

# **U.S. TRADE SHIFTS IN SELECTED COMMODITY AREAS**

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**UNITED STATES INTERNATIONAL TRADE COMMISSION**

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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 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 the investigation of allegations that imports have caused injury to a domestic industry and the provision of advice to the President and the Congress on the likely effects of trade-policy changes and proposals. This report, prepared semiannually as an outgrowth of this monitoring function, provides a brief analysis of significant trade shifts that are occurring at the commodity level.

The highlights of trade shifts that have occurred in the first half of 1990 relative to the first half of 1989 are presented in chapter 1 of the report. These highlights include tabulations of the import, export, and trade-balance shifts by major sector and with the United States' major trading partners. In addition, the most significant shifts at the detailed commodity level are summarized. Chapters 2 through 8 each address a specific industrial sector, 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 on 1984-88 domestic consumption, production, employment, trade, and import penetration for the over 300 commodity groups covered in this report. 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.

### U.S. Trade Performance, January-June 1990

During the first 6 months of 1990, surging U.S. exports in areas such as the aerospace, automotive, office equipment, and electronics industries resulted in a significant improvement in the U.S. trade balance. When compared with that of the first half of 1989, the U.S. merchandise trade deficit dropped by 13.2 percent, or \$7.4 billion, to a level of \$48.6 billion (table 1, fig. 1).<sup>1</sup> This decline reflects a noteworthy in-

crease of 8 percent in U.S. exports, to \$188.5 billion, and a much smaller 2.8-percent increase in U.S. imports, to \$237.1 billion. Export growth was experienced in virtually every major industrial sector, with the machinery and equipment sector experiencing the largest absolute growth, of \$15.4 billion. The textiles and apparel sector experienced the most significant percentage growth in exports, with a 30.2-percent increase due to the combination of a favorable exchange rate and low U.S. cotton prices. Import growth on a sector basis was most significant in the energy sector, with a growth of \$3.5 billion as lower prices for crude petroleum during the period reportedly led to import increases in both crude petroleum and petroleum products.

Reflecting the above export and import shifts, the most significant improvement in overall trade position occurred in the machinery and equipment sector, with a \$16.0 billion, or 57-percent, improvement. The energy sector experienced a worsening trade deficit, growing by \$3.0 billion to \$23.5 billion. In the first half of 1990, the United States maintained a positive balance of trade in only three sectors: agriculture, forest products, and chemicals. All other sectors continued their long-running negative position.

On a country basis, the United States improved its trade balance with most major trading partners (China and OPEC nations being notable exceptions) but nevertheless experienced continuing trade deficits with all but the European Community (table 2, fig. 2).<sup>2</sup> The most significant improvements in trade position came with Japan and the European Community, which improved by \$4.2 billion and \$3.3 billion respectively.

### Exchange-Rate Shifts

After a long period of decline during 1985-88,<sup>3</sup> the dollar registered a 4.3-percent appreciation over the 18-month period January 1989-June 1990, as measured by the Dallas Fed's real index (RX-101)(table 3). The 1.4-percent appreciation in the trade-weighted value of the dollar that occurred during the latter part of this period, January-June 1990, was led by the currencies of Canada, Japan, and the newly industrialized countries (NICs) of the Pacific.

<sup>1</sup> Import values are based on customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> It should be noted that beginning in 1990, U.S. exports to Canada as reported by the Bureau of the Census are derived from import data compiled by Canada. Census officials have reported to the Commission that pre-1990 exports to Canada (e.g., 1989) are understated by varying degrees according to product area.

<sup>3</sup> Between its peak in March 1985 and its lowest point in December 1988, the value of the dollar, as measured by the Dallas Fed's real index (RX-101), declined by 29.7 percent. See Dallas Fed, *Trade Weighted Value of the Dollar*, July 1990.

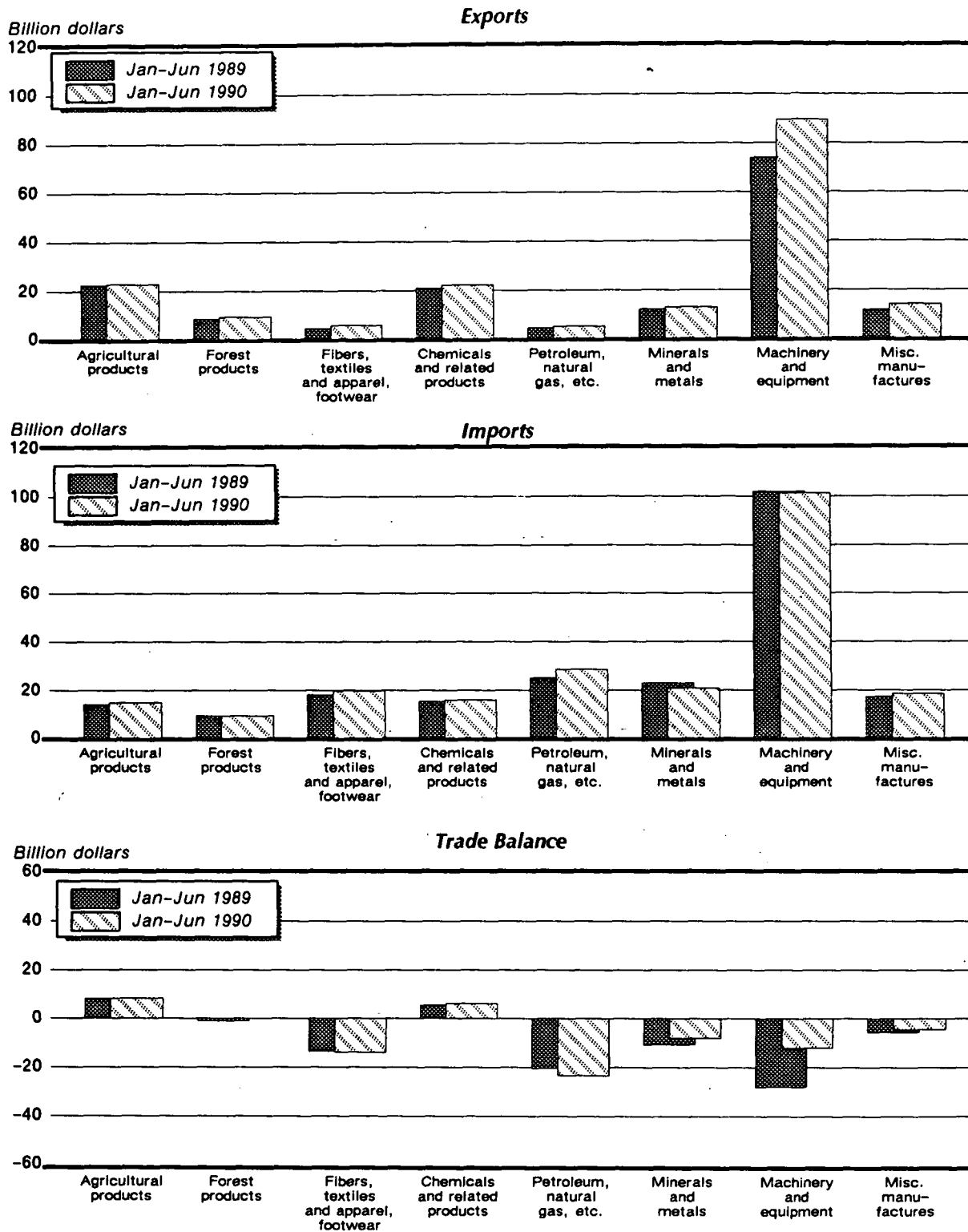
Table 1

U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June--			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Agricultural products .....	44,329	22,421	23,346	925	4.1
Forest products .....	17,226	8,567	9,494	927	10.8
Fibers, textiles, and apparel .....	9,053	4,376	5,698	1,322	30.2
Footwear .....	369	178	244	66	37.1
Chemicals and related products .....	40,943	21,037	22,238	1,201	5.7
Petroleum, natural gas, etc .....	9,889	4,659	5,208	549	11.8
Minerals and metals .....	24,701	12,266	13,027	761	6.2
Machinery and equipment .....	150,457	74,020	89,404	15,384	20.8
Miscellaneous manufactures .....	24,083	11,796	14,112	2,317	19.6
Special provisions .....	28,383	15,274	5,707	-9,567	-62.6
Total .....	349,433	174,594	188,478	13,884	8.0
U.S. imports for consumption:					
Agricultural products .....	28,099	14,155	14,996	841	5.9
Forest products .....	19,106	9,570	9,366	-204	-2.1
Fibers, textiles, and apparel .....	31,129	14,215	15,222	1,007	7.1
Footwear .....	8,381	3,892	4,554	662	17.0
Chemicals and related products .....	30,071	15,494	15,943	449	2.9
Petroleum, natural gas, etc .....	51,881	25,145	28,684	3,539	14.1
Minerals and metals .....	45,558	23,030	20,994	-2,036	-8.8
Machinery and equipment .....	203,125	101,938	101,348	-590	-0.6
Miscellaneous manufactures .....	38,089	17,311	18,535	1,224	7.1
Special provisions .....	12,574	5,805	7,411	1,606	27.7
Total .....	468,013	230,555	237,053	6,498	2.8
U.S. merchandise trade balance:					
Agricultural products .....	16,230	8,266	8,350	84	1.0
Forest products .....	-1,880	-1,003	128	1,131	112.8
Fibers, textiles, and apparel .....	-22,076	-9,839	-9,524	315	3.2
Footwear .....	-8,012	-3,714	-4,310	-596	-16.0
Chemicals and related products .....	10,872	5,543	6,295	752	13.6
Petroleum, natural gas, etc .....	-41,992	-20,486	-23,476	-2,990	-14.6
Minerals and metals .....	-20,857	-10,764	-7,967	2,797	26.0
Machinery and equipment .....	-52,668	-27,918	-11,944	15,974	57.2
Miscellaneous manufactures .....	-14,006	-5,515	-4,423	1,092	19.8
Special provisions .....	15,809	9,469	-1,704	-11,173	-118.0
Total .....	-118,580	-55,961	-48,575	7,386	13.2

