS) to Canada, which reduced its imports of U.S. HFCS, as sugar imports offered a viable alternative.

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[20] The United States maintains a quota-exempt refined sugar reexport program. Eligible refiners are able to import raw sugar at world prices, refine the sugar, and then reexport it to the world market. Exporters then receive a duty drawback.

Sugar is the major component of U.S. imports of sugar and other sweeteners. Of the top 10 countries exporting sugar and other sweeteners to the United States, 9 are the leading sugar quota-holding countries. Canada, which is exempt from sugar quotas and duties under the U.S.-Canada Free-Trade Agreement, is the largest exporter of sugar and other sweeteners to the United States.

The increase in the value of U.S. imports of sugar and other sweeteners occurred despite the decrease in the U.S. sugar quota from 2,314,853 short tons raw value (strv) for quota year 1990/91 to 1,526,701 strv for quota year 1991/92, reducing calendar year imports of quota sugar from 2,053,000 strv in 1991 to 1,495,000 strv in 1992.[21] The decreased quota reflected recovery of the U.S. continental cane areas from the December 1989 freeze.

The reduction in U.S. quota sugar imports was countered by the 44-percent increase from quota year 1990/91 to quota year 1991/92 in the volume of Canadian sugar exports to the United States. Canadian exports of HFCS to the United States also rose 22 percent by volume from 1991 to 1992, partially as a result of the increased competitiveness of low priced world sugar in the Canadian market. Altogether, Canadian sugar and other sweetener exports to the United States increased in value 37 percent from 1991 to 1992.

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Fruit and vegetable juices

The trade deficit in fruit and vegetable juices declined by $57 million from 1991 to 1992, from $408 million to $351 million. This shift was caused by a larger increase in exports than in imports. Exports benefitted from both trade agreements that opened foreign markets and good growing conditions in the United States. Most of the deficit was accounted for by Brazil and Argentina. The value of U.S. exports of fruit and vegetable juices rose by 20 percent, rising from $385 million in 1991 to $461 million in 1992, while the value of imports increased by 2 percent during the same period, from $793 million to $812 million.

The increase in U.S. exports is attributable mainly to the lifting of the Japanese orange juice quota and an unusually good juice orange crop in Florida. Japan's orange juice quota had been phased out in stages each year until liberalization was completed on April 1, 1992. The quantity of orange juice sales to Japan increased by 40 percent in 1992—most of the increase came after the April 1 date when the quota was removed.

U.S. exports of fruit and vegetable juices have shown a steady trend upward over the last 5 years, increasing from $241 million in 1988 to $461 million in 1992. Most of the exports were to Canada and Japan.

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[21] The quota year runs from October 1 through September 30 of the following year. The 1992/93 quota was originally set at 1.36 million short tons but on May 11, 1993, the quota year was extended through the 1992/94 quota year and an aggregate quota of 2.5 million short tons was set for the extended period.

Imports of fruit and vegetable juices have been dominated by frozen concentrated orange juice from Brazil. The quantity of frozen concentrated orange juice imports fluctuate considerably depending upon U.S. growing conditions. With the exceptions of apple and grape juice imports, there was no trend in overall juice imports, which registered at $812 million in 1992. Apple and grape juice imports from Argentina have shown steady growth, increasing each year, from $49 million in 1988 to $150 million in 1992, with a $48 million increase from 1991 to 1992 alone. Apple juice imports from Argentina, the largest U.S. supplier, increased by 47 percent in value, with quantities rising despite higher prices in 1992 than in 1991. Weather-related lower U.S. supplies during the 1991/92 season contributed to the increase in apple juice imports from Argentina and Chile.

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Citrus fruit

In 1992 the trade surplus in citrus fruit increased by $49 million, from $466 to $515 million since exports increased and imports, because of a large U.S. citrus crop, declined. The value of U.S. exports of fresh citrus increased by 6 percent in 1992, from $614 to $649 million, whereas the value of imports declined by 9 percent, from $148 million to $134 million. This trade shift was a result of unusually good growing weather for citrus in 1992, following a year marked by freezing weather that reduced fresh citrus supplies. California, which supplies nearly 80 percent of all U.S. fresh-market oranges, had a bumper crop, particularly in navel oranges, which drove down prices, increased exports, and diminished imports. California navel production was up 34 percent from the previous season, and Florida output was up 39 percent. Fresh-market grapefruit, most of which is grown in Florida, was up 23 percent compared with the previous season. The U.S. lemon crop was about 15 percent larger than in the previous season.

Prices of fresh citrus were considerably lower in 1992 compared with prices in 1991. This resulted in higher consumption, and also in improved U.S. competitiveness. Most of the increased exports were to Canada and Hong Kong whereas most of the decline in imports was attributable to fewer imports from Morocco, Mexico, and Israel. Exports to Japan declined because of the unusually late season for white grapefruits, most of which were exported after the end of the year. Consequently, exports that ordinarily would have been recorded in 1992 will show up in statistics for 1993 instead. Later maturing white grapefruits are preferred by Japanese consumers, and exports typically increase late in the year. There was also a dramatic decline in the export price of fresh lemons, most of which went to Japan, which more than offset higher export quantities.

U.S. exports of fresh citrus have approximately doubled over the past 5 years, showing consistent growth except for 1990 when freezing weather reduced U.S. exports. U.S. grapefruits and navel oranges are highly competitive in the world market. Imports have also grown, but not as quickly as exports.

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Table 12
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		---------Million dollars---------			
AG001	Certain miscellaneous live animals, meat, offals, and animal products:				
	Exports	1,549	1,509	-40	-2.6
	Imports	1,004	905	-99	-9.9
	Trade balance	545	604	59	10.8
AG002	Cattle and beef:				
	Exports	1,816	2,120	304	16.7
	Imports	2,643	2,906	263	10.0
	Trade balance	-827	-786	41	5.0
AG003	Swine and pork:				
	Exports	304	400	96	31.6
	Imports	573	436	-137	-23.9
	Trade balance	-269	-36	233	86.6
AG004	Sheep and meat of sheep:				
	Exports	36	36	([3])	1.1
	Imports	37	46	9	24.3
	Trade balance	-1	-10	-9	-900.0
AG005	Poultry:				
	Exports	930	1,051	121	13.0
	Imports	28	22	-6	-21.4
	Trade balance	902	1,029	127	14.1
AG006	Fresh or chilled fish:				
	Exports	260	302	42	16.2
	Imports	644	629	-15	-2.3
	Trade balance	-384	-327	57	14.8
AG007	Frozen fish:				
	Exports	1,641	1,886	245	14.9
	Imports	1,467	1,302	-165	-11.2
	Trade balance	174	584	410	235.6
AG008	Fish canned, cured, or otherwise prepared, and live fish:				
	Exports	427	446	19	4.5
	Imports	760	683	-77	-10.1
	Trade balance	-333	-237	96	28.8
AG009	Shellfish:				
	Exports	852	872	20	2.3
	Imports	2,793	3,067	274	9.8
	Trade balance	-1,941	-2,195	-254	-13.1
AG010	Dairy produce:				
	Exports	325	593	268	82.5
	Imports	756	845	89	11.8
	Trade balance	-431	-252	179	41.5
AG011	Eggs:				
	Exports	140	134	-6	-4.3
	Imports	20	27	7	35.0
	Trade balance	120	107	-13	-10.8
AG012	Sugar and other sweeteners:				
	Exports	362	300	-62	-17.1
	Imports	844	857	13	1.5
	Trade balance	-482	-557	-75	-15.6
AG013	Animal feeds:				
	Exports	3,323	3,656	333	10.0
	Imports	399	450	51	12.8
	Trade balance	2,924	3,206	282	9.6
AG014	Live plants:				
	Exports	106	103	-3	-2.8
	Imports	177	200	23	13.0
	Trade balance	-71	-97	-26	-36.6
AG015	Seeds:				
	Exports	289	316	27	9.3
	Imports	135	154	19	14.1
	Trade balance	154	162	8	5.2
AG016	Cut flowers:				
	Exports	34	33	-1	-2.9
	Imports	322	352	30	9.3
	Trade balance	-288	-319	-31	-10.8
AG017	Miscellaneous vegetable substances:				
	Exports	392	462	70	17.9
	Imports	556	545	-11	-2.0
	Trade balance	-164	-83	81	49.4

See footnotes at end of table.

Table 12--Continued
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		----------Million dollars---------			
AG018	Fresh, chilled, or frozen vegetables:				
	Exports	883	947	64	7.2
	Imports	1,041	959	-82	-7.9
	Trade balance	-158	-12	146	92.4
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports	972	980	8	0.8
	Imports	781	796	15	1.9
	Trade balance	191	184	-7	-3.7
AG020	Edible nuts:				
	Exports	1,064	1,185	121	11.4
	Imports	429	461	32	7.5
	Trade balance	635	724	89	14.0
AG021	Tropical fruit:				
	Exports	60	66	6	10.0
	Imports	1,130	1,231	101	8.9
	Trade balance	-1,070	-1,165	-95	-8.9
AG022	Citrus fruit:				
	Exports	614	649	35	5.7
	Imports	148	134	-14	-9.5
	Trade balance	466	515	49	10.5
AG023	Deciduous fruit:				
	Exports	517	607	90	17.4
	Imports	127	163	36	28.3
	Trade balance	390	444	54	13.8
AG024	Other fresh fruit:				
	Exports	414	410	-4	-1.0
	Imports	511	487	-24	-4.7
	Trade balance	-97	-77	20	20.6
AG025	Dried fruit other than tropical:				
	Exports	344	357	13	3.8
	Imports	35	35	0	0.0
	Trade balance	309	322	13	4.2
AG026	Frozen fruit:				
	Exports	48	58	10	20.8
	Imports	61	57	-4	-6.6
	Trade balance	-13	1	14	(4)
AG027	Prepared or preserved fruit:				
	Exports	149	167	18	12.1
	Imports	355	417	62	17.5
	Trade balance	-206	-250	-44	-21.4
AG028	Coffee and tea:				
	Exports	102	135	33	32.4
	Imports	1,987	1,840	147	-7.4
	Trade balance	-1,885	-1,705	180	9.5
AG029	Spices:				
	Exports	38	43	5	13.2
	Imports	223	234	11	4.9
	Trade balance	-185	-191	-6	-3.2
AG030	Cereals:				
	Exports	10,096	11,245	1,149	11.4
	Imports	354	513	159	44.9
	Trade balance	9,742	10,732	990	10.2
AG031	Milled grains, malts, and starches:				
	Exports	370	387	17	4.6
	Imports	58	70	12	20.7
	Trade balance	312	317	5	1.6
AG032	Oilseeds:				
	Exports	4,124	4,564	440	10.7
	Imports	118	122	4	3.4
	Trade balance	4,006	4,442	436	10.9
AG033	Animal or vegetable fats and oils:				
	Exports	1,123	1,439	316	28.1
	Imports	733	966	233	31.8
	Trade balance	390	473	83	21.3
AG034	Edible preparations:				
	Exports	1,941	2,181	240	12.4
	Imports	1,125	1,281	156	13.9
	Trade balance	816	900	84	10.3

See footnotes at end of table.

Table 12--Continued
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		---Million dollars---			
AG035	Cocoa, chocolate, and confectionery:				
	Exports	345	438	93	27.0
	Imports	1,302	1,347	45	3.5
	Trade balance	-957	-909	48	5.0
AG036	Fruit and vegetable juices:				
	Exports	385	461	76	19.7
	Imports	793	812	19	2.4
	Trade balance	-408	-351	57	14.0
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports	154	191	37	24.0
	Imports	242	250	8	3.3
	Trade balance	-88	-59	29	33.0
AG038	Malt beverages:				
	Exports	169	194	25	14.8
	Imports	813	854	41	5.0
	Trade balance	-644	-660	-16	-2.5
AG039	Wine and certain other fermented beverages:				
	Exports	147	176	29	19.7
	Imports	920	1,094	174	18.9
	Trade balance	-773	-918	-145	-18.8
AG040	Distilled spirits:				
	Exports	279	343	64	22.9
	Imports	1,304	1,552	248	19.0
	Trade balance	-1,025	-1,209	-184	-18.0
AG041	Unmanufactured tobacco:				
	Exports	1,428	[5]1,651	223	15.6
	Imports	736	[5]1,352	616	83.7
	Trade balance	692	299	-393	-56.8
AG042	Cigars, and certain other manufactured tobacco:				
	Exports	327	292	-35	-10.7
	Imports	79	84	5	6.3
	Trade balance	248	208	-40	-16.1
AG043	Cigarettes:				
	Exports	4,247	4,217	-30	-0.7
	Imports	121	200	79	65.3
	Trade balance	4,126	4,017	-109	-2.6
AG044	Hides, skins, and leather:				
	Exports	1,967	1,974	7	0.4
	Imports	695	771	76	10.9
	Trade balance	1,272	1,203	-69	-5.4
AG045	Furskins:				
	Exports	154	134	-20	-13.0
	Imports	75	83	8	10.7
	Trade balance	79	51	-28	-35.4

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
[3] Less than $500,000.
[4] Not applicable.
[5] These data have been amended from official statistics based on revised information from the U.S. Department of Commerce.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 3. Forest Products[1]

The trade surplus in forest products decreased by $366 million to $2.0 billion in 1992 (table 13). Total U.S. forest product exports increased by about 6 percent in 1992, from $19.5 billion in 1991 to $20.7 billion in 1992. U.S. imports of forest products also increased by 9 percent in 1992, from $17.1 billion to $18.7 billion. Figure 8 depicts the major groupings of U.S. exports and U.S. imports for forest products, on a value basis, for 1991 and 1992.

Significant trade position improvements (of over $280 million) in forest products occurred in the newsprint group and in the pulp and waste paper group. The trade improvement in the newsprint group was primarily the result of a decline in the unit value of imported newsprint (for instance, the unit value of imported Canadian newsprint dropped from $587 per ton to $542 per ton). The trade improvement in the pulp and waste paper group was primarily the result of increased U.S. exports of pulp, which increased from 5.8 million tons to 6.7 million tons. A significant trade position decline occurred in the lumber group as the value of lumber imports, primarily from Canada, increased by 32 percent over the value posted in 1991. This increase can be attributed to both an increase in the quantity of imports and an increase in the unit value of imports. Domestic shortages and increased domestic demand pushed up prices (especially late in the year) and contributed to these conditions.

Historically, U.S. exports of pulp and wastepaper ($3.9 billion in 1992), printed matter ($3.6 billion), industrial papers — including kraft linerboard ($3.3 billion), logs and rough wood products ($2.8 billion), and lumber ($2.3 billion) account for about three quarters of all forest product exports. Exports in each of these groupings increased in 1992.

Historically, U.S. imports of newsprint, lumber, printing and writing papers, pulp, printed matter, and structural panels account for about three quarters of all forest product imports. These major categories exhibited mixed activity over the period. U.S. imports of lumber increased from $2.6 billion to $3.5 billion. Structural panel product imports increased from $857 million to $1.2 billion in 1992. Imports of printing and writing paper increased from $2.1 billion to $2.2 billion and imports of printed matter increased from $1.6 billion in 1991 to $1.8 billion in 1992. The value of U.S. imports of newsprint declined by about 10 percent, from $4.0 to $3.6 billion and was mostly the result of a decrease in the unit value of newsprint. The value of U.S. imports of pulp[2] decreased slightly, by about 2 percent, to $2.1 billion in

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[1] Included here are products classified in sections IX and X of the *Harmonized Tariff Schedules of the United States*. This grouping includes wood, wood products, cork, manufacturers of straw, papermaking pulp, waste paper, paper and paperboard, articles made from paper and paperboard, and printed material.

[2] In the pulp and waste paper grouping, imports of waste paper are insignificant; consequently, only pulp imports are addressed. However, for U.S. exports under this grouping, both exports of pulp and exports of waste paper are significant.

Table 13
Forest products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

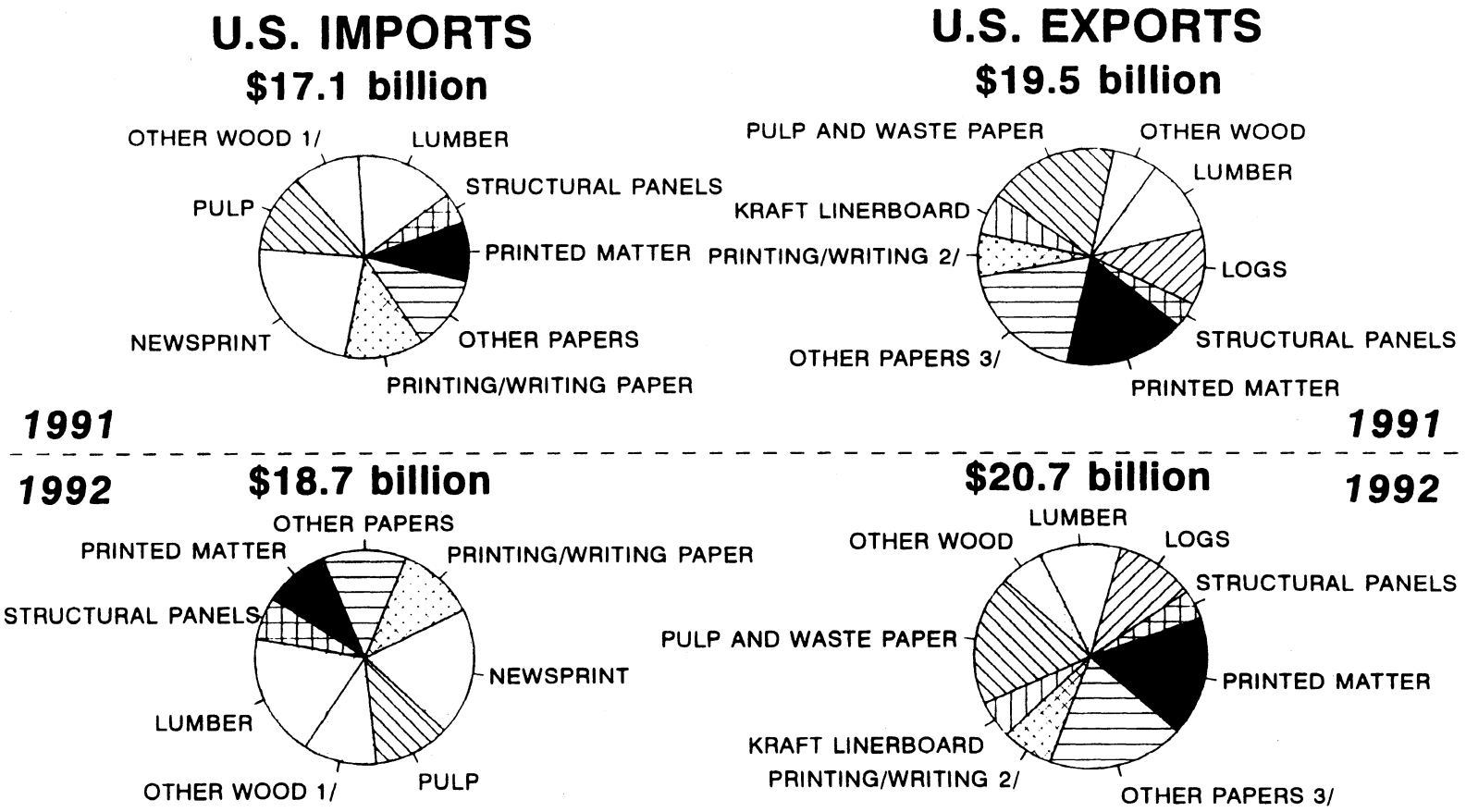
Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	4,343	4,614	272	6.3
Japan	4,141	4,215	73	1.8
Mexico	1,612	2,008	396	24.6
United Kingdom	943	1,075	132	14.0
Germany	822	873	51	6.2
Korea	853	914	61	7.2
Italy	682	677	-5	-0.7
Taiwan	547	533	-15	-2.7
China	395	310	-85	-21.5
France	409	409	0	0.0
All other	4,793	5,100	307	6.4
Total	19,541	20,728	1,187	6.1
EC-12	4,083	4,374	291	7.1
OPEC	572	633	61	10.7
ASEAN	537	612	75	13.9
CBERA	595	621	26	4.3
Eastern Europe	59	52	-8	-13.1
U.S. imports for consumption:				
Canada	11,702	12,620	918	7.8
Japan	400	387	-13	-3.3
Mexico	431	509	78	18.2
United Kingdom	451	509	58	12.8
Germany	366	377	11	3.1
Korea	115	112	-3	-2.7
Italy	231	208	-23	-9.9
Taiwan	354	342	-12	-3.4
China	264	373	109	41.3
France	229	262	33	14.3
All other	2,601	2,998	397	15.3
Total	17,145	18,698	1,553	9.1
EC-12	1,635	1,733	98	6.0
OPEC	358	435	77	21.5
ASEAN	726	914	188	25.9
CBERA	56	57	1	1.6
Eastern Europe	11	10	-2	-15.6
U.S. merchandise trade balance:				
Canada	-7,360	-8,006	-646	-8.8
Japan	3,741	3,827	86	2.3
Mexico	1,181	1,498	317	26.9
United Kingdom	492	565	74	15.0
Germany	456	496	40	8.7
Korea	738	802	64	8.7
Italy	450	468	18	4.0
Taiwan	193	190	-2	-1.3
China	131	-63	-194	-148.1
France	181	148	-33	-18.2
All other	2,193	2,103	-90	-4.1
Total	2,395	2,030	-366	-15.3
EC-12	2,448	2,641	193	7.9
OPEC	213	197	-16	-7.5
ASEAN	-189	-302	-113	-60.0
CBERA	539	564	25	4.6
Eastern Europe	48	42	-6	-12.5

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 8
U.S. Forests products trade: By major groupings, 1991 and 1992
(Billion dollars)



1/ Includes cork and rattan.
2/ Includes newsprint.
3/ Includes industrial papers (excluding linerboard), specialty papers, and other converted papers.
Source: Derived from official statistics of the U.S. Department of Commerce.

1992. The drop in the value of pulp imports is primarily the result of a 2-percent decline in the unit value of pulp imports; the quantity of pulp imports increased slightly.

U.S. Bilateral Trade

U.S. international trade in forest products amounted to $39.4 billion in 1992 (table 13). Slightly less than one-third of this trade was accounted for by U.S. imports from Canada, valued at $12.6 billion. Canada supplied about two-thirds of all U.S. forest product imports. The leading commodities imported from Canada were newsprint, lumber, pulp, and printing and writing papers. The EC was the second-leading source, supplying 9 percent ($1.7 billion) of all U.S. forest product imports in 1992.

Almost three-quarters of all U.S. forest product exports went to Canada, the EC, Japan, or Mexico in 1992. U.S. exports to Canada during 1992 amounted to $4.6 billion. U.S. exports of $4.4 billion accounted for about 72 percent of all forest product trade with the EC in 1992. Exports accounted for 92 percent of all forest product trade with Japan and amounted to $4.2 billion. The fourth-leading market for U.S. forest products in 1992 was Mexico, and exports reached $2.0 billion, an increase of 24 percent. U.S. exports to Mexico accounted for about 80 percent of all forest product trade with that country in 1992.

Commodity Analysis[3]

Wood and wood products[4]

The U.S. trade surplus in wood and wood products narrowed from $1.2 billion in 1991 to only $117 million in 1992, as the level of both imports and exports increased. Imports of wood and wood products increased by 27 percent, reaching $6.7 billion during 1992. As previously stated, the increased level in the value of Canadian lumber imports was one of the primary reasons for the increased level of wood and wood product imports. Imports of lumber increased by $837 million (32 percent) in 1992 to $3.5 billion during 1992. The other commodity groups experiencing major increases in imports included structural panel products (veneer, particleboard, and plywood) (up $332 million or 39 percent), moldings, millwork, and joinery (up $128 million or 24 percent).[5] The bulk of lumber,

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[3] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 14 at the end of the chapter.

[4] Wood and wood products include chapters 44, 45, and 46 of the *Harmonized Tariff Schedule of the United States.* These articles are covered in commodity groups AG046 through AG053 in table 11.

[5] Percentage increases in terms of quantity were considerably less than the value increases shown, primarily for lumber (up 15 percent), and panel products (26 percent).

structural panel products, and millwork are used in the construction sector. The increase was the result of a sharp upturn in the level of U.S. housing starts, the major driving force behind construction consumption. U.S. housing starts increased by 20 percent from 1991, topping 1.2 million units in 1992.

Exports of wood and wood products increased by 5 percent to $6.7 billion during 1992. Rising exports of lumber, millwork and panel products accounted for 85 percent of the increase. Japan, Canada, and Mexico, the three largest U.S. export markets for wood products, accounted for 40 percent, 15 percent, and 8 percent, respectively, of such exports in 1992. Exports of wood and wood products to each of these major markets increased in 1992.

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Pulp, paper, paperboard, and printed material[6]

The United States recorded a $1.9 billion surplus of trade in pulp, paper, paperboard, and printed material in 1992, up sharply from the $1.2 billion surplus posted in 1991. The 1992 surplus was achieved through a 6-percent increase in U.S. exports despite a 1-percent increase in imports in 1992. The value of U.S. exports surpassed the value of imports in 1991 after years of trade deficits. In 1992, the margin of surplus increased as exports exceeded the value of imports by 16 percent.

U.S. exports grew significantly in most commodity groups, excluding the industrial papers and paperboards group and the specialty papers group. For these two groups, export levels were very close to the levels posted in 1991. The value of exports of pulp and wastepaper increased by 7 percent to $3.9 billion in 1992. The quantity of pulp exports increased by 14 percent, while the unit value of these exports actually declined by 3 percent to $482 per ton. Increased U.S. exports to South Korea, Germany, Canada, and the United Kingdom accounted for the bulk of the increase. Exports of printing and writing paper increased by $127 million (15 percent) in 1992. Additional domestic capacity, coupled with the effects of sluggish U.S. markets, prompted domestic producers to sell more printing and writing papers abroad. Box and bag exports increased by $118 million (22 percent) as the United States increased exports to Mexico, Canada, and Honduras. U.S. exports of newsprint climbed by $79 million (20 percent) in 1992, as newsprint producers sought foreign markets to take advantage of increased capacity and to replace lower sales to domestic publishers. U.S. exports of printed matter (books and other printed material) increased by $189 million (6 percent) in 1992 to $3.6 billion. Printed books, including textbooks, technical and professional books, and other miscellaneous printed material, accounted for the bulk of the increase.

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[6] Pulp, paper, paperboard, and printed material include chapters 47, 48, and 49 of the *Harmonized Tariff Schedules of the United States*. These articles are covered in commodity groups AG054 through AG061 in table 11.

U.S. imports of pulp, paper, paperboard, and printed material increased from $11.9 billion in 1991 to $12.0 billion in 1992. Canada accounted for about two thirds of these imports. However, the value of these imports from Canada decreased by about $180 million (by about 2 percent) to $8.1 billion in 1992.

Commodity groups experiencing noticeable increases in imports in 1992 were printed matter (up $166 million or 10 percent), industrial papers and paperboards (up $129 million or 14 percent), paper boxes and bags (up $69 million or 28 percent), and miscellaneous paper products (up $53 million or 14 percent). The import growth is largely attributable to an expansion in U.S. industrial activity that resulted in greater demand for packing containers, boxes, and other commercial packaging papers (kraftliner). In the printed matter grouping, demand also increased for account books and binders. The bulk of the increased printed matter imports consisted of printed books and brochures, such as directories and other professional books.

The import increases were mostly offset by decreased imports in the two largest commodity groups: newsprint and pulp. About 90 percent of this decline is attributable to a reduction in U.S. imports of Canadian newsprint. This reduction was the result of decreased U.S. demand and increased U.S. capacity. Canada supplied about 99 percent of all U.S. imports of newsprint in 1992, the same as in 1991. Canada also supplied about 84 percent of all U.S. pulp imports in 1992.

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Table 14
Forest products sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		----------Million dollars----------			
AG046	Logs and rough wood products:				
	Exports	2,765	2,809	44	1.6
	Imports	299	345	46	15.4
	Trade balance	2,466	2,464	-2	-0.1
AG047	Lumber:				
	Exports	2,220	2,337	117	5.3
	Imports	2,644	3,481	837	31.7
	Trade balance	-424	-1,144	-720	-169.8
AG048	Moldings, millwork, and joinery:				
	Exports	366	444	78	21.3
	Imports	531	659	128	24.1
	Trade balance	-165	-215	-50	-30.3
AG049	Structural panel products:				
	Exports	748	858	110	14.7
	Imports	857	1,189	332	38.7
	Trade balance	-109	-331	-222	-203.7
AG050	Wooden containers:				
	Exports	76	73	-3	-3.9
	Imports	142	162	20	14.1
	Trade balance	-66	-89	-23	-34.8
AG051	Tools and tool handles of wood:				
	Exports	14	16	2	14.3
	Imports	76	86	10	13.2
	Trade balance	-62	-70	-8	-12.9
AG052	Miscellaneous articles of wood:				
	Exports	156	147	-9	-5.8
	Imports	39	428	34	8.6
	Trade balance	-238	-281	-43	-18.1
AG053	Cork and rattan:				
	Exports	35	44	9	25.7
	Imports	306	342	36	11.8
	Trade balance	-271	-298	-27	-10.0
AG054	Pulp and wastepaper:				
	Exports	3,616	3,862	246	6.8
	Imports	2,176	2,138	-38	-1.7
	Trade balance	1,440	1,724	284	19.7
AG055	Paper boxes and bags:				
	Exports	547	665	118	21.6
	Imports	246	315	69	28.0
	Trade balance	301	350	49	16.3
AG056	Industrial papers and paperboards:				
	Exports	3,314	3,328	14	0.4
	Imports	936	1,065	129	13.8
	Trade balance	2,378	2,263	-115	-4.8
AG057	Newsprint:				
	Exports	388	467	79	20.4
	Imports	3,979	3,599	-380	-9.6
	Trade balance	-3,591	-3,132	459	12.8
AG058	Printing and writing papers:				
	Exports	871	998	127	14.6
	Imports	2,100	2,172	72	3.4
	Trade balance	-1,229	-1,174	55	4.5
AG059	Certain specialty papers:				
	Exports	376	376	(3)	-0.1
	Imports	433	472	39	9.0
	Trade balance	-57	-96	-39	-68.4
AG060	Miscellaneous paper products:				
	Exports	577	635	58	10.1
	Imports	376	429	53	14.1
	Trade balance	201	206	5	2.5
AG061	Printed matter:				
	Exports	3,369	3,558	189	5.6
	Imports	1,620	1,786	166	10.2
	Trade balance	1,749	1,772	23	1.3

1 Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
2 This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.
3 Less than $500,000.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 4. Fibers, Textiles, and Apparel

The U.S. trade deficit in fibers, textiles, and apparel widened considerably in 1992, rising by $5.2 billion to a record $26.7 billion (table 15). The widening deficit reflected a resumption of double-digit increases in the rate of import growth and an ongoing slowdown in export expansion. Imports climbed by 17 percent, or by $5.8 billion, reaching $39.5 billion in 1992, following average annual growth of only 5 percent during the previous 5 years. Export growth, after frequently exceeding 20 percent annually during 1986-90, slowed to 9 percent in 1991 and to 5 percent in 1992. The $617 million increase in 1992 pushed exports to $12.7 billion.

A pickup in U.S. apparel retail sales during 1992 boosted demand for apparel imports, which accounted for 80 percent of sector imports and for most of the increase that year. The slowdown in sector exports largely reflected a steep decline in U.S. fiber sales in major foreign markets. The largest export gains were in U.S.-fabricated apparel parts shipped to the Caribbean Basin and Mexico for assembly and reexport to the United States.

U.S. Bilateral Trade

The deterioration in the U.S. sector trade balance in 1992 resulted mainly from a broad-based acceleration in imports from developing nations in Asia and Latin America (figure 9). Within these regions, sector imports from China were especially strong that year, rising by $1.4 billion, or by 31 percent, over the 1991 level. The growth in recent years enabled China, the largest supplier by volume since 1987, to supplant Hong Kong as the top supplier by value in 1991, rising to $6.0 billion in 1992 compared with $4.5 billion from Hong Kong.[1] Import increases of more than $1.0 billion were also recorded by the Caribbean Basin and Mexico as a group and by the ASEAN nations, led by Indonesia, Thailand, and Malaysia.

While many suppliers are expanding their sector shipments to the United States, the traditional "Big Three" suppliers, Hong Kong, Taiwan, and Korea, have seen their market share shrink over the years (figure 10). Their share of sector imports fell to 28 percent in 1992 from 37 percent in 1989. Faced with rising manufacturing costs and keen competition for labor at home, strong currencies, and limited volume quota growth in the U.S. market, the Big Three have been upgrading the quality of their export product mix to the United States and moving production of basic items to lower labor cost countries, such as China and the ASEAN nations.

[1] For imports covered by the Multifiber Arrangement (MFA), which accounted for three-fourths of the value of Chinese shipments in 1992, China surpassed Hong Kong in terms of value only in 1992.

Table 15
Fibers, textiles, and apparel sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

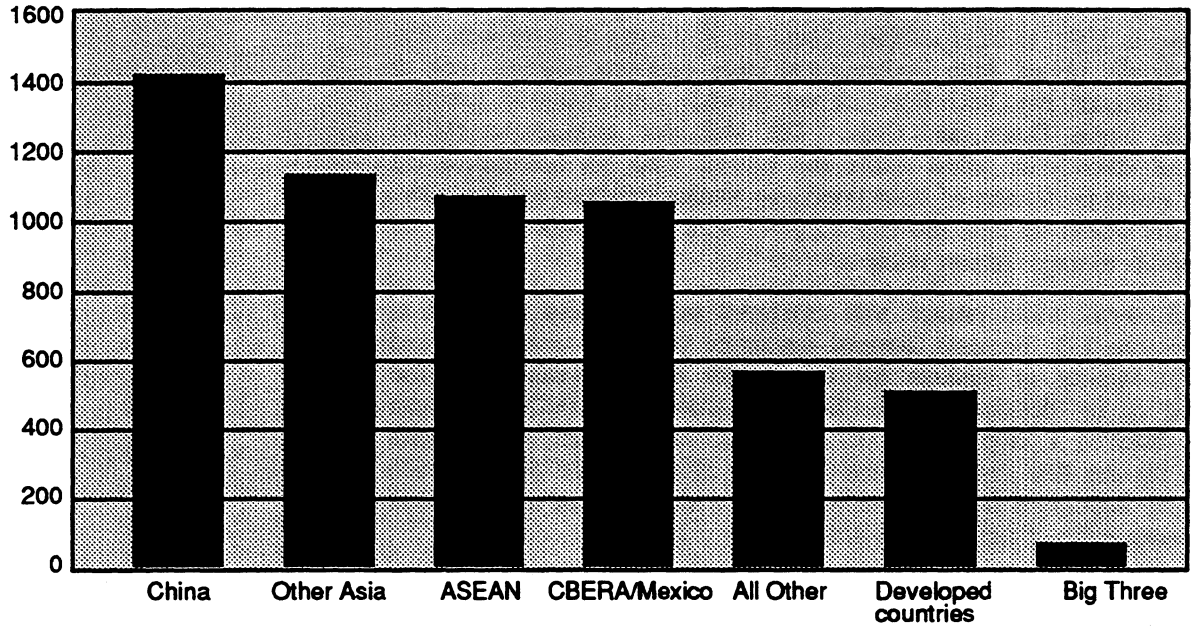
Item	1991	1992	Change 1992 from 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
China	520	327	-193	-37.1
Hong Kong	406	369	-36	-8.9
Korea	495	502	7	1.4
Taiwan	195	199	4	1.9
Mexico	1,177	1,598	421	35.8
Canada	1,735	1,880	145	8.3
Dominican Republic	548	699	151	27.6
Japan	1,195	1,099	-96	-8.0
Italy	338	260	-79	-23.2
Philippines	133	135	2	1.5
All other	5,383	5,674	290	5.4
Total	12,126	12,741	616	5.1
EC-12	2,170	1,995	-175	-8.1
OPEC	785	814	29	3.7
ASEAN	689	695	6	0.9
CBERA	1,566	1,943	377	24.1
Eastern Europe	74	77	3	4.0
U.S. imports for consumption:				
China	4,534	5,962	1,428	31.5
Hong Kong	4,253	4,549	296	7.0
Korea	3,395	3,311	-85	-2.5
Taiwan	3,171	3,026	-145	-4.6
Mexico	1,247	1,550	303	24.3
Canada	890	1,135	245	27.5
Dominican Republic	954	1,249	295	30.9
Japan	783	811	28	3.5
Italy	1,350	1,369	20	1.5
Philippines	1,112	1,313	202	18.2
All other	11,943	15,205	3,262	27.3
Total	33,632	39,480	5,848	17.4
EC-12	3,299	3,427	128	3.9
OPEC	840	1,278	438	52.1
ASEAN	3,901	4,978	1,077	27.6
CBERA	2,621	3,378	757	28.9
Eastern Europe	226	278	52	23.0
U.S. merchandise trade balance:				
China	-4,014	-5,635	-1,621	-40.4
Hong Kong	-3,847	-4,179	-332	-8.6
Korea	-2,901	-2,809	92	3.2
Taiwan	-2,976	-2,827	149	5.0
Mexico	-70	48	118	169.1
Canada	845	745	-100	-11.9
Dominican Republic	-406	-551	-144	-35.5
Japan	412	289	-124	-30.0
Italy	-1,011	-1,109	-98	-9.7
Philippines	-979	-1,179	-200	-20.4
All other	-6,560	-9,531	-2,971	-45.3
Total	-21,506	-26,739	-5,232	-24.3
EC-12	-1,129	-1,432	-303	-26.8
OPEC	-56	-464	-409	-736.2
ASEAN	-3,213	-4,283	-1,070	-33.3
CBERA	-1,055	-1,435	-380	-36.0
Eastern Europe	-152	-200	-49	-32.3

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

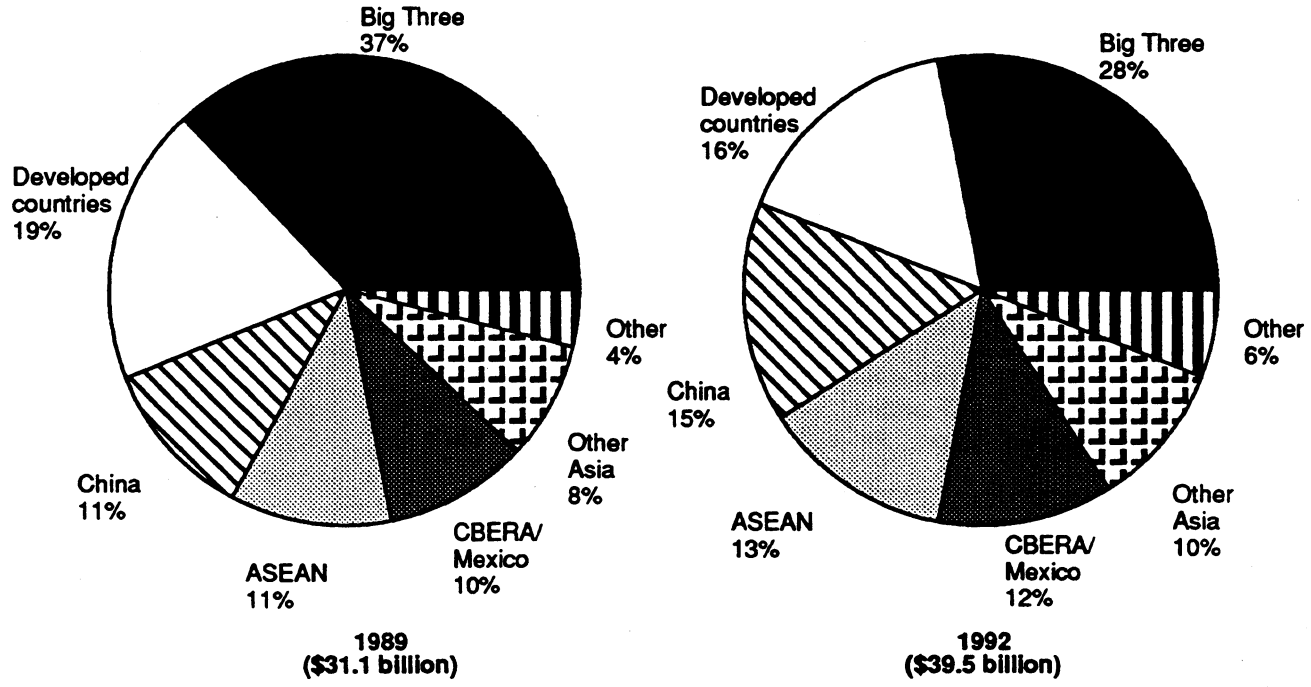
Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 9
U.S. fiber, textile, and apparel imports: Increase 1992 over 1991
Million dollars



Note.—The Big Three includes Hong Kong, Taiwan, and Korea.
Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 10
U.S. fiber, textile, and apparel imports: Percentage distribution by country or country groups, 1989 and 1992



Note.—The Big Three includes Hong Kong, Taiwan, and Korea.
Source: Compiled from official statistics of the U.S. Department of Commerce.

The shift in sector trade to low-labor-cost areas is particularly evident in the pattern of strong import growth from newer market entrants in 1992. Bangladesh, whose shipments have soared in the less than 10 years that it has been a competitive force in the U.S. market, expanded its sales by 56 percent in 1992, to $734 million. Gains of 50 percent or more were also posted by the United Arab Emirates and other emerging sources, such as Bahrain, Bulgaria, the Czech Republic and Slovakia, Laos, Lebanon, Lesotho, Mongolia, Nepal, Oman, and Qatar. The Multifiber Arrangement (MFA) system of controls on world textile and apparel trade has accentuated the shift in world production of these goods, as foreign investors and importers continually search for new low-cost suppliers with fewer quota restraints on their exports to major import markets.[2]

The U.S. sector trade balance with developed countries also worsened in 1992 because U.S. domestic demand for sector products strengthened and economic activity in markets for U.S. sector exports weakened. The widening of the deficits with the European Community (EC) and Japan largely reflected a drop in exports. The narrowing of the surplus with Canada for the first time since the inception of the United States-Canada Free-Trade Agreement in 1989, stemmed from a slowdown in export growth and a continuation of rapid import growth.

Commodity Analysis[3]

Fibers[4]

U.S. fiber exports fell sharply for the second consecutive year, dropping by $588 million (17 percent) to $2.8 billion in 1992 (table 16). Most of the decline occurred in cotton exports, which fell by $500 million to $2 billion largely because of soft markets in Japan and China. In general, world consumption of cotton fell in 1992 because of slow textile mill activity in Europe and Asia. The increase in cotton exports from the former Soviet Union at much lower prices also served to reduce demand for U.S. cotton in world markets. A growing export market for U.S. cotton is Mexico, where U.S. cotton sales rose by $54 million in 1992. Mexico's cotton production has fallen sharply as a result of policies adopted by the Mexican Government in February 1992 to cut agrarian subsidies.

U.S. exports of manmade fibers also fell sharply in 1992, dropping by more than $120 million to $675 million. All but a small part of the decline resulted from reduced demand for U.S. cigarette filter tow, particularly in

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[2] Bilateral agreements negotiated under the MFA govern most U.S. textile and apparel imports. Countries with which the United States had agreements or quotas supplied about three-fourths of total U.S. imports by value in 1992.

[3] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 16 at the end of the chapter.

[4] These articles are covered in commodity group TX001 in table 16.

Table 16
Fibers, textiles, and apparel sectors: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
TX001	Textile fibers and waste:				
	Exports	3,398	2,810	-588	-17.3
	Imports	592	661	69	11.7
	Trade balance	2,806	2,149	-657	-23.4
TX002	Spun yarns:				
	Exports	338	270	-68	-20.1
	Imports	278	334	56	20.1
	Trade balance	60	-64	-124	(3)
TX003	Filament yarns:				
	Exports	751	687	-64	-8.5
	Imports	420	467	47	11.2
	Trade balance	331	220	-111	-33.5
TX004	Miscellaneous yarns:				
	Exports	107	114	7	0.5
	Imports	65	72	7	10.8
	Trade balance	42	42	(4)	-0.7
TX005	Broadwoven fabrics:				
	Exports	1,330	1,477	147	11.1
	Imports	2,953	3,234	281	9.5
	Trade balance	-1,623	-1,757	-134	-8.3
TX006	Knit fabrics:				
	Exports	287	328	41	14.3
	Imports	183	217	34	18.6
	Trade balance	104	111	7	6.7
TX007	Miscellaneous fabrics:				
	Exports	174	179	5	2.9
	Imports	86	100	14	16.3
	Trade balance	88	79	-9	-10.2
TX008	Coated, covered, impregnated, or laminated textile fabrics:				
	Exports	313	360	47	15.0
	Imports	189	200	11	5.8
	Trade balance	124	160	36	29.0
TX009	Cordage, nets, and netting:				
	Exports	48	52	4	8.3
	Imports	127	124	-3	-2.4
	Trade balance	-79	-72	7	8.9
TX010	Certain textile articles and fabrics suitable for industrial use:				
	Exports	211	268	57	27.0
	Imports	142	144	2	1.4
	Trade balance	69	124	55	79.7
TX011	Miscellaneous textiles and articles:				
	Exports	605	709	104	17.2
	Imports	794	894	100	12.6
	Trade balance	-189	-185	4	2.1
TX012	Sacks and bags of textile materials:				
	Exports	16	17	1	6.3
	Imports	52	43	-9	-17.3
	Trade balance	-36	-26	10	27.8
TX013	Carpets and rugs:				
	Exports	704	725	21	3.0
	Imports	591	709	118	20.0
	Trade balance	113	16	-97	-85.8
TX014	Home furnishings:				
	Exports	251	249	-2	-0.8
	Imports	726	827	101	13.9
	Trade balance	-475	-578	-103	-21.7
TX015	Men's and boys' suits and sports coats:				
	Exports	98	114	16	16.3
	Imports	561	662	101	18.0
	Trade balance	-463	-548	-85	-18.4
TX016	Men's and boys' coats and jackets:				
	Exports	81	103	22	27.2
	Imports	1,039	1,285	246	23.7
	Trade balance	-958	-1,182	-224	-23.4
TX017	Men's and boy's trousers:				
	Exports	663	843	180	27.1
	Imports	2,304	2,666	362	15.7
	Trade balance	-1,641	-1,823	-182	-11.1

See footnotes at end of table.

Table 16--Continued
Fibers, textiles, and apparel sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		Million dollars			
TX018	Women's and girls' trousers:				
	Exports	215	312	97	45.1
	Imports	2,737	3,342	605	22.1
	Trade balance	-2,522	-3,030	-508	-20.1
TX019	Shirts and blouses:				
	Exports	451	658	207	45.9
	Imports	7,410	9,173	1,763	23.8
	Trade balance	-6,959	-8,515	-1,556	-22.4
TX020	Sweaters:				
	Exports	30	32	2	6.7
	Imports	1,917	2,149	232	12.1
	Trade balance	-1,887	-2,117	-230	-12.2
TX021	Women's and girls' suits, skirts, and coats:				
	Exports	203	259	56	27.6
	Imports	2,635	3,011	376	14.3
	Trade balance	-2,432	-2,752	-320	-13.2
TX022	Women's and girls' dresses:				
	Exports	65	98	33	50.8
	Imports	938	1,011	73	7.8
	Trade balance	-873	-913	-40	-4.6
TX023	Robes, nightwear, and underwear:				
	Exports	302	382	80	26.5
	Imports	1,293	1,563	270	20.9
	Trade balance	-991	-1,181	-190	-19.2
TX024	Hosiery:				
	Exports	98	135	37	37.8
	Imports	314	178	-136	-43.3
	Trade balance	-216	-43	173	80.1
TX025	Body-supporting garments:				
	Exports	231	278	47	20.3
	Imports	444	557	113	25.5
	Trade balance	-213	-279	-66	-31.0
TX026	Neckwear:				
	Exports	20	21	1	5.0
	Imports	283	294	11	3.9
	Trade balance	-263	-273	-10	-3.8
TX027	Gloves, including gloves for sports:				
	Exports	165	166	1	0.6
	Imports	912	1,124	212	23.2
	Trade balance	-747	-958	-211	-28.2
TX028	Headwear:				
	Exports	89	103	14	15.7
	Imports	495	687	192	38.8
	Trade balance	-406	-584	-178	-43.8
TX029	Leather apparel and accessories:				
	Exports	96	99	3	3.1
	Imports	1,226	1,411	185	15.1
	Trade balance	-1,130	-1,312	-182	-16.1
TX030	Fur apparel and other fur articles:				
	Exports	61	67	6	9.8
	Imports	172	140	-32	-18.6
	Trade balance	-111	-73	38	34.2
TX031	Rubber, plastic, and coated-fabric apparel:				
	Exports	49	47	-2	-4.1
	Imports	121	140	19	15.7
	Trade balance	-72	-93	-21	-29.2
TX032	Nonwoven and related products:				
	Exports	380	408	28	7.4
	Imports	366	436	70	19.1
	Trade balance	14	-28	-42	(3)
TX033	Other wearing apparel:				
	Exports	294	370	76	25.9
	Imports	1,266	1,621	355	28.0
	Trade balance	-972	-1,251	-279	-28.7

1 Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
2 This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
3 Not applicable.
4 Less than $500,000.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Hong Kong, China, and the EC. Increased production of cigarette filter tow in Asia is believed to have accounted for most of the drop in U.S. exports to China and Hong Kong whereas the decline in EC demand most likely resulted from sluggish downstream sales to Eastern Europe. U.S. exports of acrylic staple fiber, mainly to China, fell by 63 percent, or by $44 million. This largely reflected a reduction in U.S. production capacity when DuPont, a major acrylic fiber producer, withdrew from the market in 1991.

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Textile mill products[5]

The U.S. trade deficit in textile mill products widened by $459 million in 1992, to $1.9 billion. Imports rose twice as fast as exports, with the former growing by 12 percent, or by $759 million, to $7.4 billion, and the latter by 6 percent, or by $300 million, to $5.4 billion. The deterioration in the textile trade balance largely reflected a widening of the trade deficits with the EC and China, the largest U.S. suppliers. The deficit with China widened by $181 million to $841 million, and that with the EC by $155 million to $687 million.

China, the EC, India, and the ASEAN countries accounted for most of the growth in U.S. textile imports in 1992. Broadwoven fabric imports, which accounted for 44 percent of total textile imports that year, rose by 10 percent, or by $281 million, reflecting increased apparel production in the United States and in U.S. production-sharing activity offshore. The strongest increase was in denim fabric, which rose by 80 percent in response to the growing popularity of denim apparel. Sizable gains occurred in imports of handmade rugs from China and India, which increased by $85 million, largely as a result of fashion trends in interior design, and in imports of cotton bed linens from Portugal. Significant growth also took place in surgical drapes from Mexico, where they are assembled from U.S.-origin materials and components.

The slowdown in U.S. textile export growth in 1992 resulted largely from smaller shipments to the EC and Japan, major foreign markets. Sales to Canada, the largest export market, rose by only 6 percent to $1.3 billion whereas those to Mexico accelerated by 37 percent to $567 million, making that nation the third largest export market after Canada and the EC. The export slowdown to Canada partly reflected a decline in U.S. carpet shipments of 14 percent, or $37 million, following Canada's imposition of a 12-percent antidumping duty on U.S. manmade-fiber tufted carpets in 1992. Much of the export increase to Mexico was in apparel fabrics and papermaker's felt.

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[5] Textile mill products include yarns, fabrics, homefurnishings, carpets, and industrial goods such as bags, belting, and cordage. These articles are covered in commodity groups TX002 through TX014 in table 16.

Apparel[6]

The U.S. trade deficit in apparel widened substantially in 1992, rising by $4.3 billion to a high of $27.2 billion. Imports rose $5 billion, or 19 percent, to a record $31.4 billion, while exports grew $904 million, or 25 percent, to a new high of $4.5 billion. The import increase in 1992 largely reflected a pickup in U.S. consumer demand for apparel. Based on personal consumption expenditures on apparel, demand for apparel expanded by 4.6 percent in 1992 compared with a decline of 2.3 percent in 1991.[7] The export growth mainly occurred in the Caribbean Basin and Mexico, where U.S. firms maintain extensive production-sharing operations to assemble garments from U.S. components for reexport to the United States.

Developments affecting U.S. apparel trade during 1992 partly reflected the Big Three's shrinking share of the U.S. apparel market. Unable to compete with other Asian sources on price, the Big Three now focus on product quality, innovation, design, and, more recently, "quick response" strategies to remain competitive. In addition, some Big Three producers, along with a number of Japanese firms, ship textile inputs to affiliated contract operations in lower labor cost countries for processing into garments for export to developed country markets.

China and the ASEAN nations have benefited significantly from the apparel investment and technical assistance of the Big Three and Japan. U.S. apparel imports from China, the largest volume supplier, continued to grow rapidly in 1992, rising by $1.2 billion (30 percent) to a record $5 billion. Imports from the ASEAN nations rose by 27 percent to $4.5 billion. Within the ASEAN group, Indonesia expanded its shipments by 50 percent to $930 million; Malaysia, 80 percent to $888 million; and Thailand, 40 percent to $802 million. Many ASEAN producers are diversifying their apparel production, upgrading product quality, and moving into the manufacture of more complex goods like outerwear.

Other established suppliers recording substantial growth in their apparel shipments to the U.S. market in 1992 were India and Pakistan, traditional suppliers of cotton garments that are now diversifying into manmade-fiber goods. U.S. apparel imports from India climbed by 35 percent to almost $1.3 billion, and imports from Pakistan grew by 42 percent to $569 million. Imports from nearby Bangladesh rose by 60 percent to $697 million. Mainly an exporter of basic cotton shirts, blouses, and pants, Bangladesh is now diversifying its production for export into a wider range of apparel products.

For newer and much smaller suppliers, imports nearly doubled in 1992 from the United Arab Emirates ($151 million), Oman ($83 million), and Lesotho ($51 million) whereas those from Qatar more than doubled ($60 million). Substantial increases were also recorded in imports from Nepal ($68 million) and from Bahrain ($28 million). These new suppliers tend to produce only a limited number of basic apparel products.

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[6] These articles are covered in commodity groups TX015 through TX033 in table 16.

[7] U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 1992, and staff of the Bureau of Economic Analysis, telephone conversation with USITC staff, June 13, 1993.

U.S. trade with the Caribbean Basin and Mexico continued to expand rapidly in 1992, benefiting from the growing use of U.S. production-sharing operations in the region and the "special market access" for garments that have been assembled there from fabric formed and cut in the United States. Increases of 30 percent were recorded in apparel imports from both the Caribbean nations, to $3.3 billion, and Mexico, to $1.2 billion. Garments assembled under production-sharing arrangements accounted for almost 80 percent of the value of imports from the Caribbean and nearly 90 percent of those from Mexico. Quota and duty elimination under the proposed North American Free-Trade Agreement (NAFTA) will likely make Mexico an attractive alternative to the Big Three and China and will likely result in a shift in some U.S. trade in assembly work from the Caribbean Basin to Mexico.

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CHAPTER 5. Energy and Chemicals

The U.S. trade deficit in chemicals and related products and in energy-related products, including coal, petroleum, natural gas, and petroleum-related products, increased by about $3.1 billion (12 percent) to $28.9 billion in 1992 compared with a deficit of $25.8 billion in 1991. In 1992, the trade surplus for chemicals and related products declined by $2.0 billion (14 percent) to $12.7 billion whereas the trade deficit for energy-related products increased by $1.1 billion (3 percent) to $41.6 billion (tables 17 and 18). The worsening of the trade balance in chemicals and energy-related products in 1992 is attributable to several factors, including increased domestic demand that reduced the capacity to export, growth of offshore production capacity, and reduced foreign consumption which may be due partly to the impact of the worldwide recession.

The trade surplus for chemicals and related products declined in 1992 as a result of a sharp increase in imports of $4.0 billion, more than offsetting a rise in exports of $2.0 billion. In contrast, the trade deficit for energy-related products increased in 1992 as a result not of higher imports (imports were steady in 1992) but of a fall in exports which declined by $1.2 billion.

Product groupings that experienced the most substantial deterioration in their trade balances in 1992 were, in descending order, crude petroleum; fertilizers; polyethylene, polypropylene, and polyvinylchloride resins in primary forms combined; coal and other carbonaceous materials; and miscellaneous organic chemicals. These products or product groupings experienced a deterioration in balance of trade of $738 million, $689 million, $593 million, $507 million and $431 million, respectively. In contrast, only petroleum products experienced an improvement in trade balance of more than $200 million (a $280 million improvement in 1992). The U.S. dependence on foreign suppliers for crude petroleum increased in 1992 both in terms of quantity and value. However, imports of another group of energy-related products, petroleum products, declined substantially in value.