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

**Figure 1**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sector, January-June 1989 and 1990**



Source: Compiled by the staff of the the U.S. International Trade Commission 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, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	42,764	20,610	22,139	1,529	7.4
Canada .....	74,977	39,760	41,181	1,421	3.5
European Community .....	82,525	41,428	47,417	5,989	14.4
West Germany .....	16,069	8,099	8,973	874	10.7
United Kingdom .....	19,643	9,694	11,578	1,884	19.4
Taiwan .....	10,975	5,245	5,726	481	9.1
Mexico .....	24,117	11,937	13,197	1,260	10.5
Republic of Korea .....	13,208	6,454	7,023	569	8.8
Hong Kong .....	5,893	3,055	3,244	189	6.1
Brazil .....	4,636	2,083	2,176	93	4.4
China .....	5,775	2,683	2,472	-211	-7.8
OPEC .....	12,977	6,476	6,502	26	0.4
All other .....	71,585	34,863	37,401	2,538	7.2
Total .....	349,433	174,594	188,478	13,884	8.0
U.S. imports for consumption:					
Japan .....	91,842	45,370	42,697	-2,673	-5.8
Canada .....	87,988	45,838	45,876	38	0.0
European Community .....	84,025	41,382	44,105	2,723	6.5
West Germany .....	24,774	12,348	13,826	1,478	11.9
United Kingdom .....	17,924	8,657	9,349	692	7.9
Taiwan .....	24,203	11,390	10,937	-453	-3.9
Mexico .....	26,557	13,227	14,190	963	7.2
Republic of Korea .....	19,567	9,518	8,865	-653	-6.8
Hong Kong .....	9,669	4,281	4,272	-9	-0.2
Brazil .....	8,484	4,404	3,841	-563	-12.7
China .....	11,859	4,919	6,503	1,584	32.2
OPEC .....	30,071	14,273	17,188	2,915	20.4
All other .....	73,748	35,955	38,580	2,625	7.3
Total .....	468,013	230,555	237,053	6,498	2.8
U.S. merchandise trade balance:					
Japan .....	-49,078	-24,760	-20,558	4,202	16.9
Canada .....	-13,011	-6,078	-4,695	1,383	22.7
European Community .....	-1,500	46	3,312	3,266	7,100.0
West Germany .....	-8,705	-4,249	-4,853	-604	-14.2
United Kingdom .....	1,719	1,037	2,229	1,192	114.9
Taiwan .....	-13,228	-6,145	-5,211	934	15.1
Mexico .....	-2,440	-1,290	-993	297	23.0
Republic of Korea .....	-6,359	-3,064	-1,842	1,222	39.8
Hong Kong .....	-3,776	-1,226	-1,028	198	16.1
Brazil .....	-3,848	-2,321	-1,665	656	28.2
China .....	-6,084	-2,236	-4,031	-1,795	-80.2
OPEC .....	-17,094	-7,797	-10,686	-2,889	-37.0
All other .....	-2,163	-1,092	-1,179	-87	-7.9
Total .....	-118,580	-55,961	-48,575	7,386	13.2

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Focusing on the factors that affected the fluctuation of the dollar during January-June 1990 reveals that the value of the dollar—as measured by RX-101 (table 3)—appreciated by 2 percent from January through April largely on expectations of tightening U.S. monetary policy and on positive prospects for growth in the U.S. economy. The 8.9-percent appreciation against the yen during the first 4 months of 1990 was mostly the result of political uncertainties and weakness in the Japanese stock market. Intervention operations by the Fed during this period (February

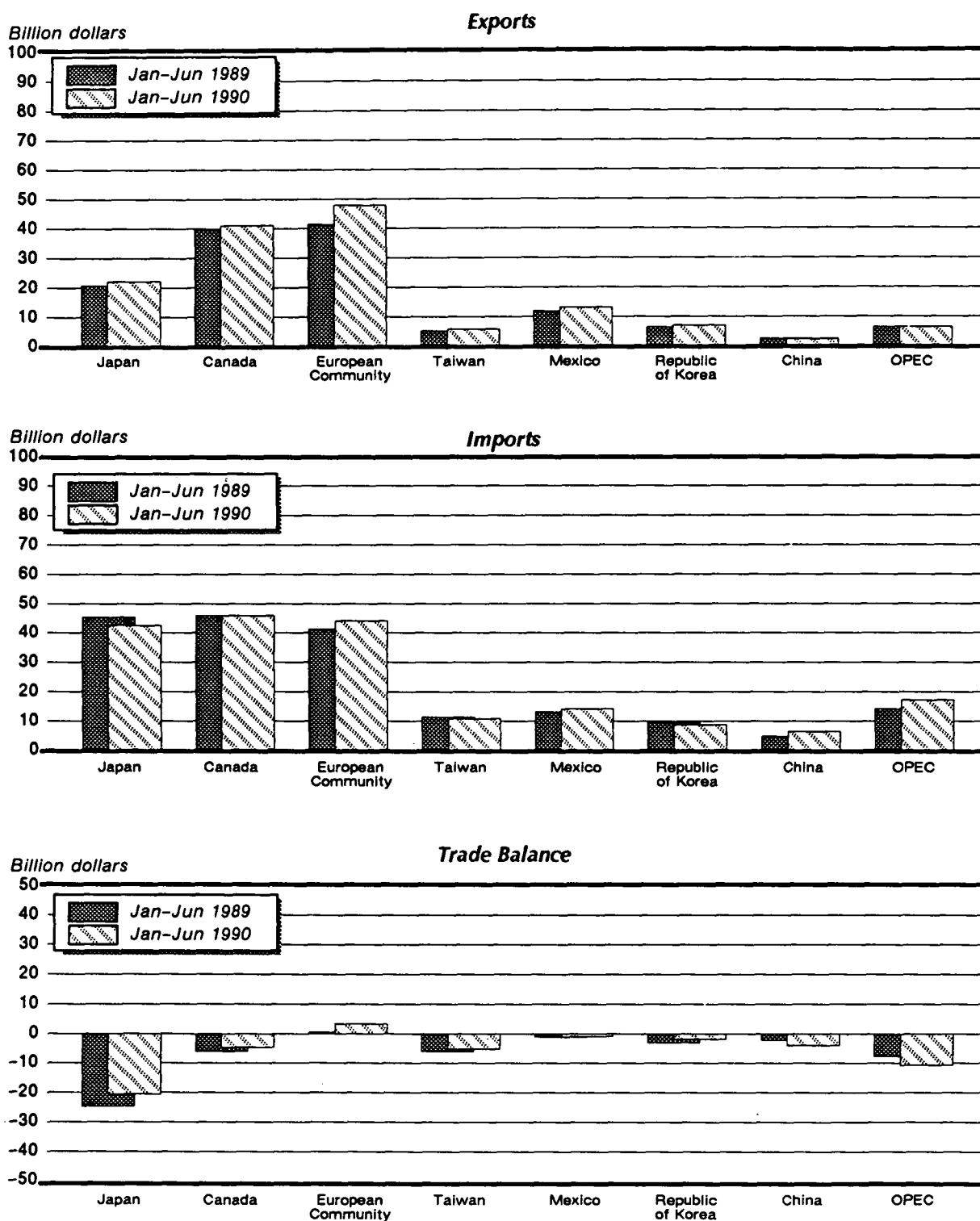
through April) were conducted primarily to dampen the appreciation of the dollar against the yen.<sup>4</sup>

The decline in the value of the dollar at the beginning of the May-June period was mainly the result of improved outlooks toward other currencies, in particular the German mark and the Japanese yen. However, the depreciation of the dollar towards the end of June was influenced in

<sup>4</sup> Board of Governors of the Federal Reserve System, "Treasury and Federal Reserve Foreign Exchange Operations," *Federal Reserve Bulletin*, July 1990.



**Figure 2**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major trading partners, January-June 1989 and 1990**



Source: Compiled by the staff of the the U.S. International Trade Commission from official statistics of the U.S. Department of Commerce.

**Table 3**  
**Real exchange-rate indexes of foreign currencies or baskets of currencies against the U.S. dollar,**  
**January 1989–June 1990**  
 1973 (1st quarter) = 100

Period	Total <sup>1</sup>	Europe	Pacific NICs	Canada	Japan	Western <sup>2</sup> Hemisphere
<b>1989:</b>						
January .....	90.6	90.3	100.9	105.3	54.0	119.3
February .....	90.9	91.2	100.2	104.9	54.6	118.7
March .....	92.6	92.5	100.4	105.6	55.8	128.2
April .....	92.3	92.6	99.3	105.3	55.9	126.4
May .....	93.9	96.8	97.7	105.2	58.6	125.2
June .....	95.1	98.7	98.1	105.4	61.1	123.8
July .....	93.6	94.4	98.0	104.1	60.0	124.9
August .....	93.8	95.8	97.5	103.0	60.4	124.6
September .....	94.5	96.9	96.9	103.9	61.7	125.2
October .....	93.1	93.6	96.8	103.2	60.2	126.0
November .....	93.4	92.4	97.9	102.7	61.7	127.5
December .....	92.6	89.0	99.5	102.2	61.8	126.4
<b>1990:</b>						
January .....	93.2	86.6	102.9	103.3	62.9	123.0
February .....	93.6	85.3	103.2	105.5	63.2	124.7
March .....	94.6	86.9	103.7	104.2	66.6	123.1
April .....	95.1	85.3	103.2	102.9	68.5	131.7
May .....	94.3	83.7	103.1	103.6	66.1	133.8
June .....	94.5	84.1	103.7	103.4	66.2	( <sup>3</sup> )
<b>Average:</b>						
January–June 1989 .....	92.6	93.7	99.4	105.3	56.7	123.6
January–June 1990 .....	94.2	85.3	103.3	103.8	65.6	( <sup>3</sup> )
Percent change .....	1.8	-8.9	3.9	-1.4	15.7	( <sup>3</sup> )

<sup>1</sup> The Dallas Fed's index of real exchange rates weighted by U.S. bilateral trade with 101 trading partners (RX-101).

<sup>2</sup> Western Hemisphere excludes Canada.

<sup>3</sup> Not available.

Source: Federal Reserve Bank of Dallas, *Trade-Weighted Value of the Dollar*, June 1990 and September 1990.

large part by concern over undesired growth in the U.S. fiscal deficit, a decline in the U.S. economy, and the possibility that U.S. interest rates might fall even in the face of increasing world demand for capital. During May and June, the Fed did not conduct any operations to affect the level of the dollar.<sup>5</sup>

In the long run, dollar appreciations should lead to a worsening of the trade balance while dollar depreciations should lead to an improvement. However, in the short run, changes in the exchange rate are not likely to be fully reflected in the trade balance. In fact, changes in the exchange rate may have a perverse effect on the balance with appreciations associated with an improvement and depreciations associated with a worsening. This incongruous relationship has been variously attributed either to lags in adjustments to the changes in the value of the dollar or to the "J-curve" effect. The latter phenomenon, where the trade balance worsens after a fall in the value of a currency, occurs because certain price elasticities are very low in the short run.<sup>6</sup> In addition, short-run improvements in the U.S. merchandise trade deficit during 1990 have variously been attributed to increases in the personal savings rate,

increases in domestic demand which were less than expected, and rising foreign demand for U.S. manufactured products.

Comparison of the average value of the dollar during January–June 1989 to its average during January–June 1990 shows that the real value of the dollar appreciated by 1.8 percent (table 3).<sup>7</sup> Between the same two periods, the U.S. merchandise trade balance showed an improvement, with the deficit declining by 13.2 percent (table 1). Similarly, the U.S. trade balance with Japan also improved even though the value of the U.S. dollar appreciated against the Japanese yen. The U.S. merchandise trade balance with Japan improved by \$4.2 billion between January–June 1989 and January–June 1990. Between the periods, the average real value of the dollar against the yen appreciated by 15.7 percent (table 3).

<sup>7</sup> Similar indices, such as those published by the Federal Reserve Board (see *Federal Reserve Bulletin*) and the IMF (see *International Financial Statistics* real effective exchange rate), show that the dollar depreciated between the two time periods by 5.4 percent and 2.3 percent. Even though these two indices are commonly cited, there are advantages in using the index published by the Federal Reserve Bank of Dallas. For instance, because of the use of earlier-period trade-weights and incomplete country-coverage in its construction, the Federal Reserve Board's index overstates the extent of the dollar's movement. The IMF's index, which is weighted by bilateral trade in manufactured goods, is based on the currencies of only 17 industrial countries. Alternatively, the Dallas Fed's index, which uses current trade weights and considers the dollar's movement against the currencies of 101 U.S. trading partners, is a more accurate measure. For further discussion on this

<sup>6</sup> Board of Governors of the Federal Reserve System, "Treasury and Federal Reserve Foreign Exchange Operations," *Federal Reserve Bulletin*, October 1990.