U.S. Bilateral Trade

The U.S. trade balance in chemicals and related products with a number of East Asian countries (especially Japan and China) deteriorated sharply in 1992. U.S. imports from Japan rose by $613 million whereas exports declined by $302 million. U.S. imports of chemicals and related products from Japan rose across the board but increased particularly sharply in medicinals. As a result, the U.S. trade balance with Japan in 1992 in chemicals and related products declined by about 84 percent, or by $915 million. U.S. imports from China in chemicals and related products rose by $386 million whereas exports declined by $462 million. As a result, the U.S. trade balance with China in 1992 declined by $848 million for these products, totally eliminating a surplus of $797 million in 1991. Reduced U.S. exports of fertilizers to China accounted for much of the decline in the U.S. balance of trade with China. The U.S. trade balance with Japan for energy-related products declined by $253 million but rose by almost the same amount for trade with China.

Table 17
Chemicals and related products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	8,490	9,373	883	10.4
Japan	5,324	5,022	-302	-5.7
Germany	2,075	2,159	84	4.1
Mexico	3,452	4,227	775	22.4
United Kingdom	1,737	2,088	351	20.2
Taiwan	1,873	2,034	162	8.6
France	1,165	1,367	202	17.3
Netherlands	2,316	2,507	191	8.2
Belgium	2,459	2,496	37	1.5
China	1,677	1,215	-462	-27.5
All other	16,508	16,572	64	0.4
Total	47,075	49,059	1,984	4.2
EC-12	11,789	12,850	1,061	9.0
OPEC	1,779	1,788	9	0.5
ASEAN	1,803	1,992	189	10.5
CBERA	1,194	1,256	62	5.2
Eastern Europe	126	133	7	5.3
U.S. imports for consumption:				
Canada	5,859	6,604	746	12.7
Japan	4,234	4,847	613	14.5
Germany	3,609	4,007	398	11.0
Mexico	1,084	1,180	96	8.8
United Kingdom	2,382	2,792	411	17.2
Taiwan	1,360	1,376	16	1.2
France	1,812	1,992	180	9.9
Netherlands	656	714	58	8.8
Belgium	472	697	225	47.8
China	880	1,266	386	43.8
All other	9,998	10,866	868	8.7
Total	32,344	36,340	3,996	12.4
EC-12	11,104	12,584	1,481	13.3
OPEC	622	810	188	30.2
ASEAN	1,486	1,709	223	15.0
CBERA	705	709	4	0.5
Eastern Europe	148	136	-12	-8.2
U.S. merchandise trade balance:				
Canada	2,631	2,769	137	5.2
Japan	1,090	176	-915	-83.9
Germany	-1,534	-1,848	-314	-20.4
Mexico	2,367	3,046	679	28.7
United Kingdom	-644	-705	-60	-9.3
Taiwan	513	658	145	28.3
France	-647	-625	22	3.4
Netherlands	1,661	1,793	133	8.0
Belgium	1,987	1,799	-188	-9.5
China	797	-51	-848	-106.4
All other	6,510	5,706	-805	-12.4
Total	14,731	12,720	-2,012	-13.7
EC-12	685	265	-420	-61.3
OPEC	1,157	978	-179	-15.5
ASEAN	317	283	-34	-10.7
CBERA	489	547	58	11.9
Eastern Europe	-22	-3	19	85.8

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Table 18
Energy-related products sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	1,510	1,606	96	6.3
Saudi Arabia	135	29	-106	-78.3
Venezuela	258	147	-111	-42.9
Mexico	940	1,326	386	41.1
Nigeria	14	18	4	26.9
Angola	2	2	0	-11.3
United Kingdom	434	355	-79	-18.2
Algeria	25	29	4	15.1
Japan	1,478	1,317	-161	-10.9
Colombia	74	62	-12	-16.8
All other	9,252	8,070	-1,181	-12.8
Total	14,121	12,960	-1,161	-8.2
EC-12	4,578	3,644	-934	-20.4
OPEC	647	412	-235	-36.4
ASEAN	561	610	49	8.8
CBERA	933	828	-104	-11.2
Eastern Europe	161	107	-54	-33.3
U.S. imports for consumption:				
Canada	10,466	10,846	380	3.6
Saudi Arabia	10,843	10,132	-711	-6.6
Venezuela	7,027	6,773	-254	-3.6
Mexico	4,639	4,605	-34	-0.7
Nigeria	5,321	5,026	-295	-5.5
Angola	1,774	2,264	490	27.6
United Kingdom	1,456	1,824	368	25.3
Algeria	2,098	1,579	-520	-24.8
Japan	113	205	93	82.3
Colombia	1,233	1,158	-75	-6.1
All other	9,681	10,155	474	4.9
Total	54,652	54,568	-84	-0.2
EC-12	3,278	3,650	372	11.3
OPEC	27,874	26,172	-1,702	-6.1
ASEAN	1,064	670	-394	-37.0
CBERA	1,403	1,476	73	5.2
Eastern Europe	2	35	33	1,321.7
U.S. merchandise trade balance:				
Canada	-8,956	-9,240	-284	-3.2
Saudi Arabia	-10,708	-10,103	606	5.7
Venezuela	-6,770	-6,626	144	2.1
Mexico	-3,699	-3,279	420	11.4
Nigeria	-5,307	-5,008	299	5.6
Angola	-1,772	-2,262	-490	-27.7
United Kingdom	-1,022	-1,469	-447	-43.7
Algeria	-2,074	-1,550	523	25.2
Japan	1,365	1,111	-254	-18.6
Colombia	-1,159	-1,097	62	5.4
All other	-429	-2,085	-1,655	-385.6
Total	-40,531	-41,608	-1,077	-2.7
EC-12	1,301	-5	-1,306	-100.4
OPEC	-27,227	-25,760	1,467	5.4
ASEAN	-503	-60	444	88.1
CBERA	-471	-648	-177	-37.7
Eastern Europe	158	72	-86	-54.3

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

The U.S. trade balance in chemicals and related products with Canada and Mexico improved by $138 million and $679 million, respectively, in 1992. Increased exports to Mexico accounted for most of the improvement in the U.S. balance of trade with Mexico for these products. In 1992, the U.S. trade balance in energy-related products declined by $284 million with Canada but rose by $420 million with Mexico, partly because of sharply increased exports to Mexico of natural gas and natural gas products. Increased imports from Canada and increased exports to Mexico accounted for most of the change of the U.S. trade balance with these countries for energy-related products.

The U.S. trade balance in chemicals and related products with the European Community declined by $419 million in 1992. Germany accounted for $314 million of that decline. Although exports to the EC rose by $1.1 billion, or by 9 percent, imports from the EC rose by $1.5 billion, or by 13 percent, leading to a net decline in the U.S. merchandise trade balance with the EC. The U.S. trade balance in energy-related products with the EC declined by $1.3 billion, completely eliminating the $1.3 billion surplus in 1991. Although imports from the EC rose significantly (by $372 million, or by 11 percent, largely as a result of increased imports of crude petroleum from the United Kingdom and Norway), most of the decline in the U.S. trade balance for these products with the EC was accounted for by reduced U.S. exports. U.S. exports to the EC of energy-related products declined by $934 million, or by 20 percent, in 1992. For example, U.S. exports of petroleum products to the Netherlands declined by $313 million to $347 million in 1992.

U.S. imports from OPEC of energy-related products decreased by $1.7 billion in 1992, or by 6 percent, falling to $26.2 billion. U.S. exports of energy-related products to OPEC, which are much smaller than U.S. imports, declined by 36 percent, or by $235 million, to $412 million. As a result, the U.S. trade deficit with OPEC in energy-related products fell by $1.5 billion. The U.S. trade balance in chemicals and related products with OPEC declined by $179 million in 1992, almost entirely as a result of increased imports from OPEC of these products.

Commodity Analysis[1]

Crude petroleum

U.S. imports of crude petroleum, which accounted for approximately 38 percent of the total U.S. trade deficit, or $38.1 billion, accounted for 38 percent of domestic consumption of crude petroleum in 1992. U.S. imports began to increase in late 1985 when world crude petroleum prices plummeted as a result of an oversupply of crude on the world market; this situation led to annual increases in the U.S. trade deficit. The quantity of U.S. imports of crude petroleum increased from 2.1 billion barrels, valued at $37.4 billion, in 1991 to 2.3 billion barrels, valued at $38.1 billion, in 1992. Saudi Arabia, a member of OPEC, was the largest source of U.S. imports. Because of the rise in imports, the trade deficit in crude petroleum increased by $738 million (2 percent) to $38.1 billion in 1992.

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[1] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 18 at the end of the chapter.

U.S. exports of crude petroleum do little to ease the total U.S. trade deficit, which is so significantly affected by U.S. imports of crude petroleum. U.S. exports of crude petroleum are prohibited except as approved by the U.S. Government; Canada has been the only consistent market for these exports as part of a commercial exchange agreement between U.S. and Canadian refiners, and approved by the U.S. Secretary of Energy. In 1987, small shipments of Alaskan North Slope crude petroleum were approved for export to Korea, Taiwan, and Australia. U.S. exports decreased from 1.7 million barrels, valued at $35 million, in 1991 to 1.4 million barrels, valued at $26.6 million, in 1992. Canada accounted for more than 90 percent of these U.S. exports.

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Fertilizers

A small increase in U.S. imports, combined with a large export decrease, resulted in a $689 million deterioration of the trade surplus in fertilizers to $869 million during 1992. U.S. fertilizer exports declined $643 million, or 20 percent, to $2.6 billion in 1992 reflecting a significant decrease in nitrogenous and phosphatic fertilizer exports to China and reduced shipments of phosphatic fertilizers to India. These trends characterize the purchasing patterns of China and India, which frequently exhibit significant changes from year to year. Although China tends to purchase fertilizers from foreign suppliers during periods when the country has ample currency to pay for these products and when prices are as low as they were during 1992, other nonfiscal factors may take precedence in procurement decisions. Significant lag time of fertilizer distribution to end-users in the Chinese market, caused by a lack of modern infrastructure, often disrupts procurement and can result in major shifts in fertilizer exports to China. Lower demand for fertilizers by India during 1992 is likely a result of a destructive fall monsoon that adversely affected India's agricultural production during the latter portion of the year.

U.S. imports of fertilizers increased by $46 million (3 percent) in 1992 to $1.8 billion. Reported increased purchases of nitrogenous fertilizers from the former Eastern bloc and Chile (which has increased its production capacity) and reported increased purchases of phosphatic fertilizers from Morocco contributed to the rise in the value of fertilizer imports in 1992.

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Coal and other carbonaceous materials

The United States, one of the world's largest suppliers of coal and net exporter of coal, registered a deterioration of its trade surplus in coal and other carbonaceous material by $507 million to $3.9 billion in 1992 because of an increase in U.S. imports. U.S. imports of coal and other carbonaceous materials increased by 28 percent in terms of quantity and 36 percent in terms of value, from 4.7 million tons, valued at $309 million, in 1991 to 6.1 million tons, valued at $420 million, in 1992. Canada and Colombia are the major sources of U.S. imports of coal; however, U.S. imports of coke from Japan accounted for 52 percent of the increase in total coal and other carbonaceous materials imports in 1992. During 1992, Japan's exports of

coke to the United States nearly doubled. Historically, Japan has imported metallurgical coal from several nations, including the United States, to produce coke, which is used in the production of steel. Since Japan's production of steel has declined, there is excess coke production which is being exported at low prices.

U.S. exports of coal and other carbonaceous materials decreased slightly from 99.9 million short tons, valued at $4.7 billion, in 1991 to 94 million short tons, valued at $4.3 billion, in 1992. The major markets for U.S. coal exports were Canada and Japan. U.S. exports of bituminous and lignite coals accounted for about 90 percent of total exports; these are high-quality, low-sulfur coals used primarily for the generation of electricity. The United States, which leads the world in total reserves and production of coal, is viewed as a secure source of coal on the world market.

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Miscellaneous organic chemicals

Because growth in imports sharply outpaced growth in exports, the trade surplus for miscellaneous organic chemicals worsened in 1992, declining by $431 million to $1.5 billion. U.S. imports of miscellaneous organic chemicals increased by $487 million (17 percent) to $3.4 billion in 1992. This trend is mainly attributable to some continued growth in the U.S. economy during the first half of 1992. High-unit-valued imports from Singapore, consisting of prepared mixtures for electronics use, additives for plastics, and miscellaneous chemicals, amounted to a total of $499 million in 1992, compared with $403 million in 1991.

U.S. exports of miscellaneous organic chemicals increased by $56 million (1 percent) to $4.9 billion in 1992. The slight increase in value was accounted for by a continued shift in exports to higher volumes of low-unit chemicals.

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Polypropylene resins in primary forms

The decline in U.S. exports of polypropylene can be attributed to the increase in world capacity that occurred in 1992—a new Mexican facility with a capacity of 165,000 tons per year came on-stream in June 1992; a plant of 50,000 tons per year was completed in Japan in April; and a facility of 150,000 tons per year was completed in Brazil. U.S. imports of polypropylene increased slightly (in terms of value) whereas U.S. exports of polypropylene declined markedly. Consequently, the trade surplus in polypropylene ($724 million in 1991 and $439 million in 1992) declined by $285 million, or by 39 percent, in 1992. The most significant shift in polypropylene trade resulted from declining exports, which fell from $788 million in 1991 to $522 million in 1992, a decline of $266 million (34 percent), reflecting substantially reduced exports to Mexico, China, Hong Kong, and Taiwan.

U.S. imports of polypropylene increased by 30 percent in 1992, from $64 to $83 million. Imports from Canada and Japan accounted for nearly all polypropylene imports in 1992. Import penetration from Canada was aided

by the gradual reduction in the tariff duty under provisions of the United States-Canada Free-Trade Agreement.

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Petroleum products

In 1992, petroleum products accounted for approximately 5 percent of the total U.S. trade deficit, or $4.7 billion. The U.S. trade deficit in petroleum products improved slightly by $280 million from 1991 to 1992, or by 6 percent. However, it should be noted that the quantities of imports and exports of each individual petroleum product increased during the period, but, because of the decrease in the per barrel price of crude petroleum, the values decreased.

The value of U.S. imports of petroleum products decreased by $1.3 billion to $11.3 billion in 1992, or by 10 percent; however, in terms of quantity, imports increased by approximately 5 percent. Venezuela and Algeria, both members of OPEC, were the first and third leading import sources of petroleum products; Canada was the second largest supplier. U.S. refineries are currently operating at over 90 percent capacity to supply more of the domestic demand for petroleum products; imports account for any remaining demand, which has been increasing steadily (in terms of quantity) since the late 1980s.

The United States supplies less than 5 percent of the world's total demand for petroleum products. The value of U.S. exports of petroleum products decreased by $1 billion to $6.6 billion in 1992, or by 13 percent; however, in terms of quantity, exports increased by 3 percent. Canada, Mexico, the Netherlands, and Japan remained the major U.S. markets for these exports.

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Polyethylene resins in primary forms

The decline of the polyethylene trade surplus by $219 million to $793 million can be attributed to falling exports caused by substantial increases in global polyethylene capacity. Traditional importers, such as South Korea, have expanded capacity significantly and have become net exporters in the world market. Overcapacity and poor demand have stagnated the European industry, and lower demand in most Asian segments have reduced consumption volumes in this region. As a result of these changing patterns in production and consumption, traditional U.S. export markets remained weak and U.S. exports dropped by 14 percent to $1.3 billion.

The reported global capacity increase was 1.5 million metric tons per year in 1992, with approximately half of this increase occurring in Europe. The overcapacity situation echoed throughout the world market leading to depressed prices and falling operating rates (84.7 percent in 1991 to 82.3 percent in 1992). The outlook for U.S. exports remains dim as more capacity expansions are expected in 1993.

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Natural gas and components

The balance of trade in natural gas and components declined by $180 million (7 percent) during 1991-92, to $2.8 billion. Trade in natural gas, during 1991-92, has largely been influenced by the easing of certain purchasing practices and requirements of the Mexican Government related to the NAFTA, allowing for increased access for U.S. producers to market their production in Mexico. Because of this, Mexico supplanted Japan as the largest foreign market for U.S. exports of natural gas and natural gas products during 1992, as exports to Mexico increased by nearly 140 percent. The value of all exports of natural gas and its products increased by 8 percent, from $732 million during 1991 to more than $792 million during 1992. U.S. exports of liquefied natural gas (LNG) and natural gas products to Japan declined by 49 percent, as Japan and Canada each accounted for a 16 percent share of U.S. exports.

The value of imports of natural gas and its products increased from $3,383 million during 1991 to more than $3,623 million during 1992, most of which entered into the Western United States. Most of this 7-percent increase resulted from increased imports from our major trading partner for this commodity—Canada. However, despite the size of the change in imports, this increase in imports across the Western U.S.-Canadian border may possibly be transitory owing to variances in weather conditions from one year to the next. Canada remains the United States' primary import source of natural gas and natural gas products, accounting for more than 91 percent of all imports in terms of value.

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Benzenoid commodity chemicals

Benzenoid commodity chemicals experienced a $177 million deterioration (18 percent) in their trade surplus to $834 million in 1992. U.S. imports of benzenoid commodity chemicals, used as precursors in the manufacture of plastics resins, adhesives, and synthetic fibers and as feedstocks for producing other intermediate chemicals, decreased by $54 million, or by 15 percent, to $297 million during 1992, reflecting reduced average unit values (by about 12 percent) for these products. Unit values for imports in this commodity grouping declined in 1992 primarily because raw material costs used to produce these petroleum-derived chemicals fell. The principal sources of imports of benzenoid commodity chemicals by value in 1992 were Canada (45 percent) and the Netherlands (26 percent).

U.S. exports of benzenoid commodity chemicals declined by $231 million (or 17 percent) to 1.1 billion in 1992 primarily reflecting a decline of exports to countries in East Asia, including Taiwan, China, Korea and Japan. The startup of new capacity to produce these chemicals in the Far East without an increase in consumption over 1991-92 was principally responsible for the decline. The major markets for benzenoid commodity chemicals by value in 1992 were Taiwan (27 percent), the Netherlands (15 percent), Canada (12 percent), Mexico (8 percent), China (7 percent), and Korea (6 percent).

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Selected chemical salts and other primarily inorganic chemicals

The trade balance for selected chemical salts and certain other inorganic chemicals grew by $116 million (19 percent) to $720 million in 1992, reflecting an increase in exports which more than offset a rise in imports. U.S. exports of these products increased in 1992, rising by $233 million (12 percent) to $2.2 billion. U.S. imports of these chemicals (including catalytic preparations) rose by $117 million (9 percent) to $1.5 billion in 1992.

Of all the products that make up this grouping, precious metal catalysts experienced the greatest change in trade during 1991-92. Both U.S. exports and imports of supported catalytic preparations containing a precious metal or precious metal compound as the active substance rose sharply during 1991-1992. U.S. exports of these types of catalytic preparations nearly doubled, from $135.7 million to $249.8 million, a $114 million increase, accounting for nearly half the increase in total exports of these articles. U.S. imports of these types of catalytic preparations jumped from $19.9 million to $71.3 million. According to industry observers, U.S. trade in supported catalysts containing a precious metal substance, such as platinum, palladium, or rhodium, increased because of the rising worldwide and domestic use of these types of catalysts in automobile emission controls.

Most U.S. imports of supported catalytic preparations containing a precious metal came from Canada and Western Europe, especially from the United Kingdom. Most U.S. exports of precious-metal catalysts went to Canada, Japan, and Western Europe, especially to the United Kingdom, which accounted for slightly more than half of the total U.S. export market during 1992.

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Miscellaneous rubber or plastics products

The trade deficit for these products increased $108 million (12 percent) in 1992, to $1.0 billion. U.S. imports of miscellaneous rubber or plastics products increased by $518 million (18 percent) in 1992, to $3.4 billion. These products include several thousand finished and semifinished products as diverse as shopping bags, shower curtains, rubber masks, and gaskets. Rising imports from China and Canada accounted for most of the increase. U.S. imports from China rose from $375 million to $609 million whereas U.S. imports from Canada rose from $423 million to $527 million. Many of these imports are household articles, including tableware, kitchenware, and toilet articles. Next to Taiwan, China has emerged as the major source of miscellaneous rubber or plastics products for the United States. A rapidly developing petrochemical industry in China provides the raw materials for the relatively inexpensive derivative plastics and rubber products exported to the United States.

U.S. exports of these products increased by $410 million (21 percent) in 1992, to $2.4 billion. Rising exports to Mexico and Canada accounted for

most of the current increase. During 1991-92, U.S. exports to Mexico rose from $390 million to $595 million whereas U.S. exports to Canada rose from $757 million to $832 million. Most of these U.S. exports are unfinished plastic products requiring fabrication for packaging or consumer end-use applications. As Mexico's economy continues to grow and Canada's economy slowly recovers from its recent recession, increased U.S. exports of consumer-oriented plastic products to these countries are anticipated.

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Chlor-alkali chemicals

Because the decline in U.S. exports of chlor-alkali chemicals, which decreased $109 million to $803 million in 1992, surpassed the $7 million decline in imports, the trade surplus for these chemicals deteriorated by $102 million to $633 million in 1992. U.S. imports of these chemicals rose by 2.7 percent in quantity in 1992 to 1.3 million metric tons, but dropped by 4 percent in value to $170 million. U.S. exports of these chemicals dropped 1.0 percent in quantity and 12 percent in value in 1992, to 4.3 million metric tons, valued at $803 million.

Significant declines occurred in 1992 for U.S. exports of these chemicals to Jamaica (30 percent in quantity and 34 percent in value) and to Mexico (33 percent in quantity and 28 percent in value). In this industry, the product that experienced the greatest decline in export value in 1992 was caustic soda, down 21 percent in terms of quantity and almost 36 percent ($144 million) in terms of value, to 1.1 million metric tons, valued at $261 million. Industry sources attribute this decline to reduced aluminum consumption (caustic soda is used to produce aluminum) and to increased domestic demand.

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Polyvinyl chloride (pcv) resins in primary forms

The trade balance for polyvinyl chloride (pvc) resins in primary forms deteriorated by $89 million to $406 million in 1992, reflecting a decline in exports and a small rise in imports. Exports of pvc resins declined by $61 million to $488 million in 1992 after a strong growth during the previous 4 years culminating in a peak of $549 million in 1991. The decreasing exports to Asian markets, most notably to Taiwan, Korea, and Hong Kong, contributed to a decline in the pvc surplus trade balance. The decline of U.S. pvc exports during 1992 was reportedly a result of stronger domestic demand that led to higher U.S. prices and reduced the need to export. (About 15 percent of U.S. production was exported during the past 2 years.) Strong demand for pvc was prompted by the slight upturn in the economy and the corresponding $21 billion increase in the residential construction industry. Typical products produced from pvc include pipe, conduit, wire coverings, and flooring which are mainly used in new housing construction.

U.S. imports of pvc increased by $28 million (52 percent) to $82 million in 1992, also contributing to the deterioration in the trade surplus. Canada was

the leading import source; imports from Canada more than doubled from $18 million in 1991 to $38 million in 1992. One contributing factor to the growth of these imports has been the gradual phasing out of the duty rate applied to Canada under the United States-Canada Free-Trade Agreement; in 1991 the rate was 4 percent ad valorem, and in 1992 the rate was 2 percent ad valorem. The two Canadian polyvinyl producers that have recently added capacity may be rationalizing production schemes by increasing intercompany shipments between the subsidiary in Canada and the parent in the United States.

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Selected inorganic chemicals and elements

The trade deficit for certain chemical elements, inorganic oxides, and nonmetallic sulfides and halides, which amounted to $680 million in 1991, decreased to $595 million in 1992, an $85 million improvement, as a result of the decrease in imports of $210 million, which exceeded that in exports of $125 million. U.S. imports of these chemicals and elements rose 3 percent in terms of quantity to 5.1 million metric tons in 1992, but the value of these imports dropped to $1.4 billion (13 percent). U.S. exports of these chemicals and elements dropped by 10 percent in quantity in 1992 to 1.3 million metric tons and by 14 percent in value to $768 million.

Sixty percent of the decline that occurred in 1992 for U.S. exports of these chemicals and elements is accounted for by reduced exports to Mexico, which declined by 27 percent in value, or by $89 million, to $76 million. In addition, U.S. exports of these chemicals and elements to Malaysia declined by 31 percent in value, or by $9.7 million, to $22 million.

The products in this industry segment that experienced the greatest declines in 1992 were aluminum oxide and semiconductor-grade silicon metal. Trade in aluminum oxide in 1992 was down 29 percent in export value to $280 million and down 20 percent in import value to $848 million. Trade in semiconductor-grade silicon metal was down 27 percent in export value to $84 million and down 32 percent in import value to $23 million. An industry observer attributes the decline in U.S. exports of aluminum oxide to increased exports from the former Soviet Union, to worldwide overproduction, and to the impact of the worldwide recession. Industry sources attribute the decline in U.S. exports of semiconductor-grade silicon metal to new factories for this product in developing countries and to increased domestic demand that reduced the capacity to export.

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Pneumatic tires and tubes

The negative trade balance for pneumatic tires and tubes was $1.1 billion in 1992, an increase of $58 million (6 percent) in their trade deficit. Increasing by $184 million (8 percent) to $2.4 billion in 1992, U.S. imports of new

pneumatic tires and tubes, particularly from Canada and Brazil, are mostly related party transactions by multinational corporations, such as Goodyear and Michelin. Increases in imports over this period were necessary to supplement domestic supply.

In recent years, worldwide consolidation of the tire industry has changed the structure of the U.S. industry. Internationally, most of the world tire production is by a few multinationals—mainly European and Japanese. Most of the U.S. tire producers are affected by this consolidation, for example, Michelin/Uniroyal-Goodrich, Bridgestone/Firestone, Continental/General, Pirelli/Armstrong, and Sumitomo/Dunlop. Goodyear still remains an unaffiliated U.S. multinational.

U.S. exports of these products increased by $126 million (10 percent) in 1992, to $1.3 billion. Rising exports to Canada, Mexico, and Germany accounted for most of the increase. Once again, these exports are mainly related-party transactions by multinational corporations. U.S. exports have increased every year since 1987, as the acquisitions and mergers of domestic tire companies have led to a highly concentrated and efficient U.S. tire industry.

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Pharmaceuticals[2]

The U.S. pharmaceutical industry has historically maintained a trade surplus, which, in 1992, declined by $41 million, or by 4 percent, to $948 million. U.S. exports of pharmaceuticals increased by $1 billion (17 percent) to $6.7 billion in 1992. The three largest foreign markets by value for total pharmaceutical exports in 1992 were Japan (14 percent), Canada (12 percent), and Germany (11 percent). Export growth has been stimulated both by a shift in demographics in a number of countries, including Japan, and by the results of continuing research and development in products used to treat chronic and geriatric diseases. Additionally, the passage of the Drug Export Amendments Act in 1986 has continued to stimulate export growth by permitting companies operating in the United States to export drugs not yet approved by the FDA to a select list of countries. Biotechnology products are also exported; however, no trade data are collected for these products. One industry source has stated that there is currently a trade surplus in biotechnology products.

An increase in U.S. imports of bulk and finished dosage-form pharmaceuticals by $1 billion (21 percent) to $5.7 billion in 1992 is largely attributable to an increased demand in the United States for products used to treat chronic health conditions. These conditions, particularly prevalent among the United States' growing geriatric population, include circulatory problems, heart disease, arthritis, and cancer. There is also an increased demand for pharmaceutical products used in the treatment of conditions associated with Acquired Immune Deficiency Syndrome (AIDS). The major sources of these imports, by value, were the United Kingdom (15 percent), Germany (15 percent), and Japan (12 percent).

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[2] For the purposes of this report, the pharmaceutical sector has been divided into two commodity groupings: Medicinal Chemicals, Except Antibiotics (CH028) and Antibiotics (CH029).

U.S. imports of bulk-active ingredients accounted for almost 50 percent by value of total pharmaceutical imports in 1992, reflecting the continuing trend of many developed countries to import bulk product rather than finished dosage-form pharmaceutical preparations. As in past years, related party transactions accounted for a significant share of the total because many of these products are currently protected by U.S. patents. Although most, if not all, of the major pharmaceutical companies have production facilities in the United States that supply the majority of pharmaceuticals consumed in the United States, several considerations result in many of these companies importing certain products in bulk form from sites outside the United States and formulating them domestically. Such considerations include the specialized equipment often needed to manufacture pharmaceutical products; the increasing tendency of U.S. firms to seek marketing approval overseas prior to or during application for such approval in the United States; and a reluctance by individual firms to invest in duplicate production facilities, considering the costs associated with compliance with national regulatory requirements.

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Miscellaneous chemical specialties

This group comprises a number of mostly unrelated commodities and products—ranging from basic natural products, from insect waxes to such packaged consumer goods as shoe and furniture polishes and medical specialty products. The positive trade balance for this group decreased by $32 million (7 percent) to $406 million in 1992, with increases in both imports and exports.

Imports in this product grouping rose sharply by $166 million (39 percent) to $596 million in 1992. About two-thirds of the rise in imports in this product grouping was attributable to increased imports of nicotine-impregnated transdermal patches, a high-valued pharmaceutical product recently approved by the Food and Drug Administration to assist smokers cope with withdrawal symptoms when quitting smoking. Although the United States represents the only significant market for smoking cessation products, the principal marketers of transdermal nicotine patches established their manufacturing facilities in other countries because of business and tax considerations. Increased imports of laparotomy sponges and other surgical wadding from China, candles from the Far East, and dental impression compounds from Germany and Switzerland also contributed to the rise in the import value in this product grouping. Imports of products from China and other Far Eastern countries increased, and are generally labor intensive with regard to both production and packaging. For example, surgical products are generally packaged individually in sterile containers, and the packaging operation can cost more than the value of the contents.

A large part of the $134 million increase in U.S. exports was miscellaneous chemical products and mixtures that were not classified elsewhere. There was no particular reason for the increase in these exports. Exports in surgical sutures, another large part of the increase, were substantially counterbalanced by rises in imports of similar products.

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Benzenoid specialty chemicals

The increases in U.S. imports and exports of benzenoid specialty chemicals virtually offset each other, resulting in a $14 million increase in the trade surplus to $1.3 billion. U.S. imports of certain specialty benzenoid intermediate chemicals, including pharmaceutical intermediate chemicals, certain fine chemicals, and synthetic dye and pigment intermediates, rose as a result of an increase in related party transactions between either foreign parent companies and their U.S. subsidiaries or U.S. multinational chemical firms and their foreign subsidiaries. U.S. imports of benzenoid specialty chemicals rose by $201 million to $2.2 billion in 1992, or by 10 percent. The rise in related party transactions represents a trend reflecting the increased global character of the chemical industry. The principal sources of imports of benzenoid specialty chemicals by value during this same period were Germany (16 percent), Japan (15 percent), the United Kingdom (15 percent), Italy (9 percent), France (7 percent), Switzerland (6 percent), Ireland (5 percent), and Canada (5 percent).

U.S. exports of benzenoid specialty chemicals rose from $3.3 billion in 1991 to $3.5 billion in 1992. The U.S. export markets for these products are not concentrated but are spread out over many countries. The four largest markets for U.S. exports of benzenoid specialty chemicals in 1992 were Canada (15 percent), Japan (10 percent), Belgium (9 percent), and the Netherlands (8 percent).

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Table 19
Energy and chemicals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		Million dollars			
CH001	Electrical energy:				
	Exports	54	64	10	18.5
	Imports	487	590	103	21.2
	Trade balance	-433	-526	-93	-21.5
CH002	Nuclear materials:				
	Exports	1,120	1,247	127	11.3
	Imports	1,092	1,080	-12	-1.1
	Trade balance	28	167	139	496.4
CH003	Coal and other carbonaceous materials:				
	Exports	4,721	4,325	-396	-8.4
	Imports	309	420	111	35.9
	Trade balance	4,412	3,905	-507	-11.5
CH004	Coal chemicals:				
	Exports	268	398	130	48.5
	Imports	144	116	-28	-19.4
	Trade balance	124	282	158	127.4
CH005	Crude petroleum:				
	Exports	35	27	-8	-22.9
	Imports	37,374	38,104	730	2.0
	Trade balance	-37,339	-38,077	-738	-2.0
CH006	Petroleum products:				
	Exports	7,587	6,603	-984	-13.0
	Imports	12,524	11,260	-1,264	-10.1
	Trade balance	4,937	-4,657	280	(3)
CH007	Natural gas and components:				
	Exports	732	792	60	8.2
	Imports	3,383	3,623	240	7.1
	Trade balance	-2,651	-2,831	-180	-6.8
CH008	Major primary olefins:				
	Exports	222	225	3	1.4
	Imports	188	200	12	6.4
	Trade balance	34	25	-9	-26.5
CH009	Other olefins:				
	Exports	285	253	-32	-11.2
	Imports	19	32	13	68.4
	Trade balance	266	221	-45	-16.9
CH010	Benzene, toluene, and mixed xylenes:				
	Exports	105	106	1	1.0
	Imports	196	187	-9	-4.6
	Trade balance	-91	-81	10	11.0
CH011	Benzenoid commodity chemicals:				
	Exports	1,362	1,131	-231	-17.0
	Imports	351	297	-54	-15.4
	Trade balance	1,011	834	-177	-17.5
CH012	Beneznoid specialty chemicals:				
	Exports	3,301	3,516	215	6.5
	Imports	2,034	2,235	201	9.9
	Trade balance	1,267	1,281	14	1.1
CH013	Miscellaneous organic chemicals:				
	Exports	4,824	4,880	56	1.2
	Imports	2,877	3,364	487	16.9
	Trade balance	1,948	1,516	-431	-22.1
CH014	Selected inorganic chemicals and elements:				
	Exports	893	768	-125	-14.0
	Imports	1,573	1,363	-210	-13.4
	Trade balance	-680	-595	85	12.5
CH015	Inorganic acids:				
	Exports	129	156	27	20.9
	Imports	168	142	-26	-15.5
	Trade balance	-39	14	53	(3)
CH016	Salts and other inorganic chemicals:				
	Exports	1,958	2,191	233	11.9
	Imports	1,354	1,471	117	8.6
	Trade balance	604	720	116	19.2
CH017	Chlor-alkali chemicals:				
	Exports	912	803	-109	-12.0
	Imports	177	170	-7	-4.0
	Trade balance	735	633	-102	-13.9

See footnotes at end of table.

Table 19--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		----------Million dollars----------			
CH018	Industrial gases:				
	Exports	95	98	3	3.2
	Imports	38	39	1	2.6
	Trade balance	57	59	2	3.5
CH019	Fertilizers:				
	Exports	3,287	2,644	-643	-19.6
	Imports	1,729	1,775	46	2.7
	Trade balance	1,558	869	-689	-44.2
CH020	Certain inorganic pigments:				
	Exports	701	779	78	11.1
	Imports	553	598	45	8.1
	Trade balance	148	181	33	22.3
CH021	Synthetic organic pigments:				
	Exports	200	223	23	11.5
	Imports	249	274	25	10.0
	Trade balance	-49	-51	-2	-4.1
CH022	Synthetic dyes and azoic couplers:				
	Exports	178	192	14	7.9
	Imports	497	571	74	14.9
	Trade balance	-319	-379	-60	-18.8
CH023	Synthetics tanning agents:				
	Exports	13	11	-2	-15.4
	Imports	4	4	1	23.3
	Trade balance	9	7	-3	31.8
CH024	Natural tanning and dyeing materials:				
	Exports	82	77	-5	-6.1
	Imports	88	104	16	18.2
	Trade balance	-6	-27	-21	-350.0
CH025	Photographic chemicals and preparations:				
	Exports	287	306	19	6.6
	Imports	405	496	91	22.5
	Trade balance	-118	-190	-72	-61.0
CH026	Pesticide products and formulations:				
	Exports	1,452	1,474	22	1.5
	Imports	645	782	137	21.2
	Trade balance	807	692	-115	-14.3
CH027	Adhesives and glues:				
	Exports	194	222	28	14.4
	Imports	93	111	18	19.4
	Trade balance	101	111	10	9.9
CH028	Medicinal chemicals, except antibiotics:				
	Exports	4,456	5,246	790	17.7
	Imports	3,915	4,886	971	24.8
	Trade balance	541	360	-181	-33.5
CH029	Antibiotics:				
	Exports	1,254	1,438	184	14.7
	Imports	806	850	44	5.5
	Trade balance	448	588	140	31.3
CH030	Essential oils and other flavoring materials:				
	Exports	612	616	4	0.7
	Imports	486	548	62	12.8
	Trade balance	126	68	-58	-46.0
CH031	Perfumes, cosmetics, and toiletries:				
	Exports	1,075	1,228	153	14.2
	Imports	716	898	182	25.4
	Trade balance	359	330	-29	-8.1
CH032	Soaps, detergents, and surface-active agents:				
	Exports	1,020	1,158	138	13.5
	Imports	368	393	25	6.8
	Trade balance	652	765	113	17.3
CH033	Fatty chemicals:				
	Exports	248	249	1	0.4
	Imports	75	77	2	2.7
	Trade balance	173	172	-1	-0.6
CH034	Miscellaneous chemical specialties:				
	Exports	868	1,002	134	15.4
	Imports	430	596	166	38.6
	Trade balance	438	406	-32	-7.3

See footnotes at end of table.

Table 19--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		Million dollars			
CH035	Paints, inks, and related items:				
	Exports	855	935	80	9.4
	Imports	277	334	57	20.6
	Trade balance	578	601	23	4.0
CH036	Explosives and propellant powders:				
	Exports	169	212	43	25.4
	Imports	178	216	38	21.3
	Trade balance	-9	-4	5	55.6
CH037	Polyethylene resins in primary forms:				
	Exports	1,460	1,255	-205	-14.0
	Imports	448	462	14	3.1
	Trade balance	1,012	793	-219	-21.6
CH038	Polypropylene resins in primary forms:				
	Exports	788	522	-266	-33.8
	Imports	64	83	19	29.7
	Trade balance	724	439	-285	-39.4
CH039	PVC resins in primary forms:				
	Exports	549	488	-61	-11.1
	Imports	54	82	28	51.9
	Trade balance	495	406	-89	-18.0
CH040	Styrene polymers in primary forms:				
	Exports	550	539	-11	-2.0
	Imports	132	199	67	50.8
	Trade balance	418	340	-78	-18.7
CH041	Saturated polyester resins in primary forms:				
	Exports	408	456	48	11.8
	Imports	69	88	19	27.5
	Trade balance	339	368	29	8.6
CH042	Other plastics in primary forms:				
	Exports	3,577	3,732	155	4.3
	Imports	1,013	1,169	156	15.4
	Trade balance	2,564	2,563	-1	(4)
CH043	SBR rubber in primary forms:				
	Exports	219	258	39	17.8
	Imports	92	116	24	26.1
	Trade balance	127	142	15	11.8
CH044	Other synthetic rubber:				
	Exports	772	833	61	7.9
	Imports	376	403	27	7.2
	Trade balance	396	430	34	8.6
CH045	Pneumatic tires and tubes (new):				
	Exports	1,215	1,341	126	10.4
	Imports	2,223	2,407	184	8.3
	Trade balance	-1,008	-1,066	-58	-5.8
CH046	Other tires:				
	Exports	58	66	8	13.8
	Imports	78	94	16	20.5
	Trade balance	-20	-28	-8	-40.0
CH047	Plastic or rubber semifabricated forms:				
	Exports	2,603	2,833	230	8.8
	Imports	1,752	1,934	182	10.4
	Trade balance	851	899	48	5.6
CH048	Plastic containers and closures:				
	Exports	681	841	160	23.5
	Imports	665	738	73	11.0
	Trade balance	16	103	87	543.8
CH049	Hose, belting and plastic pipe:				
	Exports	739	829	90	12.2
	Imports	594	661	67	11.3
	Trade balance	145	168	23	15.9
CH050	Miscellaneous rubber or plastics products:				
	Exports	1,997	2,407	410	20.5
	Imports	2,929	3,447	518	17.7
	Trade balance	-932	-1,040	-108	-11.6

See footnotes at end of table.

Table 19--Continued
Energy and chemicals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
CH051	Gelatin:				
	Exports	31	33	2	6.5
	Imports	80	94	14	17.5
	Trade balance	-49	-61	-12	-24.5
CH052	Natural rubber:				
	Exports	36	31	-5	-13.9
	Imports	663	770	107	16.1
	Trade balance	-627	-739	-112	-17.9

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
[3] Not applicable.
[4] Less than 0.05 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 6. Minerals and Metals

The minerals and metals sector, for the first time since 1986, registered an increase in the trade deficit during 1991-92. The 8-percent increase ($1.1 billion) to $13.9 billion reflects a 3-percent increase (also $1.1 billion) in U.S. imports, which rose to $42.3 billion, and virtually no growth in U.S. exports, which remained at about $28.4 billion during the 2-year period (table 20).

Despite the relative stability in the trade balance in the sector between 1991 and 1992, there were significant trade shifts among principal product categories, including unwrought aluminum (which registered a deficit increase of $787 million), steel mill products (a deficit increase of $685 million), and copper and related articles (a trade balance decline of $401 million). The trade position declines experienced by unwrought aluminum and steel mill products were the fifth and the ninth largest, respectively, of any commodity group in all sectors. These negative trade balance shifts stemmed primarily from significant reductions in U.S. exports to Asian and European countries, resulting largely from recessionary conditions in these countries in 1992. With respect to steel mill products, U.S. exports to foreign markets were also slowed by the moderate recovery in the U.S. economy, which increased demand in the U.S. market for domestically produced steel mill products.

The overall negative trend in sector trade was somewhat offset by trade position improvements in precious metals and related articles (a trade position improvement of $976 million) and nonpowered handtools (a deficit improvement of $271 million). The trade position improvement in precious metals and related articles was the third largest experienced by any commodity group in all sectors. These positive trade shifts were largely a reflection of China's increased demand for gold jewelry manufactured in Taiwan from U.S.-origin gold bullion (partially as a hedge against inflation in China); a rise in political instability in certain areas of the world that led to a growing movement of financial holdings to London—resulting in a sharp increase in exports of gold to the United Kingdom; and a slight shift in U.S. demand from foreign-made nonpowered handtools to both domestically made and imported powered handtools.

U.S. Bilateral Trade

In the minerals and metals sector, Canada, Japan, Mexico, Germany, Taiwan, and the United Kingdom are the principal U.S. trading partners. Imports from these countries accounted for an aggregate 53 percent of total sector imports, and exports to these countries represented 64 percent of total sector exports. Trade with these principal trading partners resulted in a deficit of $6.0 billion during 1992, 2 percent larger than the deficit recorded 1991. The products that represented the largest value of trade in 1992 included iron and steel mill products, natural and synthetic gemstones, precious metals and related articles, and unwrought aluminum.

Table 20
Minerals and metals sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991: Amount	Change 1992 from 1991: Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	7,498	7,912	413	5.5
Japan	3,750	2,691	-1,059	-28.2
Mexico	2,959	3,572	613	20.7
Taiwan	1,064	1,190	125	11.8
United Kingdom	1,622	1,973	351	21.7
Germany	800	839	38	4.8
Belgium	530	552	22	4.1
Korea	1,500	939	-561	-37.4
France	765	753	-12	-1.6
China	298	452	154	51.9
All other	7,556	7,497	-59	-0.8
Total	28,343	28,369	25	0.1
EC-12	4,858	5,214	356	7.3
OPEC	923	1,001	78	8.4
ASEAN	955	949	-6	-0.6
CBERA	498	540	43	8.6
Eastern Europe	48	44	-4	-9.1
U.S. imports for consumption:				
Canada	9,282	9,942	660	7.1
Japan	4,711	4,429	-283	-6.0
Mexico	1,892	2,076	184	9.7
Taiwan	2,171	2,387	216	10.0
United Kingdom	1,596	1,531	-66	-4.1
Germany	2,221	2,200	-22	-1.0
Belgium	1,553	1,579	26	1.7
Korea	1,205	1,184	-21	-1.7
France	1,308	1,295	-13	-1.0
China	964	1,242	278	28.8
All other	14,334	14,450	116	0.8
Total	41,237	42,313	1,076	2.6
EC-12	9,045	8,983	-62	-0.7
OPEC	567	645	78	13.7
ASEAN	674	823	149	22.1
CBERA	383	396	12	3.1
Eastern Europe	289	259	-29	-10.1
U.S. merchandise trade balance:				
Canada	-1,784	-2,030	-246	-13.8
Japan	-961	-1,738	-776	-80.8
Mexico	1,067	1,496	429	40.2
Taiwan	-1,106	-1,197	-91	-8.2
United Kingdom	26	443	417	1,621.2
Germany	-1,421	-1,361	60	4.2
Belgium	-1,022	-1,027	-5	-0.5
Korea	295	-245	-540	-183.3
France	-544	-543	1	0.2
China	-666	-789	-123	-18.5
All other	-6,777	-6,953	-176	-2.6
Total	-12,894	-13,944	-1,050	-8.1
EC-12	-4,187	-3,769	417	10.0
OPEC	356	356	0	0.0
ASEAN	281	126	-154	-55.0
CBERA	114	145	31	27.0
Eastern Europe	-240	-216	25	10.4

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

On a U.S. bilateral trade basis, the largest impact on the sectoral trade balance was a $660 million increase in imports from Canada (chiefly steel mill and zinc products), reflecting the recovery in the manufacturing sector of the U.S. economy and recessionary conditions in Canada that muted demand by steel consuming industries. Staged tariff reductions under the U.S.-Canada Free-Trade Agreement continue to aid the competitiveness of Canadian commodities relative to other foreign suppliers.

Large offsetting shifts among various foreign markets for sector products resulted in virtually no change in total exports in 1992. The most significant export decreases during 1991-92 were to Japan and Korea of $1.1 billion and $561 million, respectively. A slump in the construction industries in Japan and Korea reduced demand there for copper from the United States. Japan's recession also greatly reduced industrial demand for unwrought aluminum. Major shifts on the positive side of the trade balance ledger were a $613 million increase in exports to Mexico; $414 million to Canada; and $351 million to the United Kingdom. Rising exports to Mexico (led by hardware, fixtures, and castors) reflected growth in the construction industry as Mexico absorbed investment, partially in anticipation of implementation of the NAFTA. U.S. exports to Canada benefited from consolidation in the North American glass container industry and, nonmonetary gold bullion accounted for most of the sector's increase in exports to the United Kingdom.

Commodity Analysis[1]

Precious metals and related articles

The 1992 U.S. trade balance in precious metals and related articles (precious metals) exhibited an improvement of $976 million, moving from a deficit of $190 million in 1991 to a surplus of $786 million in 1992. This was the third largest improvement experienced by any other commodity group in all sectors.

U.S. exports of precious metals totaled $4.9 billion in 1992, a 15-percent increase ($653 million) from the 1991 level. Much of this improvement was attributable to the sevenfold increase ($420 million) in U.S. exports to Taiwan, a principal source of gold jewelry for the Chinese market. China's increased demand for gold was the primary stimulus behind the $488 million in U.S. exports of precious metals, principally gold bullion, to Taiwan.

Flows of gold bullion also dominated exports to the United Kingdom, which is a leading financial center for precious metals. U.S. exports to the United Kingdom rose by $331 million (42 percent) to $1.1 billion in 1992. Increased exports of gold bullion also spurred the 117-percent growth in total U.S. exports to Mexico, with a $128-million increase to $237 million in 1992. Additional U.S. exports were also directed to Canada in 1992, rising

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[1] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 21 at the end of the chapter.

by 18 percent ($92 million) to $616 million, most of which was gold bullion and waste and scrap. In contrast, U.S. exports of precious metals (primarily gold bullion) to Switzerland, a major jewelry-fabricating and financial center, declined by 25 percent ($203 million) to $599 million in 1992.

U.S. imports of precious metals experienced a 7-percent decline in 1992 to $4.1 billion, a shift of $323 million. U.S. imports from South Africa fell by 23 percent ($251 million) to $839 million in 1992. Most of this decline was due to the 32-percent drop in the price of rhodium for which South Africa is the world's principal supplier. In addition, U.S. imports from Switzerland fell by 77 percent ($227 million) to $66 million in 1992.

In contrast, imports from Canada, the leading U.S. supplier, rose by $61 million (4 percent) to $1.4 billion in 1992. Canada is one of the world's principal gold producers for which U.S. firms often provide refinery services; the United States also serves as a financial center for flows of Canadian gold bullion. During the year, U.S. imports from Brazil, another major gold producing country, more than doubled to $284 million, and U.S. imports from Mexico, the world's largest silver producer, increased by 12 percent ($23 million) to $212 million.

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Unwrought aluminum

The U.S. trade deficit in unwrought aluminum increased by $787 million to $966 million in 1992, reversing the notable improvement during 1989 to 1991 when the deficit decreased from $517 million to $179 million. This trade position decline was the fifth largest experienced by any commodity group in all sectors.

U.S. exports of unwrought aluminum declined by 37 percent ($688 million) to $1.2 billion in 1992. This shift was primarily attributable to a 47-percent drop of $607 million in the value of exports to Japan, which declined to $693 million in 1992 because of weak industrial demand. Exports to the smaller markets of Taiwan and Korea also decreased by 44 percent and 34 percent, respectively, largely in response to sluggish economic conditions. U.S. exports to Taiwan declined by $42 million to $54 million in 1992, and U.S. exports to Korea fell by $22 million to $45 million in the same year.

U.S. imports of unwrought aluminum rose by 5 percent ($99 million) to $2.1 billion in 1992. Canada, the principal import source, accounted for most of this increase. U.S. imports from Canada increased by $54 million (4 percent) to $1.6 billion in 1992. Minor increases occurred in imports from Mexico and Jamaica.

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Steel mill products

The nascent U.S. economic recovery contributed to modest upturns in steel industry shipments and capacity utilization between 1991 and 1992. The recession in the United States was not as severe as in other industrialized countries in the first half of 1992, and the U.S. economic recovery preceded that of other industrialized countries during the second half of 1992. Modest growth in steel demand was seen in the U.S. automotive and appliance sectors, which increased production between 10 and 14 percent. Additionally, a late year effort to rebuild inventories that had slipped to low levels and anticipation of meeting increased demand for steel stemming from the Clinton administration's fiscal stimulus package (which included public works projects) helped spark the growth. Because U.S. exports decreased by 18 percent ($647 million) in 1992 to $3.0 billion, the trade deficit in steel mill products increased by 16 percent ($685 million) to $4.9 billion in 1992. At the same time, U.S. imports increased by less than 1 percent ($38 million) to $7.9 billion.

These factors and increased competition from other exporting countries undoubtedly contributed to lower levels of U.S. exports of steel mill products. The Government of Korea strictly limited the number of construction permits granted in 1992 in order to reign in the economy and head off inflation, thus leading to a $252 million reduction in U.S. steel exports to Korea. Very slow economic growth in Japan and recession in Canada caused slumps in construction in both countries and were responsible for decreased U.S. steel exports to those countries in 1992 of $156 million and $111 million, respectively. The turbulent exchange rate shifts in 1992 in the European Monetary System caused uncertainty among importers abroad regarding their purchasing costs and poor economic performance, and this uncertainty is reflected in a $68 million drop in U.S. steel exports to the European Community in 1992. Increased competition for U.S. exports in EC and EFTA-member countries and China from steelmakers in Central and Eastern Europe and the former Soviet Union was also a contributing factor to the overall dip in exports.

Economic reforms in Latin America are providing opportunities for U.S. steelmakers who are supplying local manufacturers and construction industries that are benefiting from a boost in investment. In 1992, U.S. exports of steel products increased by $70 million to Mexico, by $40 million to Venezuela, and by $27 million to Colombia.

Total imports of steel mill products rose slightly between 1991 and 1992, attracted partly by the relative strength and size of the U.S. economy. The trade cases on carbon steel flat-rolled plate, sheet and strip, and certain bars and rod filed during 1992 had the effect of restraining imports, although some imports may have been advanced during the fourth quarter of 1992 anticipating the imposition of antidumping and countervailing duties in January 1993. There were also shifts among exporting countries. Imports from Canada of flat-rolled (plate, sheet, and strip) and long carbon steel mill (bars and rod) products increased by 27 percent ($378 million), offsetting lower imports from Japan. Canadian capacity and production in certain product lines increased, including those producing for the automobile industry. Additionally, the Canadian dollar depreciated against the U.S. dollar, making Canadian exports more cost competitive. Japanese steelmakers have invested heavily in the U.S. steel industry and some imports have been displaced by increased production at domestic joint

ventures. Imports from Korea, which increased slightly ($12 million, or 2 percent overall), consisted of hot-rolled coiled product, channeled primarily to a Korean-U.S. joint venture in California that supplies the automotive industry. Steel industry restructuring in Mexico and Brazil, in which steel mills have been privatized, accounted for decreased production and exports from these two countries.

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Copper and related articles

An economic contraction in several East Asian countries was the primary reason for the reversal of the U.S. trade balance in copper and related articles, as a surplus of $21 million in 1991 shifted to a deficit of $380 million in 1992, a change of $401 million. Reduced U.S. exports of refined copper and copper scrap contributed chiefly to the decrease of $676 million (61 percent), from nearly $1.1 billion to $677 million. Exports of these products to Japan and Korea combined decreased $352 million (61 percent) to $224 million, largely in response to lower demand by the construction sector (a large end-use consumer of copper for wire and plumbing systems). Although Japanese refined copper consumption declined by 13 percent in 1992, production of refined copper increased by 8 percent, resulting in a substantial increase in Japanese exports. These exports contributed to the displacement of U.S. exports of copper and related articles to Taiwan, which declined $104 million (38 percent) to $167 million in 1992.

In recent years, the robust construction, automobile, and consumer electronics industries of East Asian countries have been significant growth markets for U.S. copper exports. For example, exports of refined copper to Japan, Korea, and Taiwan combined increased at an average annual rate of almost 56 percent, from $219 million in 1989 to a high of $530 million in 1991 before declining by 54 percent in 1992.

Countering the overall decrease in exports to East Asia in 1992, U.S. exports to China and Hong Kong together actually increased by $148 million (180 percent) to $230 million in 1992. The rapidly expanding construction sector in China and Hong Kong caused a large surge in imports of copper products.

An increase in U.S. imports from Canada, which is the largest U.S. supplier of copper and related articles, also contributed to the trade balance decline, as total imports increased by $86 million (5 percent) to $1.9 billion in 1992. Although Canadian copper production remained the same in 1992, copper consumption declined because of an economic contraction, and more copper products were shipped to the U.S. market. U.S. imports from Canada rose to $789 million in 1992, an increase of $92 million (13 percent). Canadian copper producers are well situated to supply U.S. copper consumers, which are concentrated in the Northeast and Midwestern regions of the United States.

Notable changes in U.S. imports of copper and related articles from other countries also occurred in 1992. U.S. imports from Mexico, mostly unrefined copper and waste/scrap, increased by $54 million (55 percent) to $153 million. In contrast, imports from Chile, the largest producer of mined copper in the world, decreased $33 million (17 percent) to $158 million,

continuing a downward trend that began in 1989 as the U.S. copper industry has improved its competitive position.[2]

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Nonpowered handtools

Significant shifts in both U.S. imports and exports with primary trading partners resulted in a reduction in the trade deficit of 51 percent ($271 million) to $258 million in 1992 for nonpowered handtools. An 11-percent decline of $170 million in U.S. imports of nonpowered handtools to $1.5 billion was led by a 40-percent ($208 million) decrease in imports from Japan, the leading supplier. This decrease was somewhat offset by an increase in imports of $25 million from China, which may represent shifting of production capacity. Also important, however, was the appreciation of the Japanese yen versus the U.S. dollar, which decreased the price competitiveness of imports from Japan in the U.S. market and gradually shifted the use of nonpowered handtools toward the use of equivalent powered tools.

Overall export growth of 9 percent (a rise of $101 million to $1.2 billion) was paced by a 13-percent ($45 million) expansion in shipments to Canada, the primary export market. Canadian facility closings and the resulting decline in Canadian production, coupled with falling tariffs on Canadian imports from the United States, fueled an increase in exports by U.S. producers, particularly in exports of wrenches and interchangeable tools.

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Zinc and related articles

Higher domestic zinc consumption in the motor vehicle and construction industries, which use galvanized (zinc-coated) steel and die-cast parts, is reflected in a $185 million increase in this sector's trade deficit, which reached $757 million in 1992 (up 32 percent). During this period of growing domestic demand, imports increased by $169 million (26 percent) to $832 million in 1992. At the same time, U.S. zinc-refining facilities operated at or near capacity and targeted output for domestic consumption, reducing exports by almost $16 million (18 percent) to $75 million in 1992. With no known plans for additional domestic refining capacity, any increases in U.S. demand may further depress exports or increase imports.

As imports of zinc and related articles increased during the reporting period, Canada continued to provide the bulk of imports (64 percent in 1992 compared with 72 percent in 1991). Canada, one of the world's largest producers, increased zinc shipments to the United States by $64 million (13 percent) to $543 million in 1992. Large increases in imports were also received from Spain (more than doubling to $58 million) and Peru (nearly doubling to $49 million). In contrast, shipments from Mexico decreased by $15 million (24 percent) to $47 million.

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[2] For more information on the competitiveness of the U.S. copper industry, see U.S. International Trade Commission, *Industry and Trade Summary: Copper*, USITC publication 2623, Apr. 1993.

Although the overall export trend for this product group shifted downward in 1992 as shipments to Taiwan, the largest U.S. export market, fell by $14 million to $32 million (a decline of 30 percent), shipments to some markets increased. Exports of zinc and related articles increased more than threefold to Germany, totaling $5 million; increased to Canada by $1 million (7 percent) to $16 million; increased to Sweden by $962,000 to $991,000; and almost doubled to Portugal to $902,000.

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Natural and synthetic gemstones

In spite of stagnate economic growth, rising discretionary income contributed to increased domestic demand for natural and synthetic gemstones (principally cut diamonds). Thus, imports increased by $180 million (4 percent) to $4.7 billion, and the trade deficit expanded by $31 million (1 percent) to nearly $4.3 billion in 1992. Foreign demand for U.S. exports of large cut diamonds over one-half carat prompted a $149 million increase in exports to $470 million, but this 46-percent increase was insufficient to counter the even larger growth in imports.

The value of imports from most supplying countries increased during the reporting period. Combined shipments from the three leading suppliers—Israel, Belgium, and India—increased by $187 million (6 percent) to $3.4 billion in 1992 and accounted for 72 percent of the U.S. import value of natural and synthetic gemstones. These countries are major diamond-cutting and trading centers. Supplies from some sources decreased. Imports from the United Kingdom fell by $63 million, or by 21 percent, to $232 million; from Thailand, by $28 million (14 percent) to $171 million; from Brazil, by $23 million (27 percent) to $62 million; and from Switzerland, by $9 million (5 percent) to $193 million.

U.S. exports to many foreign markets improved during 1992, with exports to Switzerland, Hong Kong, and Belgium (established jewelry-manufacturing and diamond trading centers) increasing by $95 million (72 percent) to $227 million; these three markets accounted for 48 percent of U.S. exports during the reporting period. Large increases in U.S. exports of cut diamonds (over one-half carat) were also reported to Israel (up $35 million to $42 million). Contrary to the overall improved export trend, U.S. exports to two markets declined: shipments to Thailand decreased in value by $6 million (16 percent) to $31 million and those to Canada declined by $2 million (5 percent) to $34 million.

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Glass containers

A $33 million increase in U.S. exports offset a $27 million increase in U.S. imports, causing a slight improvement in the trade deficit in 1992 to $109 million. This shift was driven primarily by change within the Canadian market. Consolidation and downsizing by Canada's only glass container producer and a shift in consumer demand toward standardized, large-volume

products in the key Canadian market were largely responsible for an increase of nearly 28 percent ($33 million) in total U.S. exports of glass containers during 1992 to $152 million. U.S. exports to Canada alone increased by 49 percent ($40 million) during the year to $123 million, increasing this market's share of total U.S. exports to nearly 81 percent. Three plant closures by Consumers Glass Co. (Consumers) of Canada have enabled U.S.-produced containers to become relatively more competitive in many Canadian markets because of the increased shipping distances and transportation costs from the remaining Canadian plants. Superior U.S. economies of scale in the production of standardized, large-volume products, such as beverage containers, contributed to the growth of U.S. exports to Canada; nearly 93 percent of the 1992 increase in U.S. exports of glass containers to Canada was concentrated in one of the seven export size ranges, that is, containers with a nonwide mouth, holding over 118 milliliters but not over 473 milliliters. The continued decline in Canadian duties on containers from the United States under the United States-Canada Free-Trade Agreement is also believed to be reflected in the increase in U.S. exports to Canada during the period.

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Table 21
Minerals and metals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		Million dollars			
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:				
	Exports	748	847	99	13.2
	Imports	87	97	10	11.5
	Trade balance	661	750	89	13.5
MM002	Certain miscellaneous mineral substances:				
	Exports	19	3	16	-84.2
	Imports	41	36	-5	-12.2
	Trade balance	-22	-33	11	-50.0
MM003	Iron ores and concentrates:				
	Exports	156	187	31	19.9
	Imports	437	396	-41	-9.4
	Trade balance	-281	-209	72	25.6
MM004	Copper ores and concentrates:				
	Exports	382	445	63	16.5
	Imports	67	107	40	59.7
	Trade balance	315	338	23	7.3
MM005	Lead ores and residues:				
	Exports	38	32	-6	-15.8
	Imports	3	2	-1	-33.3
	Trade balance	35	30	-5	-14.3
MM006	Zinc ores and residues:				
	Exports	232	250	18	7.8
	Imports	28	46	18	64.3
	Trade balance	204	204	(3)	(4)
MM007	Certain ores, concentrates, ash, and residues:				
	Exports	292	280	-12	-4.1
	Imports	473	478	5	1.1
	Trade balance	-181	-198	-17	-9.4
MM008	Precious metal ores and concentrates:				
	Exports	4	5	1	25.0
	Imports	11	4	-7	-63.6
	Trade balance	-7	1	8	(5)
MM009	Certain nonmetallic minerals and articles:				
	Exports	865	926	61	7.1
	Imports	1,392	1,304	-88	-6.3
	Trade balance	-527	-378	149	28.3
MM010	Industrial ceramics:				
	Exports	373	386	13	3.5
	Imports	265	301	36	13.6
	Trade balance	108	85	-23	-21.3
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Exports	18	17	-1	-5.6
	Imports	20	21	1	5.0
	Trade balance	-2	-4	-2	-100.0
MM012	Ceramic floor and wall tiles:				
	Exports	21	19	-2	-9.5
	Imports	365	419	54	14.8
	Trade balance	-344	-400	-56	-16.3
MM014	Ceramic household articles:				
	Exports	87	103	16	18.4
	Imports	1,236	1,391	155	12.5
	Trade balance	-1,149	-1,288	-139	-12.1
MM016	Flat glass and certain flat glass products:				
	Exports	786	836	50	6.4
	Imports	584	599	15	2.6
	Trade balance	202	237	35	17.3
MM017	Glass containers:				
	Exports	119	152	33	27.7
	Imports	234	261	27	11.5
	Trade balance	-115	-109	6	5.2
MM018	Household glassware:				
	Exports	137	150	13	9.5
	Imports	513	533	20	3.9
	Trade balance	-376	-383	-7	-1.9

See footnotes at end of table.

Table 21--Continued
Minerals and metals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		----------Million dollars----------			
MM019	Certain glass and glass products:				
	Exports	364	372	8	2.2
	Imports	319	402	83	26.0
	Trade balance	45	-30	-75	(5)
MM020	Fiber glass products:				
	Exports	384	392	8	2.1
	Imports	127	160	33	26.0
	Trade balance	257	232	-25	-9.7
MM021	Natural and synthetic gemstones:				
	Exports	321	470	149	46.4
	Imports	4,552	4,732	180	4.0
	Trade balance	-4,231	-4,262	-31	-0.7
MM022	Precious metals and related articles:				
	Exports	4,216	4,869	653	15.5
	Imports	4,406	4,083	-323	-7.3
	Trade balance	-190	786	976	(5)
MM023	Primary iron products:				
	Exports	8	8	(3)	6.3
	Imports	129	130	(3)	0.3
	Trade balance	-121	-122	(3)	(4)
MM024	Ferroalloys:				
	Exports	99	110	11	11.1
	Imports	835	807	-28	-3.4
	Trade balance	-736	-697	39	5.3
MM025	Iron and steel waste and scrap:				
	Exports	1,244	1,115	-129	-10.4
	Imports	172	183	11	6.4
	Trade balance	1,072	932	-140	-13.1
MM026	Abrasives and ferrous powders:				
	Exports	342	380	38	11.1
	Imports	462	495	33	7.1
	Trade balance	-120	-115	5	4.2
MM027	Steel mill products, all grades:				
	Exports	3,681	3,034	-647	-17.6
	Imports	7,861	7,899	38	0.5
	Trade balance	-4,180	-4,865	-685	-16.4
MM028	Steel pipe and tube fittings, and certain cast products:				
	Exports	479	529	50	10.4
	Imports	346	290	-56	-16.2
	Trade balance	133	239	106	79.7
MM029	Fabricated structurals:				
	Exports	110	99	-11	-10.0
	Imports	47	45	-2	-4.3
	Trade balance	63	54	-9	-14.3
MM030	Metal construction components:				
	Exports	377	396	19	5.0
	Imports	139	124	-15	-10.8
	Trade balance	238	272	34	14.3
MM031	Metallic containers:				
	Exports	511	647	136	26.6
	Imports	244	271	27	11.1
	Trade balance	267	376	109	40.8
MM032	Wire products of iron, steel, aluminum, copper, and nickel:				
	Exports	214	242	28	13.1
	Imports	486	539	53	10.9
	Trade balance	-272	-297	-25	-9.2
MM033	Chain:				
	Exports	343	311	-32	-9.3
	Imports	478	498	20	4.2
	Trade balance	-135	-187	-52	-38.5
MM034	Industrial fasteners of base metal:				
	Exports	663	719	56	8.4
	Imports	1,324	1,469	145	11.0
	Trade balance	-661	-750	-89	-13.5

See footnotes at end of table.

Table 21--Continued
Minerals and metals sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		----------Million dollars---------			
MM035	Cooking and kitchen ware:				
	Exports	218	209	-9	-4.1
	Imports	751	822	71	9.5
	Trade balance	-533	-613	-80	-15.0
MM036	Metal and ceramic sanitary ware:				
	Exports	118	135	17	14.4
	Imports	156	182	26	16.7
	Trade balance	-38	-47	-9	-23.7
MM037	Iron construction castings and other nonmalleable cast-iron articles:				
	Exports	31	27	-4	-12.9
	Imports	51	48	-3	-5.9
	Trade balance	-20	-21	-1	-5.0
MM038	Copper and related articles:				
	Exports	1,843	1,528	-315	-17.1
	Imports	1,822	1,908	86	4.7
	Trade balance	21	-380	-401	(5)
MM039	Unwrought aluminum:				
	Exports	1,842	1,154	-688	-37.4
	Imports	2,021	2,120	99	4.9
	Trade balance	-179	-966	-787	-439.7
MM040	Aluminum mill products:				
	Exports	1,698	1,762	64	3.8
	Imports	967	1,019	52	5.4
	Trade balance	731	743	12	1.6
MM041	Lead and related articles:				
	Exports	113	78	-35	-31.0
	Imports	80	119	39	48.8
	Trade balance	33	-41	-74	(5)
MM042	Zinc and related articles:				
	Exports	91	75	-16	-17.6
	Imports	663	832	169	25.5
	Trade balance	-572	-757	-185	-32.3
MM043	Certain base metals and chemical elements:				
	Exports	1,005	905	-100	-10.0
	Imports	1,865	1,636	-229	-12.3
	Trade balance	-860	-731	129	15.0
MM044	Nonpowered handtools:				
	Exports	1,091	1,192	101	9.3
	Imports	1,620	1,450	-170	-10.5
	Trade balance	-529	-258	271	51.2
MM045	Cutlery other than tableware, certain sewing implements, and related products:				
	Exports	227	280	53	23.3
	Imports	438	484	46	10.5
	Trade balance	-211	-204	7	3.3
MM046	Table flatware and related products:				
	Exports	24	24	(3)	(4)
	Imports	196	216	20	10.2
	Trade balance	-172	-192	-20	-11.6
MM047	Certain builders' hardware:				
	Exports	548	598	50	9.1
	Imports	764	873	109	14.3
	Trade balance	-216	-275	-59	-27.3
MM048	Miscellaneous products of base metal:				
	Exports	1,863	2,073	210	11.3
	Imports	2,162	2,484	322	14.9
	Trade balance	-299	-411	-112	-37.5

1 Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
2 This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
3 Less than $500,000.
4 Less than 0.05 percent.
5 Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 7. Machinery and Equipment

The U.S. balance of trade in the machinery and equipment sector improved significantly in 1992, changing from a deficit of $2.4 billion in 1991 to a surplus of $67 million. This change represented the largest improvement in the trade position in all sectors. U.S. exports of machinery and equipment grew by 8 percent to $140.5 billion in 1992, up from $130.0 billion in 1991 (table 22). U.S. imports of machinery and equipment also increased during the period, although the growth rate was more than offset by the U.S. export performance. Imports rose by $8.0 billion to $140.4 billion in 1992, or by 6 percent.

The most significant improvement in the U.S. trade balance in the machinery and equipment sector occurred in aircraft and related equipment; automobiles, trucks, and buses; motor vehicle parts; and miscellaneous vehicles and transportation-related equipment. U.S. exports of aircraft and related equipment increased from $34.4 billion in 1991 to $35.7 billion in 1992, representing a rise of 4 percent. An increase in demand for more fuel-efficient aircraft and travel services, along with the need by foreign airline companies to increase transport capacity, were the primary factors that led to the $1.5-billion improvement in the trade surplus in this sector, totaling $28.5 billion in 1992. This was the largest improvement experienced by any other commodity group in all sectors.

U.S. trade in automobiles, trucks, and buses in 1992 benefited from greater foreign demand for these products, particularly from Taiwan and Saudi Arabia. Robust economic growth in Taiwan, coupled with rapidly increasing per capita income, and a strong domestic presence by U.S. producers, led to a surge in exports of automobiles, trucks, and buses. The end of the Persian Gulf Crisis in 1991 also resulted in an increased demand for U.S. motor-vehicle exports to the Middle East, particularly to Saudi Arabia. However, the United States continued to incur a large trade deficit in motor vehicles in 1992, largely with Japan. The U.S. trade position in motor vehicles improved by $757 million and was the fourth largest improvement enjoyed by any commodity group in all sectors, but the $42.7-billion deficit in these products accounted for 43 percent of the total deficit in all merchandise.

Increased emphasis by U.S. suppliers on producing motor vehicle parts that are competitive in export markets, a favorable U.S. exchange rate particularly relative to the Japanese yen and the German mark, and additional local production by foreign manufacturers led to a $575-million trade improvement in these products in 1992. The U.S. motor-vehicle parts sector incurred a trade surplus of $2.7 billion in 1992, compared with a surplus of $2.2 billion in 1991, representing an increase of $575 million (27) percent. This improvement in the trade position was the fifth largest recorded for any commodity group in all industry trade sectors. Exports of motor vehicle parts rose by $2.3 billion (17 percent) to $16.0 billion in 1992.

The U.S. trade deficit in metal-cutting machine tools in 1992 declined by $391 million, or by 36 percent. A slow U.S. economic recovery in 1992, coupled with spending cuts and program cancellations in the defense and aerospace industries, dampened demand for U.S. imports of these products.

Table 22
Machinery and equipment sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Canada	33,515	34,870	1,355	4.0
Japan	7,875	8,500	625	7.9
Mexico	10,594	13,130	2,536	23.9
Germany	6,962	6,602	-359	-5.2
United Kingdom	6,678	6,264	-413	-6.2
France	6,094	5,527	-567	-9.3
Taiwan	3,433	4,464	1,031	30.0
Korea	4,432	4,157	-276	-6.2
Italy	2,019	2,277	258	12.8
China	2,109	3,310	1,200	56.9
All other	46,333	51,399	5,067	10.9
Total	130,045	140,500	10,455	8.0
EC-12	30,462	28,446	-2,016	-6.6
OPEC	8,797	11,363	2,566	29.2
ASEAN	6,218	7,586	1,368	22.0
CBERA	1,637	2,018	381	23.3
Eastern Europe	381	653	272	71.3
U.S. imports for consumption:				
Canada	34,316	36,976	2,660	7.8
Japan	43,179	43,447	268	0.6
Mexico	9,565	11,383	1,817	19.0
Germany	12,733	13,713	980	7.7
United Kingdom	5,809	6,150	341	5.9
France	5,465	6,378	913	16.7
Taiwan	2,597	2,843	246	9.5
Korea	2,253	2,084	-168	-7.5
Italy	2,833	2,872	40	1.4
China	1,232	1,724	492	39.9
All other	12,432	12,863	430	3.5
Total	132,414	140,434	8,020	6.1
EC-12	29,944	32,315	2,370	7.9
OPEC	102	126	24	23.6
ASEAN	1,324	1,620	297	22.4
CBERA	75	90	15	19.9
Eastern Europe	278	285	7	2.4
U.S. merchandise trade balance:				
Canada	-801	-2,107	-1,306	-163.0
Japan	-35,304	-34,947	357	1.0
Mexico	1,029	1,747	719	69.9
Germany	-5,771	-7,110	-1,340	-23.2
United Kingdom	868	114	-754	-86.9
France	630	-851	-1,481	-235.1
Taiwan	836	1,620	784	93.8
Korea	2,180	2,072	-108	-4.9
Italy	-813	-595	218	26.8
China	877	1,585	708	80.7
All other	33,901	38,537	4,636	13.7
Total	-2,368	66	2,435	102.8
EC-12	517	-3,869	-4,386	-847.8
OPEC	8,695	11,237	2,542	29.2
ASEAN	4,894	5,965	1,071	21.9
CBERA	1,562	1,927	366	23.4
Eastern Europe	103	368	265	256.6

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990. Data shown in this table may differ from those shown in other reports because these data have been revised to include increased U.S. imports of new passenger cars and trucks for 1991-92 omitted from previously released data. See Bureau of the Census notice FTSN 92-12 1001.

Source: Compiled from official statistics of the U.S. Department of Commerce.

U.S. exports of machine tools rose by 12 percent to $1.3 billion in 1992, from $1.1 billion in 1991. Demand by the worldwide automotive and aerospace industries for U.S. machine tools, particularly for those machine tools designed to cut new composite materials, rose significantly in 1992.

The most significant decline in trade in the machinery and equipment sector occurred in aircraft engines and gas turbines. The U.S. trade surplus in these products declined by $870 million (29 percent) to $2.1 billion in 1992. The decline was related to a strong U.S. demand for French-built aircraft engines to be installed on U.S.-produced civil aircraft. Additionally, imports of aircraft turbine engines and aircraft engine parts from the United Kingdom increased rapidly. The rise in demand for aircraft engines and engine parts from the United Kingdom and France is attributable to the rise in gross U.S. shipments of aircraft and the increased use of existing aircraft, both of which are due to a projected global increase in demand for air travel services worldwide.

U.S. Bilateral Trade

Canada, the EC, Mexico, and Japan were the major U.S. trading partners in machinery and equipment in 1992. These countries represented 60 percent of total U.S. exports and 88 percent of total U.S. imports. Canada and the EC alone accounted for 45 percent of U.S. exports, and Japan and Canada accounted for 57 percent of U.S. imports. Major exported products included aircraft and related equipment; automobiles, trucks, and buses; motor-vehicle parts; and aircraft engines and turbines. Major imported products included automobiles, trucks, and buses; motor-vehicle parts; aircraft and related equipment; and aircraft engines and gas turbines.

Major shifts in trade in machinery and equipment resulted from the increased integration of U.S., Mexican, and Canadian industries. U.S. imports of these products from Mexico increased by 19 percent in 1992 to $11.4 billion, and U.S. exports to Mexico rose by 24 percent to $13.1 billion, resulting in a 70-percent increase in the U.S. trade surplus with Mexico. U.S. exports of machinery and equipment to Mexico consisted primarily of automotive engines, motor-vehicle parts, electric motors and generators, construction and air-conditioning equipment. The rise in U.S. exports is largely attributable to factory retooling and manufacturing investments by the Big Three (GM, Ford, and Chrysler) automotive producers, reportedly in anticipation of a NAFTA. U.S. imports of motor-vehicle parts and internal combustion engines from Mexico rose as major world suppliers continued to shift manufacturing resources to that country to benefit from low wages and geographical proximity to the United States. U.S. imports from Canada increased by 8 percent to $37.0 billion, and U.S. exports to Canada increased by 4 percent to $34.9 billion, resulting in an increase of $1.3 billion in the U.S. trade deficit with Canada. The increase in the deficit with Canada was largely attributed to an increase in U.S. demand for Canadian-produced automobiles, buses, and motor-vehicle chassis.

Commodity Analysis[1]

Aircraft, spacecraft, and related equipment

The U.S. trade surplus in aircraft, spacecraft, and related equipment improved by $1.5 billion in 1992, representing the largest increase in any commodity group. U.S. exports increased sharply as foreign airlines in the Pacific Rim ordered a record-setting number of aircraft. This demand was largely fueled by airline concerns regarding fleet commonality and after-sales support.

Exports of aircraft, spacecraft, and related equipment rose by $1.3 billion (4 percent) in 1992, to $35.7 billion. The leading foreign markets were Japan and the United Kingdom. Japan received $3.8 billion in exports in 1992, amounting to a 21-percent increase over 1991 whereas the United Kingdom received $2.6 billion, representing a 51-percent decline. In addition, the People's Republic of China received $2.0 billion in U.S. exports, or 82 percent over 1991. The overall increase in U.S. exports stems from the continued strong growth of Asian demand for new transport capacity and the need to replace old or noisy aircraft. The decline in U.S. exports to the United Kingdom and to other West European markets is largely attributable to the recession in that region, which has caused airlines to defer acceptance of aircraft on order.

Imports of aircraft, spacecraft, and related equipment fell by $239 million to $7.3 billion in 1992, or by 3 percent. Such imports are about one-fifth as large as U.S. exports. Imports from France, the leading source of these products, rose by $427 million, or by 30 percent, to $1.8 billion; the bulk of imports from France were large civil aircraft. However, imports from Canada, the second-largest source of these products, fell by $323 million (16 percent) to $1.7 billion in 1992. Imports from Canada consisted of both complete aircraft and aircraft parts. The slight decline in imports of aircraft and aircraft parts is attributable to the poor financial condition of U.S. airlines, which have decreased their passenger capacity and deferred the replacement of aging aircraft.

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Aircraft engines and gas turbines

The U.S. trade surplus in aircraft engines and gas turbines fluctuated downward during 1988-92. During this period, U.S. airlines increasingly ordered U.S. aircraft with engines from Rolls-Royce of the United Kingdom. However, Société Nationale d'Etude et de Construction de Moteurs d'Aviation (SNECMA) of France supplied General Electric (GE) with parts for both current and new engines developed in conjunction with the GE/SNECMA[2] joint venture (CFM, Inc.).

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[1] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 23 at the end of the chapter.

[2] In 1974, GE and Société Nationale d'Etude et de Construction de Moteurs d'Aviation (SNECMA) of France formed the joint engine

Imports of aircraft engines and gas turbines increased from $5.4 billion in 1991 to $6.2 billion in 1992, or by 15 percent. Imports from France, which accounted for 37 percent of the 1992 total, rose by $241 million (12 percent) to $2.3 billion. Imports from the United Kingdom, the second-largest supplier, increased by $407 million (30 percent) to $1.8 billion. Imports from France and the United Kingdom consisted of both complete aircraft engines and aircraft engine parts. Imports from the United Kingdom reflect the growing popularity of Rolls-Royce's aircraft turbine engines, and imports from France reflect the two new aircraft turbine engines produced by CFM, both of which are destined initially for new Boeing aircraft. The increase in imports of engines and engine parts is attributable to the rise in gross U.S. shipments of aircraft and the increased use of existing aircraft, both of which are related to the projected global increase in demand for air travel services. An increase in the use of an aircraft requires more frequent servicing and maintenance and parts replacement.

Exports of aircraft engines and gas turbines, reversing a 4-year growth trend, declined by 1 percent in 1992 to $8.3 billion. The largest markets for U.S. exports of these products in 1992 were France and the United Kingdom; both of these markets grew by 1 percent during 1991-92. France received $2.2 billion in exports in 1992, and the United Kingdom received $829 million. The slight overall decline in U.S. exports of these products is attributable to significant decreases in shipments of nonaircraft gas turbine engines of under 5,000 kilowatts and a decline in foreign demand for parts of civil aircraft engines; in both cases, the decline was due to general global economic conditions, according to industry sources.

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Automobiles, trucks, buses, and bodies and chassis

The U.S. motor vehicle trade deficit fell by $757 million (less than 2 percent) to $42.7 billion in 1992. The U.S. deficit with Japan and Canada accounted for 58 percent ($24.7 billion) and 33 percent ($13.9 billion), respectively, of the total U.S. trade deficit. The trade deficit in motor vehicles amounted to 43 percent of the total trade deficit in all merchandise. The trade deficit with Japan and Canada in motor vehicles amounted to 25 percent and 14 percent, respectively, of the total U.S. trade deficit in all merchandise, respectively. The trade deficit with Japan improved by 5 percent ($1.3 billion) as imports decreased and exports increased slightly.

U.S. imports from Japan decreased as a result of increased U.S. motor vehicle production by Japanese subsidiaries in the United States. U.S. motor vehicle exports to Japan increased primarily as a result of increased U.S. exports of vehicles produced in Japanese-owned subsidiaries in the United States. The U.S. deficit with Canada increased by 22 percent in 1992 as a result of the stagnant economy in Canada and of increased U.S. imports of motor vehicles produced in Canada by U.S. automakers.

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[2]—Continued
manufacturing company CFM International, Inc. (CFM). CFM currently produces aircraft engines for the Boeing 737 and Airbus A320 and A340.

U.S. exports of automobiles, trucks, buses, and bodies and chassis totaled $17.7 billion in 1992, representing an increase of $2.3 billion (15 percent) from 1991. More than one-third of the increase resulted from an improvement in U.S. sales to Taiwan, where U.S. producers have established a strong presence in the market. The second largest increase (13 percent of the total) in U.S. motor-vehicle exports was to Saudi Arabia, where there has been strong sales growth in recent years, particularly since the end of the Gulf War in 1991.

U.S. imports of automobiles, trucks, buses, bodies, and chassis rose by 3 percent to $60.4 billion in 1992. The increase was related to continued strong demand for Japanese- and Canadian-produced automobiles and trucks. U.S. imports from Japan and Canada amounted to $25.5 and $22.2 billion, respectively, in 1992.

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Certain motor-vehicle parts[3]

The U.S. trade surplus in this commodity group grew by $575 million (27 percent) to $2.7 billion in 1992. This improvement in the U.S. trade position was the fifth largest recorded for any commodity group in all sectors. The improvement was largely attributable to (1) successful international competitiveness of the U.S. parts industry, (2) U.S. firms' ability to produce components with specific technology requirements (for instance, airbags, anti-lock braking systems, and catalytic converters) that are competitive with similar products manufactured by major foreign suppliers, and (3) rationalization of North American production by the U.S. Big Three automakers (General Motors, Ford, and Chrysler).

U.S. exports of certain motor-vehicle parts rose by $2.3 billion to $16.0 billion in 1992, representing a 17-percent increase. U.S. exports to Canada, the leading export market, rose by $896 million, or by 11 percent, to $8.8 billion. Concurrently, U.S. exports to Mexico increased by $677 million (23 percent) to $3.8 billion. As discussed, these increases in U.S. exports to Canada and Mexico reflect the greater overall rationalization of the North American automotive industry. The increase in exports to Mexico exceeded the increase in imports from that country, largely as a result of a gradual liberalization of Mexico's automotive production sector reportedly in anticipation of a NAFA.

U.S. imports of certain motor-vehicle parts increased by $1.7 billion (15 percent) in 1992, to $13.3 billion. This increase represented a slower rate of growth and a lower amount than the increase in U.S. exports. U.S. imports from Canada, the leading foreign source of certain motor-vehicle parts, rose by $597 million to $5.4 billion in 1992, representing a 13-percent increase. U.S. imports from Japan, the second leading foreign source of these

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[3] Products contained in this group include body stampings, bumpers, brakes and parts, gear boxes, axles, wheels, shock absorbers, radiators, exhaust systems, clutches, steering wheels, and miscellaneous parts and accessories. The total sum of these products accounted for approximately 70 percent of all motor-vehicle parts and accessories produced worldwide in 1992.

commodities, increased by 16 percent, or by $469 million, to $3.5 billion in 1992. This increase was largely attributable to increased sourcing from Japan by Japanese-owned automakers in the United States and the expanding U.S. market for automobiles. U.S. imports of certain motor-vehicle parts from Mexico rose sharply by $460 million to $1.8 billion in 1992, representing a 38-percent increase. The increase in imports from Mexico reflects the expansion of U.S. investment in the Mexican motor-vehicle parts industry and the growing importance of Mexico as a producer of certain motor-vehicle parts.

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Miscellaneous vehicles and transportation-related equipment

The U.S. trade surplus in miscellaneous vehicles and transportation-related equipment improved by 51 percent to $1.6 billion in 1992. Because there is a wide range of products classified in this category, it is difficult to attribute trade shifts to a particular reason or trend.

U.S. imports of miscellaneous vehicles and transportation-related equipment decreased slightly in 1992, from $1.19 billion in 1991 to $1.15 billion in 1992, representing a 3-percent decline. In 1992, the leading sources of miscellaneous vehicles and transportation-related equipment imports were Canada, Japan, Taiwan, Mexico, and Germany. Canada remained the leading source of U.S. imports of these vehicles and equipment for the third consecutive year; however, imports from Canada decreased by 4 percent, from $672 million in 1991 to $648 million in 1992. Imports from Japan, the second-leading supplier, decreased by 10 percent, from $295 million in 1991 to $264 million in 1992. The products that experienced the largest import decrease in 1992 were special purpose vehicles, not elsewhere classified; tracked (including half-tracked) vehicles; and concrete mixers. Special-purpose vehicles consist of a diverse category of products, including such vehicles as cherry pickers, street sweepers, and mobile medical/dental clinics. The decrease in imports of tracked and half-tracked vehicles, which fall under the larger product category of tanks and other armored fighting vehicles, may correspond to recent defense-spending cuts in the United States.

U.S. exports of miscellaneous vehicles and transportation-related equipment increased by 22 percent, from $2.2 billion in 1991 to $2.7 billion in 1992. In 1992, the leading markets for miscellaneous vehicles and transportation-related equipment exports were Canada, Saudi Arabia, Egypt, Mexico, and Taiwan. Exports to the two leading markets, Canada and Saudi Arabia, both increased substantially during 1992, by 24 percent (to $675 million) and 97 percent (to $337 million), respectively. The notable increase in U.S. exports to Saudi Arabia is attributable principally to a 241-percent increase in shipments of motorized armored fighting vehicles to that country; this product was the leading export gainer in this product category in 1992. New markets were established or reestablished for this product, in the Middle Eastern region; Bahrain, Kuwait, and Egypt ranked second, fifth, and sixth, respectively, as leading markets for U.S. motorized armored fighting vehicles. This trend is attributable to the aftermath of the Persian Gulf War. Other

notable increases in exports in this product grouping include trailers and semitrailers and tanker trailers and tanker semitrailers.

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Metal-cutting machine tools[4]

The U.S. trade deficit in metal-cutting machine tools and attachments narrowed significantly in 1992, falling by $391 million, or by 36 percent, to a deficit of $690 million. The decline in the deficit was due to a slow U.S. economic recovery after the 1990-91 recession, combined with weakness in the defense and aerospace industries that limited demand for both domestic and imported products. The rise in exports was attributable principally to factory retooling and manufacturing investments in Mexico in anticipation of the NAFTA and increased investments in Korea.

U.S. imports of metal-cutting machine tools and attachments declined by $253 billion, or by 11 percent, to $2.0 billion in 1992. Imports from Japan, the leading supplier, declined by $112 million, or by 11 percent, to $902 million. The decline from Japan occurred principally in imports of multistation transfer machines, which fell by $67 million to $3 million in 1992, reflecting a reduction in the demand for Japanese custom-built machinery, grinding machines, and workholders. Imports from Germany, the second-leading supplier, fell by $108 million, or by 24 percent, to $352 million; the decline occurred in specialty-machining centers used principally in the defense and aerospace industries. Imports from other EC member countries also declined partly because of strong price and technical competition from U.S. machine tool builders and Japanese machine tool builders located in the United States.

U.S exports of metal-cutting machine tools rose by $138 million, or by 12 percent, to $1.3 billion in 1992. Exports to Mexico rose by $172 million, or 170 percent, to $273 million, resulting in Mexico becoming the principal export market. Exports to Korea rose by $27 million, or 38 percent, to $99 million. Canada, which ranked as the principal market in both 1990 and 1991, became the second largest market in 1992. U.S. exports to Canada rose by $9 million, or by 5 percent, to $214 million. Export gains were partially offset by an 18-percent decline of $53 million in U.S. shipments to the EC to $249 million in 1992. Demand for machine tools in Europe has been weak because of the recession in Europe and the high European interest rates that have resulted in a dampening of demand for machinery.

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Construction and mining equipment

The U.S. trade surplus in construction and mining equipment declined by 8 percent during 1992. Imports of construction equipment rose, responding to

[4] This profile covers machine tools for cutting metal, but also machine tool attachments for both metal-cutting and metal-forming machine tools.

an increase in such construction activities in the United States as highway construction partly because of the passage of the Intermodal Surface Transportation Efficiency Act in late 1991. This Act improved the market for highway construction equipment by providing over $16 billion in Federal funds to State Governments for highway construction. The import increase was coupled with a decline in U.S. exports of construction and mining equipment, reflecting the economic recession of 1992 felt in many foreign markets and the subsequent postponement of foreign construction projects and of mining activities.

U.S. imports of construction and mining equipment rose from $1.4 billion in 1991 to $1.6 billion in 1992, or by 15 percent. The leading sources of these imports were Japan and Canada, followed by the United Kingdom, Germany, and France. Imports from Japan increased by 36 percent, from $433 million in 1991 to $587 million in 1992. A major U.S. manufacturer increased its sourcing from its Japanese facilities to meet domestic demand in the face of labor strikes at unionized plants in the United States. Imports from Canada decreased by 25 percent, from $228 million in 1991 to $170 million 1992. This is largely attributable to the closing of a major U.S. producer's plant in Canada from where the company was sourcing certain types of equipment for the U.S. market.

U.S. exports of construction and mining equipment decreased from $6.0 billion in 1991 to $5.8 billion in 1992, or by 3 percent. The leading markets for U.S. construction and mining equipment exports in 1992 were Canada, Venezuela, Mexico, Singapore, and the United Kingdom. Exports to the two leading markets, Canada and Venezuela, both decreased from 1991 to 1992, by 19 and 22 percent, respectively. Exports to Canada decreased from $698 million in 1991 to $565 in 1992; exports to Venezuela decreased from $661 million to $518 million.

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Internal combustion piston engines, other than for aircraft

The U.S. trade surplus in internal combustion piston engines grew by 49 percent in 1992, reaching $1.0 billion. This improvement was largely attributable to the increases in U.S. exports to Mexico and Canada, which exceeded the growth in imports of engines from Japan.

U.S. exports of internal combustion piston engines increased to $6.6 billion in 1992, or by 13 percent. U.S. exports to Canada, the leading U.S. export market, increased by 10 percent to $3.3 billion in 1992. U.S. exports to Mexico, the second-leading U.S. export market, grew by 51 percent to $1.0 billion. These patterns reflect the greater overall rationalization and integration of the North American automotive industry.

U.S. imports of internal combustion piston engines increased by 9 percent in 1992 to $5.6 billion. Most of this growth was due to a 32-percent rise in imports from Japan, the leading foreign source of these engines, from $1.4 billion to $1.8 billion. The increase in U.S. imports of engines from Japan was largely attributable to growing Japanese sourcing of these products by Japanese-owned automakers in the United States and by the U.S. Big Three

automakers (General Motors, Ford, and Chrysler). U.S. imports of engines from Canada, the second leading source of these products, increased by 9 percent in 1992 to $1.5 billion. This increase was primarily the result of continued integration of U.S. and Canadian automotive production and sourcing by the U.S. Big Three automakers.

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Air-conditioning equipment and parts

Continuing a trend that started in 1990, the U.S. trade surplus in air-conditioning equipment grew by 29 percent to $709 million in 1992. The rising U.S. surplus reflected a 10-percent increase in U.S. exports to $3.5 billion in 1992, from $3.2 billion in 1991. The industry's exports-to-shipments ratio reached a record 17 percent in 1992. This surge in air-conditioning equipment exports was led by strong Canadian demand for automotive air-conditioning equipment, renewed economic growth in Mexico, and a return of economic stability in the Middle East, particularly in Saudi Arabia.

Leading export markets for air-conditioning equipment in 1992 were Canada (29 percent), Mexico (11 percent), Saudi Arabia (7 percent), and Venezuela (4 percent). Canada was the leading export market for the 10th consecutive year, accounting for approximately $1 billion in total exports. The bulk of U.S. exports to Canada consisted of such components as fans and blowers, automotive air-conditioners, and all types of compressors that are incorporated by Canadian producers into finished products for the U.S. market. Industry sources estimate that nearly 80 percent of these products are involved in inter U.S.-Canadian trade.

U.S. exports of air-conditioning equipment to Mexico rose rapidly from $313 million in 1991 to $380 million in 1992, representing a 21-percent increase. The increase in exports is attributable to factory retooling and manufacturing investments in Mexico in anticipation of the NAFTA. The leading export shipments to Mexico included components, primarily compressors, room air-conditioners, and all types of air-conditioning equipment.

Since the end of the Persian Gulf crisis in 1991, exports of air-conditioning equipment to Saudi Arabia increased from $186 million to $230 million, representing a 24-percent rise. Compressors of under 3 horsepower, all-year-heating and cooling packages, and room air-conditioners were the leading export products in 1992. Venezuela's implementation of market liberalization measures, coupled with a reduction in its tariff rates for air-conditioning equipment resulted in a 49-percent increase in U.S. exports to that country. Exports to Venezuela increased from $99 million in 1991 to $148 million in 1992. Parts of air-conditioning and refrigeration compressors, room air-conditioners, and ice-making machines were the leading U.S. exports to Venezuela.

U.S. imports of air-conditioning equipment rose modestly to $2.8 billion in 1992, from $2.7 billion in 1991. This increase was attributable to a resurgence in U.S. residential and institutional construction, particularly construction of health care facilities. In 1992, Japan, Taiwan, and Mexico were the principal foreign suppliers to the U.S. market, collectively accounting for 52 percent of total U.S. imports. Imports of air-conditioning equipment from Japan, the leading supplier, decreased from $816 million in

1991 to $788 million in 1992. A slowdown in U.S. demand for Japanese motor-vehicles was the primary factor leading to the modest decrease in imports from Japan. Imports from Taiwan, the second-leading supplier, increased by 7 percent, from $365 million in 1991 to $392 million in 1992. The leading products imported from Taiwan were compressors of greater than 10 horsepower, and absorption liquid-chilling units, most of which are used in the light commercial replacement market, such as in motels and hotels.

Because of low-wage rates and proximity to the U.S. market, imports of air-conditioning equipment from Mexico increased from $197 million in 1991 to $267 million in 1992, representing a 36-percent increase. The primary products imported from Mexico were fans and blowers, room air-conditioners, and motor-vehicle air-conditioning compressors. The increase in U.S. imports of these products was the result of a continuing rationalization of North American sourcing activities, particularly by the U.S. appliance and automotive industries. These two U.S. industries account for as much as 35 percent of Mexican shipments of air-conditioning equipment to the U.S. market.

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Electric motors, generators, and related equipment

U.S. exports of motors, generators, and related equipment climbed by 18 percent to $2.8 billion in 1992, exceeding the corresponding increase in imports. As a result, the U.S. trade balance in these products improved from a deficit of $32 million in 1991, to a surplus of $93 million in 1992, a $125-million recovery. The majority of the export increase was accounted for by shipments of parts to Mexico and Canada by U.S. companies, in support of their foreign subsidiary operations in these countries, and of diesel-engine and gas-turbine-driven generating sets to developing countries, most notably to Colombia. The latter products are used as a source of either stand-by or primary electrical power, and U.S. producers of this equipment have, over the years, established themselves as world-class suppliers.

Mexico and Canada were the leading markets for U.S. exports in 1992. Mexico accounted for 18 percent ($497 million) of the annual total, and Canada, 17 percent ($459 million). The largest percentage increases for the top ten leading markets in 1992 were recorded by Colombia (up 634 percent to $126 million) and by the Netherlands (up 90 percent to $112 million).

U.S. imports of motors, generators, and related equipment increased by 12 percent to $2.7 billion in 1992, chiefly reflecting increased U.S. demand in specialty motor markets and heightened assembly operations of U.S. producers along the Mexican border. The leading import categories in 1992 were fractional horsepower DC and single-phase AC motors; parts of motors and generators (other than commutators) and parts of generating sets and rotary converters; and miscellaneous electromagnets and parts. Fractional horsepower motors are most often incorporated into motor vehicles (wipers and power accessories, such as windows, door locks, and antennas) and into consumer and commercial products, such as lawn-care equipment, fans, blenders, and toys.

Imports from Japan rose by 22 percent to $744 million in 1992 and accounted for 28 percent of total imports. Imports from Mexico grew by 31

percent to $506 million and represented the second leading import source, accounting for 19 percent of the annual total. Imports from the United Kingdom and China also rose sharply in 1992, by 49 percent (to $225 million) and 40 percent (to $98 million), respectively. On the contrary, U.S. imports of electric motors, generators, and related equipment from Canada, Switzerland, and Brazil declined by 7 percent to $245 million, by 24 percent to $78 million, and by 6 percent to $50 million, respectively.

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Farm and garden machinery

The U.S. trade surplus in farm and garden machinery declined by $13 million to $1.2 billion in 1992, or by 1 percent. The small change in the trade balance was due to a marginal increase in U.S. demand for new tractors as low farm product prices and reduced demand during the 1992 weak economic recovery generally limited the consumption of farm and garden machinery. Limited growth in export markets, particularly in Europe where most economies have been in recession, also helped keep the change in the trade balance small.

Low inventory levels of Japanese-built tractors at U.S. dealerships and increasing U.S. demand for Japanese and French wheeled and crawler (also known as track-laying) agricultural tractors were the principal reasons for the increase in U.S. imports of farm and garden machinery in 1992, which rose by $137 million to $2.2 billion, or by 7 percent. A rise in demand by U.S. producers for Italian tractor parts was also a factor. Most tractor and tractor part imports were purchased by U.S. original-equipment manufacturers (OEMs) from their foreign production subsidiaries or from foreign producers under contract. Germany continued to be the largest supplier to the U.S. market; however, imports from Germany increased by only $9 million, or by 2 percent, to $456 million. During the period, imports from Japan increased by $63 million, or by 18 percent, to $417 million, and those from France by $34 million, or by 34 percent, to $134 million. Imports from Italy rose by $23 million, or by 16 percent, to $171 million.

Strong Canadian and Australian demand for U.S. harvesting machines and large tractors accelerated U.S. exports of farm and garden machinery by $124 million, or by 4 percent (to $3.4 billion) in 1992. U.S. exports to Canada rose by $106 million, or by 12 percent, to $961 million; and those to Australia rose by $46 million, or 28 percent, to $194 million as that country rebounded from its 1991 agricultural recession. However, exports to the EC, which historically have accounted for 25 percent of U.S. exports of farm and garden machinery, were flat during 1992 because of recessionary conditions in that market. Export shipments to Mexico, which have accounted for 8 percent of exports annually since 1990, were strong because of increased investments made in anticipation of the NAFTA. U.S. exports to Iran, a relatively new market for U.S. exporters, rose by $36 million, or by 88 percent, to $76 million and consisted largely of crawler tractors.

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Table 23
Machinery and equipment sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
ME001	Aircraft engines and gas turbines:				
	Exports	8,330	8,264	-66	-0.8
	Imports	5,373	6,177	804	15.0
	Trade balance	2,957	2,087	-870	-29.4
ME002	Internal combustion piston engines, other than for aircraft:				
	Exports	5,853	6,640	787	13.4
	Imports	5,166	5,618	452	8.8
	Trade balance	687	1,022	335	48.8
ME003	Pumps for liquids:				
	Exports	1,766	1,857	91	5.2
	Imports	1,142	1,294	152	13.3
	Trade balance	624	563	-61	-9.8
ME004	Air-conditioning equipment and parts:				
	Exports	3,218	3,533	315	9.8
	Imports	2,668	2,824	156	5.8
	Trade balance	550	709	159	28.9
ME005	Certain industrial thermal-processing equipment and certain furnaces:				
	Exports	1,331	1,440	109	8.2
	Imports	784	813	29	3.7
	Trade balance	547	627	80	14.6
ME006	Commercial appliances:				
	Exports	1,748	2,032	284	16.2
	Imports	765	944	179	23.4
	Trade balance	983	1,088	105	10.7
ME007	Electrical household appliances and certain heating equipment:				
	Exports	1,629	1,802	173	10.6
	Imports	2,882	3,322	440	15.3
	Trade balance	-1,253	-1,520	-267	-21.3
ME008	Centrifuges and filtering and purifying equipment:				
	Exports	1,705	1,703	-2	-0.1
	Imports	666	650	-16	-2.4
	Trade balance	1,039	1,053	14	1.3
ME009	Wrapping, packaging, and can-sealing machinery:				
	Exports	611	606	-5	-0.8
	Imports	643	699	56	8.7
	Trade balance	-32	-93	-61	-190.6
ME010	Scales and weighing machinery:				
	Exports	102	105	3	2.9
	Imports	151	157	6	4.0
	Trade balance	-49	-52	-3	-6.1
ME011	Forklift trucks and similar industrial vehicles:				
	Exports	627	570	-57	-9.1
	Imports	614	712	98	16.0
	Trade balance	13	-142	-155	(3)
ME012	Construction and mining equipment:				
	Exports	6,025	5,864	-161	-2.7
	Imports	1,412	1,630	218	15.4
	Trade balance	4,613	4,234	-379	-8.2
ME013	Mineral processing machinery:				
	Exports	452	537	85	18.8
	Imports	215	200	-15	-7.0
	Trade balance	237	337	100	42.2
ME014	Farm and garden machinery and equipment:				
	Exports	3,298	3,422	124	3.8
	Imports	2,101	2,238	137	6.5
	Trade balance	1,197	1,184	-13	-1.1
ME015	Industrial food-processing and related machinery:				
	Exports	537	595	58	10.8
	Imports	395	445	50	12.7
	Trade balance	142	150	8	5.6
ME016	Pulp, paper, and paperboard machinery:				
	Exports	641	586	-55	-8.6
	Imports	694	637	-57	-8.2
	Trade balance	-53	-51	2	3.8

See footnotes at end of table.

Table 23--Continued
Machinery and equipment sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Percent
		Million dollars			
ME017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Exports	1,133	1,120	-13	-1.1
	Imports	1,178	1,239	61	5.2
	Trade balance	-45	-119	-74	-164.4
ME018	Textile machinery and parts:				
	Exports	685	659	-26	-3.8
	Imports	1,196	1,502	306	25.6
	Trade balance	-511	-843	-332	-65.0
ME019	Metal rolling mills and parts thereof:				
	Exports	185	182	-3	-1.6
	Imports	130	103	-27	-20.8
	Trade balance	55	79	24	43.6
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:				
	Exports	1,132	1,270	138	12.2
	Imports	2,213	1,960	-253	-11.4
	Trade balance	-1,081	-690	391	36.2
ME021	Machine tools for metal forming and parts thereof:				
	Exports	656	779	123	18.8
	Imports	590	552	-38	-6.4
	Trade balance	66	227	161	243.9
ME022	Non-metalworking machine tools and parts thereof:				
	Exports	377	474	97	25.7
	Imports	540	633	93	17.2
	Trade balance	-163	-159	4	2.5
ME023	Semiconductor equipment, robots, and other machinery:				
	Exports	7,339	7,696	357	4.9
	Imports	5,433	5,328	-105	-1.9
	Trade balance	1,906	2,368	462	24.2
ME024	Taps, cocks, valves, and similar devices:				
	Exports	1,346	1,521	175	13.0
	Imports	1,760	2,057	297	16.9
	Trade balance	-414	-536	-122	-29.5
ME025	Ball and roller bearings:				
	Exports	720	713	-7	-1.0
	Imports	903	990	87	9.6
	Trade balance	-183	-277	-94	-51.4
ME026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:				
	Exports	536	592	56	10.4
	Imports	880	964	84	9.5
	Trade balance	-344	-372	-28	-8.1
ME027	Boilers, turbines, and related machinery:				
	Exports	897	857	-40	-4.5
	Imports	305	230	-75	-24.6
	Trade balance	592	627	35	5.9
ME028	Electric motors, generators, and related equipment:				
	Exports	2,338	2,752	414	17.7
	Imports	2,370	2,659	289	12.2
	Trade balance	-32	93	125	(3)
ME029	Electrical transformers, static converters, and inductors:				
	Exports	1,118	1,206	88	7.9
	Imports	1,800	2,130	330	18.3
	Trade balance	-682	-924	-242	-35.5
ME030	Primary cells and batteries and electric storage batteries:				
	Exports	797	848	51	6.4
	Imports	795	947	152	19.1
	Trade balance	2	-99	-101	(3)

See footnotes at end of table.

Table 23--Continued
Machinery and equipment sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
ME031	Portable electric handtools:				
	Exports	252	260	8	3.2
	Imports	332	381	49	14.8
	Trade balance	-80	-121	-41	-51.3
ME032	Nonelectrically powered hand tools and parts thereof:				
	Exports	348	358	10	2.9
	Imports	420	456	36	8.6
	Trade balance	-72	-98	-26	-36.1
ME033	Ignition, starting, lighting, and other electrical equipment:				
	Exports	952	1,122	170	17.9
	Imports	1,173	1,289	116	9.9
	Trade balance	-221	-167	54	24.4
ME034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:				
	Exports	647	695	48	7.4
	Imports	742	903	161	21.7
	Trade balance	-95	-208	-113	-118.9
ME035	Electric and gas welding and soldering equipment:				
	Exports	389	406	17	4.4
	Imports	435	345	-90	-20.7
	Trade balance	-46	61	107	(3)
ME036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:				
	Exports	2,145	2,492	347	16.2
	Imports	2,698	3,146	448	16.6
	Trade balance	-553	-654	-101	-18.3
ME037	Rail locomotive and rolling stock:				
	Exports	546	580	34	6.2
	Imports	662	744	82	12.4
	Trade balance	-116	-164	-48	-41.4
ME038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:				
	Exports	15,398	17,699	2,301	14.9
	Imports	58,834	60,378	1,544	2.6
	Trade balance	-43,436	-42,679	757	1.7
ME039	Certain motor-vehicle parts:				
	Exports	13,732	16,046	2,314	16.9
	Imports	11,565	13,304	1,739	15.0
	Trade balance	2,167	2,742	575	26.5
ME040	Motorcycles, mopeds, and parts:				
	Exports	441	497	56	12.7
	Imports	584	803	219	37.5
	Trade balance	-143	-306	-163	-114.0
ME041	Miscellaneous vehicles and transportation-related equipment:				
	Exports	2,225	2,709	484	21.8
	Imports	1,194	1,153	-41	-3.4
	Trade balance	1,031	1,556	525	50.9
ME042	Aircraft, spacecraft, and related equipment:				
	Exports	34,403	35,712	1,309	3.8
	Imports	7,501	7,262	-239	-3.2
	Trade balance	26,902	28,450	1,548	5.8
ME043	Ships, tugs, pleasure boats, and similar vessels:				
	Exports	1,174	1,441	267	22.7
	Imports	279	378	99	35.5
	Trade balance	895	1,063	168	18.8
ME044	Motors and engines, except internal combustion, aircraft, or electric:				
	Exports	261	260	-1	-0.4
	Imports	225	237	12	5.3
	Trade balance	36	23	-13	-36.1

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
[3] Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 8. Electronic Technology

The U.S. trade deficit in electronic equipment worsened by $7.4 billion (44 percent) in 1992, to $24.3 billion (table 24). The growth in the trade deficit was due to an $11.1 billion increase in imports that more than offset a $3.7 billion increase in exports. This increase in imports was led by the computer industry, where the upgrading of existing systems and the increasing globalization of production have led to increased imports of computer parts, and by the semiconductor industry, where the price of commodity memory devices has increased as a result of increasing demand and reactions to dumping charges.

U.S. imports in the electronic technology sector increased by 15 percent in 1992, from $76.6 billion to $87.7 billion. Japan was the major source of these imports, accounting for 35 percent of the total in 1992, followed by Singapore and Taiwan, each accounting for 9 percent. Semiconductors and automatic data processing (ADP) equipment accounted for 54 percent of U.S. imports in 1992 and for 71 percent of the increase in imports between 1991 and 1992.

Exports increased by 6 percent in 1992, from $59.7 billion to $63.4 billion. ADP machines and semiconductors accounted for 58 percent of 1992 exports, and ADP machines and telephone and telegraph equipment accounted for 52 percent of the increase in exports between 1991 and 1992. The major export markets were Canada, Japan, and Mexico, which accounted for 15, 10, and 9 percent of total U.S. exports of electronics, respectively. Whereas exports to Canada increased by almost 70 percent from 1989 to 1992, exports to Japan increased by less than 6 percent.

U.S. Bilateral Trade

The major U.S. trading partners in electronic technology products in 1992 were Japan, Canada, Singapore, Mexico, and Taiwan. Japan and Canada, together, account for over 35 percent of U.S. trade in electronic technology products. The U.S. trade deficit with Japan in these products grew by $3.3 billion (15 percent) as the deficit deepened to $24.8 billion in 1992. During this period, the United States maintained a trade surplus in electronic equipment with the United Kingdom and Canada. However, the surplus with the United Kingdom declined by 8 percent, falling by $259 million to $2.8 billion in 1992 whereas the U.S. trade surplus with Canada improved by $665 million (23 percent) to $3.6 billion. The trade balance with Canada improved as a result of the U.S.-Canada Free-Trade Agreement and the merging of the U.S. and Canadian markets. The U.S. trade deficit with Mexico improved by $172 million (35 percent) to $318 million in 1992.

Table 24
Electronic technology sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Japan	6,501	6,051	-449	-6.9
Canada	9,298	10,031	732	7.9
Singapore	2,794	3,210	416	14.9
Mexico	4,576	5,421	845	18.5
Taiwan	2,108	2,543	435	20.7
Korea	2,150	2,042	-107	-5.0
Malaysia	1,855	1,820	-35	-1.9
United Kingdom	4,954	5,038	84	1.7
Germany	4,301	4,196	-105	-2.4
Hong Kong	1,435	1,783	348	24.3
All other	19,762	21,309	1,546	7.8
Total	59,734	63,445	3,711	6.2
EC-12	17,915	18,131	216	1.2
OPEC	1,245	1,331	87	7.0
ASEAN	6,381	6,863	482	7.6
CBERA	517	616	99	19.2
Eastern Europe	206	295	90	43.6
U.S. imports for consumption:				
Japan	28,019	30,892	2,873	10.3
Canada	6,354	6,422	68	1.1
Singapore	7,171	8,263	1,092	15.2
Mexico	5,066	5,739	672	13.3
Taiwan	6,393	7,706	1,313	20.5
Korea	5,248	5,700	452	8.6
Malaysia	3,832	5,451	1,620	42.3
United Kingdom	1,855	2,198	343	18.5
Germany	1,914	1,931	17	0.9
Hong Kong	1,709	1,816	107	6.3
All other	9,014	11,590	2,576	28.6
Total	76,575	87,708	11,132	14.5
EC-12	6,149	6,787	638	10.4
OPEC	103	338	236	230.0
ASEAN	13,738	17,617	3,879	28.2
CBERA	205	246	41	19.8
Eastern Europe	8	10	2	28.4
U.S. merchandise trade balance:				
Japan	-21,519	-24,841	-3,322	-15.4
Canada	2,944	3,608	664	22.5
Singapore	-4,377	-5,054	-676	-15.5
Mexico	-490	-317	173	35.2
Taiwan	-4,285	-5,162	-878	-20.5
Korea	-3,098	-3,658	-559	-18.1
Malaysia	-1,977	-3,631	-1,654	-83.7
United Kingdom	3,099	2,841	-259	-8.3
Germany	2,387	2,266	-121	-5.1
Hong Kong	-274	-33	241	87.9
All other	10,749	9,719	-1,030	-9.6
Total	-16,841	-24,263	-7,422	-44.1
EC-12	11,766	11,344	-422	-3.6
OPEC	1,142	993	-149	-13.0
ASEAN	-7,356	-10,754	-3,397	-46.2
CBERA	312	371	59	18.8
Eastern Europe	198	285	87	44.2

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Commodity Analysis[1]

Automatic data processing (ADP) machines

Stronger demand for parts to upgrade existing computers, including disk drives and input/output (I/O) units, increasing market share of Asian-based firms, and growing demand for portables spurred growth in the computer trade deficit in 1992. The U.S. trade deficit in ADP machines more than tripled in 1992, increasing by $4.6 billion to $6.6 billion. While U.S. imports of ADP machines increased by $5.6 billion (22 percent) to $31.6 billion in 1992, U.S. exports increased by only 4 percent, or by $984 million, to $25 billion. Asian-based companies are reportedly moving some production and R&D to the United States in an attempt to gain name recognition in the United States, acquire the latest technology, and better serve U.S. customers.