<sup>8</sup> See Richard E. Caves and Ronald W. Jones, *World Trade and Payments: An Introduction (Third Edition)*, (Boston: Little, Brown and Company, 1981) for further discussion of the "J-curve" effect.

In contrast, the merchandise trade balance with the EC and Canada improved as the real value of the U.S. dollar depreciated against European currencies and the Canadian dollar. Between these two periods, January-June 1989 and January-June 1990, the U.S. merchandise trade surplus with the EC increased by over \$3.2 billion while the average real value of the dollar against European currencies depreciated by 8.9 percent. The U.S. merchandise trade balance with Canada improved by \$1.4 billion while the average real value of the U.S. dollar depreciated by 1.4 percent against the Canadian dollar.

<sup>7</sup>—Continued

topic, see Robert M. Feinberg, "How Have Exchange Rate Fluctuations Affected U.S. Prices?" in *Finance and the International Economy: 3, The Amex Bank Review Prize Essays*, edited by Richard O'Brien and Ingrid Iversen (Oxford: Oxford University Press, 1990), and "The Choice of Exchange Rate Index and Domestic Price Passthrough," *Journal of Industrial Economics*, forthcoming March 1991. See also W. Michael Cox, "A New Alternative Trade-Weighted Dollar Exchange Rate Index," *Economic Review*, September 1986; and "A Comprehensive New Real Dollar Exchange Rate Index," *Economic Review*, March 1987.

## 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 8, and tabular summaries of the most significant of these shifts are presented on the following pages in tables 4 through 9. These 6 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 4**  
**Domestic export growth: Ranking of top 20 commodity groups**

USITC code <sup>1</sup>	Commodity group	U.S. exports January-June—		Change from January-June 1989 to January-June 1990	
		1989	1990	Absolute	Percent
		————— Million dollars —————			
Absolute value growth basis:					
ME058	Aircraft, spacecraft, and related equipment .....	10,789	15,098	4,309	39.9
ME055	Certain motor-vehicle parts .....	5,493	7,142	1,649	30.0
ME023	Office machines .....	11,314	12,268	954	8.4
ME048	Apparatus for making, breaking, protecting, or connecting electrical circuits .....	1,664	2,492	828	49.8
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing .....	6,926	7,739	813	11.7
ME051	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices .....	4,575	5,271	696	15.2
ME042	Radio transmission and reception apparatus, including cellular telephones, and combinations thereof .....	1,298	1,929	631	48.6
AG048	Cigarettes .....	1,471	2,049	578	39.3
TX001	Textile fibers and waste .....	1,446	2,010	564	39.0
ME024	Miscellaneous industrial machinery .....	3,929	4,484	555	14.1
ME002	Internal combustion piston engines, other than for aircraft .....	2,408	2,916	508	21.1
GM030	Works of art, collectors' pieces, and antiques ...	689	1,185	496	72.0
GM014	Medical goods .....	2,214	2,658	444	20.1
GM015	Scientific instruments .....	3,908	4,318	410	10.5
CH028	Medicinal chemicals, except antibiotics .....	1,605	1,979	374	23.3
ME041	Records, tapes, compact discs, computer software, and other recorded media .....	509	877	368	72.3
ME012	Construction and mining equipment .....	1,287	1,644	357	27.7
CH006	Petroleum products .....	2,513	2,860	347	13.8
CH050	Miscellaneous rubber or plastics products .....	866	1,189	323	37.3
GM019	Furniture and selected furnishings .....	512	821	309	60.4
Percentage growth basis:					
MM008	Precious metal ores and concentrates .....	1	11	10	1,000.0
TX024	Robes .....	8	48	40	500.0
CH001	Electrical energy .....	53	302	249	469.8
MM046	Table flatware and related products .....	9	32	23	255.6
AG023	Mushrooms and truffles .....	3	10	7	233.3
AG016	Cut flowers .....	5	16	11	220.0
MM006	Zinc ores and residues .....	25	75	50	200.0
TX033	Rubber, plastic, and coated-fabric apparel .....	24	66	42	175.0
GM010	Bicycles .....	20	50	30	150.0
TX015	Curtains and draperies .....	3	7	4	133.3
AG014	Live plants .....	31	71	40	129.0
MM017	Glass containers .....	21	45	24	114.3
ME062	Motors and engines, except internal combustion, aircraft, or electric .....	29	61	32	110.3
MM041	Lead and related articles .....	26	53	27	103.8
CH005	Crude petroleum .....	38	77	39	102.6
CH035	Paints, inks, and related items .....	316	616	300	94.9
AG019	Certain fresh, chilled, or frozen winter vegetables .....	38	73	35	92.1
MM005	Lead ores and residues .....	13	24	11	84.6
MM026	Direct reduced iron, ferrous powders, and grit and shot .....	15	27	12	80.0
MM034	Industrial fasteners of base metal .....	186	330	144	77.4

<sup>1</sup> 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.

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

**Table 5**  
**Domestic export declines: Ranking of top 20 commodity groups**

USITC code <sup>1</sup>	Commodity group	U.S. exports January-June—		Change from January-June 1989 to January-June 1990	
		1989	1990	Absolute	Percent
————— Million dollars —————					
Absolute value decline basis:					
AG035	Cereals .....	7,688	6,927	-761	-9.9
CH013	Miscellaneous organic chemicals .....	2,839	2,417	-422	-14.9
CH002	Nuclear materials .....	901	496	-405	-45.0
MM021	Natural and synthetic gemstones .....	675	270	-405	-60.0
AG013	Animal feeds .....	1,861	1,623	-238	-12.8
CH011	Benzenoid commodity chemicals .....	949	779	-170	-17.9
MM027	Steel mill products, all grades .....	1,454	1,301	-153	-10.5
AG037	Oilseeds .....	2,332	2,206	-126	-5.4
CH019	Fertilizers .....	1,433	1,311	-122	-8.5
CH020	Certain inorganic pigments .....	257	146	-111	-43.2
MM007	Certain ores, concentrates, ash, and residues .....	300	205	-95	-31.7
CH037	Polyethylene resins in primary forms .....	607	513	-94	-15.5
CH004	Coal chemicals .....	233	143	-90	-38.6
MM004	Copper ores and concentrates .....	265	184	-81	-30.6
AG060	Pulp and wastepaper .....	2,194	2,125	-69	-3.1
MM025	Iron and steel waste and scrap .....	901	852	-49	-5.4
AG010	Dairy produce .....	186	137	-49	-26.3
AG026	Citrus fruits .....	375	341	-34	-9.1
GM013	Photographic cameras and equipment .....	407	380	-27	-6.6
ME022	Non-metalworking machine tools and parts thereof ..	207	182	-25	-12.1
Percentage decline basis:					
MM021	Natural and synthetic gemstones .....	675	270	-405	-60.0
CH002	Nuclear materials .....	901	496	-405	-45.0
CH020	Certain inorganic pigments .....	257	146	-111	-43.2
CH004	Coal chemicals .....	233	143	-90	-38.6
CH024	Natural tanning and dyeing materials .....	8	5	-3	-37.5
AG061	Building papers and asphalt roofing shingles .....	8	5	-3	-37.5
GM033	Miscellaneous articles .....	67	45	-22	-32.8
MM007	Certain ores, concentrates, ash, and residues .....	300	205	-95	-31.7
MM004	Copper ores and concentrates .....	265	184	-81	-30.6
TX032	Fur apparel and other fur articles .....	39	28	-11	-28.2
MM037	Iron construction castings and other nonmalleable cast-iron articles .....	25	18	-7	-28.0
AG010	Dairy produce .....	186	137	-49	-26.3
CH046	Other tires .....	28	21	-7	-25.0
AG052	Poles, piles, and posts .....	4	3	-1	-25.0
CH010	Benzene, toluene, and mixed xylenes .....	111	91	-20	-18.0
CH011	Benzenoid commodity chemicals .....	949	779	-170	-17.9
CH036	Explosives and propellant powders .....	92	76	-16	-17.4
CH023	Synthetics tanning agents .....	6	5	-1	-16.7
TX029	Gloves, including gloves for sports .....	97	81	-16	-16.5
CH037	Polyethylene resins in primary forms .....	607	513	-94	-15.5

<sup>1</sup> 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.

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

Table 6  
Import growth: Ranking of top 20 commodity groups

USITC code <sup>1</sup>	Commodity group	U.S. Imports January-June—		Change from January-June 1989 to January-June 1990	
		1989	1990	Absolute	Percent
		————— Million dollars —————			
Absolute value growth basis:					
CH005	Crude petroleum .....	16,274	19,214	2,940	18.1
ME023	Office machines .....	11,660	13,100	1,440	12.4
TX036	Nonrubber footwear and footwear parts .....	3,587	4,145	558	15.6
ME048	Apparatus for making, breaking, protecting, or connecting electrical circuits .....	2,119	2,674	555	26.2
CH006	Petroleum products .....	6,924	7,427	503	7.3
TX019	Trousers .....	2,062	2,481	419	20.3
ME001	Aircraft engines and gas turbines .....	1,881	2,273	392	20.8
GM027	Games and fairground amusements .....	909	1,244	335	36.9
CH007	Natural gas and components .....	1,237	1,557	320	25.9
TX020	Shirts and blouses .....	3,213	3,510	297	9.2
AG002	Live cattle and fresh, chilled, or frozen meat of cattle, except offal .....	1,086	1,327	241	22.2
AG019	Certain fresh, chilled, or frozen winter vegetables .....	346	559	213	61.6
GM030	Works of art, collectors' pieces, and antiques .....	1,018	1,207	189	18.6
CH050	Miscellaneous rubber or plastics products .....	1,492	1,680	188	12.6
TX035	Other wearing apparel .....	590	761	171	29.0
AG012	Sugar and other sweeteners .....	358	522	164	45.8
ME058	Aircraft, spacecraft, and related equipment .....	2,900	3,057	157	5.4
GM014	Medical goods .....	1,317	1,473	156	11.8
AG042	Nonalcoholic beverages including fruit and vegetable juices .....	498	654	156	31.3
ME014	Farm and garden machinery and equipment .....	1,349	1,485	136	10.1
Percentage growth basis:					
MM004	Copper ores and concentrates .....	5	87	82	1,640.0
TX034	Nonwoven, paper, and felt apparel and footwear .....	27	72	45	166.7
CH023	Synthetics tanning agents .....	1	2	1	100.0
MM005	Lead ores and residues .....	2	4	2	100.0
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included .....	38	70	32	84.2
AG019	Certain fresh, chilled, or frozen winter vegetables .....	346	559	213	61.6
GM011	Optical fibers, optical fiber bundles and cables .....	17	27	10	58.8
AG048	Cigarettes .....	12	19	7	58.3
CH039	PVC resins in primary forms .....	20	30	10	50.0
TX013	Sacks and bags of textile materials .....	13	19	6	46.2
AG012	Sugar and other sweeteners .....	358	522	164	45.8
ME062	Motors and engines, except internal combustion, aircraft, or electric .....	29	41	12	41.4
AG030	Fruit, uncooked, or cooked in water, frozen .....	28	39	11	39.3
GM029	Smokers' articles .....	49	68	19	38.8
GM021	Certain office and cosmetic supplies .....	64	88	24	37.5
GM027	Games and fairground amusements .....	909	1,244	335	36.9
TX037	Rubber footwear .....	299	409	110	36.8
ME057	Miscellaneous vehicles and transportation-related equipment .....	339	449	110	32.4
TX012	Miscellaneous textiles and articles .....	265	349	84	31.7
GM025	Dolls .....	197	259	62	31.5

<sup>1</sup> 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.