Globalization of the computer industry has led many U.S.-based firms to enter joint production ventures, original equipment manufacture agreements, licensing agreements, and other similar arrangements with foreign-based firms. Cooperation between companies of different origins enables greater cost control as both companies contribute to the project. In addition, most U.S.-based companies that rely heavily on foreign markets maintain a manufacturing presence in countries other than the United States and, therefore, do not export to their overseas markets.

Imports of computer parts, I/O devices, and disk drives accounted for over 80 percent of total imports in 1992. Disk drive imports increased by 34 percent in 1992, followed by I/O devices (22 percent), and computer parts (14.8 percent). However, imports of complete and incomplete computers decreased by 3 percent to $1.4 billion.

Imports of portable computers more than doubled in 1992, reaching $1.4 billion. This is partially the result of two tariff changes made in the fall of 1991: the removal of a 100-percent tariff on imports of portable computers under seven pounds, and the implementation of a 62.67-percent anti-dumping duty on imports of active-matrix flat panel displays (FPDs) from Japan. Although previous imports of the displays were minimal, new products are increasingly using FPDs, and many U.S.-based computer companies have begun producing portables that use active-matrix FPDs overseas, namely in Japan and Ireland, rather than assembling them in the United States. The high rate of duty on FPDs, which are not made in significant quantities in the United States, was reportedly a significant factor in the decision to move production offshore.

Computer parts accounted for 40 percent of all computer exports in 1992, followed by complete and incomplete digital computers (23 percent), disk drives (12 percent), and I/O units (12 percent). Exports did not change significantly in 1992, with I/O units increasing by the greatest percentage, 13 percent. Exports of complete and incomplete digital computers increased partially as a result of increased exports of computers made in the United

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[1] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 25 at the end of the chapter.

States by subsidiaries of Asian-based companies. The largest export markets in 1992 were Canada, Japan, the United Kingdom, and Germany.

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Diodes, transistors, integrated circuits and similar semiconductor solid-state devices

The U.S. trade deficit in semiconductors increased by $1.7 billion (82 percent) to $3.8 billion in 1992, building on a 52-percent increase in the trade deficit in 1991. Although exports showed renewed strength, robust domestic demand for computers with upgraded microprocessors coupled with price increases for commodity memory devices, particularly dynamic random access memories (DRAMs), spurred stronger import growth.

U.S. imports of semiconductors increased by $2.4 billion (18 percent) to $15.5 billion in 1992. This growth resulted from a rise in the demand for electronic equipment, particularly computers, in the United States. U.S. computer manufacturers, accounting for more than half of the country's semiconductor consumption, increased their monthly shipments of computers from about $5.2 billion to over $6.0 billion during the first three quarters of 1992.[2]

Semiconductor prices rose as a result of the increase in demand for these products by U.S. electronic equipment producers, combined with the influence of dumping charges filed in the United States and the European Community against Korean DRAM suppliers. Prices of DRAMs and other commodity memory devices, particularly sensitive to changes in demand, rose both in 1991 and 1992 following significant decreases in 1989. More than half of the increase in U.S. imports in 1992 was accounted for by Japan, Korea, and Canada, the principal suppliers of DRAMs to the United States. Most of the remaining increase in U.S. imports was accounted for by Malaysia, Taiwan, and Hong Kong, where U.S. and other foreign firms subcontract production and maintain plants for assembling and testing unfinished semiconductors. U.S. exports of semiconductors grew by $641 million (6 percent) to $11.6 billion in 1992. This growth was actually driven by strong U.S. demand for electronic equipment. About half of these exports consist of unfinished semiconductors sent abroad for assembly and testing, which are then brought back to supply electronic equipment producers. In addition, a large portion of these exports are used abroad to construct electronic equipment subsequently exported to the United States. Recession in the economies of Japan, the EC, and of other key markets for U.S. semiconductors held the export growth rate down. Although an improvement over the 3-percent rate of growth in 1991, the 1992 rate contrasted unfavorably with the double-digit growth rates experienced during the 1986-90 period.

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[2] Integrated Circuit Engineering (ICE), *Status 1992: A Report on the Integrated Circuit Industry* (Scottsdale, AZ: ICE, 1993), p. 1-23.

Office machines

Imports of office machines increased 16 percent in 1992, or by $618 million, to $4.6 billion. U.S. exports of office machines also registered a modest gain of 3 percent, rising by $50 million to $2.0 billion. As a result, the trade deficit for office machines increased by $568 million, or by 28 percent, to $2.6 billion in 1992.

The principal imported items in 1992 were plain paper electrostatic copying machines and parts for photocopying apparatus, which accounted for 58 percent of total imports. Japanese low- and mid-range copiers have made significant inroads in the U.S. market through price competition, which accounts for their large share of imports. At the same time, U.S. producers of photocopying apparatus have begun to source components from many countries, a practice which accounts for the 18-percent increase in imports of parts of photocopying apparatus in 1992. The principal source of imports of office machines in 1992 was Japan, which accounted for 59 percent of total imports. Of the imports from Japan, 78 percent were office copying machines and parts for photocopying apparatus. Taiwan and China were the second and third principal sources of imports, accounting for 6 and 4 percent of imports, respectively. Cash registers and hand-held calculators were the principal imports from Taiwan, and hand-held calculators and printing calculators were the principal imports from China. The increase in imports of calculators from China between 1991 and 1992 accounted for almost half of the 78-percent increase in total imports from China.

The principal markets for U.S. exports in 1992 were Canada, the Netherlands, and Mexico, which absorbed 19, 14, and 9 percent of U.S. exports, respectively. Over half of the 13-percent increase in exports to Canada was due to increased exports of parts of photocopying apparatus and electrostatic copying machines. A major U.S. photocopying firm has subassembly work done in Canada, which accounts for much of the cross-border trade. The Netherlands is a distribution point for the European operations of a U.S. photocopier manufacturer, which accounts for its position. While total exports to the Netherlands declined, exports of photocopying machines and parts increased by 1 percent in 1992. The principal items exported were parts for photocopying apparatus, which accounted for 27 percent of total exports. Since Canada and the Netherlands are the principal destinations for exports of parts of photocopying apparatus, most of the trade in these items is believed to be intracompany transfers.

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Tape recorders, tape players, video cassette recorders, turntables, and compact disc players

The U.S. trade deficit in tape recorders, tape players, video cassette recorders (VCRs), turntables, compact disc (CD) players, and their parts increased in 1992 by $635 million, or by 13 percent, to $5.4 billion. U.S. imports of such articles increased by $524 million (12 percent) to $4.8 billion in 1992. These U.S. imports have been rising steadily since 1990, fueled by increases

in purchases of VCRs and CD players, the two largest product groups in this category. Neither VCRs nor CD players are produced in commercial quantities in the United States. Thus, imports rose as U.S. sales of these devices rebounded after stagnating during the recession. The 1992 levels of both VCR sales to dealers and CD player imports set records.

Japan is the leading supplier of these U.S. imports. However, Japan's share of these U.S. markets has fallen gradually in recent years as Japanese firms have transferred manufacturing of these products to developing nations in the Far East. U.S. imports of this equipment from Japan increased by 2 percent in 1992, after declining irregularly during the previous 5 years. At the same time, U.S. imports of tape-recording apparatus from Korea, Malaysia, Thailand, and China rose by a range of 16 to 52 percent. These nations have received most of the overseas direct investment made by the Japanese electronics firms in recent years. Indonesia has also benefited from such investment. Indeed, U.S. imports of VCRs from Indonesia increased tenfold in 1992, as a new Indonesian VCR factory began production.

U.S. exports of tape recorders, tape players, turntables, and parts rose by $111 million (22 percent) to reach $627 million in 1992. This increase resulted primarily from a large expansion in U.S. exports of parts and accessories for this equipment to Brazil. In 1992, Brazil ended its stringent "informatics" policy, which had prohibited imports of electronic equipment. In addition, Cobra, the state-run electronics manufacturer that dominates Brazil's electronics industry, announced it would cease production of many product lines and import and distribute equipment instead. As a result of these changes, U.S. exports of tape-recording apparatus to Brazil rose from $14 million in 1991 to $121 million in 1992. U.S. exports to Venezuela and Argentina also rose by over 40 percent during the period. These increased South American sales offset weaker demand in Mexico, Japan, and the United Kingdom, which have traditionally ranked among the United States' top five export markets for this equipment.

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Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus

The trade deficit in television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus, decreased by $512 million (20 percent) to $2 billion in 1992. This first improvement in the trade balance since 1989. It resulted from a decrease in imports effected by the decline in imports of camcorders (largely because of adjustments in inventories) from just over $2 billion to just under $1.5 billion. The sharp drop in imports far outweighed a small decrease in exports.

U.S. imports of television apparatus decreased by $519 million, or by 19 percent, to $2.2 billion. According to data published by the Electronic Industries Association (EIA), factory and distributor inventories of camcorders were reduced by 43 percent from 1991 to 1992. Instead of an unhealthy 12 weeks of sales in inventory at the end of 1991, importers and retailers had reduced inventories to only 7 weeks of sales by the end of

1992. Imports of camcorders from Japan, the major source, decreased by almost 25 percent, from just under $2 billion in 1991 to less than $1.4 billion in 1992. Japan continued to be the major source of imports of all television apparatus, providing almost 79 percent of 1992 imports.

U.S. exports of television apparatus decreased by only $7 million (3 percent) in 1992, to $229 million, about one-tenth the level of imports. The largest markets for these products in 1992 were Canada, Mexico, and Taiwan. Exports to Taiwan more than doubled between 1991 and 1992, from $8.5 billion to over $19 billion.

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Records, tapes, compact discs, computer software, and other recorded media

The steady increase in U.S. two-way trade in records and tapes reflects the close integration of U.S. and major foreign recording studios. The music and movie studios based in Hollywood lead the world in sales of such software. Despite the large increase in U.S. imports of records, tapes, CDs, computer software, and other recorded media, the United States still maintains a large trade surplus in this product category because U.S. exports have increased much more rapidly than imports. The U.S. trade surplus in these products expanded by $412 million (23 percent) to $2.2 billion in 1992. About one-third, or $763 million, of this surplus was with the EC. The U.S. trade surplus with the EC increased by $183 million in 1992, accounting for 44 percent of the total improvement in the surplus.

U.S. exports of records, tapes, CDs, computer software, and other recorded media increased by $555 million (25 percent) in 1992, rising to nearly $2.8 billion. Canada remained the largest single country market, as U.S. exports to Canada rose by $91 million, or by 15 percent, to $681 million in 1992. U.S. exports to the EC increased by $227 million, or by 32 percent, to $945 million.

U.S. imports of records, tapes, compact discs (CDs), computer software, and other recorded media rose by $143 million (38 percent) to $522 million in 1992. U.S. imports from each of the top 10 foreign suppliers have risen significantly, as they have since 1989. CDs and other recorded media, such as computer software, accounted for the bulk of this increase in imports. Canada is the leading foreign supplier of recorded media to the U.S. market. U.S. imports from Canada rose by $59 million, or by 60 percent, to reach $158 million in 1992. Meanwhile, U.S. imports from the EC rose by $44 million (32 percent) to $182 million.

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Table 25
Electronic technology sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
ST001	Office machines:				
	Exports	1,953	2,003	50	2.6
	Imports	3,960	4,578	618	15.6
	Trade balance	-2,007	-2,575	-568	-28.3
ST002	Telephone and telegraph apparatus:				
	Exports	3,234	4,170	936	28.9
	Imports	4,861	5,617	756	15.6
	Trade balance	-1,627	-1,447	180	11.1
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:				
	Exports	669	720	51	7.6
	Imports	1,070	1,241	171	16.0
	Trade balance	-401	-521	-120	-29.9
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:				
	Exports	516	627	111	21.5
	Imports	4,809	5,444	635	13.2
	Trade balance	-4,293	-4,817	-524	-12.2
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Exports	1,759	1,743	-16	-0.9
	Imports	1,673	1,729	56	3.3
	Trade balance	86	14	-72	-83.7
ST006	Records, tapes, compact discs, computer software, and other recorded media:				
	Exports	2,201	2,756	555	25.2
	Imports	379	522	143	37.7
	Trade balance	1,822	2,234	412	22.6
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Exports	3,349	3,504	155	4.6
	Imports	5,356	5,958	602	11.2
	Trade balance	-2,007	-2,454	-447	-22.3
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Exports	1,244	1,111	-133	-10.7
	Imports	496	446	-50	-10.1
	Trade balance	748	665	-83	-11.1
ST009	Television receivers and video monitors and combinations including television receivers:				
	Exports	1,096	1,248	152	13.9
	Imports	3,095	3,521	426	13.8
	Trade balance	-1,999	-2,273	-274	-13.7
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:				
	Exports	236	229	-7	-3.0
	Imports	2,755	2,236	-519	-18.8
	Trade balance	-2,519	-2,007	512	20.3
ST011	Electric sound and visual signaling apparatus:				
	Exports	418	483	65	15.6
	Imports	921	1,073	152	16.5
	Trade balance	-503	-590	-87	-17.3
ST012	Electrical capacitors, and resistors:				
	Exports	818	898	80	9.8
	Imports	884	1,022	138	15.6
	Trade balance	-66	-124	-58	-87.9
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:				
	Exports	4,870	4,924	54	1.1
	Imports	5,612	5,445	-167	-3.0
	Trade balance	-742	-521	221	29.8
ST014	Television picture tubes and other cathode ray tubes:				
	Exports	565	602	37	6.5
	Imports	679	758	79	11.6
	Trade balance	-114	-156	-42	-36.8
ST015	Special-purpose tubes:				
	Exports	194	169	-25	-12.9
	Imports	137	170	33	24.1
	Trade balance	57	-1	-58	(3)

See footnotes at end of table.

Table 25--Continued
Electronic technology sector: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		---------Million dollars---------			
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices:				
	Exports	10,976	11,617	641	5.8
	Imports	13,081	15,452	2,371	18.1
	Trade balance	-2,105	-3,835	-1,730	-82.2
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:				
	Exports	1,634	1,658	24	1.5
	Imports	819	932	113	13.8
	Trade balance	815	726	-89	-10.9
ST018	Automatic data processing machines:				
	Exports	24,001	24,985	984	4.1
	Imports	25,986	31,564	5,578	21.5
	Trade balance	-1,985	-6,579	-4,594	-231.4

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
[3] Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

CHAPTER 9. Miscellaneous Manufactures[1]

In a reversal of a trend begun in 1990, the value of growth in U.S. imports of miscellaneous manufactures surpassed the performance of U.S. exports of these products in 1992. Paced by surges in imports of labor-intensive toys, artificial flowers, Christmas decorations, and sporting goods from China and high-tech video games from Japan, U.S. imports rose $4.9 billion, or by 12 percent, to $46.7 billion in 1992. U.S. exports of miscellaneous manufactures continued to expand, rising by $2.5 billion (up 8 percent) to $33.2 billion in 1992 (table 26). However, because the value of export growth was only half the size of the increase in imports, the U.S. trade deficit in the miscellaneous manufactures sector expanded to $13.5 billion in 1992, a rise of $2.4 billion, or 22 percent.

Toys and models were responsible for the most significant deterioration in the U.S. trade balance in commodity groups in the miscellaneous manufactures sector; the trade deficit increased by $677 million (27 percent) in 1992, to $3.2 billion. Domestic producers, along with toy manufacturers in Taiwan, Hong Kong, and Korea, continue to shift production to China to take advantage of lower wage rates and a larger supply of labor. Imports of toys and models rose by $717 million (25 percent) to $3.6 billion in 1992.

The deficit for U.S. trade in miscellaneous articles, principally artificial flowers and Christmas decorations from China, grew by $522 million (up 28 percent) to $2.4 billion. As with other labor-intensive products, the advantage of lower-waged labor in China contributed to its making significant inroads in world trade of such products at the expense of higher-waged nations, such as Taiwan and Japan. In 1992, China surpassed Taiwan as the leading supplier of U.S. imports of artificial flowers and was also the leading source of Christmas ornaments.

U.S. imports of sporting goods also increased, rising by $420 million (up 24 percent) to $2.2 billion in 1992. Again, this was principally a result of China's push toward the development of labor-intensive industries. Low-cost labor helped spur a shift in the production of sporting goods to China and away from Taiwan, Korea, and Japan. The U.S. trade deficit in sporting goods totaled $1.2 billion in 1992, an increase of $326 million, or 39 percent.

By contrast, the trade deficit in the games and fairground amusements commodity group grew principally as a result of increased imports of home video games combined with the promotional efforts of Japanese video game manufacturers in selling more technologically advanced 16-bit game consoles and related game cartridges and compact discs. U.S. imports of games and fairground amusements rose by $638 million (31 percent) to $2.7 billion in 1992 whereas exports increased by $200 million (29 percent) to $0.9 billion.

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[1] Footwear will be discussed separately at the end of this chapter. Discussions and data regarding trade in the miscellaneous manufactures sector in general do not include footwear.

Table 26
Miscellaneous manufactures sector: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Percent
	Million dollars			
U.S. exports of domestic merchandise:				
Japan	4,166	4,089	-77	-1.8
Canada	4,740	5,232	491	10.4
China	346	471	125	36.2
Taiwan	725	799	74	10.2
Germany	2,684	2,801	117	4.4
Mexico	2,322	2,833	511	22.0
United Kingdom	2,341	2,295	-46	-2.0
Italy	833	855	23	2.7
France	1,673	1,667	-6	-0.3
Korea	950	915	-35	-3.6
All other	9,907	11,225	1,318	13.3
Total	30,687	33,183	2,496	8.1
EC-12	10,065	10,709	644	6.4
OPEC	1,166	1,207	41	3.5
ASEAN	992	1,196	204	20.6
CBERA	521	547	26	5.0
Eastern Europe	92	117	25	27.2
U.S. imports for consumption:				
Japan	8,037	8,487	450	5.6
Canada	2,319	2,762	443	19.1
China	5,046	7,044	1,998	39.6
Taiwan	5,093	5,351	258	5.1
Germany	2,553	2,746	193	7.6
Mexico	2,102	2,463	362	17.2
United Kingdom	2,042	1,989	-53	-2.6
Italy	2,375	2,565	190	8.0
France	1,351	1,466	115	8.5
Korea	1,662	1,525	-138	-8.3
All other	9,193	10,271	1,079	11.7
Total	41,773	46,670	4,897	11.7
EC-12	9,746	10,298	552	5.7
OPEC	183	279	96	52.7
ASEAN	2,221	2,761	540	24.3
CBERA	369	403	34	9.2
Eastern Europe	191	184	-7	-3.9
U.S. merchandise trade balance:				
Japan	-3,871	-4,398	-527	-13.6
Canada	2,421	2,469	48	2.0
China	-4,700	-6,573	-1,873	-39.8
Taiwan	-4,368	-4,552	-184	-4.2
Germany	131	55	-76	-57.9
Mexico	220	369	149	67.7
United Kingdom	299	306	7	2.3
Italy	-1,542	-1,709	-168	-10.9
France	321	201	-121	-37.5
Korea	-712	-609	103	14.5
All other	714	953	239	33.5
Total	-11,086	-13,488	-2,402	-21.7
EC-12	319	411	92	28.7
OPEC	983	928	-55	-5.6
ASEAN	-1,229	-1,565	-336	-27.3
CBERA	152	145	-8	-5.0
Eastern Europe	-99	-67	33	32.7

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

The resulting trade deficit grew by nearly one-third, increasing by $438 million to $1.4 billion.

U.S. trade in medical goods recorded the most significant trade balance improvement in 1992 among miscellaneous manufactures commodity groups. Exports of medical goods rose by $734 million (12 percent) to $6.9 billion, and the trade surplus in medical goods rose by $499 million (20 percent) to $2.9 billion. The export rise for medical goods reflects the continued development of technologically advanced electromedical equipment in the United States, making U.S. producers the prime suppliers of such state-of-the-art equipment to hospitals and clinics throughout the world.

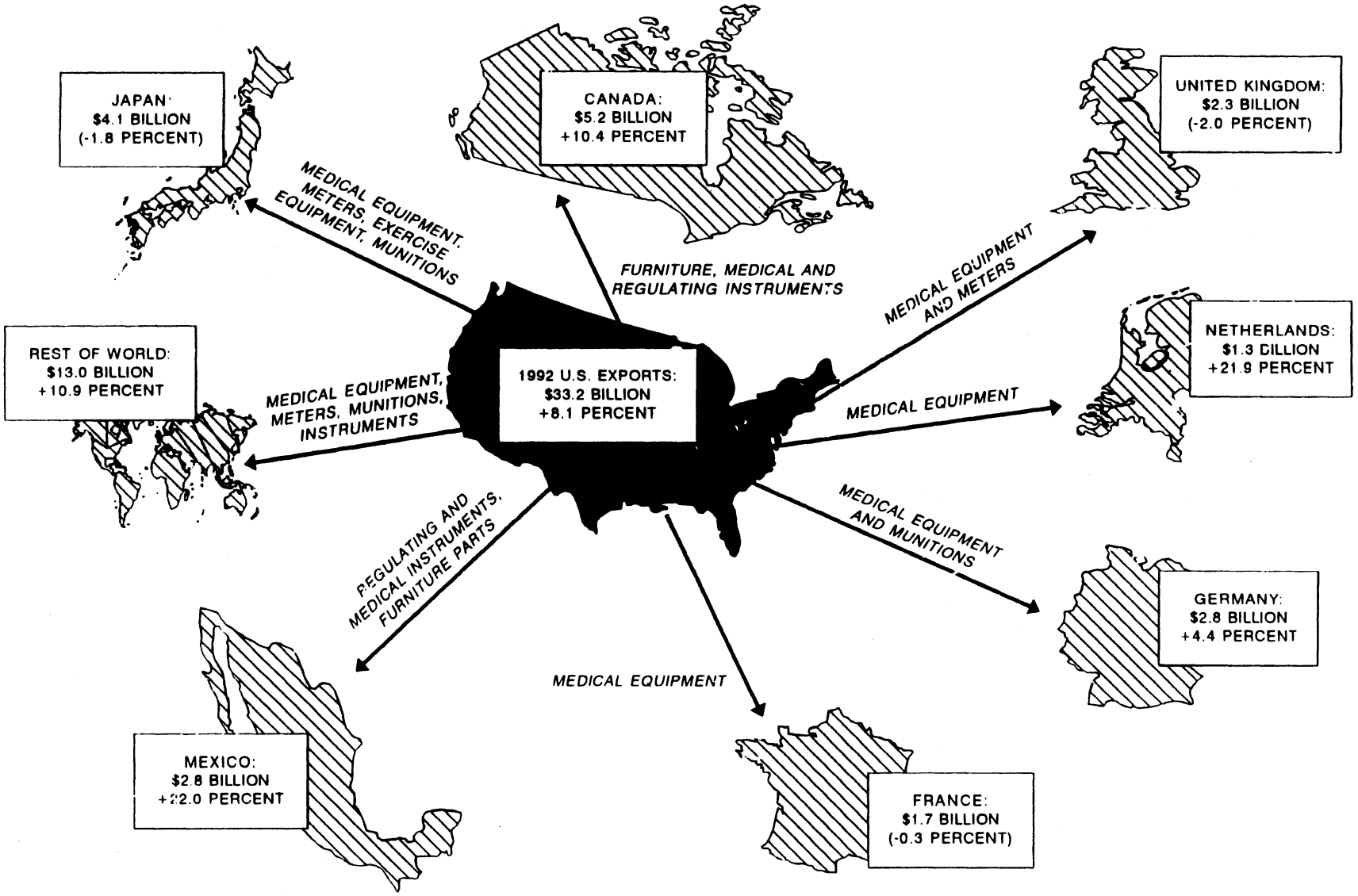
U.S. Bilateral Trade

The major U.S. trading partners for miscellaneous manufactures during 1992 remained the EC, Japan, Canada, China, Taiwan, and Mexico. These markets together accounted for 73 percent of total U.S. exports of miscellaneous manufactures during 1992, a proportion nearly unchanged from 1990. The share of exports accounted for by the EC and Japan decreased slightly, totaling 32 percent (down 1 percent) and 12 percent (down 2 percent), respectively, in 1992. The economies of both the EC and Japan were affected by recessions during the period. The share to Canada increased by 1 percentage point to 16 percent. Principal products exported were medical goods, arms and ammunition, photographic supplies and cameras, and furniture (figure 11).

U.S. imports from these nations represented 78 percent of the value of total imports of miscellaneous manufactures in 1992, up from 77 percent in 1991. The value of imports from all the major trading partners increased in 1992; however, the shares supplied by the EC, Japan, and Taiwan declined slightly in 1992. The EC supplied 22 percent of the total (down from 23 percent in 1991); Japan, 18 percent (down from 19 percent); and Taiwan, 11 percent (down from 12 percent). On the other hand, China's share rose from 12 to 15 percent in 1992. The shares of imports from Canada and Mexico were unchanged and represented 6 and 5 percent, respectively. Principal products imported were furniture, medical goods, games and fairground amusements, precious jewelry, toys and games, and luggage (figure 12).

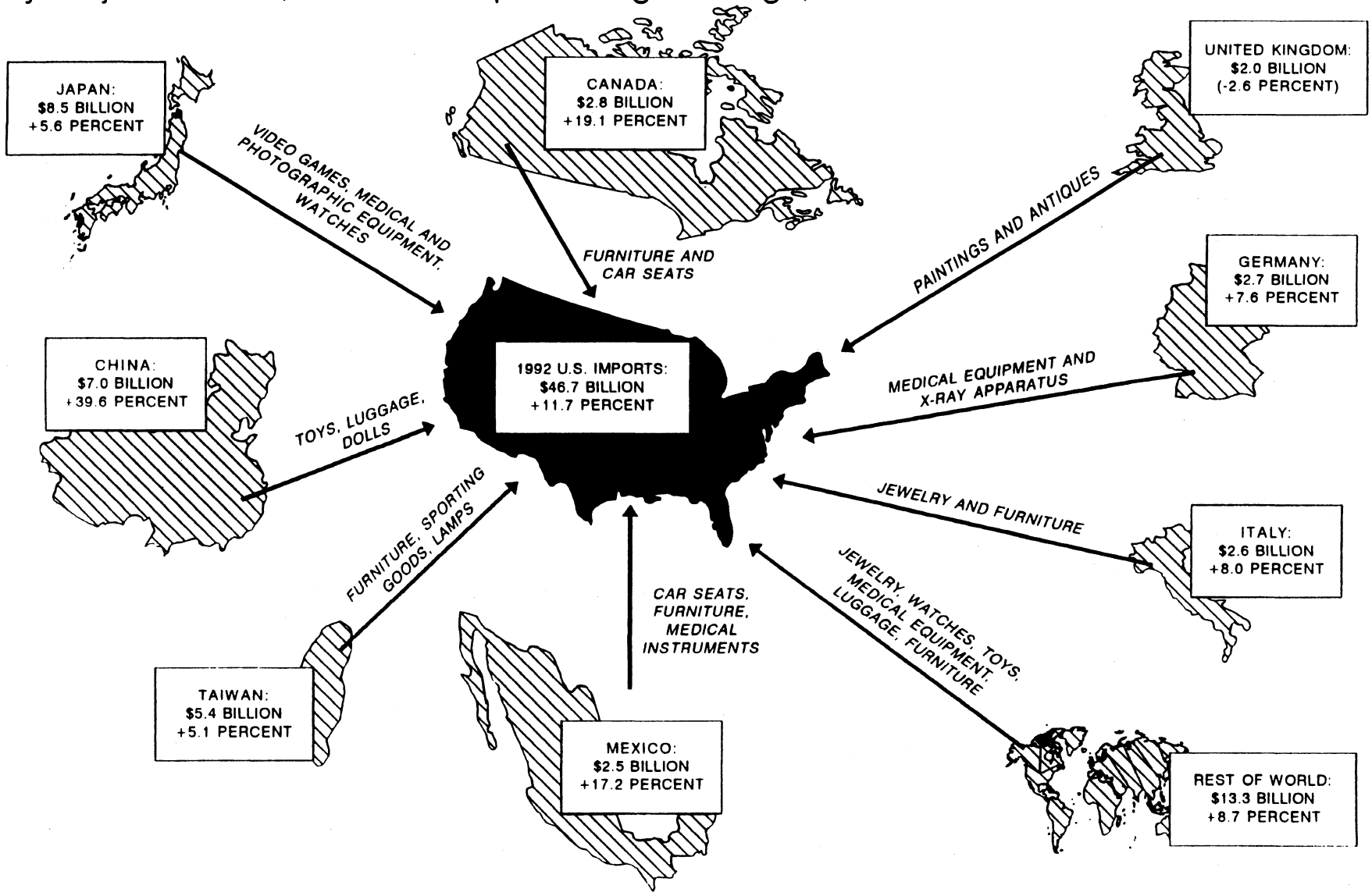
U.S. trade with the EC benefited from the efforts of Germany to purchase more expensive capital equipment and advanced-technology electronic medical devices in order to improve the level of health care in eastern Germany. Major gains in trade with Canada resulted from increased demand for sophisticated measuring, testing, and controlling instruments and from lower Canadian tariffs on U.S.-made furniture because of bilaterally staged tariff reductions under the U.S.-Canada Free-Trade Agreement. U.S. imports of toys and models, sporting goods, and miscellaneous articles from China rose as both domestic and international suppliers continued to shift manufacturing resources to that nation in order to take advantage of lower wages and a larger pool of workers.

Figure 11
U.S. miscellaneous manufactured product exports, 1992: Leading U.S. exports, by major markets, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Figure 12
U.S. miscellaneous manufactured product imports, 1992: Leading U.S. imports, by major sources, and overall percentage change, 1992 from 1991



Source: Derived from official statistics of the U.S. Department of Commerce.

Commodity Analysis[2]

Toys and models

Reflecting expanded industry reliance on low-cost production in China, the U.S. trade deficit in toys and models deteriorated by $677 million (or 27 percent) in 1992, rising to $3.2 billion. U.S. imports jumped $717 million (25 percent) to $3.6 billion in 1992 whereas U.S. exports of toys and models rose only $40 million (10 percent) to $427 million.

Toy manufacturers in Taiwan and Korea steadily reduced their exports of toys and models to the U.S market while China was becoming the dominant supplier of these products to the United States. Lower wage rates and a larger supply of workers in China continue to be the main reasons for the shifting of toy manufacturing from other Asian countries to China. The loss of favorable treatment under the Generalized System of Preferences by Taiwan and Korea in 1989 also encouraged toy manufacturers to shift production to China.

The largest increases in U.S. imports of toys and models were accounted for by non-spring-mechanism toys, excluding models ($229 million); stuffed animal and nonhuman creature toys ($140 million); spring mechanism toys and model airplanes and boats ($93 million); toy sets and outfits ($81 million); nonstuffed animals and nonhuman creature toys ($77 million); and toys, excluding models, with electric motors ($65 million).

China registered the largest volume increase in U.S. imports of toys and models in 1992, rising by $714 million (48 percent) to $2.2 billion in 1992. The growth in imports from China was responsible for almost all of the increase in total U.S. imports in 1992. China's share of imports of toys and models rose from 51 percent in 1991 to 64 percent in 1992, whereas the share of U.S. imports from Taiwan and Korea declined from 8 percent each in 1991 to 5 and 4 percent, respectively, in 1992. Imports from Taiwan declined by 5 percent to $203 million, and imports from Korea fell by 38 percent to $144 million.

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Miscellaneous articles

Sparked by an increase in imports of artificial flowers and Christmas decorations from China and antiques from Turkey, the U.S. trade deficit in miscellaneous articles expanded by $522 million (28 percent) in 1992, to $2.4 billion. This trend was accelerated by an increase in the U.S. trade deficit with the EC in works of art which rose by 17 percent to $800 million. Total U.S. imports of the miscellaneous articles commodity group increased by $371 million (11 percent) in 1992, to $3.7 billion, whereas exports decreased to $1.4 billion, a drop of $151 million (10 percent).

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[2] A summary of individual commodity group data on U.S. exports, imports, and the trade balance for this sector are provided in table 28 at the end of the chapter.

China became the leading East Asian supplier of U.S. imports of artificial flowers after significant increases in labor costs in Taiwan. U.S. imports of artificial flowers rose in 1992 by 28 percent to $487 million, with China accounting for 77 percent of such U.S. imports. Although the production of artificial flowers is labor intensive, East Asian producers have taken steps to automate the production of low-priced artificial flowers. The plastic stems are injection molded, and the polyester petals are machine cut or stamped. However, the processes to manufacture higher priced flowers are more difficult to automate because those flowers are very detailed. Technological improvements in dyes, fabrics, and machinery have created thin polyester, flower petals that are backed with velvet. The velvet reflects the light and makes the flowers look real. U.S. demand for artificial flowers has increased as the product has become more realistic.

U.S. imports of Christmas decorations rose in 1992 by 21 percent to $671 million. China accounted for 56 percent of such imports. Chinese-produced Christmas ornaments are hand painted or require other labor-intensive methods of manufacture.

Most of the $92 million increase in U.S. imports of antiques from Turkey in 1992 was accounted for by the Turkish Government's exhibition "Splendors of the Ottoman Empire," which toured the United States. The bulk of the works, which included manuscripts, jewels, furniture, paintings, and porcelains, came from the Topkapi museum in Istanbul. The distribution network for works of art is becoming more global. Telephone hookups allow purchasers to bid in auctions around the world. Works that are going to be sold at auctions are often put on tour (Paris, London, Hong Kong, New York). When a collection enters the United States, the works are recorded as an import. As a result, the value of trade statistics reflects the movement of collections on tour across national boundaries, even though no works have been sold.

The increase in the U.S. trade deficit with the EC in the works of art category in 1992 was caused by a 17-percent decline in U.S. exports to the EC to $495 million. The decrease in U.S. exports reflects the weaker condition of most of the economies of Western Europe in 1992 whereas U.S. imports of works of art from the EC in 1992 ($1.3 billion) were little changed from the 1991 level.

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Medical goods

Boosted by a sizable increase in exports to most major markets, the U.S. trade surplus in medical goods grew by 20 percent to $2.9 billion in 1992, an increase of $499 million over the previous year. Increased demand spurred trade in both directions; U.S. exports grew by almost 12 percent ($734 million) to $6.9 billion, and U.S. imports rose by more than 6 percent ($235 million) to $4.0 billion. However, the rate of growth in both exports and imports of these goods slowed in 1992 when compared with growth in 1991, as major U.S. trading partners in Europe and Japan experienced recessions. Cost-containment pressures slowed growth in the U.S. market. X-ray and other electromedical equipment represented 44 percent of U.S. exports, and medical goods represented almost 60 percent of U.S. imports. This continues a trend of greater trade in the relatively more expensive capital equipment and advanced-technology electronic devices used in medical diagnosis, surgery, and treatment.

The European Community continued as the largest regional market for U.S. exports of medical goods in 1992, accounting for $2.9 billion, or 41 percent, of the total. U.S. exports to that region increased by 11 percent ($294 million), compared with 1991, as European countries continued to upgrade their health care infrastructures to meet demands for higher levels of care among their aging populations. U.S. imports of medical goods from EC countries increased at a rate about half that of U.S. exports, to $1.8 billion, up $95 million. U.S. exports to Germany, the second-largest trading partner of the United States in medical equipment, grew by 13 percent ($90 million) in 1992, to $772 million. Germany traditionally has maintained a sizable surplus with the United States in medical goods. U.S. imports of these goods from Germany increased by $78 million (9 percent) in 1992, to $990 million, less than the increase in U.S. exports. Consequently, the U.S. deficit in trade of medical goods with Germany narrowed by $12 million to $218 million. Germany continues to raise the level of health care in eastern Germany by upgrading facilities and subsidizing the purchase of foreign and domestic high-technology electromedical devices, further contributing to two-way trade activity with the United States. With most other European countries, the United States widened its trade surpluses in 1992, as European nations with largely public health care systems modernize medical facilities and procedures. U.S. exports to France and the United Kingdom increased whereas U.S. imports decreased. U.S. exports to France increased by 8 percent to $433 million, whereas U.S. imports from France decreased by 3 percent to $225 million, widening the U.S. trade surplus with France by $58 million to $207 million. U.S. exports to the United Kingdom increased by 10 percent to $395 million, whereas U.S. imports from that country declined by the same percentage to $176 million. U.S. exports to Belgium continued to expand at a rapid pace, increasing by almost 19 percent to $260 million.

Japan remained the United States' single largest trading partner for medical goods in 1992. Japan was the largest market for U.S. exports, absorbing $937 million, up 9 percent from the previous year. The $86-million increase in value of U.S. goods exported to Japan in 1992 surpassed the value of increased exports from the United States to all other major trading partners except to Germany. Japan's rapidly aging population and increases in per-capita spending on health care continued to offset the effects of its general economic slowdown and resulted in continued favorable trading opportunities for U.S. medical goods producers or joint-venture partners. U.S. exports to Japan of catheters, cannulae, and similar apparatus grew by 26 percent to $179 million. The United States is Japan's leading supplier of certain goods, such as pacemakers, currently not produced in Japan. Also contributing to the shrinking trade deficit with Japan in medical goods was a 1-percent decline in U.S. imports from Japan to $960 million, enabling Germany to surpass Japan as the largest foreign supplier to the U.S. market.

Canada absorbed $765 million of medical goods from the United States in 1992, an increase of 6 percent over the previous year. Certain U.S. medical goods producers benefitted from the closing of redundant Canadian production facilities and the subsequent supplying of Canada through exports. However, Canada's rank as a market for U.S. goods fell to third from the second position now held by Germany whose ascendancy reflects Canada's relatively smaller population and limited growth potential as a market. Because the level of imports is much smaller than that of exports, the trade surplus with Canada increased to $673 million, despite a 38-percent increase in U.S. imports from Canada to $92 million.

Total trade with Mexico remained relatively balanced, as U.S. exports rose 13 percent to $364 million and U.S. imports rose 9 percent to $361 million. A large portion of trade in medical goods between the two countries consisted of shipments to Mexico by U.S. companies of components and parts subsequently assembled at lower wage rates into finished goods by Mexican subsidiaries or subcontractors. Upon further assembly or completion, the goods are reexported to the U.S. market under favorable tariff treatment that exempts companies from paying duty on the U.S. content of such goods.

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Games and fairground equipment

Reflecting a resurgence in the video game market, the U.S. trade deficit in the games and fairground equipment sector expanded by $438 million (31 percent) in 1992, to $1.8 billion. Even though imports and exports grew at virtually the same rate in 1992, 31 percent (up $638 million) and 29 percent (up $200 million), respectively, U.S. imports of these products rose from a much larger base, $2.1 billion as opposed to $684 million in exports. Home video games and parts accounted for 88 percent ($561 million) of the increase in imports in the games and fairground equipment commodity group in 1992. For exports, a combination of home video games and parts, hand-held video game machines and parts, casino games and pinball machines, and bowling equipment accounted for 94 percent ($188 million) of the growth in exports.

The worsened trade balance in games and fairground equipment occurred from the increase in U.S. imports of home video games and parts. Imports of home video games, specifically consoles that play 8-bit and 16-bit computer chips increased by $218 million (28 percent) to $1 billion in 1992, having dropped to $782 million in 1991. Imports of home video game parts (namely cartridges, compact discs, and such accessories as compact disc peripherals, controllers, and joy sticks) increased 67 percent to $853 million.

The increase in imports of home video games consoles was due to a commitment by Japanese home video game manufacturers to promote and sell 16- bit home video game consoles and compact disc peripherals over 8-bit home video game consoles. The 8-bit home video game consoles are being targeted to first time users, novice players, and small children (ages 6 to 10). The 16-bit home video games with their advanced video images that have crisp, sharp colors and action-packed complex games target older children and teenagers, especially teenage males (ages 13 to 17) and young adults. Even though the U.S. market is saturated with 8-bit home video game systems, players are increasingly trading in their old systems for the new and improved 16-bit home video game systems. Home video game manufacturers are converting experienced players to the new systems by aggressive advertising and promotional offers, lower prices, and by a large selection of games on cartridges or compact discs.

U.S. imports of hand-held video games remained flat, increasing less than 1 percent to $468 million in 1992, largely because the U.S. market is saturated with the 8-bit models. Home video game manufacturers have not concentrated their efforts in establishing a hand-held video game market based on 16-bit technology.

Japan remained the principal source of U.S. imports of games and fairground equipment in 1992. Despite imports increasing by $396 million (25 percent) to $2.0 billion, Japan's share of imported games and fairground equipment supplied to the U.S. market slipped from 75 percent in 1991 to 72 percent in 1992. Taiwan and China remained distant second- and third-leading suppliers in 1992. Taiwan accounted for 11 percent ($305 million) of total imports compared with 9 percent ($180 million) in 1991 (up $125 million), and China, 7 percent ($210 million) in 1992 as compared with 8 percent ($168 million) in 1991 (up $42 million). Most of the imports from Japan were home video game consoles, CD-ROM players, cartridges, CDs, and accessories whereas imports from Taiwan were essentially home video game consoles and cartridges, hand-held video games, and board games and imports from China were chiefly electronic hand-held games and board games.

U.S. exports of games and fairground amusements increased in 1992 by 29 percent to $884 million. The leading markets for U.S. exports of games and fairground equipment were Canada (16 percent), Korea (12 percent), Germany and the United Kingdom (9 percent each), and Mexico (8 percent) in 1992. Exports to Canada and Korea increased 50 percent each to $144 million (up $48 million) and $102 million (up $34 million), respectively. Home video game consoles, arcade video games, other coin-operated games and parts (chiefly casino games), and board games were the primary products exported to Canada whereas bowling equipment was the primary product exported to Korea.

U.S. exports of games and fairground equipment consisted primarily of coin-operated games and parts (37 percent), bowling equipment (24 percent), and home video game consoles, hand-held video games, and their parts (21 percent) in 1992. A 92-percent increase ($87 million) in exports of home video games and hand-held video games and their parts, a 27-percent increase ($70 million) in coin-operated games, and a 32-percent increase ($52 million) in bowling equipment accounted for 96 percent of the increase in total U.S. exports of games and fairground equipment in 1992. The European market accounted for 56 percent ($144 million) of U.S. exports of pinball machines and casino game machines, and the Asian market accounted for 69 percent ($149 million) of bowling equipment.

U.S. exports of fairground equipment fell by $15 million (17 percent) to $71 million in 1992. Mexico and Korea were the leading markets, accounting for 22 percent and 16 percent respectively. France, which was the leading market in 1991, slipped to third place with 15 percent. Exports to France dropped dramatically, from $46 million in 1991 to $11 million in 1992, because of the April 1992 completion of the EuroDisney amusement park and fulfillment of U.S. contracts to assist in supplying the park with rides.

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Sporting goods

Led by an 88-percent rise ($150 million) in imports from China, the U.S. trade deficit in sporting goods increased by $326 million (or by 39 percent) to $1.2 billion in 1992. Similarly, the value of U.S. imports of sporting goods from all sources increased by $420 million (or by 24 percent) to $2.2

billion during the period. U.S. exports of sporting goods also rose significantly during 1992; however, the increase only tempered the increased trade deficit. U.S. exports rose by $94 million (or 10 percent) to $1.0 billion in 1992.

A key factor in the growth of imports from China was its continued expansion of the production of sporting goods in recent years as part of China's development of labor-intensive light industries to increase export earnings. Low-cost labor, especially in relation to Taiwan and Japan, helped spur a shift in the production of sporting goods from those countries to China.

U.S. imports of sporting goods from China, which accounted for 36 percent of the total increase in U.S. imports of sporting goods in 1992, soared at an average annual rate of 74 percent since 1989, compared with a rate of 11 percent for total imports of sporting goods. U.S. imports of sporting goods from China increased to $321 million in 1992, and its share of total imports rose from 10 to 15 percent during the period. A myriad of sporting goods products were supplied to the United States by China. Those that exhibited the largest increases in trade included gymnasium and exercise articles and equipment, up by $30 million (or 86 percent) to $64 million; inflatable balls, up $29 million (376 percent) to $36 million; baseballs and softballs, up $17 million (67 percent) to $42 million; golf equipment parts and accessories (chiefly golf club heads), up $15 million (217 percent) to $22 million; fishing rods, up $11 million (119 percent) to $20 million; and strung tennis rackets, up $9 million (67 percent) to $23 million. The production processes required to make each of these products are labor-intensive and, thus, give China an important competitive advantage because of its low labor costs.

Despite significant investments in China by Taiwanese sporting goods producers, U.S. imports of sporting goods from Taiwan, the leading supplier, continued to rise in 1992, growing by $55 million (8 percent) to $769 million. However, Taiwan's share of total imports declined from 40 percent in 1991 to 35 percent in 1992. The largest increases in U.S. imports from Taiwan were recorded in golf equipment parts and accessories, up $31 million (or 23 percent) to $166 million and in gymnasium and exercise articles and equipment, up by $15 million (7 percent) to $222 million. A shifting of the production of swimming and wading pools and ice skates to China contributed to decreased U.S. imports of these products from Taiwan.

Japan, Canada, the United Kingdom, and Mexico were the principal markets for U.S. exports of sporting goods in 1992. However, slowed economic conditions in Japan, the leading market, resulted in a 3-percent decline ($9 million) to $281 million in U.S. exports of sporting goods to Japan, moderating the growth in exports and contributing to the decline in the trade position. Similarly, Japan's share of total U.S. exports decreased to 27 percent from 32 percent. Increased shipments to Canada, up $28 million (16 percent) to $200 million, made the most significant contribution to the total rise in U.S. exports of sporting goods. Benefiting from a reputation for good quality, the largest sector of U.S. exports of sporting goods, gymnasium and exercise equipment, continued an upward trend in the Canadian market. Exports of such equipment to Canada rose by $19 million (54 percent) to $54 million in 1992.

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Photographic supplies

Imports of photographic supplies increased from $1.5 billion in 1991 to $1.6 billion in 1992, an increase of 8 percent. In contrast, U.S. exports of photographic supplies declined 7 percent, from $1.8 billion in 1991 to $1.7 billion in 1992. As a result, the trade surplus for photographic supplies fell by $246 million (81 percent) in 1992, to $59 million. Part of the reason for the increase in U.S. imports is the relative recovery of the U.S. economy compared with those of its major trading partners. The continued weakness in the economies of U.S. trading partners also accounts in large part for the decline in exports between 1991 and 1992.

Medical and dental x-ray film was the single largest trade category, accounting for 13 percent ($209 million) of U.S. imports and 12 percent ($201 million) of exports in 1992. Imports of x-ray film rose by 23 percent from 1991 to 1992, nearly three times the overall increase in imports. In contrast to the overall decline in U.S. exports of photographic film, exports of x-ray film rose by 1 percent ($2 million). Medical photographic supplies are a "bright spot" because health care spending is generally not as adversely affected as consumer spending by downturns in the economy.

Imports of x-ray film and 35 millimeter color film registered the largest increases, each rising by $39 million over the previous year to $209 million and $189 million, respectively. The increase in imports of 35 millimeter film is due partly to the recovery of the U.S. economy. Both 35 millimeter film and x-ray film are produced by large multinational firms in the United States, Japan, and Europe which compete strongly with each other. Japan was the principal source of imports of each of these items and also registered the bulk of the increases in these two items; imports of x-ray film rose by $12 million to $88 million, and imports of 35 millimeter film rose by $22 million to $119 million. Total imports from Japan also registered the largest absolute increase, rising by $32 million (6 percent) to $605 million in 1992. Germany had the second largest increase, rising by $25 million (23 percent) to $131 million. Imports of 35 millimeter film from Germany accounted for the bulk of the increase, rising by $16 million (89 percent) to $34 million. Canada and Belgium were the second- and third-leading sources of imports, accounting for 11 and 9 percent of the total, respectively. The leading imported item from Canada was microfilm (27 percent of imports) whereas film for medical and dental x-rays was the leading imported item from Belgium (31 percent).

Exports of bulk roll film showed the largest decline, falling by $174 million (56 percent) to $138 million. Bulk roll film is processed into various formats, including 35 millimeter film. The decline in exports of bulk roll film was due to a combination of weakened demand and competition from European-based photographic film manufacturers in the European market. The principal markets for U.S. exports in 1992 were Canada, Japan, and the United Kingdom, which absorbed 17, 16, and 13 percent of U.S. exports, respectively. Exports to Canada increased by 12 percent whereas exports to Japan and the United Kingdom declined. The increase in exports to Canada came in the flat film and bulk roll film areas. Exports of medical and dental x-ray film to Japan increased; most other categories in export volume declined.

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Photographic cameras and equipment

Imports of photographic cameras and equipment decreased by $25 million to $1.7 billion in 1992, a 1-percent drop from 1991. In contrast, U.S. exports of photographic equipment increased by $128 million to $936 million in 1992, an increase of 16 percent. As a result, the trade deficit in photographic cameras and equipment fell by $153 million to $767 million in 1992, or by 17 percent. According to an industry spokesman, the decline in U.S. imports is due in part to the rapid increase in sales of "single-use" cameras in which U.S. producers excel. When all the film has been exposed, the camera is returned to a dealer for processing. The film is developed and the pictures are given to the customer while components of the camera are returned to the manufacturer to be recycled. Single-use cameras have made substantial inroads in the market long dominated by 35 millimeter cameras.

Overall, the leading exported items were parts and accessories for cameras, which accounted for 19 percent ($181 million) of the total, and apparatus and equipment for automatically developing photographic film, which accounted for 14 percent ($136 million) of the total. These two items also registered the largest absolute increases in exports, with parts and accessories increasing by $51 million and automatic film-developing equipment increasing by $23 million. The largest market for parts and accessories was the United Kingdom, and exports of these items to the United Kingdom also showed the largest increase of any market, rising by $23 million. A U.S. photographic firm has a plant located in the United Kingdom, and it is likely that much of the export volume is destined for this facility. The principal markets for U.S. exports in 1992 were Japan, the United Kingdom, and Germany, which absorbed 16, 13, and 11 percent of U.S. exports, respectively. For Japan and Germany, the principal exported item was specialty cameras, which includes underwater cameras, aerial survey cameras, and medical or surgical cameras.

Japan was the principal source of U.S. imports of photographic equipment in 1992, accounting for 49 percent of total imports; however, imports from Japan declined by 11 percent to $842 million in 1992. The principal items imported from Japan were 35 millimeter cameras, which accounted for 54 percent of imports from Japan; imports of 35 millimeter cameras declined by approximately the same percentage as total imports from Japan. The second and third principal sources of imports of photographic equipment in 1992 were the United Kingdom and Taiwan, each accounting for 6 percent of total imports. The principal items imported from the United Kingdom were instant print cameras, which accounted for 77 percent ($81 million) of imports from that country. Imports of this item increased by 17 percent between 1991 and 1992, accounting for the bulk of the 11 percent increase in imports from that country between 1991 and 1992. Instant print cameras are produced in the United Kingdom by a U.S.-based firm, which then imports them into the United States. For Taiwan, 35 millimeter cameras were the principal imported item, accounting for 87 percent of imports. However, imports of 35 millimeter cameras from Taiwan fell by 17 percent between 1991 and 1992, contributing to the 24-percent decline in imports ($31 million). The leading imported item was 35 millimeter cameras, which accounted for about 49 percent of the total. Imports of 35 millimeter cameras declined approximately 2 percent between 1991 and 1992 when, as mentioned before, single-use cameras earned a more prominent place in the U.S. market

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Furniture and selected furnishings

Driven by a significant increase in U.S. imports of wood and rattan furniture from East Asian suppliers (Taiwan, China, Thailand, Malaysia, and Indonesia), the U.S. trade deficit in furniture rose by $130 million (5 percent) in 1992 to $2.9 billion. The rising trade deficit with Asian countries was offset somewhat by a 14-percent decrease in the trade deficit with the European Community (EC), from $687 million to $591 million. The U.S. trade deficit with Canada remained at nearly $135 million in 1992, whereas Mexico's rose from $113 million to $148 million. A significant portion of the furniture trade with Canada and Mexico is in motor vehicle seats.

Taiwan producers benefit from low-labor costs (relative to U.S. labor costs) and from access to large sources of rubber wood from such countries as Indonesia, Malaysia, and Thailand. Taiwan's reliance on low-cost labor has been balanced with investments in the most advanced and sophisticated wood-working machinery available. The transportation costs for exporting furniture to the United States are minimized by shipping the furniture in a knock-down (unassembled) state. Taiwan producers are entering the medium-priced segment of the U.S. market—particularly metal furniture—because China, Malaysia, and Thailand have developed furniture industries of their own, and they benefit from still lower cost labor.

Rattan furniture accounted for 20 percent of U.S. imports from China and 30 percent from Indonesia. Rattan is derived from the stems of rattan palms and can only be found in the Asian tropics and subtropics (primarily Indonesia, Ceylon, India, Burma, Vietnam, and the Philippines). The production of rattan furniture is labor intensive since it involves weaving and gives countries with a combination of low-labor costs and access to raw materials a distinct competitive advantage.

Imports of cotton quilts from China nearly doubled in 1992, rising from $76 million in 1991 to $131 million, adding to the U.S. trade deficit with East Asian countries. China is the major world producer of cotton. Its low-labor costs are also an important competitive factor because of the labor-intensive sewing operations required to make quilts.

U.S. trade with Canada and Mexico in motor-vehicle seats reflects the highly rationalized nature of North American car production. U.S.-made seat parts are exported for assembly into either seat covers or complete seats. Most of these imports from Canada and Mexico enter the United States either free of duty or at reduced rates. Motor-vehicle seats from Canada normally enter duty free under the Automotive Products Trade Act. Duty-free imports under the Generalized System of Preferences accounted for 82 percent of motor-vehicle seat imports from Mexico in 1992. Motor vehicle seats accounted for 38 percent ($480 million) of total U.S. imports of furniture from Canada in 1992 and 58 percent ($456 million) from Mexico.

Industry sources attribute the decline in U.S. imports from the EC in 1992 to a drop in U.S. demand for high-quality, more expensive furniture (the type imported from Italy). U.S. imports from the EC were primarily accounted for by upholstered furniture from Italy and wood household and metal furniture from Germany. U.S. exports to the EC were of both office and household furniture. EC demand for U.S. produced office furniture is strong because of consumer interest in systems furniture, ergonomic design, and furniture that accommodates the computer.

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Measuring, testing, controlling, and analyzing instruments

The value of U.S. exports of measuring, testing, controlling, and analyzing instruments (instruments) rose to $8.2 billion in 1992, up $429 million (6 percent), and U.S. imports increased to $4.0 billion, up $372 million (10 percent). With a large increase in exports but only slightly greater than the increase in imports, the U.S. trade surplus for instruments reached $4.2 billion in 1992, up only $57 million (1 percent) from 1991.

The flow of international trade in instruments is increasingly being affected by intracorporate trade. Historically, the U.S. instrument industry dominated the U.S. market and had a strong presence overseas, especially in Canada and the EC countries. However, in recent years the foreign instrument industry has increased considerably, and some of the leading foreign instrument producers have strengthened their position in the United States by establishing subsidiaries here or by acquiring U.S. companies. These foreign-owned instrument manufacturers also serve as the primary U.S. distributors of instruments made in the home country. As is the practice of subsidiaries of U.S. instrument manufacturers located overseas, many of the instruments made by foreign-owned instruments manufacturers in the United States contain a relatively high percentage of parts and components made in the home country. The increased presence of foreign-owned instrument manufacturers in the United States is believed to have contributed to the rise in U.S. imports and the slow growth in the U.S. trade surplus in 1992.

Canada was the largest export market for instruments in 1992, accounting for 15 percent of total U.S. exports ($1.2 billion), followed by Japan with 12 percent ($959 million), Mexico with 10 percent ($847 million), Germany with 8 percent ($655 million), and the United Kingdom with 7 percent ($558 million). However, U.S. exports to Japan declined by $109 million (10 percent) in 1992, mostly because of the economic slowdown in that country. A 19-percent decrease ($84 million) in U.S. exports to Japan of instruments for measuring electrical quantities accounted for much of the decline. Conversely, the U.S. export market that experienced the largest growth was Mexico, which increased by $137 million (19 percent) to $847 million, followed by Singapore, up $74 million (44 percent) to $242 million, the United Kingdom, up $67 million (14 percent) to $558 million, and Taiwan, up $61 million (28 percent) to $285 million. The growth in U.S. exports to Mexico was mostly generated by increased shipment of parts and components to U.S. subsidiaries located in Mexico for further assembly, as well as shipments of instruments needed by the expanding industrial infrastructure in Mexico. A 25-percent increase ($84 million) in exports of controlling instruments accounted for the bulk of the rise in exports to Mexico. The increase in U.S. exports to Singapore was due primarily to the expanding industrial infrastructure in that country. A 40-percent increase ($53 million) in exports to Singapore of controlling instruments, analytical instruments, instruments for measuring electrical quantities, and other measuring and checking instruments[3] accounted for most of the growth in

[3] Other measuring and checking instruments include, in part, test benches, profile projectors, optical instruments for inspecting photomasks, and equipment for testing characteristics of internal combustion engines.

exports to that country. The rise in U.S. exports to the United Kingdom was generated chiefly by increased demand for advanced-technology instruments. A 25-percent rise ($36 million) in U.S. exports to the United Kingdom of instruments for measuring electrical quantities and an 18-percent increase ($9 million) in exports of controlling instruments were responsible for most of the growth. The marked rise in U.S. exports to Taiwan was mostly due to the increasing need for instruments by the expanding industrial infrastructure. Half of the growth in U.S. exports to Taiwan consisted of instruments for measuring electrical quantities, analytical instruments, and controlling instruments, which collectively grew by $30 million to $180 million (20 percent).

One of the key factors contributing to the growth in U.S. exports in 1992 was that technology-intensive instruments, of which the United States is the leading world producer, are increasingly being used by all segments of industry to increase productivity and attain greater consistency in the quality of the manufactured products. As a result, U.S. exports continued to grow in those sectors encompassing a high percentage of technology-intensive instruments, such as controlling instruments (up 12 percent, to $1.4 billion), analytical instruments (up 7 percent, to $1.8 billion), and instruments for measuring electrical quantities (up 6 percent, to $2.2 billion).

Japan was the largest source of U.S. imports of instruments in 1992, accounting for 24 percent of the total ($954 million), followed by Germany with 14 percent ($539 million), Canada and the United Kingdom with 12 percent each ($461 million and $460 million, respectively), and Mexico with 10 percent ($380 million). The largest trade shift occurred with Mexico. The growth in U.S. imports from Mexico, which rose $78 million (26 percent) to $380 million, was mostly due to the continuing growth in imports under HTS subheading 9802.00.80, and other related party transactions. U.S. imports from Germany, which grew $52 million (11 percent) to $539 million, were generated primarily by a 21-percent increase in U.S. imports of analytical instruments ($21 million) and a 31-percent rise in imports of controlling instruments ($28 million). Intracorporate trade between German companies and their subsidiaries in the United States is believed to have contributed to much of this rise. The increase in U.S. imports from the Philippines, which rose $31 million (73 percent) to $74 million was due to an 87-percent increase in imports of controlling instruments. The growth in U.S. imports from the Netherlands, which rose $20 million (40 percent) to $71 million, was mostly the result of a 60-percent increase in imports of instruments for measuring electrical quantities. Overall, the growth in intracorporate trade and an expanding foreign instrument industry that is producing more competitively priced instruments has spurred the growth of U.S. imports.

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Optical goods, including ophthalmic goods

U.S. imports of optical goods[4] rose by $178 million to $2.1 billion, up 9 percent from 1991, and U.S. exports increased by $123 million (11 percent)

[4] Optical goods include lenses, prisms, mirrors, frames and mountings for spectacles and goggles, binoculars, telescopes, astronomical instruments, microscopes, telescopes, and miscellaneous optical and ophthalmic products.

to $1.2 billion in 1992. The U.S. trade deficit for optical goods increased by $55 million (7 percent) to $904 million in 1992.

The largest source of U.S. imports in 1992 was Japan, with 37 percent of total U.S imports ($773 million). The other leading sources were Italy, with 11 percent ($228 million) and Taiwan and Germany with 9 percent each ($192 million and $188 million, respectively). Japan remained the United States' leading supplier of many of the optical goods, especially higher priced eyeglass frames, spectacles, binoculars, and microscopes. More than 90 percent ($207 million) of U.S. imports from Italy in 1992 consisted of designer frames. However, in recent years a growing number of the low-cost optical goods, especially frames and spectacles, were supplied by Taiwan, Korea, China, and Hong Kong. Reportedly, lower prices have enabled these countries to obtain a growing share of the U.S. frame and spectacle markets. Most of the frames consumed in the United States are now of foreign origin, with Italy and other European countries supplying most of the designer frames; Japan, high-end titanium and other metallic frames; and other East Asian countries, most of the low-cost frames.

The largest U.S. trade shift occurred with China. U.S. imports from China grew by $30 million to $84 million, up 56 percent from 1991. Low-cost sunglasses and spectacles accounted for almost all of these imports. Although the absolute increase was comparatively small, it may signal a shift in sourcing from other low-cost producers to China. A number of Taiwanese manufacturers have reportedly increased their investment in Chinese assembly operations to help them overcome rapidly increasing labor costs within Taiwan itself. U.S. imports from Taiwan grew by $25 million, up 15 percent from 1991, with low-priced eyeglasses, such as reading glasses, accounting for about 80 percent of the total. U.S. imports from Hong Kong grew by $14 million to $82 million, up 20 percent from the previous year, and low-cost frames accounted for most of the imports. U.S. imports of optical goods from Canada grew by $14 million to $48 million (up 43 percent) and consisted primarily of mounted lenses, prisms, mirrors and similar optical elements. Related-party transactions probably accounted for most of the imports from Canada.

Japan was the largest market for U.S. optical goods in 1992, accounting for 14 percent of total U.S. exports ($166 million). Japan was followed by Canada with 13 percent ($150 million) and by Germany with 11 percent ($125 million). However, U.S. exports to Japan declined by 8 percent to $166 million in 1992; most of the decline is attributable to the weak Japanese economy. U.S. exports to Germany experienced the largest growth, increasing by $28 million. A one-time $18 million sale of astronomical instruments accounted for much of the growth in exports to Germany. Other U.S. export markets showing significant growth were Israel, which rose by $22 million to $44 million; Australia, by $18 million to $45 million; Korea, by $15 million to $48 million; and France, by $13 million to $55 million. U.S. export growth to most of these countries was due primarily to large single sales or contracts of various goods, including $18 million in periscopes to Israel, $18 million in various optical devices, appliances, and instruments to Australia, $10 million in similar devices to Korea, and $3 million in contact lenses to France.

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Footwear

Imports in footwear have come to dominate the U.S. footwear market over the past two decades and now supply over four-fifths of all shoes sold in the United States. U.S. producers remaining in business have turned to foreign sources for their lower priced shoes, focused production on better quality, higher priced shoes, and/or found market niches impervious to import competition. U.S. exports of footwear are at a comparatively low level. Consequently, even though exports rose almost twice as fast as imports in 1992 (11 percent compared with 6 percent), the volume growth in imports was 10 times that of exports, $599 million compared with $61 million, (table 27). As a result, the U.S. trade deficit in footwear climbed $538 million to $9.5 billion in 1992.

Trade in footwear continued to shift in 1992 from traditional suppliers Korea and Taiwan to lower labor-cost producers, especially China and also Indonesia. Wages have increased significantly in both Taiwan and Korea in the last few years, and it is difficult to find workers in those countries willing to settle for low-paying jobs in the shoe industry when opportunities exist for a more promising future in the electronics industries that are being encouraged by the Governments of Taiwan and Korea. Consequently, footwear producers in Taiwan and Korea, as well as in the United States, are shifting production out of these countries. Imports from China, which had grown by 72 percent in 1991, rose another 34 percent in 1992 (by $864 million to $3.4 billion), giving China a 33-percent share of U.S. imports. Imports from Indonesia increased by 60 percent in 1992 (by $249 million to $663 million), placing sixth as a source of U.S. footwear. Imports from Korea and Taiwan dropped by 23 percent and 28 percent, respectively, in 1992 (by $461 million and $326 million). Imports from Brazil rose 15 percent ($143 million to $1.1 billion), making Brazil the third largest supplier, surpassing Taiwan. Brazil exports mostly leather-upper, medium-priced dress and casual shoes that have replaced medium-priced shoes from Spain and Italy, traditional suppliers of medium-to-expensive leather shoes.

Concern has been expressed by the U.S. footwear industry about the increase in footwear imports from the Caribbean area, especially from the Dominican Republic, the United States' tenth largest supplier of footwear. When made entirely from U.S. components, footwear is eligible to enter completely duty free under U.S. production-sharing tariff provisions—without duty on the value added—when imported from certain Caribbean countries. Legislation has been introduced in Congress this year, for the second year, to limit this duty-free treatment of footwear from the Caribbean.[5] Footwear imports from the Dominican Republic rose by 31 percent ($45 million) in 1992, to $191 million. The greatest concern has been over fabric-upper, rubber-soled footwear imports (mainly slippers and inexpensive sneakers), which increased ninefold from $699,000 in 1991 to $7.2 million in 1992. Nevertheless, the Dominican Republic accounted for less than 1 percent of

[5] S. 530—To amend the Harmonized Tariff Schedule of the United States to clarify that certain footwear assembled in beneficiary countries is excluded from duty-free treatment; and H.R. 795—To amend the Harmonized Tariff Schedule of the United States to exclude certain footwear assembled in beneficiary countries from duty-free treatment.

Table 27
Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1991 and 1992[1]

Item	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
	Million dollars			
U.S. exports of domestic merchandise:				
China	1	3	3	397.5
Korea	19	23	4	22.0
Brazil	4	4	0	-3.3
Taiwan	12	11	-1	-9.0
Italy	24	27	3	12.1
Indonesia	1	3	2	244.0
Thailand	2	1	0	-10.5
Mexico	61	87	27	44.0
Spain	14	20	6	41.9
Dominican Republic	28	27	-1	-3.2
All other	377	395	17	4.6
Total	541	601	60	11.1
EC-12	157	154	-3	-1.8
OPEC	20	23	3	14.8
ASEAN	9	10	0	1.9
CBERA	60	61	2	3.0
Eastern Europe	6	3	-3	-48.5
U.S. imports for consumption:				
China	2,532	3,396	864	34.1
Korea	1,980	1,520	-461	-23.3
Brazil	967	1,110	143	14.7
Taiwan	1,168	842	-326	-27.9
Italy	787	785	-2	-0.3
Indonesia	415	663	248	59.9
Thailand	304	327	22	7.4
Mexico	162	212	49	30.5
Spain	309	272	-37	-12.0
Dominican Republic	146	191	45	31.1
All other	771	822	52	6.7
Total	9,542	10,140	598	6.3
EC-12	1,291	1,316	24	1.9
OPEC	422	668	246	58.3
ASEAN	763	1,052	289	37.9
CBERA	166	202	37	22.1
Eastern Europe	126	85	-41	-32.7
U.S. merchandise trade balance:				
China	-2,532	-3,393	-861	-34.0
Korea	-1,961	-1,497	465	23.7
Brazil	-964	-1,106	-143	-14.8
Taiwan	-1,156	-831	325	28.1
Italy	-763	-758	5	0.6
Indonesia	-414	-660	-246	-59.5
Thailand	-303	-325	-23	-7.5
Mexico	-102	-124	-23	-22.4
Spain	-296	-253	43	14.6
Dominican Republic	-118	-164	-46	-39.2
All other	-393	-427	-34	-8.7
Total	-9,000	-9,539	-539	-6.0
EC-12	-1,135	-1,162	-27	-2.4
OPEC	-402	-645	-243	-60.5
ASEAN	-753	-1,042	-289	-38.4
CBERA	-106	-141	-35	-32.8
Eastern Europe	-120	-81	38	31.9

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Note.--Because of rounding, figures may not add to the totals shown. A comparison between 1989 and later export data (total and Canada) may be misleading because the U.S. Department of Commerce changed its method of compiling statistics on U.S. exports to Canada in 1990.

Source: Compiled from official statistics of the U.S. Department of Commerce.

total U.S. imports of this type of footwear, the majority of which was supplied by Korea and China. In addition, almost 80 percent of footwear imports from the Dominican Republic consisted of unformed leather uppers (made from U.S.-origin materials and components), which qualify to enter the United States duty free under the Caribbean Basin Economic Recovery Act and would not be affected by the above-mentioned legislation.

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Table 28
Miscellaneous manufactures sector and footwear: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		----------Million dollars---------			
GM001	Photographic supplies:				
	Exports	1,791	1,669	-122	-6.8
	Imports	1,486	1,610	124	8.3
	Trade balance	305	59	-246	-80.7
GM002	Exposed photographic plates, film, and paper:				
	Exports	102	102	1	0.6
	Imports	81	124	43	53.1
	Trade balance	21	-22	-43	(3)
GM003	Luggage, handbags, and flatgoods:				
	Exports	159	194	35	22.0
	Imports	2,281	2,437	156	6.8
	Trade balance	-2,122	-2,243	-121	-5.7
GM004	Certain other leather goods:				
	Exports	63	74	11	17.5
	Imports	140	158	18	12.9
	Trade balance	-77	-84	-7	-9.1
GM005	Musical instruments and accessories:				
	Exports	303	341	38	12.5
	Imports	713	824	111	15.6
	Trade balance	-410	-483	-73	-17.8
GM006	Umbrellas, whips, riding crops, and canes:				
	Exports	10	11	1	10.0
	Imports	143	173	30	21.0
	Trade balance	-133	-162	-29	-21.8
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal:				
	Exports	127	138	11	8.7
	Imports	41	64	23	56.1
	Trade balance	86	74	-12	-14.0
GM008	Precious jewelry and related articles:				
	Exports	428	500	72	16.8
	Imports	2,589	2,847	258	10.0
	Trade balance	-2,161	-2,347	-186	-8.6
GM009	Costume jewelry and related articles:				
	Exports	123	114	-9	-7.3
	Imports	491	532	41	8.4
	Trade balance	-368	-418	-50	-13.6
GM010	Bicycles:				
	Exports	174	175	1	0.6
	Imports	745	734	-11	-1.5
	Trade balance	-571	-559	12	2.1
GM011	Optical fibers, optical fiber bundles and cables:				
	Exports	247	293	46	18.6
	Imports	57	85	28	49.1
	Trade balance	190	208	18	9.5
GM012	Optical goods, including ophthalmic goods:				
	Exports	1,071	1,194	123	11.5
	Imports	1,920	2,098	178	9.3
	Trade balance	-849	-904	-55	-6.5
GM013	Photographic cameras and equipment:				
	Exports	808	936	128	15.8
	Imports	1,728	1,703	-25	-1.4
	Trade balance	-920	-767	153	16.6
GM014	Medical goods:				
	Exports	6,206	6,940	734	11.8
	Imports	3,762	3,997	235	6.2
	Trade balance	2,444	2,943	499	20.4
GM015	Surveying and navigational instruments:				
	Exports	1,734	1,709	-25	-1.4
	Imports	499	562	63	12.6
	Trade balance	1,235	1,147	-88	-7.1
GM016	Watches:				
	Exports	126	117	-9	-7.1
	Imports	1,855	1,869	14	0.8
	Trade balance	-1,729	-1,752	-23	-1.3

See footnotes at end of table.

Table 28--Continued
Miscellaneous manufactures sector and footwear: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
GM017	Clocks and timing devices:				
	Exports	100	90	-10	-10.0
	Imports	317	350	33	10.4
	Trade balance	-217	-260	-43	-19.8
GM018	Arms and ammunition:				
	Exports	2,311	2,534	223	9.7
	Imports	515	563	48	9.3
	Trade balance	1,796	1,971	175	9.7
GM019	Furniture and selected furnishings:				
	Exports	2,256	2,700	444	19.7
	Imports	4,981	5,555	574	11.5
	Trade balance	-2,725	-2,855	-130	-4.8
GM020	Writing instruments and related articles:				
	Exports	207	258	51	24.6
	Imports	451	513	62	13.7
	Trade balance	-244	-255	-11	-4.5
GM021	Lamps and lighting fittings:				
	Exports	373	449	76	20.4
	Imports	1,295	1,499	204	15.8
	Trade balance	-922	-1,050	-128	-13.9
GM022	Prefabricated buildings:				
	Exports	276	273	-3	-1.1
	Imports	21	64	43	204.8
	Trade balance	255	209	-46	-18.0
GM023	Children's vehicles:				
	Exports	28	30	2	7.1
	Imports	206	194	-12	-5.8
	Trade balance	-178	-164	14	7.9
GM024	Dolls:				
	Exports	21	29	8	38.1
	Imports	845	901	56	6.6
	Trade balance	-824	-872	-48	-5.8
GM025	Toys and models:				
	Exports	387	427	40	10.3
	Imports	2,880	3,597	717	24.9
	Trade balance	-2,493	-3,170	-677	-27.2
GM026	Games and fairground amusements:				
	Exports	684	884	200	29.2
	Imports	2,091	2,729	638	30.5
	Trade balance	-1,407	-1,845	-438	-31.1
GM027	Sporting goods:				
	Exports	930	1,024	94	10.1
	Imports	1,768	2,188	420	23.8
	Trade balance	-838	-1,164	-326	-38.9
GM028	Smokers' articles:				
	Exports	77	73	-4	-5.2
	Imports	132	148	16	12.1
	Trade balance	-55	-75	-20	-36.4
GM029	Brooms, brushes, and hair grooming articles:				
	Exports	95	110	15	15.8
	Imports	453	468	15	3.3
	Trade balance	-358	-358	1	0.2
GM030	Apparel fasteners:				
	Exports	59	75	16	27.1
	Imports	109	120	11	10.1
	Trade balance	-50	-45	5	10.0
GM031	Miscellaneous articles:				
	Exports	1,503	1,352	-151	-10.0
	Imports	3,347	3,718	371	11.1
	Trade balance	-1,844	-2,366	-522	-28.3
GM032	Balances of a sensitivity of 5 cg or better:				
	Exports	14	16	2	14.3
	Imports	31	41	10	32.3
	Trade balance	-17	-25	-8	-47.1

See footnotes at end of table.

Table 28--Continued
Miscellaneous manufactures sector and footwear: U.S. trade for selected commodity groups, 1991 and 1992[1]

USITC code[2]	Commodity group	1991	1992	Change 1992 from 1991 Amount	Change 1992 from 1991 Percent
		Million dollars			
GM033	Drawing and mathematical calculating or measuring instruments:				
	Exports	138	166	28	20.3
	Imports	196	231	35	17.9
	Trade balance	-58	-65	-7	-12.1
GM034	Measuring, testing, controlling, and analyzing instruments:				
	Exports	7,756	8,185	429	5.5
	Imports	3,603	3,975	372	10.3
	Trade balance	4,153	4,210	57	1.4
GM035	Footwear and footwear parts:				
	Exports	542	603	61	11.3
	Imports	9,542	10,141	599	6.3
	Trade balance	-9,000	-9,538	-538	-6.0

[1] Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.
[2] This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade-monitoring purposes.
[3] Not applicable.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Appendix A.
Listing Of Commodity/ Industry Groups Covered In The Report

Agricultural, animal, and vegetable products sector

AG001 Certain miscellaneous live animals, meat, offals, and animal products
AG002 Cattle and beef
AG003 Swine and pork
AG004 Sheep and meat of sheep
AG005 Poultry
AG006 Fresh or chilled fish
AG007 Frozen fish
AG008 Fish, canned, cured, or otherwise prepared, and live fish
AG009 Shellfish
AG010 Dairy produce
AG011 Eggs
AG012 Sugar and other sweeteners
AG013 Animal feeds
AG014 Live plants
AG015 Seeds
AG016 Cut flowers
AG017 Miscellaneous vegetable substances
AG018 Fresh, chilled, or frozen vegetables
AG019 Prepared or preserved vegetables, mushrooms, and olives
AG020 Edible nuts
AG021 Tropical fruit
AG022 Citrus fruit
AG023 Deciduous fruit
AG024 Other fresh fruit
AG025 Dried fruit, other than tropical
AG026 Frozen fruit
AG027 Prepared or preserved fruit
AG028 Coffee and tea
AG029 Spices
AG030 Cereals
AG031 Milled grains, malts, and starches
AG032 Oilseeds
AG033 Animal or vegetable fats and oils
AG034 Edible preparations
AG035 Cocoa, chocolate, and confectionery
AG036 Fruit and vegetable juices
AG037 Nonalcoholic beverages, excluding fruit and vegetable juices
AG038 Malt beverages
AG039 Wine and certain other fermented beverages
AG040 Distilled spirits
AG041 Unmanufactured tobacco
AG042 Cigars, and certain other manufactured tobacco
AG043 Cigarettes
AG044 Hides, skins, and leather
AG045 Furskins

Forest products sector

AG046 Logs and rough wood products
AG047 Lumber
AG048 Moldings, millwork, and joinery
AG049 Structural panel products
AG050 Wooden containers
AG051 Tools and tool handles of wood
AG052 Miscellaneous articles of wood
AG053 Cork and rattan
AG054 Pulp and wastepaper
AG055 Paper boxes and bags
AG056 Industrial papers and paperboards
AG057 Newsprint
AG058 Printing and writing papers
AG059 Certain specialty papers
AG060 Miscellaneous paper products
AG061 Printed matter

Fibers, textiles, and apparel sector

TX001 Textile fibers and waste
TX002 Spun yarns
TX003 Filament yarns
TX004 Miscellaneous yarns
TX005 Broadwoven fabrics
TX006 Knit fabrics
TX007 Miscellaneous fabrics
TX008 Coated, covered, impregnated or laminated textile fabrics
TX009 Cordage, nets, and netting
TX010 Certain textile articles and fabrics suitable for industrial use
TX011 Miscellaneous textiles and articles
TX012 Sacks and bags of textile materials
TX013 Carpets and rugs
TX014 Home furnishings
TX015 Men's and boys' suits and sport coats
TX016 Men's and boys' coats and jackets
TX017 Men's and boys' trousers
TX018 Women's and girls' trousers
TX019 Shirts and blouses
TX020 Sweaters
TX021 Women's and girls' suits, skirts, and coats
TX022 Women's and girls' dresses
TX023 Robes, nightwear, and underwear
TX024 Hosiery
TX025 Body-supporting garments
TX026 Neckwear
TX027 Gloves, including gloves for sports
TX028 Headwear
TX029 Leather apparel and accessories
TX030 Fur apparel and other fur articles
TX031 Rubber, plastics, and coated-fabric apparel

Fibers, textiles, and apparel sector—*Continued*

TX032 Nonwoven and related products
TX033 Other wearing apparel

Energy and chemicals sector

CH001 Electrical energy
CH002 Nuclear materials
CH003 Coal and other carbonaceous materials
CH004 Coal chemicals
CH005 Crude petroleum
CH006 Petroleum products
CH007 Natural gas and components
CH008 Major primary olefins
CH009 Other olefins
CH010 Benzene, toluene, and mixed xylenes
CH011 Benzenoid commodity chemicals
CH012 Benzenoid specialty chemicals
CH013 Miscellaneous organic chemicals
CH014 Selected inorganic chemicals and elements
CH015 Inorganic acids
CH016 Salts and other inorganic chemicals
CH017 Chlor-alkali chemicals
CH018 Industrial gases
CH019 Fertilizers
CH020 Certain inorganic pigments
CH021 Synthetic organic pigments
CH022 Synthetic dyes and azoic couplers
CH023 Synthetic tanning agents
CH024 Natural tanning and dyeing materials
CH025 Photographic chemicals and preparations
CH026 Pesticide products and formulations
CH027 Adhesives and glues
CH028 Medicinal chemicals, except antibiotics
CH029 Antibiotics
CH030 Essential oils and other flavoring materials
CH031 Perfumes, cosmetics, and toiletries
CH032 Soaps, detergents, and surface-active agents
CH033 Fatty chemicals
CH034 Miscellaneous chemicals specialties
CH035 Paints, inks, and related items
CH036 Explosives and propellant powders
CH037 Polyethylene resins in primary forms
CH038 Polypropylene resins in primary forms
CH039 PVC resins in primary forms
CH040 Styrene polymers in primary forms
CH041 Saturated polyester resins in primary forms
CH042 Other plastics in primary forms
CH043 SBR rubber in primary forms
CH044 Other synthetic rubber
CH045 Pneumatic tires and tubes (new)

Energy and chemicals sector—*Continued*

CH046 Other tires
CH047 Plastic or rubber semifabricated forms
CH048 Plastic containers and closures
CH049 Hose, belting and plastic pipe
CH050 Miscellaneous rubber or plastics products
CH051 Gelatin
CH052 Natural rubber

Minerals and metals sector

MM001 Clays and nonmetallic minerals and products, not elsewhere specified or included
MM002 Certain miscellaneous mineral substances
MM003 Iron ores and concentrates
MM004 Copper ores and concentrates
MM005 Lead ores and residues
MM006 Zinc ores and residues
MM007 Certain ores, concentrates, ash, and residues
MM008 Precious metal ores and concentrates
MM009 Certain nonmetallic minerals and articles
MM010 Industrial ceramics
MM011 Ceramic bricks and miscellaneous ceramic construction articles
MM012 Ceramic floor and wall tiles
MM014 Ceramic household articles
MM016 Flat glass and certain flat glass products
MM017 Glass containers
MM018 Household glassware
MM019 Certain glass and glass products
MM020 Fiber glass products
MM021 Natural and synthetic gemstones
MM022 Precious metals and related articles
MM023 Primary iron products
MM024 Ferroalloys
MM025 Iron and steel waste and scrap
MM026 Abrasives and ferrous powders
MM027 Steel mill products, all grades
MM028 Steel pipe and tube fittings, and certain cast products
MM029 Fabricated structurals
MM030 Metal construction components
MM031 Metallic containers
MM032 Wire products of iron, steel, aluminum, copper, and nickel
MM033 Chain
MM034 Industrial fasteners of base metal
MM035 Cooking and kitchen ware
MM036 Metal and ceramic sanitary ware
MM037 Iron construction castings and other nonmalleable cast-iron articles
MM038 Copper and related articles
MM039 Unwrought aluminum
MM040 Aluminum mill products

Minerals and metals sector—*Continued*

MM041 Lead and related articles
MM042 Zinc and related articles
MM043 Certain base metals and chemical elements
MM044 Nonpowered handtools
MM045 Cutlery other than tableware, certain sewing implements, and related products
MM046 Table flatware and related products
MM047 Certain builders' hardware
MM048 Miscellaneous products of base metal

Machinery and equipment sector

ME001 Aircraft engines and gas turbines
ME002 Internal combustion piston engines, other than for aircraft
ME003 Pumps for liquids
ME004 Air-conditioning equipment and parts
ME005 Certain industrial thermal-processing equipment, and certain furnaces
ME006 Commercial appliances
ME007 Electrical household appliances and certain heating equipment
ME008 Centrifuges and filtering and purifying equipment
ME009 Wrapping, packaging, and can-sealing machinery
ME010 Scales and weighing machinery
ME011 Forklift trucks and similar industrial vehicles
ME012 Construction and mining equipment
ME013 Mineral processing machinery
ME014 Farm and garden machinery and equipment
ME015 Industrial food-processing and related machinery
ME016 Pulp, paper, and paperboard machinery
ME017 Printing, typesetting, and bookbinding machinery and printing plates
ME018 Textile machinery and parts
ME019 Metal rolling mills and parts thereof
ME020 Machine tools for cutting metal and parts; tool holders, work holders, dividing heads and other special attachments for machine tools
ME021 Machine tools for metal forming and parts thereof
ME022 Non-metal working machine tools and parts thereof
ME023 Semiconductor equipment, robots, and other machinery
ME024 Taps, cocks, valves, and similar devices
ME025 Ball and roller bearings
ME026 Gear boxes and other speed changers; torque converters; ball screws, fly wheels and pulleys; clutches and shaft couplings; universal joints and parts thereof
ME027 Boilers, turbines, and related machinery
ME028 Electric motors, generators, and related equipment
ME029 Electrical transformers, static converters, and inductors
ME030 Primary cells and batteries and electric storage batteries
ME031 Portable electric handtools
ME032 Nonelectrically powered hand tools and parts thereof

Machinery and equipment sector—Continued

ME033 Ignition, starting, lighting, and other electrical equipment
ME034 Flashlights and other similar electric lights, light bulbs, and fluorescent tubes; arc lamps
ME035 Electric and gas welding and soldering equipment
ME036 Insulated electrical wire and cable, and conduit; glass and ceramic insulators
ME037 Rail locomotive and rolling stock
ME038 Automobiles, trucks, buses, and bodies and chassis of the foregoing
ME039 Certain motor-vehicle parts
ME040 Motorcycles, mopeds, and parts
ME041 Miscellaneous vehicles and transportation-related equipment
ME042 Aircraft, spacecraft, and related equipment
ME043 Ships, tugs, pleasure boats, and similar vessels
ME044 Motors and engines, except internal combustion, aircraft, or electric

Electronic technology sector

ST001 Office machines
ST002 Telephone and telegraph apparatus
ST003 Microphones, loudspeakers, audio amplifiers and combinations thereof
ST004 Tape recorders, tape players, video cassette recorders, turntables, and compact disc players
ST005 Unrecorded magnetic tapes, discs, and other media
ST006 Records, tapes, compact discs, computer software, and other recorded media
ST007 Radio transmission and reception apparatus, and combinations thereof
ST008 Radio navigational aid, radar, and remote control apparatus
ST009 Television receivers and video monitors and combinations, including television receivers
ST010 Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus
ST011 Electric sound and visual signaling apparatus
ST012 Electrical capacitors and resistors
ST013 Apparatus for making, breaking, protecting, or connecting electrical circuits
ST014 Television picture tubes and other cathode ray tubes
ST015 Special-purpose tubes
ST016 Diodes, transistors, integrated circuits and similar semiconductor solid-state devices
ST017 Electrical and electronic articles, apparatus, and parts, not elsewhere provided for
ST018 Automatic data processing machines

Miscellaneous manufactures sector

GM001 Photographic supplies
GM002 Exposed photographic plates, film, and paper
GM003 Luggage, handbags, and flat goods:
GM004 Certain other leather goods
GM005 Musical instruments and accessories
GM006 Umbrellas, whips, riding crops, and canes
GM007 Silverware and certain other articles of precious metal or metal clad with precious metal
GM008 Precious jewelry and related articles
GM009 Costume jewelry and related articles
GM010 Bicycles
GM011 Optical fibers, optical fiber bundles and cables
GM012 Optical goods, including ophthalmic goods
GM013 Photographic cameras and equipment
GM014 Medical goods
GM015 Surveying and navigational instruments
GM016 Watches
GM017 Clocks and timing devices
GM018 Arms and ammunition
GM019 Furniture and selected furnishings
GM020 Writing instruments and related articles
GM021 Lamps and lighting fittings
GM022 Prefabricated buildings
GM023 Children's vehicles
GM024 Dolls
GM025 Toys and models
GM026 Games and fairground amusements
GM027 Sporting goods
GM028 Smokers' articles
GM029 Brooms, brushes, and hair grooming articles
GM030 Apparel fasteners
GM031 Miscellaneous articles
GM032 Balances of a sensitivity of 5 cg or better
GM033 Drawing and mathematical calculating or measuring instruments
GM034 Measuring, testing, controlling, and analyzing instruments
GM035 Footwear and footwear parts

Appendix B
Profile Of U.S. Industry And Market, By Commodity/Industry Groups, 1989-92

Note.—These data have been estimated by the Commission's international trade analysts on the basis of primary and secondary data sources including discussions with various Government and industry contacts. These estimated data are subject to change either from future secondary sources or from the detailed surveys the Commission often conducts in the course of statutory investigations or other work. Further, these data may undergo adjustments based on revisions in tariff nomenclature, clarifications of classification practices, or redefinitions of industry classes.

Table B-1
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG001	Certain miscellaneous live animals, meat, offals, and animal products:				
	Establishments (number)	163,183	156,865	150,397	147,000
	Employees (thousands)	205	203	189	167
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. productions (million dollars)	5,600	6,100	6,200	6,700
	U.S. exports (million dollars)	1,150	1,302	1,446	1,509
	U.S. imports (million dollars)	947	1,001	1,000	905
	Apparent U.S. consumption (million dollars)	5,397	5,799	5,754	6,096
	Trade balance (million dollars)	203	301	446	604
	Ratio of imports to apparent consumption (percent)	17.5	17.3	17.4	14.8
	Ratio of exports to shipments (percent)	20.5	21.3	23.3	22.5
AG002	Cattle and beef:				
	Establishments (number)	1,324,500	1,289,600	1,247,575	1,233,400
	Employees (thousands)	1,409	1,373	1,367	1,347
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. productions (million dollars)	40,600	42,900	47,000	50,000
	U.S. exports (million dollars)	1,500	1,634	1,908	2,120
	U.S. imports (million dollars)	2,131	2,647	2,646	2,906
	Apparent U.S. consumption (million dollars)	41,231	43,913	47,738	50,786
	Trade balance (million dollars)	-631	-1,013	-738	-786
	Ratio of imports to apparent consumption (percent)	5.2	6.0	5.5	5.7
	Ratio of exports to shipments (percent)	3.7	3.8	4.1	4.2
AG003	Swine and pork:				
	Establishments (number)	307,324	279,040	257,418	237,500
	Employees (thousands)	364	334	336	323.0
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	15,600	18,000	17,500	17,000
	U.S. exports (million dollars)	312	298	315	400
	U.S. imports (million dollars)	495	607	573	436
	Apparent U.S. consumption (million dollars)	15,783	18,309	17,758	17,036
	Trade balance (million dollars)	-183	-309	-258	-36
	Ratio of imports to apparent consumption (percent)	3.1	3.3	3.2	2.6
	Ratio of exports to shipments (percent)	2.0	1.7	1.8	2.4
AG004	Sheep and meat of sheep:				
	Establishments (number)	111,140	108,940	105,710	101,792
	Employees (thousands)	111	109	106	103
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	475	460	487	470
	U.S. exports (million dollars)	17	24	36	36
	U.S. imports (million dollars)	47	40	37	46
	Apparent U.S. consumption (million dollars)[3]	505	476	488	480
	Trade balance (million dollars)	-30	-16	-1	-10
	Ratio of imports to apparent consumption (percent)	9.3	8.4	7.6	9.6
	Ratio of exports to shipments (percent)	3.6	5.2	7.4	7.7
AG005	Poultry:				
	Establishments (number)	350	300	300	300
	Employees (thousands)	194	177	183	188
	Capacity utilization (percent)	90	90	90	90
	U.S. production (million dollars)	20,283	20,928	21,625	22,825
	U.S. exports (million dollars)	600	775	930	1,051
	U.S. imports (million dollars)	26	28	28	22
	Apparent U.S. consumption (million dollars)	19,709	20,181	20,723	21,796
	Trade balance (million dollars)	574	747	902	1,029
	Ratio of imports to apparent consumption (percent)	0.1	0.1	0.1	0.1
	Ratio of exports to shipments (percent)	3.0	3.7	4.3	4.6
AG006	Fresh or chilled fish:				
	Establishments (number)	90,000	90,000	90,000	82,000
	Employees (thousands)	225	225	200	180
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	2,500	2,500	2,500	2,700
	U.S. exports (million dollars)	155	164	160	302
	U.S. imports (million dollars)	611	592	615	629
	Apparent U.S. consumption (million dollars)	2,956	2,928	2,955	3,027
	Trade balance (million dollars)	-456	-428	-455	-327
	Ratio of imports to apparent consumption (percent)	20.7	20.2	20.8	20.8
	Ratio of exports to shipments (percent)	6.2	6.6	6.4	11.2

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG007	Frozen fish:				
	Establishments (number)	900	900	860	880
	Employees (thousands)	70	70	65	70
	Capacity utilization (percent)	75	75	75	70
	U.S. shipments (million dollars)	600	600	600	650
	U.S. exports (million dollars)	1,236	1,572	1,641	1,886
	U.S. imports (million dollars)	1,485	1,377	1,467	1,302
	Apparent U.S. consumption (million dollars)	849	405	426	66
	Trade balance (million dollars)	-249	195	174	584
	Ratio of imports to apparent consumption (percent)	174.9	340.0	344.4	1972.7
	Ratio of exports to shipments (percent)	206.0	262.0	273.5	290.2
AG008	Fish, canned, cured, or otherwise prepared, and live fish:				
	Establishments (number)	700	700	650	600
	Employees (thousands)	26	26	20	18
	Capacity utilization (percent)	80	85	75	80
	U.S. shipments (million dollars)	1,700	1,800	1,600	1,500
	U.S. exports (million dollars)	342	330	427	446
	U.S. imports (million dollars)	724	682	759	683
	Apparent U.S. consumption (million dollars)	2,082	2,152	1,932	1,737
	Trade balance (million dollars)	-382	-352	-332	-237
	Ratio of imports to apparent consumption (percent)	34.8	31.7	39.3	39.3
	Ratio of exports to shipments (percent)	20.1	18.3	26.7	29.7
AG009	Shellfish:				
	Establishments (number)	850	800	800	800
	Employees (thousands)	57	60	60	60
	Capacity utilization (percent)	66	66	66	66
	U.S. production (million dollars)	1,512	1,600	1,600	1,600
	U.S. exports (million dollars)	577	754	852	872
	U.S. imports (million dollars)	2,623	2,555	2,794	3,067
	Apparent U.S. consumption (million dollars)	3,558	3,401	3,542	3,795
	Trade balance (million dollars)	-2,046	-1,801	-1,942	-2,195
	Ratio of imports to apparent consumption (percent)	73.7	75.1	78.9	80.8
	Ratio of exports to shipments (percent)	38.2	47.1	53.3	54.5
AG010	Dairy produce:				
	Establishments (number)	205,000	195,000	183,000	174,000
	Employees (thousands)	790	785	770	733,0
	Capacity utilization (percent)	82	82	82	(1)
	U.S. shipments (million dollars)	44,127	44,228	44,360	45,599
	U.S. exports (million dollars)	365	282	325	593
	U.S. imports (million dollars)	815	853	756	845
	Apparent U.S. consumption (million dollars)	44,577	44,799	44,791	45,851
	Trade balance (million dollars)	-450	-571	-431	-252
	Ratio of imports to apparent consumption (percent)	1.8	1.9	1.7	1.8
	Ratio of exports to shipments (percent)	0.8	0.6	0.7	1.3
AG011	Eggs:				
	Establishments (number)	80	80	75	75
	Employees (thousands)	9	9	8	8
	Capacity utilization (percent)	85	85	85	85
	U.S. production (million dollars)	4,386	4,574	4,600	4,600
	U.S. exports (million dollars)	88	99	140	134
	U.S. imports (million dollars)	28	24	20	27
	Apparent U.S. consumption (million dollars)	4,326	4,499	4,480	4,493
	Trade balance (million dollars)	60	75	120	107
	Ratio of imports to apparent consumption (percent)	0.6	0.5	0.4	0.6
	Ratio of exports to shipments (percent)	2.0	2.2	3.0	2.9
AG012	Sugar and other sweeteners:				
	Establishments (number)	103	100	100	100
	Employees (thousands)	33	32	32	31
	Capacity utilization (percent)	88	86	87	89
	U.S. shipments (million dollars)	7,920	7,920	8,000	8,000
	U.S. exports (million dollars)	277	362	362	300
	U.S. imports (million dollars)	776	978	844	857
	Apparent U.S. consumption (million dollars)	8,419	8,536	8,482	8,557
	Trade balance (million dollars)	-499	-616	-482	-557
	Ratio of imports to apparent consumption (percent)	9.2	11.5	10.0	10.0
	Ratio of exports to shipments (percent)	3.5	4.6	4.5	3.8

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG013	Animal feeds:				
	Establishments (number)	2,445	2,445	2,445	2,200
	Employees (thousands)	60	60	60	55
	Capacity utilization (percent)	85	85	85	85
	U.S. production (million dollars)	24,000	25,000	26,000	27,000
	U.S. exports (million dollars)	3,132	2,950	3,323	3,656
	U.S. imports (million dollars)	380	378	399	450
	Apparent U.S. consumption (million dollars)	21,248	22,428	23,076	23,794
	Trade balance (million dollars)	2,752	2,572	2,924	3,206
	Ratio of imports to apparent consumption (percent)	1.8	1.7	1.7	1.9
	Ratio of exports to shipments (percent)	13.1	11.8	12.8	13.5
AG014	Live plants:				
	Establishments (number)	25,000	25,000	25,000	25,000
	Employees (thousands)	125	125	125	125
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	7,433	8,291	8,342	8,818
	U.S. exports (million dollars)	52	104	106	103
	U.S. imports (million dollars)	147	162	177	200
	Apparent U.S. consumption (million dollars)	7,528	8,349	8,413	8,915
	Trade balance (million dollars)	-95	-58	-71	-97
	Ratio of imports to apparent consumption (percent)	2.0	1.9	2.1	2.2
	Ratio of exports to shipments (percent)	0.7	1.3	1.3	1.2
AG015	Seeds:				
	Establishments (number)	15,000	15,000	15,000	15,000
	Employees (thousands)	230	230	200	200
	Capacity utilization (percent)	85	85	80	85
	U.S. shipments (million dollars)	2,000	2,000	2,000	2,000
	U.S. exports (million dollars)	245	262	289	316
	U.S. imports (million dollars)	126	122	135	154
	Apparent U.S. consumption (million dollars)	1,881	1,860	1,846	1,838
	Trade balance (million dollars)	119	140	154	162
	Ratio of imports to apparent consumption (percent)	6.7	6.6	7.3	8.4
	Ratio of exports to shipments (percent)	12.3	13.1	14.5	15.8
AG016	Cut flowers:				
	Establishments (number)	3,000	3,000	3,000	3,000
	Employees (thousands)	39	39	39	39
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	507	528	507	493
	U.S. exports (million dollars)	11	30	34	33
	U.S. imports (million dollars)	316	326	322	352
	Apparent U.S. consumption (million dollars)	812	824	795	812
	Trade balance (million dollars)	-305	-296	-288	-319
	Ratio of imports to apparent consumption (percent)	38.9	39.6	40.5	43.3
	Ratio of exports to shipments (percent)	2.2	5.7	6.7	6.7
AG017	Miscellaneous vegetable substances:				
	Firms (number)	112	112	112	100
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. production (million dollars)[4]	850	850	850	800
	U.S. exports (million dollars)	341	361	392	462
	U.S. imports (million dollars)	461	514	552	545
	Apparent U.S. consumption (million dollars)	970	1,003	1,010	883
	Trade balance (million dollars)	-120	-153	-160	-83
	Ratio of imports to apparent consumption (percent)	47.5	51.2	54.7	61.7
	Ratio of exports to shipments (percent)	40.1	42.5	46.1	57.8
AG018	Fresh, chilled, or frozen vegetables:				
	Establishments (number)	38,000	36,500	34,000	38,000
	Employees (thousands)	45	43	42	42
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. production (million dollars)	4,036	4,120	4,220	4,376
	U.S. exports (million dollars)	418	777	883	947
	U.S. imports (million dollars)	934	1,151	1,041	959
	Apparent U.S. consumption (million dollars)	4,552	4,494	4,378	4,388
	Trade balance (million dollars)	-516	-374	-158	-12
	Ratio of imports to apparent consumption (percent)	20.5	25.6	23.8	21.9
	Ratio of exports to shipments (percent)	10.4	18.9	20.9	21.6

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG019	Perpared or preserved vegatables, mushrooms, and olives:				
	Establishments (number)	2,070	2,020	2,010	1,990
	Employees (thousands)	5	5	5	4
	Capacity utilization (percent)	85	78	82	81
	U.S. production (million dollars)	7,123	7,542	7,631	7,799
	U.S. exports (million dollars)	760	976	972	980
	U.S. imports (million dollars)	815	786	777	796
	Apparent U.S. consumption (million dollars)	7,178	7,352	7,436	7,615
	Trade balance (million dollars)	-55	190	195	184
	Ratio of imports to apparent consumption (percent)	11.4	10.7	10.4	10.5
	Ratio of exports to shipments (percent)	10.7	12.9	12.7	12.6
AG020	Edible nuts:				
	Establishments (number)	70,000	70,000	70,000	70,000
	Employees (thousands)	350	350	350	350
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,137	2,421	2,690	2,741
	U.S. exports (million dollars)	885	1,019	1,067	1,185
	U.S. imports (million dollars)	344	401	433	461
	Apparent U.S. consumption (million dollars)	1,596	1,803	2,056	2,017
	Trade balance (million dollars)	541	618	634	724
	Ratio of imports to apparent consumption (percent)	21.6	22.2	21.1	22.9
	Ratio of exports to shipments (percent)	41.4	42.1	39.7	43.2
AG021	Tropical fruit:				
	Establishments (number)	3,000	3,000	3,000	3,000
	Employees (thousands)	10	10	10	10
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	351	307	300	321
	U.S. exports (million dollars)	42	55	56	66
	U.S. imports (million dollars)	963	1,062	1,132	1,231
	Apparent U.S. consumption (million dollars)	1,272	1,314	1,376	1,486
	Trade balance (million dollars)	-921	-1,007	-1,076	-1,165
	Ratio of imports to apparent consumption (percent)	75.7	80.8	82.3	82.8
	Ratio of exports to shipments (percent)	12.0	17.9	18.7	20.6
AG022	Citrus fruit:				
	Establishments (number)	17,200	16,900	16,600	16,500
	Employees (thousands)	100	98	98	97
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,663	2,243	2,409	2,452
	U.S. exports (million dollars)	593	583	614	649
	U.S. imports (million dollars)	74	89	148	134
	Apparent U.S. consumption (million dollars)	2,144	1,749	1,943	1,937
	Trade balance (million dollars)	519	494	466	515
	Ratio of imports to apparent consumption (percent)	3.5	5.1	7.6	6.9
	Ratio of exports to shipments (percent)	22.3	26.0	25.5	26.5
AG023	Deciduous fruit:				
	Farms (number)	93,000	93,000	93,000	93,000
	Employees (thousands)	100	100	100	100
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	1,515	1,936	2,118	1,945
	U.S. exports (million dollars)	302	477	517	607
	U.S. imports (million dollars)	115	114	127	163
	Apparent U.S. consumption (million dollars)	1,328	1,573	1,728	1,501
	Trade balance (million dollars)	187	363	390	444
	Ratio of imports to apparent consumption (percent)	8.7	7.2	7.3	10.9
	Ratio of exports to shipments (percent)	19.9	24.6	24.4	31.2
AG024	Other fresh fruit:				
	Establishments (number)	20,000	20,000	20,000	20,000
	Employees (thousands)	30	30	30	30
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	709	818	798	840
	U.S. exports (million dollars)	225	405	414	410
	U.S. imports (million dollars)	421	506	511	487
	Apparent U.S. consumption (million dollars)	905	919	895	917
	Trade balance (million dollars)	-196	-101	-97	-77
	Ratio of imports to apparent consumption (percent)	46.5	55.1	57.1	53.1
	Ratio of exports to shipments (percent)	31.7	49.5	51.9	48.8

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG025	Dried fruit, other than tropical:				
	Establishments (number)	10,000	10,000	10,000	10,000
	Employees (thousands)	20	20	20	20
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	624	513	550	558
	U.S. exports (million dollars)	276	326	344	357
	U.S. imports (million dollars)	34	33	34	35
	Apparent U.S. consumption (million dollars)	382	220	240	236
	Trade balance (million dollars)	242	293	310	322
	Ratio of imports to apparent consumption (percent)	8.9	15.0	14.2	14.8
	Ratio of exports to shipments (percent)	44.2	63.5	62.5	64.0
AG026	Frozen fruit:				
	Establishments (number)	200	200	200	200
	Employees (thousands)	40	40	40	40
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	416	461	580	481
	U.S. exports (million dollars)	32	42	48	58
	U.S. imports (million dollars)	47	56	57	57
	Apparent U.S. consumption (million dollars)	431	475	589	480
	Trade balance (million dollars)	-15	-14	-9	1
	Ratio of imports to apparent consumption (percent)	10.9	11.8	9.7	11.9
	Ratio of exports to shipments (percent)	7.7	9.1	8.3	12.1
AG027	Prepared or preserved fruit:				
	Establishments (number)	200	200	200	200
	Employees (thousands)	40	40	40	40
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	3,228	3,349	3,429	3,704
	U.S. exports (million dollars)	97	121	149	167
	U.S. imports (million dollars)	323	324	359	417
	Apparent U.S. consumption (million dollars)	3,454	3,552	3,639	3,954
	Trade balance (million dollars)	-226	-203	-210	-250
	Ratio of imports to apparent consumption (percent)	9.4	9.1	9.9	10.5
	Ratio of exports to shipments (percent)	3.0	3.6	4.3	4.5
AG028	Coffee and tea:				
	Establishments (number)	165	171	172	172
	Employees (thousands)	16	16	16	17
	Capacity utilization (percent)	87	88	87	85
	U.S. shipments (million dollars)	8,704	9,053	10,000	10,200
	U.S. exports (million dollars)	101	95	102	135
	U.S. imports (million dollars)	2,563	2,045	1,986	1,840
	Apparent U.S. consumption (million dollars)	11,166	11,003	11,884	11,905
	Trade balance (million dollars)	-2,462	-1,950	-1,884	-1,705
	Ratio of imports to apparent consumption (percent)	23.0	18.6	16.7	15.5
	Ratio of exports to shipments (percent)	1.2	1.0	1.0	1.3
AG029	Spices:				
	Establishments (number)	75	78	76	74
	Employees (thousands)	8	9	8	8
	Capacity utilization (percent)	78	78	(1)	(1)
	U.S. shipments (million dollars)	1,253	1,278	1,300	1,325
	U.S. exports (million dollars)	24	34	38	43
	U.S. imports (million dollars)	258	216	223	234
	Apparent U.S. consumption (million dollars)	1,487	1,460	1,485	1,516
	Trade balance (million dollars)	-234	-182	-185	-191
	Ratio of imports to apparent consumption (percent)	17.4	14.8	15.0	15.4
	Ratio of exports to shipments (percent)	1.9	2.7	2.9	3.2
AG030	Cereals:				
	Establishments (number)	715,000	715,000	715,000	628,000
	Employees (thousands)	2,500	2,500	2,500	2,000
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. production (million dollars)	35,000	35,000	35,000	28,000
	U.S. exports (million dollars)	14,814	11,941	10,096	11,245
	U.S. imports (million dollars)	381	314	354	513
	Apparent U.S. consumption (million dollars)	20,567	23,373	26,258	17,268
	Trade balance (million dollars)	14,433	11,627	9,742	10,732
	Ratio of imports to apparent consumption (percent)	1.9	1.3	1.3	3.0
	Ratio of exports to shipments (percent)	42.3	34.1	28.8	40.2

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG031	Milled grains, malts, and starches:				
	Establishments (number)	583	583	583	500
	Employees (thousands)	35	35	35	25
	Capacity utilization (percent)	85	85	85	85
	U.S. production (million dollars)	8,300	8,300	8,400	8,500
	U.S. exports (million dollars)	466	391	410	387
	U.S. imports (million dollars)	115	103	99	70
	Apparent U.S. consumption (million dollars)	7,949	8,012	8,089	8,183
	Trade balance (million dollars)	351	288	311	317
	Ratio of imports to apparent consumption (percent)	1.4	1.3	1.2	0.9
	Ratio of exports to shipments (percent)	5.6	4.7	4.9	4.6
AG032	Oilseeds:				
	Establishments (number)	475,000	461,000	450,000	440,000
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	12,439	11,663	12,065	12,000
	U.S. exports (million dollars)	4,088	3,705	4,124	4,564
	U.S. imports (million dollars)	162	179	119	122
	Apparent U.S. consumption (million dollars)	8,513	8,137	8,060	7,558
	Trade balance (million dollars)	3,926	3,526	4,005	4,442
	Ratio of imports to apparent consumption (percent)	1.9	2.2	1.5	1.6
	Ratio of exports to shipments (percent)	32.9	31.8	34.2	38.0
AG033	Animal or vegetable fats and oils:				
	Establishments (number)	322	300	280	260
	Employees (thousands)	32	32	32	33
	Capacity utilization (percent)	87	84	84	84
	U.S. shipments (million dollars)	5,900	5,900	5,900	5,400
	U.S. exports (million dollars)	1,329	1,172	1,123	1,439
	U.S. imports (million dollars)	663	684	734	966
	Apparent U.S. consumption (million dollars)	5,234	5,412	5,511	4,927
	Trade balance (million dollars)	666	488	389	473
	Ratio of imports to apparent consumption (percent)	12.7	12.6	13.3	19.6
	Ratio of exports to shipments (percent)	22.5	19.9	19.0	26.6
AG034	Edible preparations:				
	Establishments (number)	5,100	5,100	5,100	5,100
	Employees (thousands)	395	395	395	395
	Capacity utilization (percent)	84	85	84	84
	U.S. production (million dollars)	83,335	89,168	93,742	94,700
	U.S. exports (million dollars)	1,013	1,440	1,941	2,181
	U.S. imports (million dollars)	873	966	1,125	1,281
	Apparent U.S. consumption (million dollars)	83,195	88,694	92,926	93,800
	Trade balance (million dollars)	140	474	816	900
	Ratio of imports to apparent consumption (percent)	1.0	1.1	1.2	1.4
	Ratio of exports to shipments (percent)	1.2	1.6	2.1	2.3
AG035	Cocoa, chocolate, and confectionery:				
	Establishments (number)	685	685	685	685
	Employees (thousands)	57	57	57	57
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	8,278	8,682	9,082	9,636
	U.S. exports (million dollars)	237	328	345	438
	U.S. imports (million dollars)	1,158	1,267	1,302	1,347
	Apparent U.S. consumption (million dollars)	9,199	9,621	10,039	10,545
	Trade balance (million dollars)	-921	-939	-957	-909
	Ratio of imports to apparent consumption (percent)	12.6	13.2	13.0	12.8
	Ratio of exports to shipments (percent)	2.9	3.8	3.8	4.5
AG036	Fruit and vegetable juices:				
	Establishments (number)	100	100	100	100
	Employees (thousands)	150	150	150	150
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,000	2,000	2,000	1,950
	U.S. exports (million dollars)	291	375	385	461
	U.S. imports (million dollars)	739	1,000	793	812
	Apparent U.S. consumption (million dollars)	2,448	2,625	2,408	2,301
	Trade balance (million dollars)	-448	-625	-408	-351
	Ratio of imports to apparent consumption (percent)	30.2	38.1	32.9	35.3
	Ratio of exports to shipments (percent)	14.6	18.8	19.3	23.6