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

**Table 7**  
**Import declines: Ranking of top 20 commodity groups**

USITC code <sup>1</sup>	Commodity group	U.S. imports January-June—		Change from January-June 1989 to January-June 1990	
		1989	1990	Absolute	Percent
		————— Million dollars —————			
Absolute value decline basis:					
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing .....	30,731	29,581	-1,150	-3.7
MM027	Steel mill products, all grades .....	4,484	4,007	-477	-10.6
ME039	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players .....	2,356	1,921	-435	-18.5
MM039	Unwrought aluminum .....	1,476	1,134	-342	-23.2
MM043	Certain base metals and chemical elements .....	1,311	984	-327	-24.9
TX021	Sweaters .....	942	657	-285	-30.3
MM021	Natural and synthetic gemstones .....	2,520	2,241	-279	-11.1
ME055	Certain motor-vehicle parts .....	6,796	6,518	-278	-4.1
ME024	Miscellaneous industrial machinery .....	3,064	2,807	-257	-8.4
MM022	Precious metals and related articles .....	1,980	1,741	-239	-12.1
ME037	Telephone and telegraph apparatus .....	2,166	1,943	-223	-10.3
CH044	Natural rubber and other synthetic rubber .....	789	568	-221	-28.0
ME042	Radio transmission and reception apparatus, including cellular telephones, and combinations thereof .....	2,680	2,471	-209	-7.8
ME059	Ships, tugs, pleasure boats, and similar vessels .....	399	191	-208	-52.1
CH019	Fertilizers .....	997	795	-202	-20.3
ME060	Telecommunications products .....	2,977	2,812	-165	-5.5
MM042	Zinc and related articles .....	653	492	-161	-24.7
AG033	Coffee and tea .....	1,292	1,147	-145	-11.2
AG053	Lumber .....	1,557	1,423	-134	-8.6
MM038	Copper and related articles .....	1,188	1,057	-131	-11.0
Percentage decline basis:					
CH009	Other olefins .....	20	6	-14	-70.0
ME059	Ships, tugs, pleasure boats, and similar vessels .....	399	191	-208	-52.1
CH001	Electrical energy .....	293	177	-116	-39.6
CH003	Coal and other carbonaceous materials .....	229	142	-87	-38.0
TX028	Neckwear .....	201	125	-76	-37.8
ME056	Motorcycles, mopeds, and parts .....	294	192	-102	-34.7
MM023	Pig Iron .....	38	26	-12	-31.6
AG050	Furskins .....	95	66	-29	-30.5
TX021	Sweaters .....	942	657	-285	-30.3
AG052	Poles, piles, and posts .....	10	7	-3	-30.0
MM006	Zinc ores and residues .....	14	10	-4	-28.6
CH044	Natural rubber and other synthetic rubber .....	789	568	-221	-28.0
TX032	Fur apparel and other fur articles .....	114	84	-30	-26.3
AG035	Cereals .....	217	161	-56	-25.8
CH046	Other tires .....	44	33	-11	-25.0
MM007	Certain ores, concentrates, ash, and residues .....	296	222	-74	-25.0
AG061	Building papers and asphalt roofing shingles .....	32	24	-8	-25.0
CH024	Natural tanning and dyeing materials .....	36	27	-9	-25.0
MM043	Certain base metals and chemical elements .....	1,311	984	-327	-24.9
MM042	Zinc and related articles .....	653	492	-161	-24.7

<sup>1</sup> 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.

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

**Table 8**  
**U.S. trade position improvements: Ranking of top 30 commodity groups**  
*(In millions of dollars)*

USITC code <sup>1</sup>	Commodity group	U.S. balance January-June—		Absolute change from January-June 1989 to January-June 1990
		1989	1990	
ME058	Aircraft, spacecraft, and related equipment .....	7,889	12,041	4,152
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing .....	-23,805	-21,842	1,963
ME055	Certain motor-vehicle parts .....	-1,303	624	1,927
ME042	Radio transmission and reception apparatus, including cellular telephones, and combinations thereof .....	-1,382	-542	840
ME024	Miscellaneous industrial machinery .....	865	1,677	812
ME051	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices .....	-1,509	-745	764
TX001	Textile fibers and waste .....	1,095	1,717	622
AG048	Cigarettes .....	1,459	2,030	571
ME002	Internal combustion piston engines, other than for aircraft .....	-724	-159	565
ME060	Telecommunications products .....	-632	-169	463
ME039	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players .....	-2,147	-1,686	461
MM022	Precious metals and related articles .....	-438	16	454
CH028	Medicinal chemicals, except antibiotics .....	-39	392	431
MM043	Certain base metals and chemical elements .....	-814	-447	367
CH001	Electrical energy .....	-240	125	365
ME059	Ships, tugs, pleasure boats, and similar vessels .....	173	533	360
ME037	Telephone and telegraph apparatus .....	-1,205	-852	353
ME041	Records, tapes, compact discs, computer software, and other recorded media .....	383	734	351
GM015	Scientific instruments .....	2,033	2,380	347
MM039	Unwrought aluminum .....	-555	-229	326
MM027	Steel mill products, all grades .....	-3,030	-2,706	324
GM030	Works of art, collectors' pieces, and antiques .....	-329	-22	307
ME012	Construction and mining equipment .....	83	386	303
GM014	Medical goods .....	897	1,185	288
TX021	Sweaters .....	-936	-651	285
CH035	Paints, inks, and related items .....	48	330	282
ME048	Apparatus for making, breaking, protecting, or connecting electrical circuits .....	-455	-182	273
AG053	Lumber .....	-580	-308	272
GM019	Furniture and selected furnishings .....	-1,967	-1,696	271
CH044	Natural rubber and other synthetic rubber .....	-423	-154	269

<sup>1</sup> 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.

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



**Table 9**  
**U.S. trade position declines: Ranking of top 30 commodity groups**  
*(In millions of dollars)*

USITC code <sup>1</sup>	Commodity group	U.S. balance January-June—		Absolute change from January-June 1989 to January-June 1990
		1989	1990	
CH005	Crude petroleum .....	-16,236	-19,137	-2,901
AG035	Cereals .....	7,471	6,766	-705
CH002	Nuclear materials .....	519	-3	-522
CH013	Miscellaneous organic chemicals .....	1,532	1,032	-500
TX036	Nonrubber footwear and footwear parts .....	-3,412	-3,905	-493
ME023	Office machines .....	-346	-832	-486
TX019	Trousers .....	-1,781	-2,141	-360
CH007	Natural gas and components .....	-993	-1,316	-323
TX020	Shirts and blouses .....	-3,050	-3,354	-304
GM027	Games and fairground amusements .....	-722	-994	-272
ME001	Aircraft engines and gas turbines .....	1,765	1,504	-261
AG002	Live cattle and fresh, chilled, or frozen meat of cattle, except offal .....	-301	-555	-254
AG013	Animal feeds .....	1,676	1,441	-235
AG019	Certain fresh, chilled, or frozen winter vegetables .....	-308	-486	-178
CH011	Benzenoid commodity chemicals .....	693	515	-178
MM004	Copper ores and concentrates .....	260	97	-163
TX035	Other wearing apparel .....	-529	-688	-159
CH006	Petroleum products .....	-4,411	-4,567	-156
AG037	Oilseeds .....	2,245	2,101	-144
CH037	Polyethylene resins in primary forms .....	382	243	-139
AG012	Sugar and other sweeteners .....	-231	-365	-134
MM021	Natural and synthetic gemstones .....	-1,845	-1,971	-126
AG042	Nonalcoholic beverages including fruit and vegetable juices .....	-281	-399	-118
AG010	Dairy produce .....	-158	-270	-112
TX037	Rubber footwear .....	-297	-406	-109
TX031	Leather apparel and accessories .....	-457	-564	-107
CH004	Coal chemicals .....	60	-36	-96
TX022	Women's and girls' suits, skirts, and coats .....	-914	-1,007	-93
GM003	Luggage, handbags, and flatgoods .....	-884	-976	-92
CH020	Certain inorganic pigments .....	121	32	-89

<sup>1</sup> 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.

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



## Chapter 2 Agricultural Products

The U.S. merchandise trade surplus in agricultural products improved slightly for the first half of 1990, rising \$86 million over the level for the first 6 months of 1989 to just over \$8.3 billion (table 10). During the periods under review, U.S. agricultural exports increased by 4 percent, from \$22.4 billion to \$23.3 billion, and U.S. agricultural imports increased by 6 percent, from \$14.2 billion to \$15.0 billion.

In recent years, U.S. exports of cereals, oilseeds, cigarettes, and animal feeds have ac-

counted for nearly 60 percent of all agricultural exports. U.S. exports of cigarettes increased from \$1.3 billion during the first half of 1989 to \$1.9 billion during the corresponding period of 1990. Greater demand for U.S. cigarettes in Asian and Eastern European markets was the primary reason for this increase. During comparable 6-month periods, U.S. exports of cereals, oilseeds, and animal feeds all declined; to \$6.9 billion (for cereals), to \$2.2 billion (for oilseeds), and to \$1.6 billion (for animal feeds). These declines are primarily attributable to depressed unit prices rather than lower volumes for U.S. exports.