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Establishments (number)	838	838	838	840
	Employees (thousands)	57	57	57	57
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	10,863	11,300	11,639	12,000
	U.S. exports (million dollars)	104	117	154	191
	U.S. imports (million dollars)	206	218	242	250
	Apparent U.S. consumption (million dollars)	10,965	11,401	11,727	12,059
	Trade balance (million dollars)	-102	-101	-88	-59
	Ratio of imports to apparent consumption (percent)	1.9	1.9	2.1	2.1
	Ratio of exports to shipments (percent)	1.0	1.0	1.3	1.6
AG038	Malt beverages:				
	Establishments (number)[5]	134	138	134	134
	Employees (thousands)	32	33	32	32
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	14,321	15,186	15,925	16,259
	U.S. exports (million dollars)	107	139	169	194
	U.S. imports (million dollars)	839	907	813	854
	Apparent U.S. consumption (million dollars)	15,053	15,954	16,569	16,919
	Trade balance (million dollars)	-732	-768	-644	-660
	Ratio of imports to apparent consumption (percent)	5.6	5.7	4.9	5.0
	Ratio of exports to shipments (percent)	0.7	0.9	1.1	1.2
AG039	Wine and certain other fermented beverages:				
	Establishments (number)[6]	1,573	1,610	1,610	1,590
	Employees (thousands)	14	14	14	14
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	3,539	3,658	3,586	3,909
	U.S. exports (million dollars)	99	127	147	176
	U.S. imports (million dollars)	937	924	920	1,094
	Apparent U.S. consumption (million dollars)	4,377	4,455	4,359	4,827
	Trade balance (million dollars)	-838	-797	-773	-918
	Ratio of imports to apparent consumption (percent)	21.4	20.7	21.1	22.7
	Ratio of exports to shipments (percent)	2.8	3.5	4.1	4.5
AG040	Distilled spirits:				
	Establishments (number)	71	69	65	65
	Employees (thousands)	8	7	7	7
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	3,602	3,474	3,656	4,095
	U.S. exports (million dollars)	227	254	279	343
	U.S. imports (million dollars)	1,358	1,511	1,304	1,552
	Apparent U.S. consumption (million dollars)	4,733	4,731	4,681	5,304
	Trade balance (million dollars)	-1,131	-1,257	-1,025	-1,209
	Ratio of imports to apparent consumption (percent)	28.7	31.9	27.9	29.3
	Ratio of exports to shipments (percent)	6.3	7.3	7.6	8.4
AG041	Unmanufactured tobacco:				
	Establishments (number)	137,000	130,150	123,643	117,460
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. production (million dollars)	2,408	2,781	2,897	3,034
	U.S. exports (million dollars)	1,341	1,441	1,428	1,651
	U.S. imports (million dollars)[7]	550	583	736	1,353
	Apparent U.S. consumption (million dollars)	1,617	1,923	2,205	2,736
	Trade balance (million dollars)	791	858	692	298
	Ratio of imports to apparent consumption (percent)	34.0	30.3	33.4	49.5
	Ratio of exports to shipments (percent)	55.7	51.8	49.3	54.4
AG042	Cigars, and certain other manufactured tobacco:				
	Establishments (number)	40	40	40	40
	Employees (thousands)	5	5	5	5
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	1,110	1,247	1,417	1,459
	U.S. exports (million dollars)	263	279	342	292
	U.S. imports (million dollars)	60	63	79	84
	Apparent U.S. consumption (million dollars)	907	1,031	1,154	1,251
	Trade balance (million dollars)	203	216	263	208
	Ratio of imports to apparent consumption (percent)	6.6	6.1	6.8	6.7
	Ratio of exports to shipments (percent)	23.7	22.4	24.1	20.0

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG043	Cigarettes:				
	Establishments (number)	12	11	11	11
	Employees (thousands)	30	28	27	27
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	21,825	25,522	27,111	28,331
	U.S. exports (million dollars)	3,369	4,761	4,232	4,217
	U.S. imports (million dollars)	28	31	120	200
	Apparent U.S. consumption (million dollars)	18,484	20,792	22,999	24,314
	Trade balance (million dollars)	3,341	4,730	4,112	4,017
	Ratio of imports to apparent consumption (percent)	0.2	0.1	0.5	0.8
	Ratio of exports to shipments (percent)	15.4	18.7	15.6	14.9
AG044	Hides, skins, and leather:				
	Establishments (number)	1,494	1,389	1,301	1,235
	Employees (thousands)	19	19	17	18
	Capacity utilization (percent)	76	76	76	76
	U.S. shipments (million dollars)	4,595	4,989	4,919	4,194
	U.S. exports (million dollars)	2,197	2,372	1,967	1,974
	U.S. imports (million dollars)	855	788	693	771
	Apparent U.S. consumption (million dollars)	3,253	3,405	3,645	2,991
	Trade balance (million dollars)	1,342	1,584	1,274	1,203
	Ratio of imports to apparent consumption (percent)	26.3	23.1	19.0	25.8
	Ratio of exports to shipments (percent)	47.8	47.5	40.0	47.1
AG045	Furskins:				
	Establishments (number)	940	771	682	640
	Employees (thousands)	4	3	3	3
	Capacity utilization (percent)	81	73	71	65
	U.S. shipments (million dollars)	220	205	166	164
	U.S. exports (million dollars)	232	205	154	134
	U.S. imports (million dollars)	146	100	75	83
	Apparent U.S. consumption (million dollars)	134	100	87	113
	Trade balance (million dollars)	86	105	79	51
	Ratio of imports to apparent consumption (percent)	109.0	100.0	86.2	73.5
	Ratio of exports to shipments (percent)	105.5	100.0	92.8	81.7
AG046	Logs and rough wood products:				
	Establishments (number)	11,100	10,800	10,000	(1)
	Employees (thousands)	75	72	70	69
	Capacity utilization (percent)	85	80	70	(1)
	U.S. shipments (million dollars)	12,000	12,300	11,600	12,700
	U.S. exports (million dollars)	2,862	2,973	2,765	2,809
	U.S. imports (million dollars)	304	305	301	345
	Apparent U.S. consumption (million dollars)	9,442	9,632	9,136	10,236
	Trade balance (million dollars)	2,558	2,668	2,464	2,464
	Ratio of imports to apparent consumption (percent)	3.2	3.2	3.3	3.4
	Ratio of exports to shipments (percent)	23.9	24.2	23.8	22.1
AG047	Lumber:				
	Establishments (number)	5,710	5,690	5,680	5,585
	Employees (thousands)	144	142	133	132
	Capacity utilization (percent)	90	85	85	(1)
	U.S. shipments (million dollars)	17,151	16,448	15,626	16,845
	U.S. exports (million dollars)	2,047	2,138	2,220	2,337
	U.S. imports (million dollars)	3,024	2,671	2,644	3,481
	Apparent U.S. consumption (million dollars)	18,128	16,981	16,050	17,989
	Trade balance (million dollars)	-977	-533	-424	-1,144
	Ratio of imports to apparent consumption (percent)	16.7	15.7	16.5	19.4
	Ratio of exports to shipments (percent)	11.9	13.0	14.2	13.9
AG048	Moldings, millwork, and joinery:				
	Establishments (number)	2,600	2,600	2,500	(1)
	Employees (thousands)	91	89	81	87
	Capacity utilization (percent)	80	75	77	(1)
	U.S. shipments (million dollars)	8,960	8,700	8,600	9,500
	U.S. exports (million dollars)	248	327	366	444
	U.S. imports (million dollars)	602	579	531	659
	Apparent U.S. consumption (million dollars)	9,314	8,952	8,765	9,715
	Trade balance (million dollars)	-354	-252	-165	-215
	Ratio of imports to apparent consumption (percent)	6.5	6.5	6.1	6.8
	Ratio of exports to shipments (percent)	2.8	3.8	4.3	4.7

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG049	Structural panel products:				
	Establishments (number)	600	600	600	(1)
	Employees (thousands)	80	78	70	71
	Capacity utilization (percent)	85	80	80	(1)
	U.S. production (million dollars)	10,700	10,600	10,400	11,000
	U.S. exports (million dollars)	643	770	748	858
	U.S. imports (million dollars)	1,011	993	858	1,189
	Apparent U.S. consumption (million dollars)	11,068	10,823	10,510	11,331
	Trade balance (million dollars)	-368	-223	-110	-331
	Ratio of imports to apparent consumption (percent)	9.1	9.2	8.2	10.5
	Ratio of exports to shipments (percent)	6.0	7.3	7.2	7.8
AG050	Wooden containers:				
	Establishments (number)	2,600	2,600	2,600	(1)
	Employees (thousands)	29	29	29	28
	Capacity utilization (percent)	80	75	77	(1)
	U.S. production (million dollars)	1,800	1,900	1,950	2,000
	U.S. exports (million dollars)	52	70	76	73
	U.S. imports (million dollars)	152	149	142	162
	Apparent U.S. consumption (million dollars)	1,900	1,979	2,016	2,089
	Trade balance (million dollars)	-100	-79	-66	-89
	Ratio of imports to apparent consumption (percent)	8.0	7.5	7.0	7.8
	Ratio of exports to shipments (percent)	2.9	3.7	3.9	3.7
AG051	Tools and tool handles of wood:				
	Establishments (number)	138	136	135	135
	Employees (thousands)	3	3	3	3
	Capacity utilization (percent)	75	70	73	70
	U.S. shipments (million dollars)	155	150	155	160
	U.S. exports (million dollars)	11	13	14	16
	U.S. imports (million dollars)	77	75	76	86
	Apparent U.S. consumption (million dollars)	221	212	217	230
	Trade balance (million dollars)	-66	-62	-62	-70
	Ratio of imports to apparent consumption (percent)	34.8	35.4	35.0	37.4
	Ratio of exports to shipments (percent)	7.1	8.7	9.0	10.0
AG052	Miscellaneous articles of wood:				
	Establishments (number)	680	680	680	680
	Employees (thousands)	32	30	30	30
	Capacity utilization (percent)	75	70	73	(1)
	U.S. shipments (million dollars)	2,400	2,400	2,500	2,575
	U.S. exports (million dollars)	123	155	156	147
	U.S. imports (million dollars)	367	378	394	428
	Apparent U.S. consumption (million dollars)	2,644	2,623	2,738	2,856
	Trade balance (million dollars)	-244	-223	-238	-281
	Ratio of imports to apparent consumption (percent)	13.9	14.4	14.4	15.0
	Ratio of exports to shipments (percent)	5.1	6.5	6.2	5.7
AG053	Cork and rattan:				
	Establishments (number)	35	30	31	31
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	75	70	73	(1)
	U.S. shipments (million dollars)	60	60	62	64
	U.S. exports (million dollars)	25	38	35	44
	U.S. imports (million dollars)	322	318	306	342
	Apparent U.S. consumption (million dollars)	357	340	333	362
	Trade balance (million dollars)	-297	-280	-271	-298
	Ratio of imports to apparent consumption (percent)	90.2	93.5	91.9	94.5
	Ratio of exports to shipments (percent)	41.7	63.3	56.5	68.8
AG054	Pulp and wastepaper:				
	Establishments (number)	26	25	26	26
	Employees (thousands)	15	16	17	17
	Capacity utilization (percent)	95	94	(1)	(1)
	U.S. shipments (million dollars)	10,700	9,000	7,900	8,100
	U.S. exports (million dollars)	4,362	4,056	3,616	3,862
	U.S. imports (million dollars)	3,084	2,886	2,176	2,138
	Apparent U.S. consumption (million dollars)	9,422	7,830	6,460	6,376
	Trade balance (million dollars)	1,278	1,170	1,440	1,724
	Ratio of imports to apparent consumption (percent)	32.7	36.9	33.7	33.5
	Ratio of exports to shipments (percent)	40.8	45.1	45.8	47.7

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG055	Paper boxes and bags:				
	Establishments (number)	2,600	2,600	2,600	2,600
	Employees (thousands)	190	180	180	180
	Capacity utilization (percent)	95	90	(1)	(1)
	U.S. shipments (million dollars)	35,000	34,900	34,800	36,000
	U.S. exports (million dollars)	372	473	547	665
	U.S. imports (million dollars)	192	225	246	315
	Apparent U.S. consumption (million dollars)	34,820	34,652	34,499	35,650
	Trade balance (million dollars)	180	248	301	350
	Ratio of imports to apparent consumption (percent)	0.6	0.6	0.7	0.9
	Ratio of exports to shipments (percent)	1.1	1.4	1.6	1.8
AG056	Industrial papers and paperboards:				
	Establishments (number)	700	700	700	700
	Employees (thousands)	120	120	120	120
	Capacity utilization (percent)	95	90	(1)	(1)
	U.S. shipments (million dollars)	43,000	44,000	42,000	42,000
	U.S. exports (million dollars)	2,419	2,817	3,314	3,328
	U.S. imports (million dollars)	1,077	987	936	1,065
	Apparent U.S. consumption (million dollars)	41,658	42,170	39,622	39,737
	Trade balance (million dollars)	1,342	1,830	2,378	2,263
	Ratio of imports to apparent consumption (percent)	2.6	2.3	2.4	2.7
	Ratio of exports to shipments (percent)	5.6	6.4	7.9	7.9
AG057	Newsprint:				
	Establishments (number)	20	18	18	18
	Employees (thousands)	9	9	9	9
	Capacity utilization (percent)	96	92	90	96
	U.S. shipments (million dollars)	4,000	4,500	4,600	4,700
	U.S. exports (million dollars)	357	293	388	467
	U.S. imports (million dollars)	4,487	4,247	3,979	3,599
	Apparent U.S. consumption (million dollars)	8,130	8,454	8,191	7,832
	Trade balance (million dollars)	-4,130	-3,954	-3,591	-3,132
	Ratio of imports to apparent consumption (percent)	55.2	50.2	48.6	46.0
	Ratio of exports to shipments (percent)	8.9	6.5	8.4	9.9
AG058	Printing and writing papers:				
	Establishments (number)	130	132	132	132
	Employees (thousands)	134	134	134	134
	Capacity utilization (percent)	93	93	92	90
	U.S. shipments (million dollars)	19,750	20,250	19,250	19,750
	U.S. exports (million dollars)	474	688	871	998
	U.S. imports (million dollars)	2,082	2,283	2,100	2,172
	Apparent U.S. consumption (million dollars)	21,358	21,845	20,479	20,924
	Trade balance (million dollars)	-1,608	-1,595	-1,229	-1,174
	Ratio of imports to apparent consumption (percent)	9.7	10.5	10.3	10.4
	Ratio of exports to shipments (percent)	2.4	3.4	4.5	5.1
AG059	Certain specialty papers:				
	Establishments (number)	350	(1)	(1)	(1)
	Employees (thousands)	41	41	39	39
	Capacity utilization (percent)	93	91	90	90
	U.S. shipments (million dollars)	4,825	4,800	4,700	4,900
	U.S. exports (million dollars)	217	334	376	376
	U.S. imports (million dollars)	419	450	433	472
	Apparent U.S. consumption (million dollars)	5,027	4,916	4,757	4,996
	Trade balance (million dollars)	-202	-116	-57	-96
	Ratio of imports to apparent consumption (percent)	8.3	9.2	9.1	9.4
	Ratio of exports to shipments (percent)	4.5	7.0	8.0	7.7
AG060	Miscellaneous paper products:				
	Establishments (number)	2,600	(1)	(1)	(1)
	Employees (thousands)	190	192	192	192
	Capacity utilization (percent)	92	91	90	90
	U.S. shipments (million dollars)	20,500	20,850	20,000	20,500
	U.S. exports (million dollars)	444	479	577	635
	U.S. imports (million dollars)	337	365	376	429
	Apparent U.S. consumption (million dollars)	20,393	20,736	19,799	20,294
	Trade balance (million dollars)	107	114	201	206
	Ratio of imports to apparent consumption (percent)	1.7	1.8	1.9	2.1
	Ratio of exports to shipments (percent)	2.2	2.3	2.9	3.1

See footnotes at end of table.

Table B-1--Continued
Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
AG061	Printed matter:				
	Establishments (number)	53,000	60,000	60,000	60,000
	Employees (thousands)	1,400	1,500	1,500	1,500
	Capacity utilization (percent)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	150,000	157,000	161,000	176,000
	U.S. exports (million dollars)	2,569	3,072	3,470	3,558
	U.S. imports (million dollars)	1,566	1,616	1,649	1,786
	Apparent U.S. consumption (million dollars)	148,997	155,544	159,179	174,228
	Trade balance (million dollars)	1,003	1,456	1,821	1,772
	Ratio of imports to apparent consumption (percent)	1.1	1.0	1.0	1.0
	Ratio of exports to shipments (percent)	1.7	2.0	2.2	2.0

[1] Not available.
[2] Capacity utilization is not meaningful in this industry.
[3] Does not reflect changes in inventory.
[4] Does not include gums and resins. Production data for gums and resins in no longer reported.
[5] Figures do not include microbreweries and brewpubs. The total number of establishments licensed to brew malt (including microbreweries and brewpubs) was 392 during the year ending Sept. 30, 1992, as reported by the Bur Alcohol Tobacco, and Firearms (BATF).
[6] Figures represent the number of bonded wine cellars as reported by the BATF.
[7] In 1992, initiate official published statistics for U.S. imports of unmanufactured tobacco were overstated by $123 million. A correction to these import statistics was issued and is reflected in this number.

Table B-2
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX001	Textile fibers and waste:				
	Establishments (number)[1]	2,815	3,042	3,245	3,200
	Employees (thousands)	47	48	48	48
	Capacity utilization (percent)[2]	87	84	79	82
	U.S. shipments (million dollars)	8,850	10,267	10,108	10,775
	U.S. exports (million dollars)	3,091	3,641	3,398	2,810
	U.S. imports (million dollars)	634	676	592	661
	Apparent U.S. consumption (million dollars)	6,393	7,302	7,302	8,626
	Trade balance (million dollars)	5,759	6,626	6,710	7,965
	Ratio of imports to apparent consumption (percent)	487.5	538.6	574.0	425.1
	Ratio of exports to shipments (percent)	34.9	35.5	33.6	26.1
TX002	Spun yarns:				
	Establishments (number)	426	424	424	420
	Employees (thousands)	75	72	72	72
	Capacity utilization (percent)	86	76	(3)	(3)
	U.S. shipments (million dollars)	7,956	7,892	7,878	8,036
	U.S. exports (million dollars)	238	306	338	270
	U.S. imports (million dollars)	297	248	278	334
	Apparent U.S. consumption (million dollars)	8,015	7,834	7,818	8,100
	Trade balance (million dollars)	-59	58	60	-64
	Ratio of imports to apparent consumption (percent)	3.7	3.2	3.6	4.1
	Ratio of exports to shipments (percent)	3.0	3.9	4.3	3.4
TX003	Filament yarns:				
	Establishments (number)	180	184	180	182
	Employees (thousands)	56	55	54	54
	Capacity utilization (percent)	86	82	83	82
	U.S. shipments (million dollars)	8,283	8,324	7,969	8,215
	U.S. exports (million dollars)	647	776	751	687
	U.S. imports (million dollars)	332	335	420	467
	Apparent U.S. consumption (million dollars)	7,968	7,883	7,638	7,995
	Trade balance (million dollars)	315	441	331	220
	Ratio of imports to apparent consumption (percent)	4.2	4.2	5.5	5.8
	Ratio of exports to shipments (percent)	7.8	9.3	9.4	8.4
TX004	Miscellaneous yarns:				
	Establishments (number)	61	63	64	64
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	77	83	(3)	(3)
	U.S. shipments (million dollars)	837	890	900	930
	U.S. exports (million dollars)	77	107	107	114
	U.S. imports (million dollars)	42	48	65	72
	Apparent U.S. consumption (million dollars)	802	831	858	888
	Trade balance (million dollars)	35	59	42	42
	Ratio of imports to apparent consumption (percent)	5.2	5.8	7.6	8.1
	Ratio of exports to shipments (percent)	9.2	12.0	11.9	12.3
TX005	Broadwoven fabrics:				
	Establishments (number)	1,082	1,065	1,044	(3)
	Employees (thousands)	195	185	178	177
	Capacity utilization (percent)	87	82	85	89
	U.S. shipments (million dollars)	12,963	12,673	12,910	13,710
	U.S. exports (million dollars)	996	1,233	1,330	1,477
	U.S. imports (million dollars)	2,620	2,657	2,953	3,234
	Apparent U.S. consumption (million dollars)	14,587	14,097	14,533	15,467
	Trade balance (million dollars)	-1,624	-1,424	-1,623	-1,757
	Ratio of imports to apparent consumption (percent)	18.0	18.8	20.3	20.9
	Ratio of exports to shipments (percent)	7.7	9.7	10.3	10.8
TX006	Knit fabrics:				
	Establishments (number)	525	521	537	(3)
	Employees (thousands)	43	45	45	45
	Capacity utilization (percent)	75	72	77	(3)
	U.S. shipments (million dollars)	6,575	5,923	6,541	(3)
	U.S. exports (million dollars)	121	218	287	328
	U.S. imports (million dollars)	117	144	183	217
	Apparent U.S. consumption (million dollars)	6,571	5,849	6,437	(3)
	Trade balance (million dollars)	4	74	104	111
	Ratio of imports to apparent consumption (percent)	1.8	2.5	2.8	(3)
	Ratio of exports to shipments (percent)	1.8	3.7	4.4	(3)

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX007	Miscellaneous fabrics:				
	Establishments (number)[4]	549	581	549	([3])
	Employees (thousands)[4]	29	28	28	28
	Capacity utilization (percent)[4]	76	77	79	([3])
	U.S. shipments (million dollars)[4]	1,341	1,418	1,340	([3])
	U.S. exports (million dollars)	117	147	174	179
	U.S. imports (million dollars)	91	90	86	100
	Apparent U.S. consumption (million dollars)	1,315	1,361	1,252	([3])
	Trade balance (million dollars)	26	57	88	79
	Ratio of imports to apparent consumption (percent)	6.9	6.6	6.9	([3])
	Ratio of exports to shipments (percent)	8.7	10.4	13.0	([3])
TX008	Coated, covered, impregnated or laminated textile fabrics:				
	Establishments (number)	245	254	250	260
	Employees (thousands)	12	12	12	12
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	2,075	1,960	1,868	2,055
	U.S. exports (million dollars)	239	287	313	360
	U.S. imports (million dollars)	172	185	189	200
	Apparent U.S. consumption (million dollars)	2,008	1,858	1,744	1,895
	Trade balance (million dollars)	67	102	124	160
	Ratio of imports to apparent consumption (percent)	8.6	10.0	10.8	10.6
	Ratio of exports to shipments (percent)	11.5	14.6	16.8	17.5
TX009	Cordage, nets, and netting:				
	Establishments (number)	205	200	198	200
	Employees (thousands)	8	8	8	8
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	591	576	566	575
	U.S. exports (million dollars)	32	44	48	52
	U.S. imports (million dollars)	127	137	127	124
	Apparent U.S. consumption (million dollars)	686	669	645	647
	Trade balance (million dollars)	-95	-93	-79	-72
	Ratio of imports to apparent consumption (percent)	18.5	20.5	19.7	19.2
	Ratio of exports to shipments (percent)	5.4	7.6	8.5	9.0
TX010	Certain textile articles and fabrics suitable for industrial use:				
	Establishments (number)	68	74	75	75
	Employees (thousands)	15	14	15	15
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	3,102	3,020	3,050	3,100
	U.S. exports (million dollars)	153	184	211	268
	U.S. imports (million dollars)	112	135	142	144
	Apparent U.S. consumption (million dollars)	3,061	2,971	2,981	2,976
	Trade balance (million dollars)	41	49	69	124
	Ratio of imports to apparent consumption (percent)	3.7	4.5	4.8	4.8
	Ratio of exports to shipments (percent)	4.9	6.1	6.9	8.6
TX011	Miscellaneous textiles and articles:				
	Establishments (number)	3,685	3,761	3,800	3,800
	Employees (thousands)	83	82	83	83
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	5,653	6,501	7,000	7,200
	U.S. exports (million dollars)	466	531	605	709
	U.S. imports (million dollars)	527	622	794	894
	Apparent U.S. consumption (million dollars)	5,714	6,592	7,189	7,385
	Trade balance (million dollars)	-61	-91	-189	185
	Ratio of imports to apparent consumption (percent)	9.2	9.4	11.0	12.1
	Ratio of exports to shipments (percent)	8.2	8.2	8.6	9.8
TX012	Sacks and bags of textile materials:				
	Establishments (number)	122	140	135	140
	Employees (thousands)	5	5	5	5
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	281	290	285	300
	U.S. exports (million dollars)	12	15	16	17
	U.S. imports (million dollars)	30	41	52	43
	Apparent U.S. consumption (million dollars)	299	316	321	326
	Trade balance (million dollars)	-18	-26	-36	-26
	Ratio of imports to apparent consumption (percent)	10.0	13.0	16.2	13.2
	Ratio of exports to shipments (percent)	4.3	5.2	5.6	5.7

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX013	Carpets and rugs:				
	Establishments (number)	580	596	566	560
	Employees (thousands)	62	62	59	61
	Capacity utilization (percent)	82	76	75	(3)
	U.S. shipments (million dollars)	9,826	9,611	8,995	9,176
	U.S. exports (million dollars)	383	551	704	725
	U.S. imports (million dollars)	613	598	591	709
	Apparent U.S. consumption (million dollars)	10,056	9,658	8,882	9,160
	Trade balance (million dollars)	-230	-47	113	16
	Ratio of imports to apparent consumption (percent)	6.1	6.2	6.7	7.7
	Ratio of exports to shipments (percent)	3.9	5.7	7.8	7.9
TX014	Home furnishings:				
	Establishments (number)	2,045	2,123	2,080	2,100
	Employees (thousands)	70	68	66	69
	Capacity utilization (percent)	70	68	68	(3)
	U.S. shipments (million dollars)	5,890	6,010	6,100	6,230
	U.S. exports (million dollars)	144	191	251	249
	U.S. imports (million dollars)	738	751	726	827
	Apparent U.S. consumption (million dollars)	6,484	6,570	6,575	6,808
	Trade balance (million dollars)	-594	-560	-475	-578
	Ratio of imports to apparent consumption (percent)	11.4	11.4	11.0	12.1
	Ratio of exports to shipments (percent)	2.4	3.2	4.1	4.0
TX015	Men's and boys' suits and sport coats:				
	Establishments (number)	370	348	345	340
	Employees (thousands)	55	50	48	46
	Capacity utilization (percent)	84	82	80	(3)
	U.S. shipments (million dollars)	2,798	2,744	2,485	2,609
	U.S. exports (million dollars)	54	84	98	114
	U.S. imports (million dollars)	576	508	561	662
	Apparent U.S. consumption (million dollars)	3,320	3,168	2,948	3,157
	Trade balance (million dollars)	-522	-424	-463	-548
	Ratio of imports to apparent consumption (percent)	17.3	16.0	19.0	21.0
	Ratio of exports to shipments (percent)	1.9	3.1	3.9	4.4
TX016	Men's and boys' coats and jackets:				
	Establishments (number)	377	387	385	385
	Employees (thousands)	26	26	25	24
	Capacity utilization (percent)	84	82	80	(3)
	U.S. shipments (million dollars)	1,201	1,163	1,037	1,224
	U.S. exports (million dollars)	36	50	69	103
	U.S. imports (million dollars)	925	1,068	1,039	1,285
	Apparent U.S. consumption (million dollars)	2,090	2,181	2,007	2,406
	Trade balance (million dollars)	-889	-1,018	-970	-1,182
	Ratio of imports to apparent consumption (percent)	44.3	49.0	51.8	53.4
	Ratio of exports to shipments (percent)	3.0	4.3	6.7	8.4
TX017	Men's and boys' trousers:				
	Establishments (number)	1,167	1,203	1,205	1,207
	Employees (thousands)	154	146	151	155
	Capacity utilization (percent)	87	86	88	(3)
	U.S. shipments (million dollars)	5,420	5,746	6,071	7,060
	U.S. exports (million dollars)	425	529	663	843
	U.S. imports (million dollars)	1,933	2,122	2,304	2,666
	Apparent U.S. consumption (million dollars)	6,928	7,339	7,712	8,883
	Trade balance (million dollars)	-1,508	1,593	-1,641	-1,823
	Ratio of imports to apparent consumption (percent)	27.9	28.9	29.9	30.0
	Ratio of exports to shipments (percent)	7.8	9.2	10.9	11.9
TX018	Women's and girls' trousers:				
	Establishments (number)	3,000	3,260	3,270	3,275
	Employees (thousands)	123	110	110	113
	Capacity utilization (percent)	80	77	79	(3)
	U.S. shipments (million dollars)	3,377	3,664	3,790	3,980
	U.S. exports (million dollars)	129	139	215	312
	U.S. imports (million dollars)	2,479	2,683	2,737	3,342
	Apparent U.S. consumption (million dollars)	5,727	6,208	6,312	4,010
	Trade balance (million dollars)	-2,350	-2,544	-2,522	-3,030
	Ratio of imports to apparent consumption (percent)	43.3	43.2	43.4	83.3
	Ratio of exports to shipments (percent)	3.8	3.8	5.7	7.8

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX019	Shirts and blouses:				
	Establishments (number)	2,095	2,085	2,002	2,005
	Employees (thousands)	145	135	125	130
	Capacity utilization (percent)	87	89	88	(3)
	U.S. shipments (million dollars)	9,000	8,777	8,842	9,638
	U.S. exports (million dollars)	290	396	451	658
	U.S. imports (million dollars)	4,515	5,053	7,410	9,173
	Apparent U.S. consumption (million dollars)	13,225	13,434	15,801	18,153
	Trade balance (million dollars)	-4,225	-4,657	-6,959	-8,515
	Ratio of imports to apparent consumption (percent)	34.1	37.6	46.9	50.5
	Ratio of exports to shipments (percent)	3.2	4.5	5.1	6.8
TX020	Sweaters:				
	Establishments (number)	415	394	356	360
	Employees (thousands)	23	22	21	22
	Capacity utilization (percent)	73	68	60	(3)
	U.S. shipments (million dollars)	1,019	753	737	792
	U.S. exports (million dollars)	18	19	30	32
	U.S. imports (million dollars)	4,257	4,098	1,917	2,149
	Apparent U.S. consumption (million dollars)	5,258	4,832	2,624	2,909
	Trade balance (million dollars)	-4,239	-4,079	-1,887	-2,117
	Ratio of imports to apparent consumption (percent)	81.0	84.8	73.1	73.9
	Ratio of exports to shipments (percent)	1.8	2.5	4.1	4.0
TX021	Women's and girls' suits, skirts, and coats:				
	Establishments (number)	1,423	1,438	1,424	1,420
	Employees (thousands)	56	55	52	50
	Capacity utilization (percent)	88	89	89	(3)
	U.S. shipments (million dollars)	3,430	3,114	3,653	3,580
	U.S. exports (million dollars)	117	170	203	259
	U.S. imports (million dollars)	2,215	2,555	2,635	3,011
	Apparent U.S. consumption (million dollars)	5,528	5,499	6,085	6,332
	Trade balance (million dollars)	-2,098	-2,385	-2,432	-2,752
	Ratio of imports to apparent consumption (percent)	40.1	46.5	43.3	47.6
	Ratio of exports to shipments (percent)	3.4	5.5	5.6	7.2
TX022	Women's and girls' dresses:				
	Establishments (number)	2,801	2,592	2,514	2,510
	Employees (thousands)	99	93	87	85
	Capacity utilization (percent)	71	66	64	(3)
	U.S. shipments (million dollars)	4,384	4,734	4,476	4,183
	U.S. exports (million dollars)	42	50	65	98
	U.S. imports (million dollars)	855	946	938	1,011
	Apparent U.S. consumption (million dollars)	5,197	5,630	5,349	5,096
	Trade balance (million dollars)	-813	-896	-873	-913
	Ratio of imports to apparent consumption (percent)	16.5	16.8	17.5	19.8
	Ratio of exports to shipments (percent)	1.0	1.1	1.5	2.3
TX023	Robes, nightwear, and underwear:				
	Establishments (number)	817	811	(3)	(3)
	Employees (thousands)	115	111	109	110
	Capacity utilization (percent)	96	91	(3)	(3)
	U.S. shipments (million dollars)	5,086	3,826	3,789	3,679
	U.S. exports (million dollars)	154	157	302	382
	U.S. imports (million dollars)	1,507	1,076	1,293	1,563
	Apparent U.S. consumption (million dollars)	6,439	4,745	4,780	4,860
	Trade balance (million dollars)	-1,353	-919	-991	-1,181
	Ratio of imports to apparent consumption (percent)	23.4	22.7	27.1	32.2
	Ratio of exports to shipments (percent)	3.0	4.1	8.0	10.4
TX024	Hosiery:				
	Establishments (number)	412	419	420	420
	Employees (thousands)	73	71	69	70
	Capacity utilization (percent)	87	80	80	80
	U.S. shipments (million dollars)	3,570	3,848	3,862	3,997
	U.S. exports (million dollars)	59	73	98	135
	U.S. imports (million dollars)	148	186	314	178
	Apparent U.S. consumption (million dollars)	3,659	3,961	4,078	4,040
	Trade balance (million dollars)	-89	-113	-216	-43
	Ratio of imports to apparent consumption (percent)	4.0	4.7	7.7	4.4
	Ratio of exports to shipments (percent)	1.7	1.9	2.5	3.4

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX025	Body-supporting garments:				
	Establishments (number)	124	113	(3)	(3)
	Employees (thousands)	14	12	11	11
	Capacity utilization (percent)	85	86	(3)	(3)
	U.S. shipments (million dollars)	1,188	1,154	1,268	1,509
	U.S. exports (million dollars)	176	182	231	278
	U.S. imports (million dollars)	338	366	444	557
	Apparent U.S. consumption (million dollars)	1,350	1,338	1,481	1,788
	Trade balance (million dollars)	-162	-184	-213	-279
	Ratio of imports to apparent consumption (percent)	25.0	27.4	30.0	31.2
	Ratio of exports to shipments (percent)	14.8	15.8	18.2	18.4
TX026	Neckwear:[5]				
	Establishments (number)	165	162	170	175
	Employees (thousands)	8	7	7	7
	Capacity utilization (percent)	95	90	(3)	(3)
	U.S. shipments (million dollars)	526	498	525	540
	U.S. exports (million dollars)	16	17	20	21
	U.S. imports (million dollars)	423	296	283	294
	Apparent U.S. consumption (million dollars)	933	777	788	813
	Trade balance (million dollars)	-407	-279	-263	-273
	Ratio of imports to apparent consumption (percent)[6]	45.3	38.1	35.9	36.2
	Ratio of exports to shipments (percent)	3.0	3.4	3.8	3.9
TX027	Gloves, including gloves for sports:				
	Establishments (number)	220	215	210	200
	Employees (thousands)	12	12	11	11
	Capacity utilization (percent)	78	75	70	68
	U.S. shipments (million dollars)	865	833	801	795
	U.S. exports (million dollars)	182	165	165	166
	U.S. imports (million dollars)	890	875	912	1,124
	Apparent U.S. consumption (million dollars)	1,573	1,543	1,548	1,753
	Trade balance (million dollars)	-708	-710	-747	-958
	Ratio of imports to apparent consumption (percent)	56.6	56.7	58.9	64.1
	Ratio of exports to shipments (percent)	21.0	19.8	20.6	20.9
TX028	Headwear:				
	Establishments (number)	316	312	310	295
	Employees (thousands)	15	16	16	16
	Capacity utilization (percent)	65	75	75	80
	U.S. shipments (million dollars)	745	758	823	860
	U.S. exports (million dollars)	43	64	89	103
	U.S. imports (million dollars)	341	429	495	687
	Apparent U.S. consumption (million dollars)	1,043	1,123	1,229	1,444
	Trade balance (million dollars)	-298	-365	-406	-584
	Ratio of imports to apparent consumption (percent)	32.7	38.2	40.3	47.6
	Ratio of exports to shipments (percent)	5.8	8.4	10.8	12.0
TX029	Leather apparel and accessories:				
	Establishments (number)	492	490	476	470
	Employees (thousands)	13	13	12	11
	Capacity utilization (percent)	75	70	70	68
	U.S. shipments (million dollars)	455	471	506	500
	U.S. exports (million dollars)	63	75	96	99
	U.S. imports (million dollars)	1,310	1,354	1,226	1,411
	Apparent U.S. consumption (million dollars)	1,702	1,750	1,636	1,812
	Trade balance (million dollars)	-1,247	-1,279	-1,130	-1,312
	Ratio of imports to apparent consumption (percent)	77.0	77.4	74.9	77.9
	Ratio of exports to shipments (percent)	13.8	15.9	-144.8	19.8
TX030	Fur apparel and other fur articles:				
	Establishments (number)	341	296	236	200
	Employees (thousands)	2	2	1	1
	Capacity utilization (percent)	68	65	60	62
	U.S. shipments (million dollars)	402	379	257	225
	U.S. exports (million dollars)	67	54	61	67
	U.S. imports (million dollars)	370	249	172	140
	Apparent U.S. consumption (million dollars)	705	574	368	298
	Trade balance (million dollars)	-303	-195	-111	-73
	Ratio of imports to apparent consumption (percent)	52.5	43.4	46.7	47.0
	Ratio of exports to shipments (percent)	16.7	14.2	23.7	29.8

See footnotes at end of table.

Table B-2--Continued
Fibers, textiles, and apparel sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
TX031	Rubber, plastics, and coated-fabric apparel:				
	Establishments (number)	67	67	65	(3)
	Employees (thousands)	3	3	3	3
	Capacity utilization (percent)	65	65	63	(3)
	U.S. shipments (million dollars)	159	149	145	140
	U.S. exports (million dollars)	26	25	49	47
	U.S. imports (million dollars)	151	214	121	140
	Apparent U.S. consumption (million dollars)	284	338	217	233
	Trade balance (million dollars)	-125	-189	-72	-93
	Ratio of imports to apparent consumption (percent)	53.2	63.3	55.8	60.1
	Ratio of exports to shipments (percent)	16.4	16.8	33.8	33.6
TX032	Nonwoven and related products:				
	Establishments (number)	77	78	80	82
	Employees (thousands)	9	9	9	9
	Capacity utilization (percent)	77	82	86	85
	U.S. shipments (million dollars)	3,213	3,341	3,377	3,400
	U.S. exports (million dollars)	250	362	380	408
	U.S. imports (million dollars)	186	230	366	436
	Apparent U.S. consumption (million dollars)	3,149	3,209	3,363	3,428
	Trade balance (million dollars)	64	132	14	-28
	Ratio of imports to apparent consumption (percent)	5.9	7.2	10.9	12.7
	Ratio of exports to shipments (percent)	7.8	10.8	11.3	12.0
TX033	Other wearing apparel:				
	Establishments (number)	(3)	(3)	(3)	(3)
	Employees (thousands)	(3)	(3)	(3)	(3)
	Capacity utilization (percent)	(3)	(3)	(3)	(3)
	U.S. shipments (million dollars)	(3)	(3)	(3)	(3)
	U.S. exports (million dollars)	196	235	294	370
	U.S. imports (million dollars)	1,122	1,269	1,266	1,621
	Apparent U.S. consumption (million dollars)	(3)	(3)	(3)	(3)
	Trade balance (million dollars)	-926	-1,034	-972	-1,251
	Ratio of imports to apparent consumption (percent)	(3)	(3)	(3)	(3)
	Ratio of exports to shipments (percent)	(3)	(3)	(3)	(3)

1 Includes both agricultural and manufacturing establishments. Cotton and wool producing establishments account for over 95 percent of the total.
2 Capacity utilization figures apply only to manmade-fiber producers.
3 Not available.
4 These data include only the narrow fabrics and lace and netting industries. These industries account for the vast majority of this grouping.
5 Includes ties, mufflers, scarves, shawls, and veils.
6 This ratio may be overstated since imports include women's and girls' scarves, shawls, and veils, in addition to men's neckwear. U.S. shipments reflect primarily men's neckwear.

Table B-3
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH001	Electrical energy:				
	Establishments (number)	3,225	3,225	3,225	3,225
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	100	100	100	100
	U.S. shipments (million dollars)	212,451	167,403	145,800	153,831
	U.S. exports (million dollars)	180	491	54	64
	U.S. imports (million dollars)	558	463	487	590
	Apparent U.S. consumption (million dollars)	212,829	167,375	146,233	154,357
	Trade balance (million dollars)	-378	28	-433	-526
	Ratio of imports to apparent consumption (percent)	0.3	0.3	0.3	0.4
	Ratio of exports to shipments (percent)	0.1	0.3	0.0	0.0
CH002	Nuclear materials:				
	Establishments (number)	45	43	40	(1)
	Employees (thousands)	32	32	30	(1)
	Capacity utilization (percent)	60	60	58	(1)
	U.S. shipments (million dollars)	4,200	4,000	3,800	(1)
	U.S. exports (million dollars)	1,308	1,068	1,120	1,247
	U.S. imports (million dollars)	945	1,015	1,092	1,080
	Apparent U.S. consumption (million dollars)	3,837	3,947	3,772	(1)
	Trade balance (million dollars)	363	53	28	167
	Ratio of imports to apparent consumption (percent)	24.6	25.7	29.0	(1)
	Ratio of exports to shipments (percent)	31.1	26.7	29.5	(1)
CH003	Coal and other carbonaceous materials:				
	Establishments (number)	500	500	500	500
	Employees (thousands)	135	135	129	160
	Capacity utilization (percent)	85	85	85	85
	U.S. production (million dollars)	22,297	22,606	22,260	23,373
	U.S. exports (million dollars)	4,395	4,608	4,721	4,325
	U.S. imports (million dollars)	415	288	309	420
	Apparent U.S. consumption (million dollars)	18,317	18,286	17,848	19,468
	Trade balance (million dollars)	3,980	4,320	4,412	3,905
	Ratio of imports to apparent consumption (percent)	2.3	1.6	1.7	2.2
	Ratio of exports to production (percent)	19.7	20.4	21.2	18.5
CH004	Coal chemicals:				
	Establishments (number)	26	25	25	23
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	80	80	80	80
	U.S. production (million dollars)	84	84	86	88
	U.S. exports (million dollars)	412	396	268	398
	U.S. imports (million dollars)	264	296	144	116
	Apparent U.S. consumption (million dollars)	-64	-16	-38	-194
	Trade balance (million dollars)	148	100	124	282
	Ratio of imports to apparent consumption (percent)	-412.5	-1850.0	-378.9	-59.8
	Ratio of exports to production (percent)	490.5	471.4	311.6	452.3
CH005	Crude petroleum:				
	Establishments (number)	18,000	18,000	18,000	18,000
	Employees (thousands)	204	204	204	204
	Capacity utilization (percent)	100	100	100	100
	U.S. production (million dollars)	44,031	46,904	45,800	41,750
	U.S. exports (million dollars)	62	183	35	27
	U.S. imports (million dollars)	35,041	43,833	37,374	38,104
	Apparent U.S. consumption (million dollars)	79,010	90,554	83,139	79,827
	Trade balance (million dollars)	-34,979	-43,650	-37,339	-38,077
	Ratio of imports to apparent consumption (percent)	44.4	48.4	45.0	47.7
	Ratio of exports to production (percent)	0.1	0.4	0.1	0.1
CH006	Petroleum products:				
	Establishments (number)	193	194	190	190
	Employees (thousands)	75	75	75	75
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	147,138	150,628	129,291	120,565
	U.S. exports (million dollars)	5,587	7,302	7,461	6,603
	U.S. imports (million dollars)	13,161	16,138	12,578	11,260
	Apparent U.S. consumption (million dollars)	154,712	159,464	134,408	125,222
	Trade balance (million dollars)	-7,574	-8,836	-5,117	-4,657
	Ratio of imports to apparent consumption (percent)	8.5	10.1	9.4	9.0
	Ratio of exports to shipments (percent)	3.8	4.8	5.8	5.5

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH007	Natural gas and components:				
	Establishments (number)	(1)	(1)	(1)	(1)
	Employees (thousands)	200	200	200	200
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	65,000	73,000	75,000	75,000
	U.S. exports (million dollars)	472	493	700	792
	U.S. imports (million dollars)	2,412	3,229	3,358	3,623
	Apparent U.S. consumption (million dollars)	66,940	75,736	77,658	77,831
	Trade balance (million dollars)	-1,940	-2,736	-2,658	-2,831
	Ratio of imports to apparent consumption (percent)	3.6	4.3	4.3	4.7
	Ratio of exports to shipments (percent)	0.7	0.7	0.9	1.1
CH008	Major primary olefins:				
	Firms (number)	38	37	37	37
	Employees (thousands)	5	5	5	5
	Capacity utilization (percent)	97	95	93	95
	U.S. production (million dollars)	13,200	12,943	11,589	12,100
	U.S. exports (million dollars)	157	209	222	225
	U.S. imports (million dollars)	250	265	188	200
	Apparent U.S. consumption (million dollars)	13,293	12,999	11,555	12,075
	Trade balance (million dollars)	-93	-56	34	25
	Ratio of imports to apparent consumption (percent)	1.9	2.0	1.6	1.7
	Ratio of exports to production (percent)	1.2	1.6	1.9	1.9
CH009	Other olefins:				
	Firms (number)	24	23	23	23
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	90	85	85	88
	U.S. production (million dollars)	925	900	910	920
	U.S. exports (million dollars)	259	263	285	253
	U.S. imports (million dollars)	31	14	19	32
	Apparent U.S. consumption (million dollars)	697	651	644	699
	Trade balance (million dollars)	228	249	266	221
	Ratio of imports to apparent consumption (percent)	4.4	2.2	3.0	4.6
	Ratio of exports to production (percent)	28.0	29.2	31.3	27.5
CH010	Benzene, toluene, and mixed xylenes:				
	Firms (number)	31	31	31	31
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	60	60	63	66
	U.S. production (million dollars)	3,400	3,300	3,700	3,600
	U.S. exports (million dollars)	182	276	105	106
	U.S. imports (million dollars)	115	124	196	187
	Apparent U.S. consumption (million dollars)	3,333	3,148	3,791	3,681
	Trade balance (million dollars)	67	152	-91	-81
	Ratio of imports to apparent consumption (percent)	3.5	3.9	5.2	5.1
	Ratio of exports to production (percent)	5.4	8.4	2.8	2.9
CH011	Benzenoid commodity chemicals:				
	Firms (number)	54	54	54	54
	Employees (thousands)	15	15	15	15
	Capacity utilization (percent)	89	90	85	82
	U.S. production (million dollars)	13,345	13,600	14,150	14,000
	U.S. exports (million dollars)	1,685	1,507	1,381	1,131
	U.S. imports (million dollars)	430	485	357	297
	Apparent U.S. consumption (million dollars)	12,090	12,578	13,126	13,166
	Trade balance (million dollars)	1,255	1,022	1,024	834
	Ratio of imports to apparent consumption (percent)	3.6	3.9	2.7	2.3
	Ratio of exports to production (percent)	12.6	11.1	9.8	8.1
CH012	Benzenoid specialty chemicals:				
	Firms (number)	250	250	250	250
	Employees (thousands)	95	95	95	95
	Capacity utilization (percent)	95	95	89	87
	U.S. production (million dollars)	7,550	7,700	7,930	8,175
	U.S. exports (million dollars)	2,841	2,844	3,431	3,516
	U.S. imports (million dollars)	1,595	1,811	2,066	2,235
	Apparent U.S. consumption (million dollars)	6,304	6,667	6,565	6,894
	Trade balance (million dollars)	1,246	1,033	1,365	1,281
	Ratio of imports to apparent consumption (percent)	25.3	27.2	31.5	32.4
	Ratio of exports to production (percent)	37.6	36.9	43.3	43.0

See footnotes at end of table

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH013	Miscellaneous organic chemicals:				
	Firms (number)	102	103	100	100
	Employees (thousands)	86	87	80	70
	Capacity utilization (percent)	85	83	80	85
	U.S. shipments (million dollars)	39,312	40,767	39,300	40,000
	U.S. exports (million dollars)	4,582	4,303	4,744	4,880
	U.S. imports (million dollars)	2,632	2,672	2,862	3,364
	Apparent U.S. consumption (million dollars)	37,362	39,136	37,418	38,484
	Trade balance (million dollars)	1,950	1,631	1,882	1,516
	Ratio of imports to apparent consumption (percent)	7.0	6.8	7.6	8.7
	Ratio of exports to shipments (percent)	11.7	10.6	12.1	12.2
CH014	Selected inorganic chemicals and elements:				
	Firms (number)	480	480	480	(1)
	Employees (thousands)	73	77	79	(1)
	Capacity utilization (percent)	77	77	(1)	(1)
	U.S. shipments (million dollars)	2,767	3,111	2,651	2,526
	U.S. exports (million dollars)	859	842	893	768
	U.S. imports (million dollars)	1,694	1,738	1,573	1,363
	Apparent U.S. consumption (million dollars)	3,602	4,007	3,331	3,121
	Trade balance (million dollars)	-835	-896	-680	-595
	Ratio of imports to apparent consumption (percent)	47.0	43.4	47.2	43.7
	Ratio of exports to shipments (percent)	31.0	27.1	33.7	30.4
CH015	Inorganic acids:				
	Establishments (number)	145	145	145	145
	Employees (thousands)	9	9	9	9
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	2,611	2,379	2,426	2,499
	U.S. exports (million dollars)	104	109	129	156
	U.S. imports (million dollars)	180	179	168	142
	Apparent U.S. consumption (million dollars)	2,687	2,449	2,465	2,485
	Trade balance (million dollars)	-76	-70	-39	14
	Ratio of imports to apparent consumption (percent)	6.7	7.3	6.8	5.7
	Ratio of exports to shipments (percent)	4.0	4.6	5.3	6.2
CH016	Salts and other inorganic chemicals:				
	Establishments (number)	239	235	230	225
	Employees (thousands)	36	36	35	34
	Capacity utilization (percent)	78	75	75	77
	U.S. shipments (million dollars)	7,003	7,043	7,000	7,315
	U.S. exports (million dollars)	1,677	2,098	2,241	2,191
	U.S. imports (million dollars)	1,207	1,309	1,341	1,471
	Apparent U.S. consumption (million dollars)	6,533	6,254	6,100	6,595
	Trade balance (million dollars)	470	789	900	720
	Ratio of imports to apparent consumption (percent)	18.5	20.9	22.0	22.3
	Ratio of exports to shipments (percent)	23.9	29.8	32.0	30.0
CH017	Chlor-alkali chemicals:				
	Firms (number)	27	27	(1)	(1)
	Employees (thousands)	6	6	(1)	(1)
	Capacity utilization (percent)	94	(1)	(1)	(1)
	U.S. shipments (million dollars)	3,661	4,033	4,707	4,226
	U.S. exports (million dollars)	822	800	912	803
	U.S. imports (million dollars)	191	199	177	170
	Apparent U.S. consumption (million dollars)	3,030	3,432	3,972	3,593
	Trade balance (million dollars)	631	601	735	633
	Ratio of imports to apparent consumption (percent)	6.3	5.8	4.5	4.7
	Ratio of exports to shipments (percent)	22.5	19.8	19.4	19.0
CH018	Industrial gases:				
	Firms (number)	103	103	103	(1)
	Employees (thousands)	8	9	9	(1)
	Capacity utilization (percent)	79	74	(1)	(1)
	U.S. shipments (million dollars)	2,550	2,696	2,815	2,560
	U.S. exports (million dollars)	86	84	95	98
	U.S. imports (million dollars)	33	36	38	39
	Apparent U.S. consumption (million dollars)	2,497	2,648	2,758	2,501
	Trade balance (million dollars)	53	48	57	59
	Ratio of imports to apparent consumption (percent)	1.3	1.4	1.4	1.6
	Ratio of exports to shipments (percent)	3.4	3.1	3.4	3.8

see footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH019	Fertilizers:				
	Establishments (number)	650	650	650	650
	Employees (thousands)	41	41	41	41
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	8,252	8,281	8,332	8,391
	U.S. exports (million dollars)	2,952	2,697	3,138	2,644
	U.S. imports (million dollars)	1,641	1,513	1,536	1,775
	Apparent U.S. consumption (million dollars)	6,941	7,097	6,730	7,522
	Trade balance (million dollars)	1,311	1,184	1,602	869
	Ratio of imports to apparent consumption (percent)	23.6	21.3	22.8	23.6
	Ratio of exports to shipments (percent)	35.8	32.6	37.7	31.5
CH020	Certain inorganic pigments:				
	Firms (number)	80	80	80	80
	Employees (thousands)	14	14	13	14
	Capacity utilization (percent)	90	90	80	82
	U.S. shipments (million dollars)	3,300	3,500	3,360	3,490
	U.S. exports (million dollars)	699	725	682	779
	U.S. imports (million dollars)	577	563	551	598
	Apparent U.S. consumption (million dollars)	3,178	3,338	3,229	3,309
	Trade balance (million dollars)	122	162	131	181
	Ratio of imports to apparent consumption (percent)	18.2	16.9	17.1	18.1
	Ratio of exports to shipments (percent)	21.2	20.7	20.3	22.3
CH021	Synthetic organic pigments:				
	Firms (number)	32	32	32	32
	Employees (thousands)	6	6	6	6
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	702	725	644	(1)
	U.S. exports (million dollars)	178	214	200	223
	U.S. imports (million dollars)	177	208	249	274
	Apparent U.S. consumption (million dollars)	701	719	693	(1)
	Trade balance (million dollars)	1	6	-49	-51
	Ratio of imports to apparent consumption (percent)	25.2	28.9	35.9	(1)
	Ratio of exports to shipments (percent)	25.4	29.5	31.1	(1)
CH022	Synthetic dyes and azoic couples				
	Firms (number)	32	32	32	32
	Employees (thousands)	8	8	8	8
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	858	870	858	860
	U.S. exports (million dollars)	134	187	168	192
	U.S. imports (million dollars)	388	459	497	571
	Apparent U.S. consumption (million dollars)	1,112	1,142	1,187	1,239
	Trade balance (million dollars)	-254	-272	-329	-379
	Ratio of imports to apparent consumption (percent)	34.9	40.2	41.9	46.1
	Ratio of exports to shipments (percent)	15.6	21.5	19.6	22.3
CH023	Synthetic tanning agents:				
	Firms (number)	5	5	5	5
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	20	20	20	20
	U.S. exports (million dollars)	12	11	13	11
	U.S. imports (million dollars)	3	3	4	4
	Apparent U.S. consumption (million dollars)	11	12	11	13
	Trade balance (million dollars)	9	8	9	7
	Ratio of imports to apparent consumption (percent)	27.3	25.0	36.4	30.8
	Ratio of exports to shipments (percent)	60.0	55.0	65.0	55.0
CH024	Natural tanning and dyeing materials:				
	Firms (number)	10	10	10	10
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	10	10	10	10
	U.S. exports (million dollars)	14	11	12	77
	U.S. imports (million dollars)	61	51	59	104
	Apparent U.S. consumption (million dollars)	57	50	57	37
	Trade balance (million dollars)	-47	-40	-47	-27
	Ratio of imports to apparent consumption (percent)	107.0	102.0	103.5	281.1
	Ratio of exports to shipments (percent)	140.0	110.0	120.0	770.0

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH025	Photographic chemicals and preparations:[2]				
	Firms (number)	5	5	5	5
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	(1)	(1)	(1)	(1)
	U.S. exports (million dollars)	198	245	287	306
	U.S. imports (million dollars)	355	370	405	498
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	-157	-125	-118	-192
	Ratio of imports to apparent consumption (percent)	(1)	(1)	(1)	(1)
	Ratio of exports to shipments (percent)	(1)	(1)	(1)	(1)
CH026	Pesticide products and formulations:				
	Firms (number)	59	59	59	59
	Employees (thousands)	22	22	22	22
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	5,203	5,205	5,203	5,203
	U.S. exports (million dollars)	1,383	1,493	1,427	1,474
	U.S. imports (million dollars)	630	626	645	782
	Apparent U.S. consumption (million dollars)	4,450	4,338	4,421	4,511
	Trade balance (million dollars)	753	867	782	692
	Ratio of imports to apparent consumption (percent)	14.2	14.4	14.6	17.3
	Ratio of exports to shipments (percent)	26.6	28.7	27.4	28.3
CH027	Adhesives and glues:				
	Establishments (number)	658	663	650	660
	Employees (thousands)	18	18	17	17
	Capacity utilization (percent)	86	87	82	80
	U.S. shipments (million dollars)	2,680	3,000	3,060	3,110
	U.S. exports (million dollars)	172	217	229	265
	U.S. imports (million dollars)	72	89	93	157
	Apparent U.S. consumption (million dollars)	2,580	2,872	2,924	3,002
	Trade balance (million dollars)	100	128	136	108
	Ratio of imports to apparent consumption (percent)	2.8	3.1	3.2	5.2
	Ratio of exports to shipments (percent)	6.4	7.2	7.5	8.5
CH028	Medicinal chemicals, except antibiotics:				
	Firms (number)	750	750	750	750
	Employees (thousands)	165	164	165	164
	Capacity utilization (percent)	79	80	80	80
	U.S. shipments (million dollars)	35,400	36,600	40,000	52,000
	U.S. exports (million dollars)	3,215	3,870	4,418	5,246
	U.S. imports (million dollars)	3,016	3,207	3,919	4,886
	Apparent U.S. consumption (million dollars)	35,201	35,937	39,501	51,640
	Trade balance (million dollars)	199	663	499	360
	Ratio of imports to apparent consumption (percent)	8.6	8.9	9.9	9.5
	Ratio of exports to shipments (percent)	9.1	10.6	11.0	10.1
CH029	Antibiotics:				
	Firms (number)	20	20	20	20
	Employees (thousands)	123	123	124	123
	Capacity utilization (percent)	79	80	80	80
	U.S. shipments (million dollars)	4,300	5,300	5,830	7,600
	U.S. exports (million dollars)	1,192	1,262	1,380	1,438
	U.S. imports (million dollars)	558	738	986	850
	Apparent U.S. consumption (million dollars)	3,666	4,776	5,436	7,012
	Trade balance (million dollars)	634	524	394	588
	Ratio of imports to apparent consumption (percent)	15.2	15.5	18.1	12.1
	Ratio of exports to shipments (percent)	27.7	23.8	23.7	18.9
CH030	Essential oils and other flavoring materials:				
	Establishments (number)	58	58	58	58
	Employees (thousands)	53	53	51	49
	Capacity utilization (percent)	75	75	80	75
	U.S. shipments (million dollars)	2,440	2,880	2,950	2,700
	U.S. exports (million dollars)	479	580	615	616
	U.S. imports (million dollars)	415	476	490	548
	Apparent U.S. consumption (million dollars)	2,376	2,776	2,825	2,632
	Trade balance (million dollars)	64	104	125	68
	Ratio of imports to apparent consumption (percent)	17.5	17.1	17.3	20.8
	Ratio of exports to shipments (percent)	19.6	20.1	20.8	22.8

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH031	Perfumes, cosmetics, and toiletries:				
	Establishments (number)	648	650	650	650
	Employees (thousands)	55	56	55	56
	Capacity utilization (percent)	83	83	80	83
	U.S. shipments (million dollars)	15,100	15,800	16,700	17,200
	U.S. exports (million dollars)	653	852	1,075	1,228
	U.S. imports (million dollars)	598	638	716	898
	Apparent U.S. consumption (million dollars)	15,045	15,586	16,341	16,870
	Trade balance (million dollars)	55	214	359	330
	Ratio of imports to apparent consumption (percent)	4.0	4.1	4.4	5.3
	Ratio of exports to shipments (percent)	4.3	5.4	6.4	7.1
CH032	Soaps, detergents, and surface-active agents:				
	Establishments (number)	950	950	950	950
	Employees (thousands)	44	45	46	47
	Capacity utilization (percent)	83	83	80	83
	U.S. shipments (million dollars)	12,400	13,400	14,500	14,900
	U.S. exports (million dollars)	561	775	936	1,158
	U.S. imports (million dollars)	250	321	358	393
	Apparent U.S. consumption (million dollars)	12,089	12,946	13,922	14,135
	Trade balance (million dollars)	311	454	578	765
	Ratio of imports to apparent consumption (percent)	2.1	2.5	2.6	2.8
	Ratio of exports to shipments (percent)	4.5	5.8	6.5	7.8
CH033	Fatty chemicals:				
	Establishments (number)	13	13	13	13
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	380	400	420	440
	U.S. exports (million dollars)	186	202	258	249
	U.S. imports (million dollars)	71	74	79	77
	Apparent U.S. consumption (million dollars)	265	272	241	268
	Trade balance (million dollars)	115	128	179	172
	Ratio of imports to apparent consumption (percent)	26.8	27.2	32.8	28.7
	Ratio of exports to shipments (percent)	48.9	50.5	61.4	56.6
CH034	Miscellaneous chemicals specialties:				
	Establishments (number)	(1)	(1)	(1)	(1)
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	(1)	(1)	(1)	(1)
	U.S. exports (million dollars)	583	650	749	959
	U.S. imports (million dollars)	293	340	372	549
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	290	310	377	410
	Ratio of imports to apparent consumption (percent)	(1)	(1)	(1)	(1)
	Ratio of exports to shipments (percent)	(1)	(1)	(1)	(1)
CH035	Paints, inks, and related items:				
	Firms (number)	1,500	1,500	1,500	1,500
	Employees (thousands)	43	43	42	43
	Capacity utilization (percent)	80	80	75	78
	U.S. shipments (million dollars)	13,200	13,800	14,000	14,300
	U.S. exports (million dollars)	548	761	873	935
	U.S. imports (million dollars)	200	432	277	334
	Apparent U.S. consumption (million dollars)	12,852	13,471	13,404	13,699
	Trade balance (million dollars)	348	329	596	601
	Ratio of imports to apparent consumption (percent)	1.6	3.2	2.1	2.4
	Ratio of exports to shipments (percent)	4.2	5.5	6.2	6.5
CH036	Explosives and propellant powders:				
	Firms (number)	135	135	135	135
	Employees (thousands)	15	15	15	15
	Capacity utilization (percent)	90	90	90	90
	U.S. shipments (million dollars)	1,300	1,350	1,380	(1)
	U.S. exports (million dollars)	164	157	169	212
	U.S. imports (million dollars)	149	156	178	216
	Apparent U.S. consumption (million dollars)	1,285	1,349	1,389	(1)
	Trade balance (million dollars)	15	1	-9	-4
	Ratio of imports to apparent consumption (percent)	11.6	11.6	12.8	(1)
	Ratio of exports to shipments (percent)	12.6	11.6	12.2	(1)

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH037	Polyethylene resins in primary forms:				
	Establishments (number)	35	36	37	40
	Employees (thousands)	17	19	19	19
	Capacity utilization (percent)	85	87	87	87
	U.S. production (million dollars)	8,222	8,617	7,355	7,916
	U.S. exports (million dollars)	1,140	1,106	1,460	1,255
	U.S. imports (million dollars)	408	528	448	462
	Apparent U.S. consumption (million dollars)	7,490	8,039	6,343	7,123
	Trade balance (million dollars)	732	578	1,012	793
	Ratio of imports to apparent consumption (percent)	5.4	6.6	7.1	6.5
	Ratio of exports to production (percent)	13.9	12.8	19.9	15.9
CH038	Polypropylene resins in primary forms:				
	Establishments (number)	20	19	19	21
	Employees (thousands)	9	10	11	11
	Capacity utilization (percent)	82	92	88	89
	U.S. production (million dollars)	2,523	2,772	1,998	2,048
	U.S. exports (million dollars)	629	730	788	522
	U.S. imports (million dollars)	33	38	64	83
	Apparent U.S. consumption (million dollars)	1,927	2,080	1,274	1,609
	Trade balance (million dollars)	596	692	724	439
	Ratio of imports to apparent consumption (percent)	1.7	1.8	5.0	5.2
	Ratio of exports to production (percent)	24.9	26.3	39.4	25.5
CH039	PVC resins in primary forms:				
	Establishments (number)	27	27	26	27
	Employees (thousands)	14	13	11	11
	Capacity utilization (percent)	91	97	95	95
	U.S. production (million dollars)	3,802	3,525	2,659	2,788
	U.S. exports (million dollars)	388	419	549	488
	U.S. imports (million dollars)	45	67	54	82
	Apparent U.S. consumption (million dollars)	3,459	3,173	2,164	2,382
	Trade balance (million dollars)	343	352	495	406
	Ratio of imports to apparent consumption (percent)	1.3	2.1	2.5	3.4
	Ratio of exports to production (percent)	10.2	11.9	20.6	17.5
CH040	Styrene polymers in primary forms:				
	Establishments (number)	69	70	68	68
	Employees (thousands)	19	21	17	16
	Capacity utilization (percent)	85	90	84	83
	U.S. production (million dollars)	5,315	5,688	4,204	4,077
	U.S. exports (million dollars)	457	516	550	539
	U.S. imports (million dollars)	117	138	132	199
	Apparent U.S. consumption (million dollars)	4,975	5,310	3,786	3,737
	Trade balance (million dollars)	340	378	418	340
	Ratio of imports to apparent consumption (percent)	2.4	2.6	3.5	5.3
	Ratio of exports to production (percent)	8.6	9.1	13.1	13.2
CH041	Saturated polyester resins in primary forms:				
	Establishments (number)	50	47	48	49
	Employees (thousands)	2	2	3	3
	Capacity utilization (percent)	61	64	72	76
	U.S. production (million dollars)	2,856	2,925	2,972	3,066
	U.S. exports (million dollars)	252	339	408	456
	U.S. imports (million dollars)	51	66	69	88
	Apparent U.S. consumption (million dollars)	2,655	2,652	2,633	2,698
	Trade balance (million dollars)	201	273	339	368
	Ratio of imports to apparent consumption (percent)	1.9	2.5	2.6	3.3
	Ratio of exports to production (percent)	8.8	11.6	13.7	14.9
CH042	Other plastics in primary forms:				
	Establishments (number)	279	282	280	279
	Employees (thousands)	70	66	74	75
	Capacity utilization (percent)	89	91	89	89
	U.S. production (million dollars)	13,726	12,236	13,020	13,956
	U.S. exports (million dollars)	2,756	3,190	3,664	3,732
	U.S. imports (million dollars)	917	1,009	1,046	1,169
	Apparent U.S. consumption (million dollars)	11,887	10,055	10,402	11,393
	Trade balance (million dollars)	1,839	2,181	2,618	2,563
	Ratio of imports to apparent consumption (percent)	7.7	10.0	10.1	10.3
	Ratio of exports to production (percent)	20.1	26.1	28.1	26.7

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH043	SBR rubber in primary forms:				
	Establishments (number)	12	11	10	10
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	90	90	90	90
	U.S. production (million dollars)	1,057	1,107	884	1,033
	U.S. exports (million dollars)	203	206	219	258
	U.S. imports (million dollars)	98	94	92	116
	Apparent U.S. consumption (million dollars)	952	995	757	891
	Trade balance (million dollars)	105	112	127	142
	Ratio of imports to apparent consumption (percent)	10.3	9.4	12.2	13.0
	Ratio of exports to production (percent)	19.2	18.6	24.8	25.0
CH044	Other synthetic rubber:				
	Establishments (number)	36	36	34	34
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	79	81	79	80
	U.S. production (million dollars)	3,251	3,381	3,340	3,401
	U.S. exports (million dollars)	652	789	772	833
	U.S. imports (million dollars)	427	423	376	403
	Apparent U.S. consumption (million dollars)	3,026	3,015	2,944	2,971
	Trade balance (million dollars)	225	366	396	430
	Ratio of imports to apparent consumption (percent)	14.1	14.0	12.8	13.6
	Ratio of exports to production (percent)	20.1	23.3	23.1	24.5
CH045	Pneumatic tires and tubes (new):				
	Establishments (number)	39	38	38	39
	Employees (thousands)	66	65	63	62
	Capacity utilization (percent)	98	96	95	95
	U.S. shipments (million dollars)	10,700	10,500	10,200	10,500
	U.S. exports (million dollars)	812	1,097	1,215	1,341
	U.S. imports (million dollars)	2,644	2,522	2,223	2,407
	Apparent U.S. consumption (million dollars)	12,532	11,925	11,208	11,566
	Trade balance (million dollars)	-1,832	-1,425	-1,008	-1,066
	Ratio of imports to apparent consumption (percent)	21.1	21.1	19.8	20.8
	Ratio of exports to shipments (percent)	7.6	10.4	11.9	12.8
CH046	Other tires:				
	Establishments (number)	2,210	1,970	1,850	1,800
	Employees (thousands)	8	7	6	6
	Capacity utilization (percent)	85	83	88	85
	U.S. shipments (million dollars)	2,000	2,100	2,000	2,000
	U.S. exports (million dollars)	51	49	58	66
	U.S. imports (million dollars)	77	67	78	94
	Apparent U.S. consumption (million dollars)	2,026	2,118	2,020	2,028
	Trade balance (million dollars)	-26	-18	-20	-28
	Ratio of imports to apparent consumption (percent)	3.8	3.2	3.9	4.6
	Ratio of exports to shipments (percent)	2.6	2.3	2.9	3.3
CH047	Plastic or rubber semifabricated forms:				
	Establishments (number)	2,428	2,421	2,420	2,420
	Employees (thousands)	180	179	178	178
	Capacity utilization (percent)	80	80	79	81
	U.S. shipments (million dollars)	22,586	22,578	22,430	22,470
	U.S. exports (million dollars)	2,038	2,519	2,603	2,833
	U.S. imports (million dollars)	1,522	1,652	1,743	1,934
	Apparent U.S. consumption (million dollars)	22,070	21,711	21,570	21,571
	Trade balance (million dollars)	516	867	860	899
	Ratio of imports to apparent consumption (percent)	6.9	7.6	8.1	9.0
	Ratio of exports to shipments (percent)	9.0	11.2	11.6	12.6
CH048	Plastic containers and closures:				
	Establishments (number)	1,845	1,882	1,860	1,860
	Employees (thousands)	134	135	134	134
	Capacity utilization (percent)	92	90	90	90
	U.S. shipments (million dollars)	8,390	8,560	8,730	8,992
	U.S. exports (million dollars)	418	575	681	841
	U.S. imports (million dollars)	659	697	665	738
	Apparent U.S. consumption (million dollars)	8,631	8,682	8,714	8,889
	Trade balance (million dollars)	-241	-122	16	103
	Ratio of imports to apparent consumption (percent)	7.6	8.0	7.6	8.3
	Ratio of exports to shipments (percent)	5.0	6.7	7.8	9.4

See footnotes at end of table.

Table B-3--Continued
Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
CH049	Hose, belting and plastic pipe:				
	Establishments (number)	439	441	437	437
	Employees (thousands)	38	36	36	37
	Capacity utilization (percent)	72	70	71	71
	U.S. shipments (million dollars)	5,201	5,191	5,100	5,178
	U.S. exports (million dollars)	578	670	739	829
	U.S. imports (million dollars)	579	617	589	661
	Apparent U.S. consumption (million dollars)	5,202	5,138	4,950	5,010
	Trade balance (million dollars)	(1)	53	150	168
	Ratio of imports to apparent consumption (percent)	11.1	12.0	11.9	13.2
	Ratio of exports to shipments (percent)	11.1	12.9	14.5	16.0
CH050	Miscellaneous rubber or plastics products:				
	Establishments (number)	13,000	13,000	12,900	12,800
	Employees (thousands)	672	665	620	600
	Capacity utilization (percent)	85	85	85	90
	U.S. shipments (million dollars)	73,500	71,500	70,000	72,000
	U.S. exports (million dollars)	1,286	1,770	1,997	2,407
	U.S. imports (million dollars)	2,790	2,917	2,929	3,447
	Apparent U.S. consumption (million dollars)	75,004	72,647	70,932	73,040
	Trade balance (million dollars)	-1,504	-1,147	-932	-1,040
	Ratio of imports to apparent consumption (percent)	3.7	4.0	4.1	4.7
	Ratio of exports to shipments (percent)	1.7	2.5	2.9	3.3
CH051	Gelatin:				
	Establishments (number)	8	8	8	8
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	91	88	88	92
	U.S. shipments (million dollars)	125	125	135	145
	U.S. exports (million dollars)	23	30	31	33
	U.S. imports (million dollars)	67	66	80	94
	Apparent U.S. consumption (million dollars)	169	161	184	206
	Trade balance (million dollars)	-44	-36	-49	-61
	Ratio of imports to apparent consumption (percent)	39.6	41.0	43.5	45.6
	Ratio of exports to shipments (percent)	18.4	24.0	23.0	22.8
CH052	Natural rubber:				
	Establishments (number)	0	0	0	0
	Employees (thousands)	0	0	0	0
	Capacity utilization (percent)	(3)	(3)	(3)	(3)
	U.S. production (million dollars)	0	0	0	0
	U.S. exports (million dollars)	50	33	36	31
	U.S. imports (million dollars)	958	707	663	770
	Apparent U.S. consumption (million dollars)	908	674	627	739
	Trade balance (million dollars)	-908	-674	-627	-739
	Ratio of imports to apparent consumption (percent)	105.5	104.9	105.7	104.2
	Ratio of exports to production (percent)	(3)	(3)	(3)	(3)

1 Not available.
2 Production is based on value of active ingredients; trade is based on value of products formulated for immediate use, valued much higher than ingredient cost.
3 Not applicable.

Table B-4
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM001	Clays and nonmetallic minerals and products:				
	Establishments (number)	315	323	323	320
	Employees (thousands)	14	14	14	14
	Capacity utilization (percent)	85	89	76	70
	U.S. shipments (million dollars)	2,500	2,600	2,600	2,400
	U.S. exports (million dollars)	634	701	748	847
	U.S. imports (million dollars)	76	122	87	97
	Apparent U.S. consumption (million dollars)	1,942	2,021	1,939	1,650
	Trade balance (million dollars)	558	579	661	750
	Ratio of imports to apparent consumption (percent)	3.9	6.0	4.5	5.9
	Ratio of exports to shipments (percent)	25.4	27.0	28.8	35.3
MM002	Certain miscellaneous mineral substances:				
	Establishments (number)	10	10	10	10
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	87	85	80	84
	U.S. shipments (million dollars)	45	42	40	42
	U.S. exports (million dollars)	5	4	19	3
	U.S. imports (million dollars)	70	56	41	36
	Apparent U.S. consumption (million dollars)	110	94	62	75
	Trade balance (million dollars)	-65	-52	-22	-33
	Ratio of imports to apparent consumption (percent)	63.6	59.6	66.1	48.0
	Ratio of exports to shipments (percent)	11.1	9.5	47.5	7.1
MM003	Iron ores and concentrates:				
	Establishments (number)	21	23	23	22
	Employees (thousands)	7	8	8	8
	Capacity utilization (percent)	80	75	70	73
	U.S. shipments (million dollars)	1,901	1,800	1,700	1,700
	U.S. exports (million dollars)	193	123	156	187
	U.S. imports (million dollars)	520	560	437	396
	Apparent U.S. consumption (million dollars)	2,228	2,237	1,981	1,909
	Trade balance (million dollars)	-327	-437	-281	-209
	Ratio of imports to apparent consumption (percent)	23.3	25.0	22.1	20.7
	Ratio of exports to shipments (percent)	10.2	6.8	9.2	11.0
MM004	Copper ores and concentrates:				
	Establishments (number)	68	62	65	65
	Employees (thousands)	12	13	14	14
	Capacity utilization (percent)	84	84	85	88
	U.S. shipments (million dollars)	2,595	2,520	2,350	2,435
	U.S. exports (million dollars)	571	446	382	445
	U.S. imports (million dollars)	53	134	67	107
	Apparent U.S. consumption (million dollars)	2,077	2,208	2,035	2,097
	Trade balance (million dollars)	518	312	315	338
	Ratio of imports to apparent consumption (percent)	2.6	6.1	3.3	5.1
	Ratio of exports to shipments (percent)	22.0	17.7	16.3	18.3
MM005	Lead ores and residues:				
	Establishments (number)	15	15	15	15
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	62	70	67	58
	U.S. shipments (million dollars)	200	270	190	175
	U.S. exports (million dollars)	30	62	38	32
	U.S. imports (million dollars)	4	4	3	2
	Apparent U.S. consumption (million dollars)	174	212	155	145
	Trade balance (million dollars)	26	58	35	30
	Ratio of imports to apparent consumption (percent)	2.3	1.9	1.9	1.4
	Ratio of exports to shipments (percent)	15.0	23.0	20.0	18.3

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM006	Zinc ores and residues:				
	Establishments (number)	25	26	26	26
	Employees (thousands)	2	3	2	2
	Capacity utilization (percent)	79	79	81	81
	U.S. shipments (million dollars)	395	600	425	475
	U.S. exports (million dollars)	75	269	232	250
	U.S. imports (million dollars)	32	24	28	46
	Apparent U.S. consumption (million dollars)	352	355	221	271
	Trade balance (million dollars)	43	245	204	204
	Ratio of imports to apparent consumption (percent)	9.1	6.8	12.7	17.0
	Ratio of exports to shipments (percent)	19.0	44.8	54.6	52.6
MM007	Certain ores, concentrates, ash, and residues:				
	Establishments (number)	73	73	47	44
	Employees (thousands)	4	4	3	2
	Capacity utilization (percent)	40	40	45	55
	U.S. shipments (million dollars)	870	720	490	400
	U.S. exports (million dollars)	550	362	292	280
	U.S. imports (million dollars)	633	495	473	478
	Apparent U.S. consumption (million dollars)	953	853	671	598
	Trade balance (million dollars)	-83	-133	-181	-198
	Ratio of imports to apparent consumption (percent)	66.4	58.0	70.5	79.9
	Ratio of exports to shipments (percent)	63.2	50.3	59.6	70.0
MM008	Precious metal ores and concentrates:				
	Establishments (number)	460	510	500	500
	Employees (thousands)	18	18	18	17
	Capacity utilization (percent)	94	99	85	87
	U.S. shipments (million dollars)	2,890	3,105	2,895	3,070
	U.S. exports (million dollars)	2	13	4	5
	U.S. imports (million dollars)	4	30	11	4
	Apparent U.S. consumption (million dollars)	2,892	3,122	2,902	3,069
	Trade balance (million dollars)	-2	-17	-7	1
	Ratio of imports to apparent consumption (percent)	0.1	1.0	0.4	0.1
	Ratio of exports to shipments (percent)	0.1	0.4	0.1	0.2
MM009	Certain nonmetallic minerals and articles:				
	Establishments (number)	20,000	20,000	20,000	20,000
	Employees (thousands)	300	300	300	300
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	38,600	39,000	39,000	40,500
	U.S. exports (million dollars)	820	982	865	926
	U.S. imports (million dollars)	1,845	1,923	1,392	1,304
	Apparent U.S. consumption (million dollars)	39,625	39,941	39,527	40,878
	Trade balance (million dollars)	-1,025	-941	-527	-378
	Ratio of imports to apparent consumption (percent)	4.7	4.8	3.5	3.2
	Ratio of exports to shipments (percent)	2.1	2.5	2.2	2.3
MM010	Industrial ceramics:				
	Establishments (number)	200	180	180	180
	Employees (thousands)	14	12	12	12
	Capacity utilization (percent)	76	74	68	70
	U.S. shipments (million dollars)	2,400	2,350	2,200	2,350
	U.S. exports (million dollars)	208	251	373	386
	U.S. imports (million dollars)	137	136	265	301
	Apparent U.S. consumption (million dollars)	2,329	2,235	2,092	2,265
	Trade balance (million dollars)	71	115	108	85
	Ratio of imports to apparent consumption (percent)	5.9	6.1	12.7	13.3
	Ratio of exports to shipments (percent)	8.7	10.7	17.0	16.4

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Establishments (number)	326	328	328	328
	Employees (thousands)	20	19	19	19
	Capacity utilization (percent)	77	74	71	71
	U.S. shipments (million dollars)	1,284	1,200	900	900
	U.S. exports (million dollars)	12	18	18	17
	U.S. imports (million dollars)	27	22	20	21
	Apparent U.S. consumption (million dollars)	1,299	1,204	902	904
	Trade balance (million dollars)	-15	-4	-2	-4
	Ratio of imports to apparent consumption (percent)	2.1	1.8	2.2	2.3
	Ratio of exports to shipments (percent)	0.9	1.5	2.0	1.9
MM012	Ceramic floor and wall tiles:				
	Establishments (number)	118	150	150	110
	Employees (thousands)	10	10	10	10
	Capacity utilization (percent)	77	74	71	(1)
	U.S. shipments (million dollars)	698	687	582	628
	U.S. exports (million dollars)	18	21	21	19
	U.S. imports (million dollars)	431	421	365	419
	Apparent U.S. consumption (million dollars)	1,111	1,087	926	1,028
	Trade balance (million dollars)	-413	-400	-344	-400
	Ratio of imports to apparent consumption (percent)	38.8	38.7	39.4	40.8
	Ratio of exports to shipments (percent)	2.6	3.1	3.6	3.0
MM014	Ceramic household articles:				
	Establishments (number)	205	200	200	200
	Employees (thousands)	12	12	12	11
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	670	680	700	700
	U.S. exports (million dollars)	53	55	87	103
	U.S. imports (million dollars)	787	779	1,236	1,391
	Apparent U.S. consumption (million dollars)	1,404	1,404	1,849	1,988
	Trade balance (million dollars)	-734	-724	-1,149	-1,288
	Ratio of imports to apparent consumption (percent)	56.1	55.5	66.8	70.0
	Ratio of exports to shipments (percent)	7.9	8.1	12.4	14.7
MM016	Flat glass and certain flat glass products:				
	Establishments (number)	1,200	1,300	1,300	1,300
	Employees (thousands)	55	55	52	56
	Capacity utilization (percent)	85	84	77	82
	U.S. shipments (million dollars)	6,800	6,600	6,300	7,100
	U.S. exports (million dollars)	533	751	786	836
	U.S. imports (million dollars)	632	614	584	599
	Apparent U.S. consumption (million dollars)	6,899	6,463	6,098	6,863
	Trade balance (million dollars)	-99	137	202	237
	Ratio of imports to apparent consumption (percent)	9.2	9.5	9.6	8.7
	Ratio of exports to shipments (percent)	7.8	11.4	12.5	11.8
MM017	Glass containers:				
	Establishments (number)	137	136	136	136
	Employees (thousands)	39	37	35	35
	Capacity utilization (percent)	89	90	82	88
	U.S. shipments (million dollars)	4,760	4,915	4,847	4,900
	U.S. exports (million dollars)	45	98	119	152
	U.S. imports (million dollars)	175	214	234	261
	Apparent U.S. consumption (million dollars)	4,890	5,031	4,962	5,009
	Trade balance (million dollars)	-130	-116	-115	-109
	Ratio of imports to apparent consumption (percent)	3.6	4.3	4.7	5.2
	Ratio of exports to shipments (percent)	0.9	2.0	2.5	3.1

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM018	Household glassware:				
	Establishments (number)	237	237	237	237
	Employees (thousands)	26	26	26	26
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	1,382	1,400	1,500	1,600
	U.S. exports (million dollars)	86	123	137	150
	U.S. imports (million dollars)	513	524	513	533
	Apparent U.S. consumption (million dollars)	1,809	1,801	1,876	1,983
	Trade balance (million dollars)	-427	-401	-376	-383
	Ratio of imports to apparent consumption (percent)	28.4	29.1	27.3	26.9
	Ratio of exports to shipments (percent)	6.2	8.8	9.1	9.4
MM019	Certain glass and glass products:				
	Establishments (number)	320	330	330	330
	Employees (thousands)	19	20	21	22
	Capacity utilization (percent)	75	77	71	75
	U.S. shipments (million dollars)	2,100	2,200	2,400	2,500
	U.S. exports (million dollars)	295	344	364	372
	U.S. imports (million dollars)	297	286	319	402
	Apparent U.S. consumption (million dollars)	2,102	2,142	2,355	2,530
	Trade balance (million dollars)	-2	58	45	-30
	Ratio of imports to apparent consumption (percent)	14.1	13.4	13.5	15.9
	Ratio of exports to shipments (percent)	14.0	15.6	15.2	14.9
MM020	Fiber glass products:				
	Establishments (number)	291	295	295	295
	Employees (thousands)	40	39	34	36
	Capacity utilization (percent)	62	59	54	57
	U.S. shipments (million dollars)	5,300	5,100	4,600	4,800
	U.S. exports (million dollars)	356	347	384	392
	U.S. imports (million dollars)	112	112	127	160
	Apparent U.S. consumption (million dollars)	5,056	4,865	4,343	4,568
	Trade balance (million dollars)	244	235	257	232
	Ratio of imports to apparent consumption (percent)	2.2	2.3	2.9	3.5
	Ratio of exports to shipments (percent)	6.7	6.8	8.3	8.2
MM021	Natural and synthetic gemstones:				
	Establishments (number)	454	454	454	454
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	1,400	1,500	1,500	1,000
	U.S. exports (million dollars)	1,361	545	321	470
	U.S. imports (million dollars)	5,069	4,703	4,552	4,732
	Apparent U.S. consumption (million dollars)	5,108	5,658	5,731	5,262
	Trade balance (million dollars)	-3,708	-4,158	-4,231	-4,262
	Ratio of imports to apparent consumption (percent)	99.2	83.1	79.4	89.9
	Ratio of exports to shipments (percent)	97.2	36.3	21.4	47.0
MM022	Precious metals and related articles:				
	Establishments (number)	93	89	89	87
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	80	85	(1)	(1)
	U.S. shipments (million dollars)	6,190	6,950	6,508	7,332
	U.S. exports (million dollars)	3,167	3,815	4,216	4,869
	U.S. imports (million dollars)	3,941	3,758	4,406	4,083
	Apparent U.S. consumption (million dollars)	6,964	6,893	6,698	6,546
	Trade balance (million dollars)	-774	57	-190	786
	Ratio of imports to apparent consumption (percent)	56.6	54.5	65.8	62.4
	Ratio of exports to shipments (percent)	51.2	54.9	64.8	66.4

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM023	Primary iron products:				
	Establishments (number)	18	17	17	17
	Employees (thousands)	24	24	23	22
	Capacity utilization (percent)	65	65	65	67
	U.S. shipments (million dollars)	9,150	9,045	8,475	8,800
	U.S. exports (million dollars)	1	2	8	8
	U.S. imports (million dollars)	73	60	129	130
	Apparent U.S. consumption (million dollars)	9,222	9,103	8,596	8,922
	Trade balance (million dollars)	-72	-58	-121	-122
	Ratio of imports to apparent consumption (percent)	0.8	0.7	1.5	1.5
	Ratio of exports to shipments (percent)	0.0	0.0	0.1	0.1
MM024	Ferroalloys:				
	Establishments (number)	34	34	38	38
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	90	75	73	74
	U.S. shipments (million dollars)	942	871	794	810
	U.S. exports (million dollars)	86	94	99	110
	U.S. imports (million dollars)	1,050	908	835	807
	Apparent U.S. consumption (million dollars)	1,906	1,685	1,530	1,507
	Trade balance (million dollars)	-964	-814	-736	-697
	Ratio of imports to apparent consumption (percent)	55.1	53.9	54.6	53.6
	Ratio of exports to shipments (percent)	9.1	10.8	12.5	13.6
MM025	Iron and steel waste and scrap:				
	Establishments (number)	1,200	1,200	1,250	1,200
	Employees (thousands)	23	23	25	23
	Capacity utilization (percent)	75	75	78	81
	U.S. shipments (million dollars)	5,508	5,566	5,065	4,870
	U.S. exports (million dollars)	1,755	1,642	1,240	1,115
	U.S. imports (million dollars)	173	180	149	183
	Apparent U.S. consumption (million dollars)	3,926	4,104	3,974	3,938
	Trade balance (million dollars)	1,582	1,462	1,091	932
	Ratio of imports to apparent consumption (percent)	4.4	4.4	3.7	4.6
	Ratio of exports to shipments (percent)	31.9	29.5	24.5	22.9
MM026	Abrasives and ferrous powders:				
	Establishments (number)	20	20	20	20
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	64	76	79	80
	U.S. shipments (million dollars)	385	387	350	365
	U.S. exports (million dollars)	34	51	50	380
	U.S. imports (million dollars)	72	92	106	495
	Apparent U.S. consumption (million dollars)	423	428	406	480
	Trade balance (million dollars)	-38	-41	-56	-115
	Ratio of imports to apparent consumption (percent)	17.0	21.5	26.1	103.1
	Ratio of exports to shipments (percent)	8.8	13.2	14.3	104.1
MM027	Steel mill products, all grades:				
	Establishments (number)	900	880	860	850
	Employees (thousands)	208	203	193	177
	Capacity utilization (percent)	85	85	73	81
	U.S. shipments (million dollars)	52,900	51,000	46,000	49,000
	U.S. exports (million dollars)	2,809	2,784	3,681	3,034
	U.S. imports (million dollars)	8,958	8,385	7,861	7,899
	Apparent U.S. consumption (million dollars)	59,049	56,601	50,180	53,865
	Trade balance (million dollars)	-6,149	-5,601	-4,180	-4,865
	Ratio of imports to apparent consumption (percent)	15.2	14.8	15.7	14.7
	Ratio of exports to shipments (percent)	5.3	5.5	8.0	6.2

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM028	Steel pipe and tube fittings, and certain cast products:				
	Establishments (number)	600	600	500	500
	Employees (thousands)	50	50	45	43
	Capacity utilization (percent)	75	80	80	80
	U.S. shipments (million dollars)	4,500	4,500	4,000	3,800
	U.S. exports (million dollars)	326	422	479	529
	U.S. imports (million dollars)	368	364	346	290
	Apparent U.S. consumption (million dollars)	4,542	4,442	3,867	3,561
	Trade balance (million dollars)	-42	58	133	239
	Ratio of imports to apparent consumption (percent)	8.1	8.2	8.9	8.1
	Ratio of exports to shipments (percent)	7.2	9.4	12.0	13.9
MM029	Fabricated structurals:				
	Establishments (number)	2,420	2,365	2,360	2,242
	Employees (thousands)	85	84	70	65
	Capacity utilization (percent)	65	65	60	50
	U.S. shipments (million dollars)	8,434	8,070	8,500	7,650
	U.S. exports (million dollars)	58	84	110	99
	U.S. imports (million dollars)	79	72	47	45
	Apparent U.S. consumption (million dollars)	8,455	8,058	8,437	7,596
	Trade balance (million dollars)	-21	12	63	54
	Ratio of imports to apparent consumption (percent)	0.9	0.9	0.6	0.6
	Ratio of exports to shipments (percent)	0.7	1.0	1.3	1.3
MM030	Metal construction components:				
	Establishments (number)	3,800	3,750	3,600	3,400
	Employees (thousands)	155	153	150	145
	Capacity utilization (percent)	75	75	70	(1)
	U.S. shipments (million dollars)	10,600	10,300	9,900	9,700
	U.S. exports (million dollars)	292	335	377	396
	U.S. imports (million dollars)	182	150	139	124
	Apparent U.S. consumption (million dollars)	10,490	10,115	9,662	9,428
	Trade balance (million dollars)	110	185	238	272
	Ratio of imports to apparent consumption (percent)	1.7	1.5	1.4	1.3
	Ratio of exports to shipments (percent)	2.8	3.3	3.8	4.1
MM031	Metallic containers:				
	Establishments (number)[2]	590	590	565	540
	Employees (thousands) [2]	70	70	66	60
	Capacity utilization (percent)[2]	70	75	85	88
	U.S. shipments (million dollars)[2]	16,548	17,326	17,184	17,080
	U.S. exports (million dollars)	308	401	511	647
	U.S. imports (million dollars)	269	257	244	271
	Apparent U.S. consumption (million dollars)[2]	16,509	17,182	16,917	16,704
	Trade balance (million dollars)	39	144	267	376
	Ratio of imports to apparent consumption (percent)[2]	1.6	1.5	1.4	1.6
	Ratio of exports to shipments (percent)[2]	1.9	2.3	3.0	3.8
MM032	Wire products of iron, steel, aluminum, copper, and nickel:				
	Establishments (number)	1,450	1,450	1,400	1,400
	Employees (thousands)	65	65	64	60
	Capacity utilization (percent)	80	80	75	80
	U.S. shipments (million dollars)	10,164	8,602	9,400	9,300
	U.S. exports (million dollars)	190	249	214	242
	U.S. imports (million dollars)	772	648	486	539
	Apparent U.S. consumption (million dollars)	10,746	9,001	9,672	9,597
	Trade balance (million dollars)	-582	-399	-272	-297
	Ratio of imports to apparent consumption (percent)	7.2	7.2	5.0	5.6
	Ratio of exports to shipments (percent)	1.9	2.9	2.3	2.6

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM033	Chain:				
	Establishments (number)	33	33	33	33
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	70	70	75	75
	U.S. shipments (million dollars)	635	625	690	683
	U.S. exports (million dollars)	326	312	343	311
	U.S. imports (million dollars)	427	476	478	498
	Apparent U.S. consumption (million dollars)	736	789	825	870
	Trade balance (million dollars)	-101	-164	-035	-187
	Ratio of imports to apparent consumption (percent)	58.0	60.3	57.9	57.2
	Ratio of exports to shipments (percent)	51.3	49.9	49.7	45.5
MM034	Industrial fasteners of base metal:				
	Establishments (number)	937	937	937	937
	Employees (thousands)	52	52	52	52
	Capacity utilization (percent)	70	75	75	75
	U.S. shipments (million dollars)	4,352	4,483	(1)	(1)
	U.S. exports (million dollars)	383	651	664	719
	U.S. imports (million dollars)	1,490	1,486	1,330	1,469
	Apparent U.S. consumption (million dollars)	5,459	5,318	(1)	(1)
	Trade balance (million dollars)	-1,107	-835	-666	-750
	Ratio of imports to apparent consumption (percent)	27.3	27.9	(1)	(1)
	Ratio of exports to shipments (percent)	8.8	14.5	(1)	(1)
MM035	Cooking and kitchen ware:				
	Establishments (number)	18	18	18	18
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	70	70	75	(1)
	U.S. shipments (million dollars)	625	620	680	700
	U.S. exports (million dollars)	138	170	218	209
	U.S. imports (million dollars)	735	725	751	822
	Apparent U.S. consumption (million dollars)	1,222	1,175	1,213	1,313
	Trade balance (million dollars)	-597	-555	-533	-613
	Ratio of imports to apparent consumption (percent)	60.1	61.7	61.9	62.6
	Ratio of exports to shipments (percent)	22.1	27.4	32.1	29.9
MM036	Metal and ceramic sanitary ware:				
	Establishments (number)[2]	200	200	190	195
	Employees (thousands)[2]	27	26	25	24
	Capacity utilization (percent)[2]	80	75	70	75
	U.S. shipments (million dollars)	1,402	1,395	1,325	1,328
	U.S. exports (million dollars)	[2]80	[2]105	118	135
	U.S. imports (million dollars)	180	173	156	182
	Apparent U.S. consumption (million dollars)	1,502	1,463	1,363	1,375
	Trade balance (million dollars)	-100	-68	-38	-47
	Ratio of imports to apparent consumption (percent)	12.0	11.8	11.4	13.2
	Ratio of exports to shipments (percent)	5.7	7.5	8.9	10.2
MM037	Iron construction castings and other nonmalleable cast-iron articles:				
	Establishments (number)	29	29	27	27
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	145	143	142	142
	U.S. exports (million dollars)	50	31	31	27
	U.S. imports (million dollars)	65	58	51	48
	Apparent U.S. consumption (million dollars)	160	170	162	163
	Trade balance (million dollars)	-15	-27	-20	-21
	Ratio of imports to apparent consumption (percent)	40.6	34.1	31.5	29.4
	Ratio of exports to shipments (percent)	34.5	21.7	21.8	19.0

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM038	Copper and related articles:				
	Establishments (number)	1,085	840	840	840
	Employees (thousands)	40	39	37	37
	Capacity utilization (percent)	90	91	86	86
	U.S. shipments (million dollars)	13,220	12,280	10,500	10,000
	U.S. exports (million dollars)	1,539	1,833	1,843	1,528
	U.S. imports (million dollars)	2,327	1,966	1,822	1,908
	Apparent U.S. consumption (million dollars)	14,008	12,413	10,479	10,380
	Trade balance (million dollars)	-788	-133	21	-380
	Ratio of imports to apparent consumption (percent)	16.6	15.8	17.4	18.4
	Ratio of exports to shipments (percent)	11.6	14.9	17.6	15.3
MM039	Unwrought aluminum:				
	Establishments (number)	21	21	20	23
	Employees (thousands)	21	20	20	20
	Capacity utilization (percent)	97	97	97	97
	U.S. shipments (million dollars)	8,480	7,200	5,400	5,200
	U.S. exports (million dollars)	2,044	1,898	1,842	1,154
	U.S. imports (million dollars)	2,561	2,252	2,021	2,120
	Apparent U.S. consumption (million dollars)	8,997	7,554	5,579	6,166
	Trade balance (million dollars)	-517	-354	-179	-966
	Ratio of imports to apparent consumption (percent)	28.5	29.8	36.2	34.4
	Ratio of exports to shipments (percent)	24.1	26.4	34.1	22.2
MM040	Aluminum mill products:				
	Establishments (number)	436	436	425	415
	Employees (thousands)	54	54	51	45
	Capacity utilization (percent)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	16,500	14,100	12,700	13,000
	U.S. exports (million dollars)	1,382	1,512	1,698	1,762
	U.S. imports (million dollars)	1,253	1,222	967	1,019
	Apparent U.S. consumption (million dollars)	16,371	13,810	11,969	12,257
	Trade balance (million dollars)	129	290	731	743
	Ratio of imports to apparent consumption (percent)	7.7	8.8	8.1	8.3
	Ratio of exports to shipments (percent)	8.4	10.7	13.4	13.6
MM041	Lead and related articles:				
	Establishments (number)	54	55	56	56
	Employees (thousands)	3	3	3	3
	Capacity utilization (percent)	79	82	74	70
	U.S. shipments (million dollars)	1,380	1,690	1,230	1,210
	U.S. exports (million dollars)	66	107	113	78
	U.S. imports (million dollars)	97	91	80	119
	Apparent U.S. consumption (million dollars)	1,411	1,674	1,197	1,251
	Trade balance (million dollars)	-31	16	33	-41
	Ratio of imports to apparent consumption (percent)	6.9	5.4	6.7	9.5
	Ratio of exports to shipments (percent)	4.8	6.3	9.2	6.4
MM042	Zinc and related articles:				
	Establishments (number)	37	40	40	40
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	93	87	92	92
	U.S. shipments (million dollars)	802	748	577	631
	U.S. exports (million dollars)	118	118	91	75
	U.S. imports (million dollars)	1,214	1,034	663	832
	Apparent U.S. consumption (million dollars)	1,898	1,664	1,149	1,388
	Trade balance (million dollars)	-1,096	-916	-572	-757
	Ratio of imports to apparent consumption (percent)	64.0	62.1	57.7	59.9
	Ratio of exports to shipments (percent)	14.7	15.8	15.8	11.9

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM043	Certain base metals and chemical elements:				
	Establishments (number)	200	200	190	190
	Employees (thousands)	15	15	14	14
	Capacity utilization (percent)	78	75	70	70
	U.S. shipments (million dollars)	2,950	2,800	2,400	2,350
	U.S. exports (million dollars)	1,009	1,048	1,005	905
	U.S. imports (million dollars)	2,447	1,925	1,865	1,636
	Apparent U.S. consumption (million dollars)	4,388	3,677	3,260	3,081
	Trade balance (million dollars)	-1,438	-877	-860	-731
	Ratio of imports to apparent consumption (percent)	55.8	52.4	57.2	53.1
	Ratio of exports to shipments (percent)	34.2	37.4	41.9	38.5
MM044	Nonpowered handtools:				
	Establishments (number)	1,255	1,252	1,252	1,252
	Employees (thousands)	110	100	110	115
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	14,289	15,003	(1)	(1)
	U.S. exports (million dollars)	850	1,063	1,091	1,192
	U.S. imports (million dollars)	1,383	1,378	1,620	1,450
	Apparent U.S. consumption (million dollars)	14,822	15,318	(1)	(1)
	Trade balance (million dollars)	-533	-315	-529	-258
	Ratio of imports to apparent consumption (percent)	9.3	9.0	(1)	(1)
	Ratio of exports to shipments (percent)	5.9	7.1	(1)	(1)
MM045	Cutlery other than tableware, certain sewing implements, etc.:				
	Establishments (number)	165	150	135	135
	Employees (thousands)	12	11	10	10
	Capacity utilization (percent)	85	85	85	85
	U.S. shipments (million dollars)	1,700	1,600	1,500	1,500
	U.S. exports (million dollars)	159	223	227	280
	U.S. imports (million dollars)	393	415	438	484
	Apparent U.S. consumption (million dollars)	1,934	1,792	1,711	1,704
	Trade balance (million dollars)	-234	-192	-211	-204
	Ratio of imports to apparent consumption (percent)	20.3	23.2	25.6	28.4
	Ratio of exports to shipments (percent)	9.4	13.9	15.1	18.7
MM046	Table flatware and related products:				
	Establishments (number)	6	6	6	6
	Employees (thousands)	5	5	5	5
	Capacity utilization (percent)	90	90	80	80
	U.S. shipments (million dollars)	235	205	200	195
	U.S. exports (million dollars)	17	43	24	24
	U.S. imports (million dollars)	185	172	196	216
	Apparent U.S. consumption (million dollars)	403	334	372	387
	Trade balance (million dollars)	-168	-129	-172	-192
	Ratio of imports to apparent consumption (percent)	45.9	51.5	52.7	55.8
	Ratio of exports to shipments (percent)	7.2	21.0	12.0	12.3
MM047	Certain builders' hardware:				
	Establishments (number)	795	790	790	790
	Employees (thousands)	50	50	60	(1)
	Capacity utilization (percent)	80	75	75	75
	U.S. shipments (million dollars)	3,554	3,625	(1)	(1)
	U.S. exports (million dollars)	417	554	548	598
	U.S. imports (million dollars)	829	843	764	873
	Apparent U.S. consumption (million dollars)	3,966	3,914	(1)	(1)
	Trade balance (million dollars)	-412	-289	-216	-275
	Ratio of imports to apparent consumption (percent)	20.9	21.5	(1)	(1)
	Ratio of exports to shipments (percent)	11.7	15.3	(1)	(1)

See footnotes at end of table.

Table B-4--Continued
Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
MM048	Miscellaneous products of base metal:				
	Establishments (number)	2,035	2,035	2,035	2,035
	Employees (thousands)	105	106	(1)	(1)
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	25,357	26,118	(1)	(1)
	U.S. exports (million dollars)	1,112	1,410	1,863	2,073
	U.S. imports (million dollars)	2,053	2,123	2,162	2,484
	Apparent U.S. consumption (million dollars)	26,298	26,831	(1)	(1)
	Trade balance (million dollars)	-941	-713	299	-411
	Ratio of imports to apparent consumption (percent)	7.8	7.9	(1)	(1)
	Ratio of exports to shipments (percent)	4.4	5.4	(1)	(1)

1 Not available.
2 Estimated.

Table B-5
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME001	Aircraft engines and gas turbines:				
	Establishments (number)	26	26	26	26
	Employees (thousands)	157	156	155	130
	Capacity utilization (percent)	85	81	80	98
	U.S. shipments (million dollars)	15,429	16,012	16,000	18,000
	U.S. exports (million dollars)	7,426	7,829	8,330	8,264
	U.S. imports (million dollars)	4,119	5,083	5,373	6,177
	Apparent U.S. consumption (million dollars)	12,122	13,266	13,043	15,913
	Trade balance (million dollars)	3,307	2,746	2,957	2,087
	Ratio of imports to apparent consumption (percent)	34.0	38.3	41.2	38.8
	Ratio of exports to shipments (percent)	48.1	48.9	52.1	45.9
ME002	Internal combustion piston engines, other than for aircraft:				
	Establishments (number)	55	55	55	58
	Employees (thousands)	136	132	132	135
	Capacity utilization (percent)	72	71	69	75
	U.S. shipments (million dollars)	30,054	30,100	28,110	29,450
	U.S. exports (million dollars)	4,611	5,596	8,553	6,640
	U.S. imports (million dollars)	5,824	5,731	5,166	5,618
	Apparent U.S. consumption (million dollars)	31,267	30,235	24,723	28,428
	Trade balance (million dollars)	-1,213	-135	3,387	1,022
	Ratio of imports to apparent consumption (percent)	18.6	19.0	20.9	19.8
	Ratio of exports to shipments (percent)	15.3	18.6	30.4	22.5
ME003	Pumps for liquids:				
	Establishments (number)	608	602	580	568
	Employees (thousands)	62	58	53	51
	Capacity utilization (percent)	58	62	59	58
	U.S. shipments (million dollars)	6,598	6,928	6,720	6,586
	U.S. exports (million dollars)	1,375	1,542	1,766	1,857
	U.S. imports (million dollars)	1,173	1,155	1,142	1,294
	Apparent U.S. consumption (million dollars)	6,396	6,541	6,096	6,023
	Trade balance (million dollars)	202	387	624	563
	Ratio of imports to apparent consumption (percent)	18.3	17.7	18.7	21.5
	Ratio of exports to shipments (percent)	20.8	22.3	26.3	28.2
ME004	Air-conditioning equipment and parts:				
	Establishments (number)	1,190	1,179	1,110	1,077
	Employees (thousands)	164	158	145	140
	Capacity utilization (percent)	80	78	75	74
	U.S. shipments (million dollars)	22,698	22,195	21,405	20,763
	U.S. exports (million dollars)	2,544	3,049	3,218	3,533
	U.S. imports (million dollars)	3,085	2,892	2,668	2,824
	Apparent U.S. consumption (million dollars)	23,239	22,038	20,855	20,054
	Trade balance (million dollars)	541	157	550	709
	Ratio of imports to apparent consumption (percent)	13.3	13.1	12.8	14.1
	Ratio of exports to shipments (percent)	11.2	13.7	15.0	17.0
ME005	Certain industrial thermal-processing equipment, etc.:				
	Establishments (number)	315	305	300	294
	Employees (thousands)	34	33	31	28
	Capacity utilization (percent)	67	65	65	63
	U.S. shipments (million dollars)	3,375	3,390	3,220	3,156
	U.S. exports (million dollars)	1,117	1,267	1,331	1,440
	U.S. imports (million dollars)	724	799	784	813
	Apparent U.S. consumption (million dollars)	2,982	2,922	2,673	2,529
	Trade balance (million dollars)	393	468	547	627
	Ratio of imports to apparent consumption (percent)	24.3	27.3	29.3	32.1
	Ratio of exports to shipments (percent)	33.1	37.4	41.3	45.6
ME006	Commercial appliances:				
	Establishments (number)	564	564	560	530
	Employees (thousands)	42	42	40	40
	Capacity utilization (percent)	85	85	80	80
	U.S. shipments (million dollars)	6,650	6,849	7,055	7,265
	U.S. exports (million dollars)	1,393	1,775	1,748	2,032
	U.S. imports (million dollars)	1,250	1,195	765	944
	Apparent U.S. consumption (million dollars)	6,507	6,269	6,072	6,177
	Trade balance (million dollars)	143	580	983	1,088
	Ratio of imports to apparent consumption (percent)	19.2	19.1	12.6	15.3
	Ratio of exports to shipments (percent)	20.9	25.9	24.8	28.0

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME007	Electrical household appliances and certain heating equipment:				
	Establishments (number)	481	480	450	450
	Employees (thousands)	93	93	92	92
	Capacity utilization (percent)	85	85	80	83
	U.S. shipments (million dollars)	16,798	16,370	16,043	16,524
	U.S. exports (million dollars)	1,299	1,555	1,820	1,875
	U.S. imports (million dollars)	2,626	2,510	2,648	2,727
	Apparent U.S. consumption (million dollars)	18,125	17,325	16,871	17,376
	Trade balance (million dollars)	-1,327	-955	-828	-852
	Ratio of imports to apparent consumption (percent)	14.5	14.5	15.7	15.7
	Ratio of exports to shipments (percent)	7.7	9.5	11.3	11.3
ME008	Centrifuges and filtering and purifying equipment:				
	Establishments (number)	255	265	265	278
	Employees (thousands)	29	32	34	36
	Capacity utilization (percent)	70	75	80	82
	U.S. shipments (million dollars)	2,050	2,350	2,940	3,087
	U.S. exports (million dollars)	1,097	1,464	1,705	1,703
	U.S. imports (million dollars)	567	717	666	650
	Apparent U.S. consumption (million dollars)	1,520	1,603	1,901	2,034
	Trade balance (million dollars)	530	747	1,039	1,053
	Ratio of imports to apparent consumption (percent)	37.3	44.7	35.0	32.0
	Ratio of exports to shipments (percent)	53.5	62.3	58.0	55.2
ME009	Wrapping, packaging, and can-sealing machinery:				
	Establishments (number)	350	340	330	335
	Employees (thousands)	24	24	24	24
	Capacity utilization (percent)	85	85	83	84
	U.S. shipments (million dollars)	2,472	2,516	2,400	2,447
	U.S. exports (million dollars)	486	579	611	606
	U.S. imports (million dollars)	597	621	643	699
	Apparent U.S. consumption (million dollars)	2,583	2,558	2,432	2,540
	Trade balance (million dollars)	-111	-42	-32	-93
	Ratio of imports to apparent consumption (percent)	23.1	24.3	26.4	27.5
	Ratio of exports to shipments (percent)	19.7	23.0	25.5	24.8
ME010	Scales and weighing machinery:				
	Establishments (number)	105	108	102	97
	Employees (thousands)	7	7	7	6
	Capacity utilization (percent)	77	78	75	72
	U.S. shipments (million dollars)	612	667	585	556
	U.S. exports (million dollars)	83	91	102	105
	U.S. imports (million dollars)	147	153	151	157
	Apparent U.S. consumption (million dollars)	676	729	634	608
	Trade balance (million dollars)	-64	-62	-49	-52
	Ratio of imports to apparent consumption (percent)	21.7	21.0	23.8	25.8
	Ratio of exports to shipments (percent)	13.6	13.6	17.4	18.9
ME011	Forklift trucks and similar industrial vehicles:				
	Establishments (number)	250	255	255	255
	Employees (thousands)	14	13	11	13
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	1,850	1,800	1,600	1,650
	U.S. exports (million dollars)	511	551	627	570
	U.S. imports (million dollars)	982	817	614	712
	Apparent U.S. consumption (million dollars)	2,321	2,066	1,587	1,792
	Trade balance (million dollars)	-471	-266	13	-142
	Ratio of imports to apparent consumption (percent)	42.3	39.5	38.7	39.7
	Ratio of exports to shipments (percent)	27.6	30.6	39.2	34.5
ME012	Construction and mining equipment:				
	Establishments (number)	1,400	1,400	1,300	1,350
	Employees (thousands)	80	80	75	75
	Capacity utilization (percent)	70	70	68	70
	U.S. shipments (million dollars)	10,000	9,500	9,350	9,450
	U.S. exports (million dollars)	4,271	4,971	6,025	5,864
	U.S. imports (million dollars)	2,311	2,333	1,412	1,630
	Apparent U.S. consumption (million dollars)	8,040	6,862	4,737	5,216
	Trade balance (million dollars)	1,960	2,638	4,613	4,234
	Ratio of imports to apparent consumption (percent)	28.7	34.0	29.8	31.3
	Ratio of exports to shipments (percent)	42.7	52.3	64.4	62.1

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME013	Mineral processing machinery:				
	Establishments (number)	100	100	100	100
	Employees (thousands)	7	7	7	7
	Capacity utilization (percent)	57	57	57	57
	U.S. shipments (million dollars)	650	697	705	730
	U.S. exports (million dollars)	344	431	452	537
	U.S. imports (million dollars)	287	240	215	200
	Apparent U.S. consumption (million dollars)	593	506	468	393
	Trade balance (million dollars)	57	191	237	337
	Ratio of imports to apparent consumption (percent)	48.4	47.4	45.9	50.9
	Ratio of exports to shipments (percent)	52.9	61.8	64.1	73.6
ME014	Farm and garden machinery and equipment:				
	Establishments (number)	2,130	2,110	1,900	1,870
	Employees (thousands)	111	111	98	94
	Capacity utilization (percent)	63	62	57	60
	U.S. shipments (million dollars)	9,100	9,800	8,900	8,600
	U.S. exports (million dollars)	3,274	3,412	3,298	3,422
	U.S. imports (million dollars)	2,528	2,783	2,101	2,238
	Apparent U.S. consumption (million dollars)	8,354	9,171	7,703	7,416
	Trade balance (million dollars)	746	629	1,197	1,184
	Ratio of imports to apparent consumption (percent)	30.3	30.3	27.3	30.2
	Ratio of exports to shipments (percent)	36.0	34.8	37.1	39.8
ME015	Industrial food-processing and related machinery:				
	Establishments (number)	512	512	510	505
	Employees (thousands)	12	12	10	10
	Capacity utilization (percent)	88	88	80	80
	U.S. shipments (million dollars)	1,206	1,275	1,313	1,352
	U.S. exports (million dollars)	485	504	571	588
	U.S. imports (million dollars)	413	483	479	493
	Apparent U.S. consumption (million dollars)	1,134	1,254	1,221	1,257
	Trade balance (million dollars)	72	21	92	95
	Ratio of imports to apparent consumption (percent)	36.4	38.5	39.2	39.2
	Ratio of exports to shipments (percent)	40.2	39.5	43.5	43.5
ME016	Pulp, paper, and paperboard machinery:				
	Establishments (number)	260	265	250	237
	Employees (thousands)	20	20	20	19
	Capacity utilization (percent)	78	80	78	75
	U.S. shipments (million dollars)	2,238	2,454	2,374	2,255
	U.S. exports (million dollars)	497	615	641	586
	U.S. imports (million dollars)	962	889	694	637
	Apparent U.S. consumption (million dollars)	2,703	2,728	2,427	2,306
	Trade balance (million dollars	-465	-274	-53	-51
	Ratio of imports to apparent consumption (percent)	35.6	32.6	28.6	27.6
	Ratio of exports to shipments (percent)	22.2	25.1	27.0	26.0
ME017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Establishments (number)	1,810	1,790	1,775	1,739
	Employees (thousands)	60	60	60	58
	Capacity utilization (percent)	88	85	85	84
	U.S. shipments (million dollars)	6,193	6,091	5,095	4,993
	U.S. exports (million dollars)	906	1,139	1,133	1,120
	U.S. imports (million dollars)	1,245	1,192	1,178	1,239
	Apparent U.S. consumption (million dollars)	6,532	6,144	5,140	5,112
	Trade balance (million dollars)	-339	-53	-45	-119
	Ratio of imports to apparent consumption (percent)	19.1	19.4	22.9	24.2
	Ratio of exports to shipments (percent)	14.6	18.7	22.2	22.4
ME018	Textile machinery and parts:				
	Establishments (number)	500	500	500	500
	Employees (thousands)	16	16	15	15
	Capacity utilization (percent)	58	58	58	58
	U.S. shipments (million dollars)	1,583	1,535	1,515	1,470
	U.S. exports (million dollars)	630	716	685	659
	U.S. imports (million dollars)	1,439	1,499	1,196	1,502
	Apparent U.S. consumption (million dollars)	2,392	2,318	2,026	2,313
	Trade balance (million dollars)	-809	-783	-511	-843
	Ratio of imports to apparent consumption (percent)	60.2	64.7	59.0	64.9
	Ratio of exports to shipments (percent)	39.8	46.6	45.2	44.8