**Table 10**

**Agricultural, animal, and vegetable products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>**

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	10,275	5,063	5,195	132	2.6
Canada .....	2,434	1,218	2,285	1,067	87.6
European Community .....	7,691	3,815	4,328	513	13.4
West Germany .....	951	447	505	58	12.9
United Kingdom .....	729	322	383	61	18.9
Taiwan .....	1,831	843	871	28	3.3
Mexico .....	2,736	1,300	1,274	-26	-2.0
Republic of Korea .....	2,408	1,305	1,296	-9	-0.6
Hong Kong .....	1,105	524	603	79	15.0
Brazil .....	193	76	35	-41	-53.9
China .....	1,210	559	288	-271	-48.4
OPEC .....	2,743	1,346	1,308	-38	-2.8
All other .....	11,704	6,372	5,865	-507	-7.9
Total .....	44,330	22,421	23,348	927	4.1
U.S. imports for consumption:					
Japan .....	392	185	187	2	1.0
Canada .....	4,547	2,270	2,399	129	5.6
European Community .....	5,495	2,469	2,564	95	3.8
West Germany .....	567	285	285	0	0
United Kingdom .....	776	341	328	-13	-3.8
Taiwan .....	392	219	183	-36	-16.4
Mexico .....	2,762	1,511	1,863	352	23.2
Republic of Korea .....	229	115	105	-10	-8.6
Hong Kong .....	129	59	66	7	11.8
Brazil .....	1,549	780	821	41	5.2
China .....	602	314	370	56	17.8
OPEC .....	1,305	705	642	-63	-8.9
All other .....	10,697	5,528	5,796	268	4.8
Total .....	28,099	14,155	14,996	841	5.9
U.S. merchandise trade balance:					
Japan .....	9,883	4,878	5,008	130	2.6
Canada .....	-2,113	-1,052	-114	938	89.1
European Community .....	2,196	1,346	1,764	418	31.0
West Germany .....	384	162	220	58	35.8
United Kingdom .....	-47	-19	55	74	389.4
Taiwan .....	1,439	624	688	64	10.2
Mexico .....	-26	-211	-589	-378	-179.1
Republic of Korea .....	2,179	1,190	1,191	1	0.0
Hong Kong .....	976	465	537	72	15.4
Brazil .....	-1,356	-704	-786	-82	-11.6
China .....	608	245	-82	-327	-133.4
OPEC .....	1,438	641	666	25	3.9
All other .....	1,007	844	69	-775	-91.8
Total .....	16,231	8,266	8,352	86	1.0

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Historically, U.S. imports of shellfish, frozen fish, coffee and tea, and live cattle and meats thereof have accounted for one-third of all agricultural imports. U.S. imports of live cattle and meats thereof increased from \$1.1 billion in the first 6 months of 1989 to \$1.3 billion during the same period of 1990. This increase was primarily due to higher domestic prices for live cattle and beef during the first half of 1990. U.S. imports of coffee and tea decreased from \$1.3 billion during the first half of 1989 to \$1.1 billion during the first half of 1990, primarily reflecting a lower unit price for green coffee beans.

### **U.S. Bilateral Trade**

U.S. bilateral trade for agricultural products with the EC, Japan, Canada, and Mexico amounted to \$6.9 billion, \$5.4 billion, \$4.7 billion, and \$3.1 billion, respectively, during the first 6 months of 1990. The United States maintained a positive trade balance with its two largest partners; U.S. exports accounted for about 97 percent of the total agricultural trade with Japan and for about 63 percent of the total trade with the EC during the first 6 months of 1990. On the other hand, U.S. agricultural trade balances with Canada and Mexico, while smaller, were negative.

U.S. agricultural exports to the EC increased by 13 percent, from \$3.8 billion in the first half of 1989 to \$4.3 billion in the first half of 1990. The increased level in U.S. exports of cigarettes to the EC was a major contributing factor. U.S. exports to Japan were more stable, rising from \$5.1 billion to \$5.2 billion between corresponding periods. U.S. agricultural imports from Mexico increased by 23 percent, from \$1.5 billion during the first half of 1989 to \$1.9 billion during the first half of 1990. U.S. imports of winter vegetables from Mexico accounted for \$217 million of this increase. Over the same period, U.S. imports from the EC increased from \$2.5 billion to \$2.6 billion and imports from Canada increased from \$2.3 billion to \$2.4 billion.

### **Commodity Analyses**

#### ***Live cattle and fresh, chilled, or frozen meat of cattle, except offal***

U.S. imports of live cattle and fresh, chilled, or frozen meat of cattle (except offal) increased from 1.1 billion pounds (carcass-weight equivalent), valued at \$1.1 billion, in January-June 1989 to 1.2 billion pounds, valued at \$1.3 billion, during the corresponding period of 1990. A general increase in U.S. live cattle and beef prices in the first half of 1990 apparently contributed to the increase in imports. The value of U.S. imports from Canada increased by 38 percent, from \$279 million to \$386 million. U.S. Embassy officials in Canada report that in the first half of 1990, the

price spread between cattle for slaughter in western Canada and the United States widened, contributing to an increase in U.S. imports of Canadian live cattle. In addition, U.S. imports from Australia (almost all frozen beef) increased by 51 percent, from \$254 million to \$386 million. The U.S. Department of Agriculture (USDA) reports that during the first half of 1990 Australian exports of beef to Japan declined. Apparently demand for imported beef in the Japanese market has been affected by high retail prices, which have resulted in increased inventories. The USDA reports that beef that might otherwise have been shipped to the Japanese market may have been shipped to the U.S. market instead.

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#### ***Dairy produce***

The value of U.S. exports of dairy produce declined from \$186 million in January-June 1989 to \$137 million in the comparable period of 1990, or by about 26 percent. Most of the decline in the value of exports of dairy produce was accounted for by decreased exports of nonfat dry milk to Mexico. From January-June 1989 to January-June 1990, the value of the exports to Mexico dropped by about 73 percent, or from \$107 million to \$29 million.

World export supplies of nonfat dry milk shrank in 1988 as production in the European Community (EC) and the United States dropped and accumulated stocks were depleted. As these events occurred, world prices soared to record high levels and the United States, for a short time, became an important world supplier of the product, particularly to Mexico. Unlike the export situation of earlier years, exports of U.S.-produced nonfat dry milk from mid-1988 through 1989 originated in the private sector, largely in response to the high world prices. In the fall of 1989, however, world prices for nonfat dry milk softened and they have continued to decline in 1990. The USDA reports that such prices are expected to continue below the year-earlier level for the remainder of 1990 as supplies of nonfat dry milk exported from Eastern Europe and the EC have risen. As international prices for nonfat dry milk fell, U.S. exporters became unable to compete in the international market on a commercial basis; hence, exports in the first half of 1990 were lower than in the first half of 1989. The USDA currently projects that U.S. exports of nonfat dry milk in 1990 will average less than 20 percent of those in 1989.

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#### ***Sugar and other sweeteners***

The traditionally negative U.S. balance of trade in sugar and other sweeteners grew larger in

1989, mainly as a result of continuing increases in U.S. sugar imports. U.S. imports of sugar and other sweeteners rose by 45 percent, from \$358 million during the first 6 months of 1989 to \$522 million during the first 6 months of this year.

During the first half of 1990, the United States imported 528,000 short tons, raw value (strv) of sugar. During the same period in 1989, the United States imported only 251,000 strv. The increase in sugar imports reflects decreases in U.S. production. U.S. sugar production for the 1989/90 crop year is estimated by the USDA at 6.62 million strv, 4.2 percent below the 1988/89 crop and 9.7 percent below the 1987/88 crop. The continuing repercussions of last December's freeze in the continental cane areas and lower than expected yield and sucrose content in sugar beets are among the major reasons for lessened U.S. production. As a consequence of the reduction in domestic production, the U.S. sugar import quota for the 21-month period January 1, 1989–September 30, 1990, was revised four times between September 1989 and April 1990. The final increase on April 27, 1990, was to 2,833,050 metric tons. However, a shortfall for the quota period may occur as some exporting countries withhold exports because of domestic fuel crises and the possibility of more attractive world market prices.

U.S. exports of sugar and other sweeteners do show a slight increase. U.S. trade in sweeteners other than sugar is relatively small, except for high fructose corn syrup (HFCS). In 1989, HFCS exports jumped from 4,000 tons the previous year to 69,000 tons, with Belgium and Canada as major markets. In 1990, the USDA anticipates U.S. exports of HFCS to be around 100,000 short tons, dry basis.

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### *Cereals and animal feeds*

U.S. exports of cereals, especially corn and wheat, and grain byproducts used in the formulation of animal feeds, as well as prepared animal feeds, declined sharply, from a total of \$9.5 billion during January–June 1989 to \$8.5 billion during the corresponding period in 1990. The trade balance for these commodities, though remaining positive, declined by 10 percent during the period in question, from \$9.1 billion to \$8.2 billion. Seventy-five percent of the decline in the trade balance is accounted for by the decrease in exports of cereals.

Since the period in question encompasses the end of one crop, but precludes the marketing of the newly harvested crop, this decline is of a seasonal nature. The USDA statistics show increased exports of cereal and feed grains from 99.8 mmt. in 1988/89 to 102.6 mmt. in 1990/91. The USDA

indicates a decline in wheat exports from 38.6 mmt. in 1988/89 to 34 mmt. in 1990/91, and an increase in feed grain exports from 61.2 mmt. in 1988/89 to 68.6 mmt. in 1990/91.

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### *Winter vegetables*

Winter vegetables are typically defined as tomatoes, cucumbers, eggplants, peppers (capsicum or pimenta), and squash. In terms of value, U.S. imports of fresh, chilled, and frozen winter vegetables rose from \$346.3 million during January–June 1989 to \$559.5 million during the same period in 1990. This 62-percent increase is less dramatic when compared to the quantity of imports, which actually showed a 1-percent decline between the two periods, to 568 metric tons. The increase in values was caused by an improvement in U.S. prices for most of these vegetables, which in turn put upward pressure on import unit values. Prices rose because adverse weather conditions, though not causing widespread shortages, generally restricted the ability of some farmers to increase output in response to normal rises in consumer demand. Tomato prices, in particular, have trended upward in the last year, as drought conditions in California and the December freeze in Florida created unexpected shortfalls in tomato production during the off-growing season for most parts of the country. Fresh tomatoes typically account for over half of U.S. imports of winter vegetables. In terms of both quantity and value, the United States receives approximately 95 percent of its winter vegetable imports from Mexico, usually in either a fresh or chilled state.

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### *Citrus fruits*

U.S. exports of citrus fruits fell 9.1 percent, from \$375 million in the first 6 months of 1989 to \$341 million in the corresponding period of 1990. This export decline was due primarily to a reduction in exports of fresh grapefruit, which accounts for about half of the value of exports of citrus fruit. Exports of oranges and lemons remained at about the same or higher levels as in the previous year.

Freezing weather in Florida during December 1989 resulted in a decline in U.S. production of citrus fruit from 11.9 million metric tons in 1988/89 to 9.66 million metric tons in 1989/90. This fall in production reduced available supplies for export and also increased domestic demand for imports. Exports in both 1989 and 1990 were equivalent to about 8 percent of U.S. production.

Japan is by far the largest importer of U.S. citrus fruits, accounting for over half of U.S. exports in the first half of 1989. However, the value of

U.S. exports to Japan fell from \$197 million in the first half of 1989 to \$163 million in the first half of 1990. The loss in grapefruit sales to Japan was partially offset by higher sales to Japan of fresh oranges.

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202-252-1316

### *Coffee and tea*

The value of U.S. coffee and tea imports decreased from \$1.3 billion in January-June 1989 to \$1.1 billion during the same period of 1990. Green coffee beans made up over 90 percent of all such imports during 1989. The decline in value was primarily the result of a decline in the unit value of green coffee beans imported during the period. Trade sources indicate the decline in value was a reflection of the increased coffee harvest, compared with the previous year, and the resulting lower prices.

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### *Oilseeds and animal or vegetable fats and oils*

U.S. exports of oilseeds declined by 5 percent to \$2.2 billion in the first half of 1990, as compared with exports in the first half of 1989. A 21-percent decline in the export unit value of soybeans during the first 6 months of 1990 more than offset an export volume increase of 19 percent. The abundant U.S. soybean crop harvested in 1989 improved available export supplies, but contributed to lower soybean prices in 1990.

The EC, the leading U.S. market, purchased about 30 percent of U.S. soybean exports in the first half of 1990. Lower U.S. prices and reduced EC production of competitive oilseeds stimulated U.S. sales in that market. The depreciation of the U.S. dollar relative to most EC currencies enhanced the price reduction of U.S. soybeans in Europe.

U.S. net trade of animal and vegetable oils, fats, and greases meanwhile declined by about 4 percent in the first half of 1990 as U.S. exports remained essentially unchanged, and imports rose by 3 percent in value, to \$330 million. Higher sales of coconut and olive oils boosted U.S. fats and oils imports in the first half of 1990.

John Reeder  
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### *Nonalcoholic beverages, including fruit and vegetable juices*

There was a negative trade shift of 42 percent in the trade balance for nonalcoholic beverages, including fruit and vegetable juices, in the January to June 1990 period when compared with the year-earlier period. The trade shift was caused primarily by an increase in imports from \$498 mil-

lion to \$654 million, an increase of 31.3 percent. As a result, the negative trade balance for these products changed from \$281 million in the first 6 months of 1989 to \$399 million in the first 6 months of 1990.

The principal reason for the negative shift in trade was a December 1989 freeze in Florida, which reduced citrus juice production. In Florida, where most U.S. juice oranges and grapefruit are grown, the production of processed citrus fruits fell from 7.8 million tons in the 1988/89 season to 5.8 million tons in the 1989/90 season in spite of an increase in bearing acreage. The production of frozen orange juice concentrate fell from 114 million boxes in 1988/89 to 74 million boxes in 1989/90. Also, the yield per box fell from 1.54 gallons per box to 1.23 gallons per box. Grapefruit concentrate followed a similar pattern.

The shortfall in Florida citrus juice production resulted in a dramatic increase in imports, especially from Brazil, which had a bumper citrus crop in the 1989/90 season. U.S. imports from Brazil of nonalcoholic beverages in the first 6 months of 1990 increased to \$311 million from \$195 million in the corresponding period of 1989, or by 60 percent. Meanwhile, U.S. exports to Japan, the largest importer of U.S. product, decreased from \$104 million to \$86 million during this period, representing a fall of 18 percent.

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202-252-1316

### *Tobacco*

U.S. exports of tobacco and tobacco products in the first half of 1990 were \$2.4 billion, or 26 percent higher than the corresponding period in 1989. Cigarettes continued to lead other tobacco products in the pace of export growth, rising by 39 percent in value, from \$1.5 billion in January-June 1989 to \$2.0 billion in January-June 1990.

Asian markets accounted for a significant percentage of the growth in U.S. cigarette exports, following a pattern similar to that of recent years. Asian countries were destinations for about one-third of U.S. cigarette exports in the first 6 months of 1990. U.S. cigarette exports to Asian markets increased about 30 percent in the first 6 months of 1990 compared with the first 6 months of 1989.

U.S. cigarette shipments to Europe surged in the first half of 1990, in part to supply Eastern European countries. Most of these exports were recorded as U.S. exports to the EC, but actually were transhipped to other destinations (including Eastern Europe). Although the exact value of U.S. exports to Eastern Europe in 1990 is uncertain, the data suggest that U.S. exports for the first 6 months of 1990 were nearly double the level exported to Eastern Europe during the first 6 months of 1989.

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**Table 11**  
**Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by**  
**specified periods, January 1989-June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	January-June—			Change from January-June 1989 to January-June 1990	
		1989	1989	1990	Value	Percent change
Million dollars						
AG001	Certain miscellaneous live animals, meat, and animal products:					
	Exports .....	1,135	491	542	51	10.4
	Imports .....	947	460	496	36	7.8
	Trade balance .....	188	31	46	15	48.4
AG002	Live cattle and fresh, chilled, or frozen meat of cattle, except offal:					
	Exports .....	1,500	785	772	-13	-1.7
	Imports .....	2,131	1,086	1,327	241	22.2
	Trade balance .....	-631	-301	-555	-254	-84.4
AG003	Live swine and fresh, chilled, or frozen pork, except offal:					
	Exports .....	312	148	158	10	6.8
	Imports .....	495	265	284	19	7.2
	Trade balance .....	-183	-117	-126	-9	-7.7
AG004	Lamb, fresh, chilled, or frozen:					
	Exports .....	2	1	1	0	0
	Imports .....	34	16	17	1	6.3
	Trade balance .....	-32	-15	-16	-1	-6.7
AG005	Poultry:					
	Exports .....	600	290	390	100	34.5
	Imports .....	26	14	13	-1	-7.1
	Trade balance .....	574	276	377	101	36.6
AG006	Fish, except shellfish, fresh or chilled:					
	Exports .....	155	61	67	6	9.8
	Imports .....	611	333	307	-26	-7.8
	Trade balance .....	-456	-272	-240	32	11.8
AG007	Fish, except shellfish, frozen:					
	Exports .....	1,236	412	572	160	38.8
	Imports .....	1,485	710	640	-70	-9.9
	Trade balance .....	-249	-298	-68	230	77.2
AG008	Fish, except shellfish, in airtight containers, or cured or otherwise prepared, including live fish:					
	Exports .....	342	146	157	11	7.5
	Imports .....	724	400	336	-64	-16.0
	Trade balance .....	-382	-254	-179	75	29.5
AG009	Shellfish:					
	Exports .....	577	353	404	51	14.4
	Imports .....	2,629	1,275	1,257	-18	-1.4
	Trade balance .....	-2,052	-922	-853	69	7.5
AG010	Dairy produce:					
	Exports .....	365	186	137	-49	-26.3
	Imports .....	815	344	407	63	18.3
	Trade balance .....	-450	-158	-270	-112	-70.9
AG011	Eggs:					
	Exports .....	88	40	43	3	7.5
	Imports .....	28	13	13	0	0
	Trade balance .....	60	27	30	3	11.1
AG012	Sugar and other sweeteners:					
	Exports .....	277	127	157	30	23.6
	Imports .....	776	358	522	164	45.8
	Trade balance .....	-499	-231	-365	-134	-58.0
AG013	Animal feeds:					
	Exports .....	3,161	1,861	1,623	-238	-12.8
	Imports .....	388	185	182	-3	-1.6
	Trade balance .....	2,773	1,676	1,441	-235	-14.0

See footnotes at end of table.

Table 11—Continued

Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June--		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percent change
Million dollars						
AG014	Live plants:					
	Exports .....	52	31	71	40	129.0
	Imports .....	147	57	63	6	10.5
	Trade balance .....	-95	-26	8	34	130.8
AG015	Seeds:					
	Exports .....	245	110	126	16	14.5
	Imports .....	126	68	67	-1	-1.5
	Trade balance .....	119	42	59	17	40.5
AG016	Cut flowers:					
	Exports .....	11	5	16	11	220.0
	Imports .....	316	171	184	13	7.6
	Trade balance .....	-305	-166	-168	-2	-1.2
AG017	Miscellaneous vegetable substances:					
	Exports .....	283	136	141	5	3.7
	Imports .....	362	179	198	19	10.6
	Trade balance .....	-79	-43	-57	-14	-32.6
AG018	Fresh, chilled, or frozen vegetables:					
	Exports .....	355	218	368	150	68.8
	Imports .....	456	266	301	35	13.2
	Trade balance .....	-101	-48	67	115	239.6
AG019	Certain fresh, chilled, or frozen winter vegetables:					
	Exports .....	64	38	73	35	92.1
	Imports .....	478	346	559	213	61.6
	Trade balance .....	-414	-308	-486	-178	-57.8
AG020	Prepared or preserved vegetables:					
	Exports .....	297	133	195	62	46.6
	Imports .....	399	224	194	-30	-13.4
	Trade balance .....	-102	-91	1	92	101.1
AG021	Olives:					
	Exports .....	4	2	2	0	0
	Imports .....	145	69	66	-3	-4.3
	Trade balance .....	-141	-67	-64	3	4.5
AG022	Dried vegetables:					
	Exports .....	447	191	230	39	20.4
	Imports .....	124	64	81	17	26.6
	Trade balance .....	323	127	149	22	17.3
AG023	Mushrooms and truffles:					
	Exports .....	10	3	10	7	233.3
	Imports .....	160	94	80	-14	-14.9
	Trade balance .....	-150	-91	-70	21	23.1
AG024	Edible nuts:					
	Exports .....	885	356	450	94	26.4
	Imports .....	344	138	143	5	3.6
	Trade balance .....	541	218	307	89	40.8
AG025	Certain tropical fruits, fresh or dried:					
	Exports .....	42	23	25	2	8.7
	Imports .....	963	483	538	55	11.4
	Trade balance .....	-921	-460	-513	-53	-11.5
AG026	Citrus fruits:					
	Exports .....	592	375	341	-34	-9.1
	Imports .....	74	40	50	10	25.0
	Trade balance .....	518	335	291	-44	-13.1
AG027	Certain deciduous fruits, fresh:					
	Exports .....	302	135	196	61	45.2
	Imports .....	115	88	87	-1	-1.1
	Trade balance .....	187	47	109	62	131.9

See footnotes at end of table.



Table 11—Continued  
Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June--		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percent change
Million dollars						
AG028	Other fresh fruits:					
	Exports .....	225	73	117	44	60.3
	Imports .....	421	352	407	55	15.6
	Trade balance .....	-196	-279	-290	-11	-3.9
AG029	Dried fruits, other than tropical:					
	Exports .....	276	118	145	27	22.9
	Imports .....	34	12	14	2	16.7
	Trade balance .....	242	106	131	25	23.6
AG030	Fruit, uncooked, or cooked in water, frozen:					
	Exports .....	32	11	15	4	36.4
	Imports .....	47	28	39	11	39.3
	Trade balance .....	-15	-17	-24	-7	-41.2
AG031	Jams, fruit jellies and marmalades; cooked fruit or nut purees and pastes; and fruit or other edible parts of plants preserved by sugar:					
	Exports .....	17	8	10	2	25.0
	Imports .....	41	19	21	2	10.5
	Trade balance .....	-24	-11	-11	0	0
AG032	Canned fruits, provisionally preserved fruits and nuts, fruit flours, and fruits (except citrus) preserved in ways not elsewhere specified or included:					
	Exports .....	82	41	46	5	12.2
	Imports .....	269	138	128	-10	-7.2
	Trade balance .....	-187	-97	-82	15	15.5
AG033	Coffee and tea:					
	Exports .....	101	49	51	2	4.1
	Imports .....	2,563	1,292	1,147	-145	-11.2
	Trade balance .....	-2,462	-1,243	-1,096	147	11.8
AG034	Spices:					
	Exports .....	24	13	19	6	46.2
	Imports .....	258	136	117	-19	-14.0
	Trade balance .....	-234	-123	-98	25	20.3
AG035	Cereals:					
	Exports .....	14,814	7,688	6,927	-761	-9.9
	Imports .....	381	217	161	-56	-25.8
	Trade balance .....	14,433	7,471	6,766	-705	-9.4
AG036	Milled grains, malts, and starches:					
	Exports .....	466	228	220	-8	-3.5
	Imports .....	115	63	54	-9	-14.3
	Trade balance .....	351	165	166	1	0.6
AG037	Oilseeds:					
	Exports .....	4,088	2,332	2,206	-126	-5.4
	Imports .....	162	87	105	18	20.7
	Trade balance .....	3,926	2,245	2,101	-144	-6.4
AG038	Natural gums, resins, and gum resins:					
	Exports .....	58	30	29	-1	-3.3
	Imports .....	98	50	52	2	4.0
	Trade balance .....	-40	-20	-23	-3	-15.0
AG039	Animal or vegetable fats and oils:					
	Exports .....	1,329	635	633	-2	-0.3
	Imports .....	663	320	330	10	3.1
	Trade balance .....	666	315	303	-12	-3.8

See footnotes at end of table.