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME019	Metal rolling mills and parts thereof:				
	Establishments (number)	20	20	18	18
	Employees (thousands)	4	4	3	3
	Capacity utilization (percent)	70	68	60	60
	U.S. shipments (million dollars)	345	340	270	300
	U.S. exports (million dollars)	242	252	185	182
	U.S. imports (million dollars)	142	169	130	103
	Apparent U.S. consumption (million dollars)	245	257	215	221
	Trade balance (million dollars)	100	83	55	79
	Ratio of imports to apparent consumption (percent)	58.0	65.8	60.5	46.6
	Ratio of exports to shipments (percent)	70.1	74.1	68.5	60.7
ME020	Machine tools for cutting metal and parts; tool holders, etc.:				
	Establishments (number)	870	860	830	800
	Employees (thousands)	45	44	41	39
	Capacity utilization (percent)	72	71	63	70
	U.S. shipments (million dollars)	4,282	4,398	4,100	4,200
	U.S. exports (million dollars)	1,044	1,151	1,132	1,270
	U.S. imports (million dollars)	2,329	2,180	2,213	1,960
	Apparent U.S. consumption (million dollars)	5,567	5,427	5,181	4,890
	Trade balance (million dollars)	-1,285	-1,029	-1,081	-690
	Ratio of imports to apparent consumption (percent)	41.8	40.2	42.7	40.1
	Ratio of exports to shipments (percent)	24.4	26.2	27.6	30.2
ME021	Machine tools for metal forming and parts thereof:				
	Establishments (number)	375	370	360	350
	Employees (thousands)	19	19	17	16
	Capacity utilization (percent)	70	71	68	70
	U.S. shipments (million dollars)	2,438	2,944	2,300	2,500
	U.S. exports (million dollars)	716	722	656	776
	U.S. imports (million dollars)	730	711	590	552
	Apparent U.S. consumption (million dollars)	2,452	2,933	2,234	2,276
	Trade balance (million dollars)	-14	11	66	224
	Ratio of imports to apparent consumption (percent)	29.8	24.2	26.4	24.3
	Ratio of exports to shipments (percent)	29.4	24.5	28.5	31.0
ME022	Non-metal working machine tools and parts thereof:				
	Establishments (number)	345	345	345	330
	Employees (thousands)	14	13	12	11
	Capacity utilization (percent)	82	80	65	70
	U.S. shipments (million dollars)	1,461	1,535	1,200	1,300
	U.S. exports (million dollars)	313	317	377	474
	U.S. imports (million dollars)	641	610	540	633
	Apparent U.S. consumption (million dollars)	1,789	1,828	1,363	1,459
	Trade balance (million dollars)	-328	-293	-163	-159
	Ratio of imports to apparent consumption (percent)	35.8	33.4	39.6	43.4
	Ratio of exports to shipments (percent)	21.4	20.7	31.4	36.5
ME023	Semiconductor equipment, robots, and other machinery:				
	Establishments (number)	5,900	5,800	5,700	5,586
	Employees (thousands)	300	280	265	260
	Capacity utilization (percent)	75	70	69	68
	U.S. shipments (million dollars)	28,900	29,050	27,600	27,048
	U.S. exports (million dollars)	8,117	8,910	7,579	7,904
	U.S. imports (million dollars)	5,851	5,627	5,573	5,466
	Apparent U.S. consumption (million dollars)	26,634	25,767	25,594	24,610
	Trade balance (million dollars)	2,266	3,283	2,006	2,438
	Ratio of imports to apparent consumption (percent)	22.0	21.8	21.8	22.2
	Ratio of exports to shipments (percent)	28.1	30.7	27.5	29.2
ME024	Taps, cocks, valves, and similar devices:				
	Establishments (number)	908	904	910	892
	Employees (thousands)	71	73	75	101
	Capacity utilization (percent)	66	70	73	70
	U.S. shipments (million dollars)	9,096	9,515	9,768	9,573
	U.S. exports (million dollars)	982	1,231	1,346	1,521
	U.S. imports (million dollars)	1,437	1,635	1,760	2,057
	Apparent U.S. consumption (million dollars)	9,551	9,919	10,182	10,109
	Trade balance (million dollars)	-455	-404	-414	-536
	Ratio of imports to apparent consumption (percent)	15.0	16.5	17.3	20.3
	Ratio of exports to shipments (percent)	10.8	12.9	13.8	15.9

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME025	Ball and roller bearings:				
	Establishments (number)	143	143	140	140
	Employees (thousands)	39	39	37	35
	Capacity utilization (percent)	63	64	60	63
	U.S. shipments (million dollars)	4,325	4,300	4,400	4,525
	U.S. exports (million dollars)	509	733	720	713
	U.S. imports (million dollars)	986	963	903	990
	Apparent U.S. consumption (million dollars)	4,802	4,530	4,583	4,802
	Trade balance (million dollars)	-477	-230	-183	-277
	Ratio of imports to apparent consumption (percent)	20.5	21.3	19.7	20.6
	Ratio of exports to shipments (percent)	11.8	17.0	16.4	15.8
ME026	Gear boxes and other speed changers; torque converters, etc.:				
	Establishments (number)	260	255	240	220
	Employees (thousands)	34	34	32	30
	Capacity utilization (percent)	85	80	75	75
	U.S. shipments (million dollars)	4,100	4,100	3,600	3,700
	U.S. exports (million dollars)	397	549	536	592
	U.S. imports (million dollars)	746	837	880	964
	Apparent U.S. consumption (million dollars)	4,449	4,388	3,944	4,072
	Trade balance (million dollars)	-349	-288	-344	-372
	Ratio of imports to apparent consumption (percent)	16.8	19.1	22.3	23.7
	Ratio of exports to shipments (percent)	9.7	13.4	14.9	16.0
ME027	Boilers, turbines, and related machinery:				
	Establishments (number)	40	39	35	35
	Employees (thousands)	38	37	33	31
	Capacity utilization (percent)	56	58	50	60
	U.S. shipments (million dollars)	3,390	3,540	3,000	3,200
	U.S. exports (million dollars)	765	644	897	857
	U.S. imports (million dollars)	338	334	305	230
	Apparent U.S. consumption (million dollars)	2,963	3,230	2,408	2,573
	Trade balance (million dollars)	427	310	592	627
	Ratio of imports to apparent consumption (percent)	11.4	10.3	12.7	8.9
	Ratio of exports to shipments (percent)	22.6	18.2	29.9	26.8
ME028	Electric motors, generators, and related equipment:				
	Establishments (number)	310	305	301	295
	Employees (thousands)	90	90	88	86
	Capacity utilization (percent)	68	69	68	66
	U.S. shipments (million dollars)	8,600	8,950	9,250	9,050
	U.S. exports (million dollars)	1,743	1,883	2,338	2,752
	U.S. imports (million dollars)	2,144	2,268	2,370	2,659
	Apparent U.S. consumption (million dollars)	9,001	9,335	9,282	8,957
	Trade balance (million dollars)	-401	-385	-32	93
	Ratio of imports to apparent consumption (percent)	23.8	24.3	25.5	29.7
	Ratio of exports to shipments (percent)	20.3	21.0	25.3	30.4
ME029	Electrical transformers, static converters, and inductors:				
	Establishments (number)	300	295	290	285
	Employees (thousands)	49	48	46	43
	Capacity utilization (percent)	69	72	70	68
	U.S. shipments (million dollars)	4,840	4,980	5,150	5,000
	U.S. exports (million dollars)	3,172	4,562	1,118	1,206
	U.S. imports (million dollars)	2,571	2,793	1,800	2,130
	Apparent U.S. consumption (million dollars)	4,239	3,211	5,832	5,924
	Trade balance (million dollars)	601	1,769	-682	-924
	Ratio of imports to apparent consumption (percent)	60.7	87.0	30.9	36.0
	Ratio of exports to shipments (percent)	65.5	91.6	21.7	24.1
ME030	Primary cells and batteries and electric storage batteries:				
	Establishments (number)	250	251	251	255
	Employees (thousands)	36	36	36	36
	Capacity utilization (percent)	82	82	82	83
	U.S. shipments (million dollars)	5,202	5,264	5,300	5,350
	U.S. exports (million dollars)	479	590	797	848
	U.S. imports (million dollars)	701	719	795	947
	Apparent U.S. consumption (million dollars)	5,424	5,393	5,298	5,449
	Trade balance (million dollars)	-222	-129	2	-99
	Ratio of imports to apparent consumption (percent)	12.9	13.3	15.0	17.4
	Ratio of exports to shipments (percent)	9.2	11.2	15.0	15.9

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME031	Portable electric handtools:				
	Establishments (number)	30	29	29	29
	Employees (thousands)	8	8	8	8
	Capacity utilization (percent)	68	67	66	72
	U.S. shipments (million dollars)	1,160	1,200	1,300	1,375
	U.S. exports (million dollars)	190	224	252	260
	U.S. imports (million dollars)	393	356	332	381
	Apparent U.S. consumption (million dollars)	1,363	1,332	1,380	1,496
	Trade balance (million dollars)	-203	-132	-80	-121
	Ratio of imports to apparent consumption (percent)	28.8	26.7	24.1	25.5
	Ratio of exports to shipments (percent)	16.4	18.7	19.4	18.9
ME032	Nonelectrically powered hand tools and parts thereof:				
	Establishments (number)	50	49	49	45
	Employees (thousands)	11	12	10	11
	Capacity utilization (percent)	78	82	72	75
	U.S. shipments (million dollars)	1,314	1,390	1,290	1,330
	U.S. exports (million dollars)	499	556	348	358
	U.S. imports (million dollars)	571	540	420	456
	Apparent U.S. consumption (million dollars)	1,386	1,374	1,362	1,428
	Trade balance (million dollars)	-72	16	-72	-98
	Ratio of imports to apparent consumption (percent)	41.2	39.3	30.8	31.9
	Ratio of exports to shipments (percent)	38.0	40.0	27.0	26.9
ME033	Ignition, starting, lighting, and other electrical equipment:				
	Establishments (number)	526	510	510	520
	Employees (thousands)	68	66	66	69
	Capacity utilization (percent)	78	77	75	78
	U.S. shipments (million dollars)	9,055	9,091	8,900	9,500
	U.S. exports (million dollars)	639	891	952	1,122
	U.S. imports (million dollars)	1,389	1,284	1,177	1,289
	Apparent U.S. consumption (million dollars)	9,805	9,484	9,125	9,667
	Trade balance (million dollars)	-750	-393	-225	-167
	Ratio of imports to apparent consumption (percent)	14.2	13.5	12.9	13.3
	Ratio of exports to shipments (percent)	7.1	9.8	10.7	11.8
ME034	Flashlights and other similar electric lights, light bulbs, etc.:				
	Establishments (number)	135	130	125	125
	Employees (thousands)	25	25	25	25
	Capacity utilization (percent)	63	62	61	60
	U.S. shipments (million dollars)	3,150	3,100	3,000	2,950
	U.S. exports (million dollars)	402	341	647	695
	U.S. imports (million dollars)	637	690	742	903
	Apparent U.S. consumption (million dollars)	3,385	3,449	3,095	3,158
	Trade balance (million dollars)	-235	-349	-95	-208
	Ratio of imports to apparent consumption (percent)	18.8	20.0	24.0	28.6
	Ratio of exports to shipments (percent)	12.8	11.0	21.6	23.6
ME035	Electric and gas welding and soldering equipment:				
	Establishments (number)	184	184	184	186
	Employees (thousands)	19	19	21	22
	Capacity utilization (percent)	68	70	72	73
	U.S. shipments (million dollars)	2,521	2,571	2,648	2,674
	U.S. exports (million dollars)	317	385	389	406
	U.S. imports (million dollars)	410	297	435	345
	Apparent U.S. consumption (million dollars)	2,614	2,483	2,694	2,613
	Trade balance (million dollars)	-93	88	-46	61
	Ratio of imports to apparent consumption (percent)	15.7	12.0	16.1	13.2
	Ratio of exports to shipments (percent)	12.6	15.0	14.7	15.2
ME036	Insulated electrical wire and cable, and conduit; etc.:				
	Establishments (number)	375	375	374	370
	Employees (thousands)	81	80	79	78
	Capacity utilization (percent)	78	79	78	75
	U.S. shipments (million dollars)	12,800	13,300	13,500	13,250
	U.S. exports (million dollars)	1,704	1,874	2,145	2,492
	U.S. imports (million dollars)	2,670	2,729	2,698	3,146
	Apparent U.S. consumption (million dollars)	13,766	14,155	14,053	13,904
	Trade balance (million dollars)	-966	-855	-553	-654
	Ratio of imports to apparent consumption (percent)	19.4	19.3	19.2	22.6
	Ratio of exports to shipments (percent)	13.3	14.1	15.9	18.8

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME037	Rail locomotive and rolling stock:				
	Establishments (number)	123	120	117	110
	Employees (thousands)	24	23	22	22
	Capacity utilization (percent)	50	50	50	50
	U.S. shipments (million dollars)	2,700	2,800	2,700	2,950
	U.S. exports (million dollars)	433	518	546	580
	U.S. imports (million dollars)	791	701	662	744
	Apparent U.S. consumption (million dollars)	3,058	2,983	2,816	3,114
	Trade balance (million dollars)	-358	-183	-116	-164
	Ratio of imports to apparent consumption (percent)	25.9	23.5	23.5	23.9
	Ratio of exports to shipments (percent)	16.0	18.5	20.2	19.7
ME038	Automobiles, trucks, buses, and bodies and chasis of the foregoing:				
	Establishments (number)	1,042	1,052	1,020	1,020
	Employees (thousands)	431	428	379	402
	Capacity utilization (percent)	84	72	67	71
	U.S. shipments (million dollars)	144,418	140,000	128,500	139,800
	U.S. exports (million dollars)	12,892	13,259	15,398	17,699
	U.S. imports (million dollars)	58,760	60,282	58,834	60,378
	Apparent U.S. consumption (million dollars)	190,286	187,023	171,181	182,479
	Trade balance (million dollars)	-45,868	-47,023	-43,436	-42,679
	Ratio of imports to apparent consumption (percent)	30.9	32.2	34.4	33.1
	Ratio of exports to shipments (percent)	8.9	9.5	12.0	12.7
ME039	Certain motor vehicle parts:				
	Establishments (number)	2,785	2,765	2,750	2,825
	Employees (thousands)	389	384	382	415
	Capacity utilization (percent)	79	81	77	79
	U.S. shipments (million dollars)	65,000	69,000	63,000	64,500
	U.S. exports (million dollars)	10,844	13,713	15,732	16,046
	U.S. imports (million dollars)	12,783	12,618	11,565	13,304
	Apparent U.S. consumption (million dollars)	66,939	67,905	58,833	61,758
	Trade balance (million dollars)	-1,939	1,095	4,167	2,742
	Ratio of imports to apparent consumption (percent)	19.1	18.6	19.7	21.5
	Ratio of exports to shipments (percent)	16.7	19.9	25.0	24.9
ME040	Motorcycles, mopeds, and parts:				
	Establishments (number)	58	58	58	58
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	78	78	78	79
	U.S. shipments (million dollars)	545	560	576	585
	U.S. exports (million dollars)	199	306	441	497
	U.S. imports (million dollars)	637	449	584	803
	Apparent U.S. consumption (million dollars)	983	703	719	891
	Trade balance (million dollars)	-438	-143	-143	-306
	Ratio of imports to apparent consumption (percent)	64.8	63.9	81.2	90.1
	Ratio of exports to shipments (percent)	36.5	54.6	76.6	85.0
ME041	Miscellaneous vehicles and transportation-related equipment:				
	Establishments (number)	1,200	1,204	1,204	1,205
	Employees (thousands)	43	39	36	38
	Capacity utilization (percent)	56	58	59	60
	U.S. shipments (million dollars)	5,700	5,750	5,700	5,800
	U.S. exports (million dollars)	1,620	1,739	2,225	2,709
	U.S. imports (million dollars)	708	1,078	1,194	1,153
	Apparent U.S. consumption (million dollars)	4,788	5,089	4,669	4,244
	Trade balance (million dollars)	912	661	1,031	1,556
	Ratio of imports to apparent consumption (percent)	14.8	21.2	25.6	27.2
	Ratio of exports to shipments (percent)	28.4	30.2	39.0	46.7
ME042	Aircraft, spacecraft, and related equipment:				
	Establishments (number)	340	340	335	320
	Employees (thousands)	575	545	535	520
	Capacity utilization (percent)	74	83	79	98
	U.S. shipments (million dollars)	47,710	50,096	50,000	48,500
	U.S. exports (million dollars)	23,290	29,439	34,403	35,172
	U.S. imports (million dollars)	5,728	6,369	7,501	7,262
	Apparent U.S. consumption (million dollars)	30,148	27,026	23,098	20,590
	Trade balance (million dollars)	17,562	23,070	26,902	27,910
	Ratio of imports to apparent consumption (percent)	19.0	23.6	32.5	35.3
	Ratio of exports to shipments (percent)	48.8	58.8	68.8	72.5

Table B-5--Continued
Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ME043	Ships, tugs, pleasure boats, and similar vessels:				
	Establishments (number)	2,550	2,525	2,400	2,350
	Employees (thousands)	158	155	150	148
	Capacity utilization (percent)	57	55	50	50
	U.S. shipments (million dollars)	14,400	13,900	13,500	14,000
	U.S. exports (million dollars)	979	1,246	1,112	1,391
	U.S. imports (million dollars)	600	348	278	377
	Apparent U.S. consumption (million dollars)	14,021	13,002	12,666	12,986
	Trade balance (million dollars)	379	898	834	1,014
	Ratio of imports to apparent consumption (percent)	4.3	2.7	2.2	2.9
	Ratio of exports to shipments (percent)	6.8	9.0	8.2	9.9
ME044	Motors and engines, except internal combustion, aircraft, or electric:				
	Establishments (number)	43	44	44	45
	Employees (thousands)	9	9	9	9
	Capacity utilization (percent)	83	84	84	84
	U.S. shipments (million dollars)	3,806	3,993	4,010	4,100
	U.S. exports (million dollars)	62	105	84	101
	U.S. imports (million dollars)	71	78	86	101
	Apparent U.S. consumption (million dollars)	3,815	3,966	4,012	4,100
	Trade balance (million dollars)	-9	27	-2	0
	Ratio of imports to apparent consumption (percent)	1.9	2.0	2.1	2.5
	Ratio of exports to shipments (percent)	1.6	2.6	2.1	2.5

Table B-6
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ST001	Office machines:				
	Establishments (number)	504	357	356	351
	Employees (thousands)	135	131	128	127
	Capacity utilization (percent)	76	69	65	63
	U.S. shipments (million dollars)	9,265	9,070	8,955	8,810
	U.S. exports (million dollars)	1,762	1,721	1,953	2,003
	U.S. imports (million dollars)	4,269	3,943	3,960	4,578
	Apparent U.S. consumption (million dollars)	11,772	11,292	10,962	11,385
	Trade balance (million dollars)	-2,507	-2,222	-2,007	-2,575
	Ratio of imports to apparent consumption (percent)	36.3	34.9	36.1	40.2
	Ratio of exports to shipments (percent)	19.0	19.0	21.8	22.7
ST002	Telephone and telegraph apparatus:				
	Establishments (number)	642	642	630	625
	Employees (thousands)	97	92	92	90
	Capacity utilization (percent)	68	67	66	68
	U.S. shipments (million dollars)	7,658	16,949	15,940	16,259
	U.S. exports (million dollars)	2,319	2,893	3,149	4,170
	U.S. imports (million dollars)	4,569	4,488	4,841	5,617
	Apparent U.S. consumption (million dollars)	9,908	18,544	17,632	17,706
	Trade balance (million dollars)	-2,250	-1,595	-1,692	-1,447
	Ratio of imports to apparent consumption (percent)	23.0	24.2	27.5	31.7
	Ratio of exports to shipments (percent)	13.1	17.1	19.8	25.6
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:				
	Establishments (number)	96	96	88	86
	Employees (thousands)	6	6	7	6
	Capacity utilization (percent)	71	72	73	74
	U.S. shipments (million dollars)	1,227	1,269	1,310	1,325
	U.S. exports (million dollars)	463	582	669	720
	U.S. imports (million dollars)	1,121	1,121	1,070	1,241
	Apparent U.S. consumption (million dollars)	1,885	1,808	1,711	1,846
	Trade balance (million dollars)	-658	-539	-401	-21
	Ratio of imports to apparent consumption (percent)	59.5	62.0	62.5	67.2
	Ratio of exports to shipments (percent)	37.7	45.9	51.1	54.3
ST004	Tape recorders, tape players, video cassette recorders, turntables, etc:				
	Establishments (number)	56	56	52	52
	Employees (thousands)	3	3	3	3
	U.S. shipments (million dollars)	373	347	304	295
	U.S. exports (million dollars)	389	461	483	627
	U.S. imports (million dollars)	5,013	4,539	4,814	5,444
	Apparent U.S. consumption (million dollars)	4,997	4,425	4,635	5,112
	Trade balance (million dollars)	-4,624	-4,078	-4,331	-4,817
	Ratio of imports to apparent consumption (percent)	100.3	102.6	103.9	106.5
	Ratio of exports to shipments (percent)	104.3	132.9	158.9	212.5
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Establishments (number)	57	58	58	58
	Employees (thousands)	18	18	18	18
	Capacity utilization (percent)	78	77	78	79
	U.S. shipments (million dollars)	3,673	3,965	4,028	4,200
	U.S. exports (million dollars)	1,292	1,700	1,759	1,743
	U.S. imports (million dollars)	1,381	1,474	1,673	1,729
	Apparent U.S. consumption (million dollars)	3,762	3,733	3,942	4,186
	Trade balance (million dollars)	-89	232	86	14
	Ratio of imports to apparent consumption (percent)	36.7	39.5	42.4	41.3
	Ratio of exports to shipments (percent)	35.2	43.0	43.7	41.5

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ST006	Records, tapes, compact discs, computer software, etc.:				
	Establishments (number)-	6,700	6,900	7,400	7,750
	Employees (thousands)	119	133	143	149
	Capacity utilization (percent)	90	90	90	90
	U.S. shipments (million dollars)	31,440	36,300	39,000	41,500
	U.S. exports (million dollars)	1,126	1,872	2,201	2,756
	U.S. imports (million dollars)	266	316	379	522
	Apparent U.S. consumption (million dollars)	30,580	34,744	37,178	39,266
	Trade balance (million dollars)	860	1,556	1,822	2,234
	Ratio of imports to apparent consumption (percent)	0.9	0.9	1.0	1.3
	Ratio of exports to shipments (percent)	3.6	5.2	5.6	6.6
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Establishments (number)	284	264	264	260
	Employees (thousands)	78	71	75	73
	Capacity utilization (percent)	87	87	87	87
	U.S. shipments (million dollars)	10,000	8,900	8,400	9,000
	U.S. exports (million dollars)	2,662	3,467	3,501	3,504
	Apparent U.S. consumption (million dollars)	12,681	10,484	10,267	11,454
	Trade balance (million dollars)	-2,681	-1,584	-1,867	2,454
	Ratio of imports to apparent consumption percent	42.1	48.2	52.3	52.0
	Ratio of exports to shipments (percent)	26.6	39.0	41.7	38.9
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Establishments (number)	115	115	115	110
	Employees (thousands)	125	135	135	125
	Capacity utilization (percent)	73	72	72	72
	U.S. shipments (million dollars)	14,000	15,300	14,900	14,500
	U.S. exports (million dollars)	1,193	1,218	1,244	1,111
	U.S. imports (million dollars)	460	448	496	446
	Apparent U.S. consumption (million dollars)	13,267	14,530	14,152	13,835
	Trade balance (million dollars)	733	770	748	665
	Ratio of imports to apparent consumption (percent)	3.5	3.1	3.5	3.2
	Ratio of exports to shipments (percent)	8.5	8.0	8.3	7.7
ST009	Television receivers and video monitors and combinations, etc.:				
	Establishments (number)	34	34	32	30
	Employees (thousands)	23	22	21	21
	U.S. imports (million dollars)	5,343	5,051	5,368	5,958
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	3,900	4,000	4,000	4,100
	U.S. exports (million dollars)	926	1,025	1,075	1,248
	U.S. imports (million dollars)	3,405	3,174	3,103	3,521
	Apparent U.S. consumption (million dollars)	6,379	6,149	6,028	6,373
	Trade balance (million dollars)	-2,479	-2,149	-2,028	-2,273
	Ratio of imports to apparent consumption percent)	53.4	51.6	51.5	55.2
	Ratio of exports to shipments (percent)	23.7	25.6	26.9	30.4
ST010	Television apparatus (except receivers and monitors), etc.:				
	Establishments (number)	130	130	130	125
	Employees (thousands)	10	11	11	9
	Capacity utilization (percent)	77	77	77	77
	U.S. shipments (million dollars)	1,400	1,280	1,250	1,200
	U.S. exports (million dollars)	156	206	236	229
	U.S. imports (million dollars)	2,428	2,569	2,755	2,236
	Apparent U.S. consumption (million dollars)	3,672	3,643	3,769	3,207
	Trade balance (million dollars)	-2,272	-2,363	-2,519	-2,007
	Ratio of imports to apparent consumption percent)	66.1	70.5	73.1	69.7
	Ratio of exports to shipments (percent)	11.1	16.1	18.9	19.1

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ST011	Electric sound and visual signaling apparatus:				
	Establishments (number)	232	230	221	718
	Employees (thousands)	15	14	14	14
	Capacity utilization (percent)	71	72	72	70
	U.S. shipments (million dollars)	1,950	1,830	1,740	1,675
	U.S. exports (million dollars)	271	331	418	483
	U.S. imports (million dollars)	916	872	921	1,073
	Apparent U.S. consumption (million dollars)	2,595	2,371	2,243	2,265
	Trade balance (million dollars)	-645	-541	-503	-590
	Ratio of imports to apparent consumption (percent)	35.3	36.8	41.1	47.4
	Ratio of exports to shipments (percent)	13.9	18.1	24.0	28.8
ST012	Electrical capacitors and resistors:				
	Establishments (number)	184	173	171	170
	Employees (thousands)	27	25	23	22
	Capacity utilization (percent)	70	72	73	74
	U.S. shipments (million dollars)	2,338	2,191	2,142	2,206
	U.S. exports (million dollars)	762	766	818	898
	U.S. imports (million dollars)	885	879	884	1,022
	Apparent U.S. consumption (million dollars)	2,461	2,304	2,208	2,330
	Trade balance (million dollars)	-123	-113	-66	-124
	Ratio of imports to apparent consumption (percent)	36.0	38.2	40.0	43.9
	Ratio of exports to shipments (percent)	32.6	35.0	38.2	40.7
ST013	Apparatus for making, breaking, protecting, or connecting elec. circuits:				
	Establishments (number)	1,715	1,743	1,760	1,790
	Employees (thousands)	160	150	160	160
	Capacity utilization (percent)	82	80	76	77
	U.S. shipments (million dollars)	22,284	22,061	22,282	23,170
	U.S. exports (million dollars)	3,781	5,280	4,870	4,924
	U.S. imports (million dollars)	4,409	5,452	5,612	5,445
	Apparent U.S. consumption (million dollars)	22,912	22,233	23,024	23,691
	Trade balance (million dollars)	-628	-172	-742	-521
	Ratio of imports to apparent consumption (percent)	19.2	24.5	24.4	23.0
	Ratio of exports to shipments (percent)	17.0	23.9	21.9	21.3
ST014	Television picture tubes and other cathode ray tubes:				
	Establishments (number)	19	19	19	19
	Employees (thousands	11	11	11	10
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	1,770	1,790	1,600	1,600
	U.S. exports (million dollars)	352	430	565	602
	U.S. imports (million dollars)	664	648	679	758
	Apparent U.S. consumption (million dollars)	2,082	2,008	1,714	1,756
	Trade balance (million dollars)	-312	-218	-114	-156
	Ratio of imports to apparent consumption (percent)	31.9	32.3	39.6	43.2
	Ratio of exports to shipments (percent)	19.9	24.0	35.3	37.6
ST015	Special-purpose tubes:				
	Establishments (number)	40	40	40	40
	Employees (thousands)	7	6	6	6
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	1,126	1,163	1,097	1,018
	U.S. exports (million dollars)	185	211	194	169
	U.S. imports (million dollars)	154	133	137	170
	Apparent U.S. consumption (million dollars)	1,095	1,085	1,040	1,019
	Trade balance (million dollars)	31	78	57	-1
	Ratio of imports to apparent consumption (percent)	14.1	12.3	13.2	16.7
	Ratio of exports to shipments (percent)	16.4	18.1	17.7	16.6

Table B-6--Continued
Electronic technology sector: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
ST016	Diodes, transistors, integrated circuits, etc.:				
	Establishments (number)	483	483	483	483
	Employees (thousands)	175	171	164	168
	Capacity utilization (percent)	80	78	76	78
	U.S. shipments (million dollars)	22,410	22,962	22,200	25,860
	U.S. exports (million dollars)	9,657	10,857	10,999	11,617
	U.S. imports (million dollars)	12,320	12,169	13,081	15,452
	Apparent U.S. consumption (million dollars)	25,073	24,274	24,282	29,695
	Trade balance (million dollars)	-2,663	-1,312	-2,082	-3,835
	Ratio of imports to apparent consumption (percent)	49.1	50.1	53.9	52.0
	Ratio of exports to shipments (percent)	43.1	47.3	49.5	44.9
ST017	Electrical and electronic articles, apparatus, and parts, etc.:				
	Establishments (number)	660	653	658	661
	Employees (thousands)	16	14	15	15
	Capacity utilization (percent)	75	65	70	70
	U.S. shipments (million dollars)	3,650	2,950	3,150	3,200
	U.S. exports (million dollars)	1,341	1,314	1,589	1,658
	U.S. imports (million dollars)	848	946	815	732
	Apparent U.S. consumption (million dollars)	3,157	2,582	2,376	2,274
	Trade balance (million dollars)	493	368	774	926
	Ratio of imports to apparent consumption (percent)	26.9	36.6	34.3	32.2
	Ratio of exports to shipments (percent)	36.7	44.5	50.4	51.8
ST018	Automatic data processing machines:				
	Establishments (number)	673	739	700	732
	Employees (thousands)	228	222	211	203
	Capacity utilization (percent)	71	69	66	70
	U.S. shipments (million dollars)	47,610	47,579	46,661	48,560
	U.S. exports (million dollars)	12,593	13,804	14,316	24,985
	U.S. imports (million dollars)	14,058	15,416	18,014	31,564
	Apparent U.S. consumption (million dollars)	49,075	49,191	50,359	55,139
	Trade balance (million dollars)	-1,465	-1,612	-3,698	-6,579
	Ratio of imports to apparent consumption percent)	28.6	31.3	35.8	57.2
	Ratio of exports to shipments (percent)	26.5	29.0	30.7	51.5

Table B-7
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM001	Photographic supplies:				
	Establishments (number)	115	115	115	112
	Employees (thousands)	36	35	34	35
	Capacity utilization (percent)	73	73	73	74
	U.S. shipments (million dollars)	8,795	9,500	9,400	9,200
	U.S. exports (million dollars)	1,499	1,719	1,791	1,669
	U.S. imports (million dollars)	1,330	1,409	1,486	1,610
	Apparent U.S. consumption (million dollars)	8,626	9,190	9,095	9,141
	Trade balance (million dollars)	169.0	310.0	305.0	59.0
	Ratio of imports to apparent consumption (percent)	15.4	15.3	16.3	17.6
	Ratio of exports to shipments (percent)	17.0	18.1	19.1	18.1
GM002	Exposed photographic plates, film, and paper:				
	Establishments (number)	200	200	200	200
	Employees (thousands)	230	240	230	230
	Capacity utilization (percent)	75	75	75	75
	U.S. shipments (million dollars)	4,200	5,350	5,000	5,100
	U.S. exports (million dollars)	85	110	102	102
	U.S. imports (million dollars)	91	88	81	124
	Apparent U.S. consumption (million dollars)	4,206	5,328	4,979	5,122
	Trade balance (million dollars)	-6	22	21	-22
	Ratio of imports to apparent consumption (percent)	2.2	1.7	1.6	2.4
	Ratio of exports to shipments (percent)	2.0	2.1	2.0	2.0
GM003	Luggage, handbags, and flat goods				
	Establishments (number)	735	720	700	695
	Employees (thousands)	26	24	23	22
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	1,852	1,896	1,836	1,890
	U.S. exports (million dollars)	103	133	159	194
	U.S. imports (million dollars)	2,078	2,171	2,281	2,437
	Apparent U.S. consumption (million dollars)	3,827	3,934	3,958	4,133
	Trade balance (million dollars)	1,975	-2,038	-2,122	-2,243
	Ratio of imports to apparent consumption (percent)	54.3	55.2	57.6	59.0
	Ratio of exports to shipments (percent)	5.6	7.0	8.7	10.3
GM004	Certain other leather goods:				
	Establishments (number)	405	400	400	400
	Employees (thousands)	8	9	9	9
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	467	494	477	475
	U.S. exports (million dollars)	48	44	63	74
	U.S. imports (million dollars)	138	148	140	158
	Apparent U.S. consumption (million dollars)	557	598	554	559
	Trade balance (million dollars)	-90	-104	-77	-84
	Ratio of imports to apparent consumption (percent)	24.8	24.7	25.3	28.3
	Ratio of exports to shipments (percent)	10.3	8.9	13.2	15.6
GM005	Musical instruments and accessories:				
	Firms (number)	475	475	450	460
	Employees (thousands)	12	12	11	12
	Capacity utilization (percent)	60	58	58	60
	U.S. shipments (million dollars)	815	873	847	880
	U.S. exports (million dollars)	250	293	303	341
	U.S. imports (million dollars)	750	727	713	824
	Apparent U.S. consumption (million dollars)	1,315	1,307	1,257	1,363
	Trade balance (million dollars)	-500	-434	-410	-483
	Ratio of imports to apparent consumption (percent)	57.0	55.6	56.7	60.5
	Ratio of exports to shipments (percent)	30.7	33.6	35.8	38.8

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM006	Umbrellas, whips, riding crops, and canes:				
	Establishments (number)	24	22	20	15
	Employees (number)	530	480	430	400
	Capacity utilization (percent)	60	60	60	60
	U.S. shipments (million dollars)	50	55	60	60
	U.S. exports (million dollars)	6	8	10	11
	U.S. imports (million dollars)	136	146	143	173
	Apparent U.S. consumption (million dollars)	180	193	193	222
	Trade balance (million dollars)	-130	-138	-133	-162
	Ratio of imports to apparent consumption (percent)	75.6	75.6	74.1	77.9
	Ratio of exports to shipments (percent)	12.0	14.5	16.7	18.3
GM007	Silverware and certain other articles of precious metal:				
	Establishments (number)	46	46	46	45
	Employees (thousands)	2	2	2	2
	Capacity utilization (percent)	71	72	73	75
	U.S. shipments (million dollars)	170	175	179	180
	U.S. exports (million dollars)	63	85	127	138
	U.S. imports (million dollars)	61	50	41	64
	Apparent U.S. consumption (million dollars)	168	140	93	106
	Trade balance (million dollars)	2	35	86	74
	Ratio of imports to apparent consumption (percent)	36.3	35.7	44.1	60.4
	Ratio of exports to shipments (percent)	37.1	48.6	70.9	76.7
GM008	Precious jewelry and related articles:				
	Firms (number)	2,200	2,200	2,150	2,150
	Employees (thousands)	36	36	35	35
	Capacity utilization (percent)	55	55	55	55
	U.S. shipments (million dollars)	3,990	3,960	3,840	3,850
	U.S. exports (million dollars)	424	428	428	500
	U.S. imports (million dollars)	2,761	2,608	2,589	2,847
	Apparent U.S. consumption (million dollars)	6,327	6,140	6,001	6,197
	Trade balance (million dollars)	-2,337	-2,180	-2,161	-2,347
	Ratio of imports to apparent consumption (percent)	43.6	42.5	43.1	45.9
	Ratio of exports to shipments (percent)	10.6	10.8	11.1	13.0
GM009	Costume jewelry and related articles:				
	Firms (number)	940	930	910	910
	Employees (thousands)	19	19	18	17
	Capacity utilization (percent)	60	65	65	65
	U.S. shipments (million dollars	1,375	1,425	1,395	1,380
	U.S. exports (million dollars)	89	110	123	114
	U.S. imports (million dollars)	437	461	491	532
	Apparent U.S. consumption (million dollars)	1,723	1,776	1,763	1,798
	Trade balance (million dollars)	-348	-351	-368	-418
	Ratio of imports to apparent consumption (percent)	25.4	26.0	27.9	29.6
	Ratio of exports to shipments (percent)	6.5	7.7	8.8	8.3
GM010	Bicycles:				
	Establishments (number)	30	30	30	30
	Employees (thousands)	4	4	6	6
	Capacity utilization (percent)	65	75	85	85
	U.S. shipments (million dollars)	750	985	1,245	1,290
	U.S. exports (million dollars)	46	114	174	175
	U.S. imports (million dollars)	681	750	745	734
	Apparent U.S. consumption (million dollars)	1,385	1,621	1,816	1,849
	Trade balance (million dollars)	-635	-636	-571	-559
	Ratio of imports to apparent consumption (percent)	49.2	46.3	41.0	39.7
	Ratio of exports to shipments (percent)	6.1	11.6	14.0	13.6

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM011	Optical fibers, optical fiber bundles and cables:				
	Establishments (number)	50	50	52	55
	Employees (thousands)	5	6	6	7
	Capacity utilization (percent)	85	87	88	90
	U.S. shipments (million dollars)	964	1,100	1,300	1,550
	U.S. exports (million dollars)	143	172	247	293
	U.S. imports (million dollars)	40	62	57	85
	Apparent U.S. consumption (million dollars)	861	990	1,110	1,342
	Trade balance (million dollars)	103	110	190	208
	Ratio of imports to apparent consumption (percent)	4.6	6.3	5.1	6.3
	Ratio of exports to shipments (percent)	14.8	15.6	19.0	18.9
GM012	Optical goods, including ophthalmic goods:				
	Establishments (number)	900	900	905	900
	Employees (thousands)	58	59	60	58
	Capacity utilization (percent)	78	78	82	77
	U.S. shipments (million dollars)	4,000	4,200	4,450	4,350
	U.S. exports (million dollars)	933	985	1,071	1,194
	U.S. imports (million dollars)	1,811	1,872	1,920	2,098
	Apparent U.S. consumption (million dollars)	4,878	5,087	5,299	5,254
	Trade balance (million dollars)	-878	-887	-849	-904
	Ratio of imports to apparent consumption (percent)	37.1	36.8	36.2	39.9
	Ratio of exports to shipments (percent)	23.3	23.5	24.1	27.4
GM013	Photographic cameras and equipment:				
	Establishments (number)	650	640	635	635
	Employees (thousands)	13	13	13	12
	Capacity utilization (percent)	73	73	73	70
	U.S. shipments (million dollars)	1,620	1,595	1,580	1,550
	U.S. exports (million dollars)	759	764	807	936
	U.S. imports (million dollars)	1,686	1,560	1,728	1,703
	Apparent U.S. consumption (million dollars)	2,547	2,391	2,501	2,317
	Trade balance (million dollars)	-927	-796	-921	-767
	Ratio of imports to apparent consumption (percent)	66.2	65.2	69.1	73.5
	Ratio of exports to shipments (percent)	46.9	47.9	51.1	60.4
GM014	Medical goods:				
	Establishments (number)	2,295	2,300	2,305	2,315
	Employees (thousands)	163	163	165	170
	Capacity utilization (percent)	81	82	83	84
	U.S. shipments (million dollars)	17,500	19,200	20,500	22,200
	U.S. exports (million dollars)	4,493	5,317	6,206	6,940
	U.S. imports (million dollars)	2,799	3,292	3,762	3,997
	Apparent U.S. consumption (million dollars)	15,806	17,175	18,056	19,257
	Trade balance (million dollars)	1,694	2,025	2,444	2,943
	Ratio of imports to apparent consumption (percent)	17.7	19.2	20.8	20.8
	Ratio of exports to shipments (percent)	25.7	27.7	30.3	31.3
GM015	Surveying and navigational instruments:				
	Establishments (number)	358	355	336	325
	Employees (thousands)	59	55	50	47
	Capacity utilization (percent)	70	71	70	66
	U.S. shipments (million dollars)	6,966	7,213	7,299	7,100
	U.S. exports (million dollars)	1,411	1,519	1,734	1,709
	U.S. imports (million dollars)	432	479	499	562
	Apparent U.S. consumption (million dollars)	5,987	6,173	6,064	5,953
	Trade balance (million dollars)	979	1,040	1,235	1,147
	Ratio of imports to apparent consumption (percent)	7.2	7.8	8.2	9.4
	Ratio of exports to shipments (percent)	20.3	21.1	23.8	24.1

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM016	Watches:				
	Establishments (number)	9	9	9	9
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	59	59	59	58
	U.S. shipments (million dollars)	184	205	220	210
	U.S. exports (million dollars)	96	120	126	117
	U.S. imports (million dollars)	1,757	2,074	1,855	1,869
	Apparent U.S. consumption (million dollars)	1,845	2,159	1,949	1,962
	Trade balance (million dollars)	-1,661	-1,954	-1,729	-1,752
	Ratio of imports to apparent consumption (percent)	95.2	96.1	95.2	95.3
	Ratio of exports to shipments (percent)	52.2	58.5	57.3	55.7
GM017	Clocks and timing devices:				
	Establishments (number)	50	50	50	50
	Employees (thousands	2	2	2	2
	Capacity utilization (percent)	65	65	64	63
	U.S. shipments (million dollars)	455	545	535	520
	U.S. exports (million dollars)	69	89	100	90
	U.S. imports (million dollars)	298	345	317	350
	Apparent U.S. consumption (million dollars)	684	801	752	780
	Trade balance (million dollars)	-229	-256	-217	-260
	Ratio of imports to apparent consumption (percent)	43.6	43.1	42.2	44.9
	Ratio of exports to shipments (percent)	15.2	16.3	18.7	17.3
GM018	Arms and ammunition:				
	Establishments (number)	400	390	375	350
	Employees (thousands)	250	225	200	175
	Capacity utilization (percent)	75	78	82	86
	U.S. shipments (million dollars)	9,000	9,000	9,000	9,000
	U.S. exports (million dollars)	1,859	2,336	2,311	2,534
	U.S. imports (million dollars)	486	463	515	563
	Apparent U.S. consumption (million dollars)	7,627	7,127	7,204	7,029
	Trade balance (million dollars)	1,373	1,873	1,796	1,971
	Ratio of imports to apparent consumption (percent)	6.4	6.5	7.1	8.0
	Ratio of exports to shipments (percent)	20.7	26.0	25.7	28.2
GM019	Furniture and selected furnishings:				
	Establishments (number)	15,000	15,000	14,500	14,500
	Employees (thousands)	550	545	505	525
	Capacity utilization (percent)	73	72	72	77
	U.S. shipments (million dollars)	46,000	47,000	45,000	48,000
	U.S. exports (million dollars)	1,098	1,731	2,256	2,700
	U.S. imports (million dollars)	4,962	5,050	4,981	5,555
	Apparent U.S. consumption (million dollars	49,864	50,319	47,725	50,855
	Trade balance (million dollars)	-3,864	-3,319	-2,725	-2,855
	Ratio of imports to apparent consumption (percent)	10.0	10.0	10.4	10.9
	Ratio of exports to shipments (percent)	2.4	3.7	5.0	5.6
GM020	Writing instruments and related articles:				
	Establishments (number)	265	270	270	265
	Employees (thousands)	14	13	13	13
	Capacity utilization (percent)	88	73	70	70
	U.S. shipments (million dollars)	1,555	1,590	1,570	1,520
	U.S. exports (million dollars)	168	193	207	258
	U.S. imports (million dollars)	387	447	451	513
	Apparent U.S. consumption (million dollars)	1,774	1,844	1,814	1,775
	Trade balance (million dollars)	-219	-254	-244	-255
	Ratio of imports to apparent consumption (percent)	21.8	24.2	24.9	28.9
	Ratio of exports to shipments (percent)	10.8	12.1	13.2	17.0

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM021	Lamps and lighting fittings:				
	Establishments (number)	1,650	1,600	1,570	1,550
	Employees (thousands)	67	65	65	65
	Capacity utilization (percent)	80	75	73	73
	U.S. shipments (million dollars)	8,300	8,400	8,500	8,600
	U.S. exports (million dollars)	246	315	373	449
	U.S. imports (million dollars)	1,243	1,311	1,295	1,499
	Apparent U.S. consumption (million dollars)	9,297	9,396	9,422	9,650
	Trade balance (million dollars)	-997	-996	-922	-1,050
	Ratio of imports to apparent consumption (percent)	13.4	14.0	13.7	15.5
	Ratio of exports to shipments (percent)	3.0	3.8	4.4	5.2
GM022	Prefabricated buildings:				
	Establishments (number)	1,200	1,200	1,100	1,100
	Employees (thousands)	86	80	71	72
	Capacity utilization (percent)	60	60	60	60
	U.S. shipments (million dollars)	9,200	9,030	8,300	8,700
	U.S. exports (million dollars)	154	171	276	273
	U.S. imports (million dollars)	47	34	21	64
	Apparent U.S. consumption (million dollars)	9,093	8,893	8,045	8,491
	Trade balance (million dollars)	107	137	255	209
	Ratio of imports to apparent consumption (percent)	0.5	0.4	0.3	0.8
	Ratio of exports to shipments (percent)	1.7	1.9	3.3	3.1
GM023	Children's vehicles:				
	Establishments (number)	45	45	45	45
	Employees (thousands)	3	3	3	3
	Capacity utilization (percent)	80	80	80	80
	U.S. shipments (million dollars)	305	335	335	345
	U.S. exports (million dollars)	15	23	28	30
	U.S. imports (million dollars)	183	179	206	194
	Apparent U.S. consumption (million dollars)	473	491	513	509
	Trade balance (million dollars)	-168	-156	-178	-164
	Ratio of imports to apparent consumption (percent)	38.7	36.5	40.2	38.1
	Ratio of exports to shipments (percent)	4.9	6.9	8.4	8.7
GM024	Dolls:				
	Establishments (number)	180	180	180	180
	Employees (thousands)	4	4	4	4
	Capacity utilization (percent)	70	70	70	70
	U.S. shipments (million dollars)	145	155	160	170
	U.S. exports (million dollars	19	17	21	29
	U.S. imports (million dollars)	616	772	845	901
	Apparent U.S. consumption (million dollars)	742	910	984	1,042
	Trade balance (million dollars)	-597	-755	-824	-872
	Ratio of imports to apparent consumption (percent)	83.0	84.8	85.9	86.5
	Ratio of exports to shipments (percent)	13.1	11.0	13.1	17.1
GM025	Toys and models:				
	Establishments (number)	340	320	315	315
	Employees (thousands)	16	13	12	12
	Capacity utilization (percent)	71	72	71	72
	U.S. shipments (million dollars)	1,500	1,475	1,485	1,525
	U.S. exports (million dollars)	294	382	387	427
	U.S. imports (million dollars)	2,694	2,716	2,880	3,597
	Apparent U.S. consumption (million dollars)	3,900	3,809	3,978	4,695
	Trade balance (million dollars)	-2,400	-2,334	-2,493	-3,170
	Ratio of imports to apparent consumption (percent)	69.1	71.3	72.4	76.6
	Ratio of exports to shipments (percent)	19.6	25.9	26.1	28.0

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM026	Games and fairground amusements:				
	Establishments (number)	300	315	325	325
	Employees (thousands)	40	40	45	50
	Capacity utilization (percent)	75	75	80	80
	U.S. shipments (million dollars)	1,700	2,000	2,250	2,500
	U.S. exports (million dollars)	375	547	684	884
	U.S. imports (million dollars)	2,413	2,818	2,091	2,729
	Apparent U.S. consumption (million dollars)	3,738	4,271	3,657	4,345
	Trade balance (million dollars)	-2,038	-2,271	-1,407	-1,845
	Ratio of imports to apparent consumption (percent)	64.6	66.0	57.2	62.8
	Ratio of exports to shipments (percent)	22.1	27.4	30.4	35.4
GM027	Sporting goods:				
	Establishments (number)	1,900	1,950	2,050	2,000
	Employees (thousands)	60	65	60	60
	Capacity utilization (percent)	75	75	80	80
	U.S. shipments (million dollars)	5,300	5,800	6,050	6,300
	U.S. exports (million dollars)	795	828	930	1,024
	U.S. imports (million dollars)	1,613	1,644	1,750	2,188
	Apparent U.S. consumption (million dollars)	6,118	6,616	6,870	7,464
	Trade balance (million dollars)	-818	-816	-820	-1,164
	Ratio of imports to apparent consumption (percent)	26.4	24.8	25.5	29.3
	Ratio of exports to shipments (percent)	15.0	14.3	15.4	16.3
GM028	Smokers' articles:				
	Establishments (number)	18	17	15	15
	Employees (thousands)	1	1	1	1
	Capacity utilization (percent)	64	64	65	65
	U.S. shipments (million dollars)	162	164	166	165
	U.S. exports (million dollars)	48	59	77	73
	U.S. imports (million dollars)	105	130	132	148
	Apparent U.S. consumption (million dollars)	219	235	221	240
	Trade balance (million dollars)	-57	-71	-55	-75
	Ratio of imports to apparent consumption (percent)	47.9	55.3	59.7	61.7
	Ratio of exports to shipments (percent)	29.6	36.0	46.4	44.2
GM029	Brooms, brushes, and hair grooming articles:				
	Establishments (number)	300	300	290	290
	Employees (thousands)	13	13	12	12
	Capacity utilization (percent)	60	60	62	64
	U.S. shipments (million dollars)	1,255	1,340	1,445	1,560
	U.S. exports (million dollars)	57	74	95	110
	U.S. imports (million dollars)	436	423	453	468
	Apparent U.S. consumption (million dollars)	1,634	1,689	1,803	1,918
	Trade balance (million dollars)	-379	-349	-358	-358
	Ratio of imports to apparent consumption (percent)	26.7	25.0	25.1	24.4
	Ratio of exports to shipments (percent)	4.5	5.5	6.6	7.1
GM030	Apparel fasteners:				
	Establishments (number)	120	110	110	104
	Employees (thousands)	7	7	6	6
	Capacity utilization (percent)	82	79	84	85
	U.S. shipments (million dollars)	450	461	468	475
	U.S. exports (million dollars)	44	51	59	75
	U.S. imports (million dollars)	79	90	109	120
	Apparent U.S. consumption (million dollars)	485	500	518	520
	Trade balance (million dollars)	-35	-39	-50	-45
	Ratio of imports to apparent consumption (percent)	16.3	18.0	21.0	23.1
	Ratio of exports to shipments (percent)	9.8	11.1	12.6	15.8

See footnote at end of table.

Table B-7--Continued
Miscellaneous manufactures sector and footwear: Profile of U.S. industry and market, by industry/commodity groups, 1989-92

USITC code	Commodity group	1989	1990	1991	1992
GM031	Miscellaneous articles:				
	Establishments (number)	2,300	2,300	2,100	2,100
	Employees (thousands)	37	38	37	37
	Capacity utilization (percent)	60	60	60	60
	U.S. shipments (million dollars)	21,000	24,800	22,600	21,400
	U.S. exports (million dollars)	1,836	2,493	1,503	1,352
	U.S. imports (million dollars)	3,310	3,522	3,347	3,718
	Apparent U.S. consumption (million dollars)	22,474	25,829	24,444	23,766
	Trade balance (million dollars)	-1,474	-1,029	-1,844	-2,366
	Ratio of imports to apparent consumption (percent)	14.7	13.6	13.7	15.6
	Ratio of exports to shipments (percent)	8.7	10.1	6.7	6.3
GM032	Balances of a sensitivity of 5 cg or better:				
	Establishments (number)	11	13	12	12
	Employees (thousands)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	60	60	58	60
	U.S. shipments (million dollars)	25	30	28	26
	U.S. exports (million dollars)	9	11	14	16
	U.S. imports (million dollars)	34	28	31	41
	Apparent U.S. consumption (million dollars)	50	47	45	51
	Trade balance (million dollars)	-25	-17	-17	-25
	Ratio of imports to apparent consumption (percent)	68.0	59.6	68.9	80.4
	Ratio of exports to shipments (percent)	36.0	36.7	50.0	61.5
GM033	Drawing and mathematical calculating or measuring instruments:				
	Establishments (number)	190	185	180	175
	Employees (thousands)	8	9	7	6
	Capacity utilization (percent)	81	74	66	67
	U.S. shipments (million dollars)	603	701	527	533
	U.S. exports (million dollars)	169	136	138	166
	U.S. imports (million dollars)	196	183	196	231
	Apparent U.S. consumption (million dollars)	630	748	585	598
	Trade balance (million dollars)	-27	-47	-58	-65
	Ratio of imports to apparent consumption (percent)	31.1	24.5	33.5	38.6
	Ratio of exports to shipments (percent)	28.0	19.4	26.2	31.1
GM034	Measuring, testing, controlling, and analyzing instruments:				
	Establishments (number)	3,240	3,235	3,220	3,220
	Employees (thousands)	240	239	230	230
	Capacity utilization (percent)	75	72	71	68
	U.S. shipments (million dollars)	22,345	23,000	23,500	23,700
	U.S. exports (million dollars)	6,381	7,098	7,757	8,185
	U.S. imports (million dollars)	3,174	3,369	3,621	3,975
	Apparent U.S. consumption (million dollars)	19,138	19,271	19,364	19,490
	Trade balance (million dollars)	3,207	3,729	4,136	4,210
	Ratio of imports to apparent consumption (percent)	16.6	17.5	18.7	20.4
	Ratio of exports to shipments (percent)	28.6	30.9	33.0	34.5
GM035	Footwear and footwear parts:				
	Establishments (number)	700	700	700	700
	Employees (thousands)	89	84	79	77
	Capacity utilization (percent)	83	81	73	80
	U.S. shipments (million dollars)	4,314	4,422	4,291	4,610
	U.S. exports (million dollars)	369	479	543	603
	U.S. imports (million dollars)	8,380	9,538	9,542	10,141
	Apparent U.S. consumption (million dollars)	12,325	13,481	13,290	14,148
	Trade balance (million dollars)	-8,011	-9,059	-8,999	-9,538
	Ratio of imports to apparent consumption (percent)	68.0	70.8	71.8	71.7
	Ratio of exports to shipments (percent)	8.6	10.8	12.7	13.1

[1] Less than 500.