Table 11—Continued

Agricultural, animal, and vegetable products sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June--		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percent change
Million dollars						
AG040	Edible preparations:					
	Exports .....	1,013	481	670	189	39.3
	Imports .....	873	392	433	41	10.5
	Trade balance .....	140	89	237	148	166.3
AG041	Cocoa, chocolate, and confectionery:					
	Exports .....	237	107	150	43	40.2
	Imports .....	1,158	620	650	30	4.8
	Trade balance .....	-921	-513	-500	13	2.5
AG042	Nonalcoholic beverages including fruit and vegetable juices:					
	Exports .....	395	217	255	38	17.5
	Imports .....	945	498	654	156	31.3
	Trade balance .....	-550	-281	-399	-118	-42.0
AG043	Malt beverages:					
	Exports .....	107	54	73	19	35.2
	Imports .....	839	416	435	19	4.6
	Trade balance .....	-732	-362	-362	0	0
AG044	Wine and certain other fermented beverages:					
	Exports .....	99	47	55	8	17.0
	Imports .....	937	385	377	-8	-2.1
	Trade balance .....	-838	-338	-322	16	4.7
AG045	Distilled spirits:					
	Exports .....	227	93	114	21	22.6
	Imports .....	1,358	558	664	106	19.0
	Trade balance .....	-1,131	-465	-550	-85	-18.3
AG046	Unmanufactured tobacco:					
	Exports .....	1,341	750	768	18	2.4
	Imports .....	550	262	258	-4	-1.5
	Trade balance .....	791	488	510	22	4.5
AG047	Certain manufactured tobacco products, including cigars, smoking tobacco, chewing tobacco, and snuff:					
	Exports .....	263	132	140	8	6.1
	Imports .....	60	27	29	2	7.4
	Trade balance .....	203	105	111	6	5.7
AG048	Cigarettes:					
	Exports .....	3,369	1,471	2,049	578	39.3
	Imports .....	28	12	19	7	58.3
	Trade balance .....	3,341	1,459	2,030	571	39.1
AG049	Hides, skins, and leather:					
	Exports .....	2,197	1,073	1,229	156	14.5
	Imports .....	855	430	422	-8	-1.9
	Trade balance .....	1,342	643	807	164	25.5
AG050	Furskins:					
	Exports .....	232	149	158	9	6.0
	Imports .....	146	95	66	-29	-30.5
	Trade balance .....	86	54	92	38	70.4

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.<sup>2</sup> 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.

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

## Chapter 3

### Forest Products

The January-June 1989 trade deficit of \$1.0 billion in forest products improved to a surplus of \$127 million during the first 6 months of 1990 (table 12). Total U.S. forest product exports increased by 11 percent, from \$8.6 billion during the first half of 1989 to \$9.5 billion during the first half of 1990. U.S. imports of forest products decreased by 2 percent, from \$9.6 billion to \$9.4 billion between corresponding 6-month periods.

Historically, U.S. exports of pulp and waste paper, logs, printed matter, and industrial papers account for about 70 percent of all forest product exports. U.S. exports of industrial papers (primarily composed of kraft linerboard) increased from \$1.2 billion in the first half of 1989 to \$1.4 billion during the same period of 1990. U.S. lumber and structural panel product exports also increased; to \$1.1 billion (for lumber) and to \$401 million (for structural panel products). Domestic printed matter exports also posted an increase; these exports increased from \$1.3 billion to \$1.5 billion. U.S. log and rough wood product exports remain steady near \$1.5 billion

Table 12

Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	4,629	2,272	2,241	-31	-1.3
Canada .....	2,498	1,213	2,047	834	68.7
European Community .....	3,694	1,882	2,070	188	9.9
West Germany .....	763	389	395	6	1.5
United Kingdom .....	909	453	481	28	6.1
Taiwan .....	519	271	237	-34	-12.5
Mexico .....	1,296	645	660	15	2.3
Republic of Korea .....	943	465	494	29	6.2
Hong Kong .....	207	103	114	11	10.6
Brazil .....	80	34	33	-1	-2.9
China .....	387	203	124	-79	-38.9
OPEC .....	570	286	281	-5	-1.7
All other .....	2,401	1,193	1,193	0	0
Total .....	17,224	8,567	9,494	927	10.8
U.S. imports for consumption:					
Japan .....	436	212	195	-17	-8.0
Canada .....	13,176	6,745	6,550	-195	-2.8
European Community .....	1,681	798	854	56	7.0
West Germany .....	440	214	207	-7	-3.2
United Kingdom .....	432	214	227	13	6.0
Taiwan .....	501	228	186	-42	-18.4
Mexico .....	631	309	236	-73	-23.6
Republic of Korea .....	108	53	59	6	11.3
Hong Kong .....	192	81	98	17	20.9
Brazil .....	356	159	166	7	4.4
China .....	199	82	99	17	20.7
OPEC .....	378	171	202	31	18.1
All other .....	1,448	734	722	-12	-1.6
Total .....	19,106	9,572	9,367	-205	-2.1
U.S. merchandise trade balance:					
Japan .....	4,193	2,060	2,046	-14	-0.6
Canada .....	-10,678	-5,532	-4,503	1,029	18.6
European Community .....	2,013	1,084	1,216	132	12.1
West Germany .....	323	175	188	13	7.4
United Kingdom .....	477	239	254	15	6.2
Taiwan .....	18	43	51	8	18.6
Mexico .....	665	336	424	88	26.1
Republic of Korea .....	835	412	435	23	5.5
Hong Kong .....	15	22	16	-6	-27.2
Brazil .....	-276	-125	-133	-8	-6.4
China .....	188	121	25	-96	-79.3
OPEC .....	192	115	79	-36	-31.3
All other .....	953	459	471	12	2.6
Total .....	-1,882	-1,005	127	1,132	112.6

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

during both first-half periods. Another strong export sector, pulp and waste paper, experienced a slight decline in export levels. Pulp and waste paper exports decreased from \$2.2 billion during January-June 1989 to \$2.1 billion during the same period of 1990.

Historically, U.S. imports of newsprint and other printing/writing papers, pulp, and lumber account for about two-thirds of all forest product imports. U.S. imports of newsprint declined from \$2.3 billion during the first half of 1989 to \$2.2 billion during the first half of 1990. Most of this decrease can be attributed to a decline in the average price of Canadian newsprint, which fell from \$517 per ton during the first half of 1989 to \$503 per ton during the first half of 1990. U.S. imports of pulp decreased by about 5 percent, on a tonnage basis, but remained near a \$1.5 billion level during the corresponding 6-month periods. The average value of Canadian pulp imports, across all grades, increased from \$591 per ton in 1989 to \$605 per ton in 1990. U.S. imports of lumber declined from \$1.6 billion during the first half of 1989 to \$1.4 billion during the first half of 1990. One area where U.S. imports increased was in structural panel products. Imports of structural panel products increased from \$487 million to \$520 million.

### U.S. Bilateral Trade

During the first 6 months of 1990, U.S. bilateral trade in forest products amounted to \$18.9 billion. Slightly more than one-third of this trade was accounted for by U.S. imports from Canada, valued at \$6.5 billion. Canada supplied 70 percent of all U.S. forest product imports. The leading Canadian import commodities were newsprint, pulp, and softwood lumber. The second-leading source for U.S. imports was the EC. The EC supplied 9 percent of all U.S. forest product imports during January-June 1990; these imports were valued at \$854 million.

During the first half of 1990, two-thirds of all U.S. forest product exports found their destination in Japan, the EC, or Canada. Exports accounted for 92 percent of all forest product trade with Japan and amounted to \$2.2 billion during the first 6 months of 1990. About 71 percent of all forest product trade with the EC is also U.S. exports; these exports amounted to \$2.1 billion during the 6-month period. U.S. exports to Canada during January-June 1990 amounted to \$2.0 billion. The fourth-leading market for U.S. forest product exports was Mexico. During the first 6 months of 1990, U.S. forest product exports to Mexico amounted to \$660 million. U.S. exports have accounted for about two-thirds of all forest product trade with Mexico in recent years.

## Commodity Analyses

### Wood and wood products

The U.S. trade surplus in wood and wood products rose from \$12 million during the first half of 1989 to \$532 million in the first half of 1990, as the level of imports declined and the level of exports increased. Imports of wood and wood products declined by 3 percent, falling to \$2.8 billion during the first half of 1990. Exports of these products increased by 14 percent, to \$3.4 billion during the first half of 1990.

U.S. imports of lumber accounted for most of the decrease in imports of wood and wood products. Imports of lumber fell by almost 9 percent, decreasing from \$1.6 billion during the first half of 1989 to \$1.4 billion in the corresponding period of 1990. The decline was the result of a sharp decline in the level of U.S. housing starts, the major driving force behind U.S. lumber consumption, combined with declining demand from the repair and remodeling and the materials-handling industries. U.S. housing starts declined by 8 percent from the first half of 1989, to 651,400 units during the first half of 1990, and the repair and remodeling industry consumed about 1 percent less lumber during the period. Imports of structural panel products rose by 7 percent, from \$487 million in the first half of 1989 to \$520 million in the first half of 1990. Most of the increase was the result of increased imports of hardwood plywood, which rose by 11 percent, to \$266 million in the first half of 1990. Indonesia is the leading U.S. supplier of hardwood plywood. Imports of all structural wood panels from Indonesia rose by 20 percent, to \$160 million during the first half of 1990.

U.S. exports of wood and wood products increased from \$2.9 billion during the first half of 1989 to \$3.4 billion in the corresponding period of 1990. U.S. exports of lumber led the increase, rising by 14 percent, to \$1.1 billion, followed by exports of structural panel products, which rose by 38 percent, to \$401 million, and logs and rough wood products, which rose by 6 percent, to \$1.5 billion during the first half of 1990. Increased demand coupled with short world supplies led to increased prices for U.S. exports of hardwood lumber. Increased log and rough wood product exports to Japan, up by 10 percent, to \$1.1 billion in the first half of 1990, and to Canada more than offset a 45-percent drop in exports of logs and rough wood products to China. China has historically been a sporadic market for such products. Exports of logs and rough wood products to China fell from \$96 million during the first half of 1989 to \$53 million during the first half of 1990. Softwood logs account for three-fourths of all exports of logs and rough wood products.

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### *Pulp, paper, paperboard, and printed material*

The United States recorded a \$404 million deficit of trade in pulp, paper, paperboard, and printed material during the first half of 1990, down sharply from the \$1.0 billion deficit posted during the corresponding period of 1989. The decrease in the deficit was achieved through a 9-percent increase in U.S. exports coupled with a 2-percent decrease in imports between the first half of 1989 and the corresponding period of 1990. During the first half of 1990, the value of U.S. exports increased to 94 percent of U.S. imports, up from 85 percent during the corresponding period of 1989.

U.S. imports of pulp, paper, paperboard, and printed material decreased from \$6.6 billion in the first half of 1989 to \$6.5 billion in the corresponding period of 1990, while U.S. exports of these products increased from \$5.6 billion in the first half of 1989 to \$6.1 billion in the corresponding period of 1990. Canada accounted for about 72 percent of all U.S. imports of pulp, paper, paperboard, and printed matter in the first half of 1990. However, imports of these products from Canada decreased to \$4.69 billion in the first half of 1990 from \$4.74 billion in the corresponding period of 1989. U.S. exports to Canada increased from \$899 million in the first half of 1989 to \$1.5 billion in the corresponding period of 1990.

U.S. imports experiencing noticeable decreases during the period included the commodity groupings of (1) newsprint and printing and writing papers and (2) pulp and wastepaper. The value of U.S. imports of newsprint and other printing/writing papers accounted for a significant portion of the decrease, declining from \$3.4 bil-

lion in the first half of 1989 to \$3.3 billion in the corresponding period of 1990. This decrease, most of which is attributable to Canada, is the result of a decrease in the average price of newsprint from \$517 per ton in the first half of 1989 to \$503 per ton in the corresponding period of 1990. The value of pulp and wastepaper imports decreased by 2 percent, from \$1.6 billion in 1989 to \$1.5 billion in 1990, and tonnage decreased from about 2.7 million tons in the first half of 1989 to 2.5 million tons in the corresponding period of 1990. An increase in the average price from \$572 to \$595 per ton contributed to the decrease in pulp and wastepaper tonnage. Canada supplied about 90 percent of all U.S. pulp and wastepaper imports in the first half of 1990.

U.S. exports experiencing noticeable increases included most major sectors, with the exception of pulp and wastepaper. The value of U.S. pulp and wastepaper exports decreased by 3 percent, from \$2.2 billion during the first half of 1989 to \$2.1 billion during the corresponding period of 1990, primarily resulting in decreases to Japan, China, and Iraq. Exports of industrial papers and paperboard increased by 15 percent, from \$1.2 billion in the first half of 1989 to \$1.4 billion during the corresponding period of 1990. Kraftliner accounted for a large share of the increase in paperboard exports with across-the-board increases to most major trading partners. U.S. exports of printed matter (books and other printed material) increased by 19 percent between the first half of 1989 and the corresponding period of 1990, from \$1.3 billion to \$1.5 billion. Printed books, including textbooks and directories, accounted for the bulk of the increase.

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**Table 13**  
**Forest products sector: U.S. trade for selected commodity groups, by specified periods, January 1989-June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percent change
Million dollars						
AG051	Logs and rough wood products:					
	Exports .....	2,854	1,455	1,549	94	6.5
	Imports .....	289	148	140	-8	-5.4
	Trade balance .....	2,565	1,307	1,409	102	7.8
AG052	Poles, piles, and posts:					
	Exports .....	9	4	3	-1	-25.0
	Imports .....	15	10	7	-3	-30.0
	Trade balance .....	-6	-6	-4	2	33.3
AG053	Lumber:					
	Exports .....	2,047	977	1,115	138	14.1
	Imports .....	3,024	1,557	1,423	-134	-8.6
	Trade balance .....	-977	-580	-308	272	46.9
AG054	Moldings, millwork, and joinery:					
	Exports .....	248	117	167	50	42.7
	Imports .....	602	305	304	-1	-0.3
	Trade balance .....	-354	-188	-137	51	27.1
AG055	Structural panel products:					
	Exports .....	643	291	401	110	37.8
	Imports .....	1,011	487	520	33	6.8
	Trade balance .....	-368	-196	-119	77	39.3
AG056	Wooden containers:					
	Exports .....	52	23	32	9	39.1
	Imports .....	152	53	53	0	0
	Trade balance .....	-100	-30	-21	9	30.0
AG057	Tools and tool handles of wood:					
	Exports .....	11	6	6	0	0
	Imports .....	77	36	34	-2	-5.6
	Trade balance .....	-66	-30	-28	2	6.7
AG058	Miscellaneous articles of wood:					
	Exports .....	123	58	75	17	29.3
	Imports .....	367	186	195	9	4.8
	Trade balance .....	-244	-128	-120	8	6.3
AG059	Cork and rattan:					
	Exports .....	25	13	17	4	30.8
	Imports .....	322	148	159	11	7.4
	Trade balance .....	-297	-135	-142	-7	-5.2
AG060	Pulp and wastepaper:					
	Exports .....	4,362	2,194	2,125	-69	-3.1
	Imports .....	3,084	1,558	1,526	-32	-2.1
	Trade balance .....	1,278	636	599	-37	-5.8
AG061	Building papers and asphalt roofing shingles:					
	Exports .....	16	8	5	-3	-37.5
	Imports .....	59	32	24	-8	-25.0
	Trade balance .....	-43	-24	-19	5	20.8
AG062	Paper boxes and bags:					
	Exports .....	372	189	237	48	25.4
	Imports .....	192	88	105	17	19.3
	Trade balance .....	180	101	132	31	30.7
AG063	Industrial papers and paper- boards:					
	Exports .....	2,410	1,217	1,399	182	15.0
	Imports .....	1,028	491	468	-23	-4.7
	Trade balance .....	1,382	726	931	205	28.2
AG064	Newsprint and other printing and writing papers:					
	Exports .....	832	426	475	49	11.5
	Imports .....	6,570	3,366	3,280	-86	-2.6
	Trade balance .....	5,738	-2,940	-2,805	135	4.6
AG065	Certain specialty papers:					
	Exports .....	217	111	161	50	45.0
	Imports .....	419	220	229	9	4.1
	Trade balance .....	-202	-109	-68	41	37.6
AG066	Miscellaneous paper products:					
	Exports .....	438	221	229	8	3.6
	Imports .....	328	151	167	16	10.6
	Trade balance .....	110	70	62	-8	-11.4

See footnotes at end of table.

Table 13—Continued

Forest products sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	<u>January-June—</u>		<u>Change from January-June 1989 to January-June 1990</u>	
			1989	1990	Value	Percent change
<hr/> <i>Million dollars</i> <hr/>						
AG067	Printed matter:					
	Exports .....	2,569	1,259	1,495	236	18.7
	Imports .....	1,566	734	733	-1	-0.1
	Trade balance .....	1,003	525	762	237	45.1

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> 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.

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





## Chapter 4

### Fibers, Textiles, Apparel, And Footwear

The fiber, textile, apparel and footwear sectors have traditionally accounted for a significant portion of the U.S. merchandise trade deficit. Together, they accounted for 28 percent of the overall deficit during the first half of 1990. The U.S. deficit in fiber, textile, apparel, and footwear trade widened by 2 percent, to \$13.8 billion during the first half of 1990 compared with that

during the corresponding period of 1989 (table 14 and table 15).

The U.S. trade surplus in textile fibers and waste expanded by \$622 million during the first 6 months of 1990 compared with the first half of 1989. Normally, U.S. cotton prices are higher than the world market prices. Recently, however, world cotton prices have increased, making U.S. cotton more competitive. Demand for cotton was also strong in foreign markets. As a result, U.S. exports of raw cotton increased by \$600 million, placing it high among all commodities in terms of export growth. At the same time, favorable exchange rates helped boost U.S. exports of textile

Table 14

Fibers, textiles, and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan	1,098	500	608	108	21.6
Canada	903	446	789	343	76.9
European Community	1,699	849	1,141	292	34.3
West Germany	326	171	216	45	26.3
United Kingdom	357	173	202	29	16.7
Taiwan	154	81	104	23	28.3
Mexico	831	404	521	117	28.9
Republic of Korea	564	272	321	49	18.0
Hong Kong	223	98	148	50	51.0
Brazil	41	14	20	6	42.8
China	418	215	217	2	0.9
OPEC	585	308	316	8	2.5
All other	2,537	1,190	1,513	323	27.1
Total	9,053	4,377	5,698	1,321	30.1
U.S. imports for consumption:					
Japan	877	450	373	-77	-17.1
Canada	673	315	346	31	9.8
European Community	3,492	1,639	1,668	29	1.7
West Germany	433	207	215	8	3.8
United Kingdom	528	237	237	0	0
Taiwan	3,257	1,534	1,335	-199	-12.9
Mexico	777	360	484	124	34.4
Republic of Korea	4,127	1,857	1,812	-45	-2.4
Hong Kong	4,134	1,736	1,868	132	7.6
Brazil	352	189	167	-22	-11.6
China	3,492	1,533	1,844	311	20.2
OPEC	754	336	433	97	28.8
All other	9,195	4,266	4,892	626	14.6
Total	31,130	14,215	15,222	1,007	7.0
U.S. merchandise trade balance:					
Japan	221	50	235	185	370.0
Canada	230	131	443	312	238.1
European Community	-1,793	-790	-527	263	33.2
West Germany	-107	-36	1	37	102.7
United Kingdom	-171	-64	-35	29	45.3
Taiwan	-3,103	-1,453	-1,231	222	15.2
Mexico	54	44	37	-7	-15.9
Republic of Korea	-3,563	-1,585	-1,491	94	5.9
Hong Kong	-3,911	-1,638	-1,720	-82	-5.0
Brazil	-311	-175	-147	28	16.0
China	-3,074	-1,318	-1,627	-309	-23.4
OPEC	-169	-28	-117	-89	-317.8
All other	-6,658	-3,076	-3,379	-303	-9.8
Total	-22,077	-9,838	-9,524	314	3.1

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Table 15

Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
Million dollars					
U.S. exports of domestic merchandise:					
Japan	44	22	24	2	9.0
Canada	33	16	30	14	87.5
European Community	83	42	63	21	50.0
West Germany	9	4	9	5	125.0
United Kingdom	16	9	10	1	11.1
Taiwan	9	4	9	5	125.0
Mexico	68	33	34	1	3.0
Republic of Korea	11	4	8	4	100.0
Hong Kong	5	3	4	1	33.3
Brazil	3	2	2	0	0
China	0	0	0	0	0
OPEC	7	3	5	2	66.6
All other	105	49	64	15	30.6
Total	368	178	243	65	36.5
U.S. imports for consumption:					
Japan	8	3	3	0	0
Canada	55	21	20	-1	-4.7
European Community	1,323	629	750	121	19.2
West Germany	31	15	13	-2	-13.3
United Kingdom	34	15	20	5	33.3
Taiwan	2,005	1,002	792	-210	-20.9
Mexico	170	83	83	0	0
Republic of Korea	2,183	993	1,225	232	23.3
Hong Kong	124	59	51	-8	-13.5
Brazil	1,037	508	528	20	3.9
China	720	289	613	324	112.1
OPEC	86	28	103	75	267.8
All other	671	276	385	109	39.4
Total	8,382	3,891	4,553	662	17.0
U.S. merchandise trade balance:					
Japan	36	19	21	2	10.5
Canada	-22	-5	10	15	300.0
European Community	-1,240	-587	-687	-100	-17.0
West Germany	-22	-11	-4	7	63.6
United Kingdom	-18	-6	-10	-4	-66.6
Taiwan	-1,996	-998	-783	215	21.5
Mexico	-102	-50	-49	1	2.0
Republic of Korea	-2,172	-989	-1,217	-228	-23.0
Hong Kong	-119	-56	-47	9	16.0
Brazil	-1,034	-506	-526	-20	-3.9
China	-720	-289	-613	-324	-112.1
OPEC	-79	-25	-98	-73	-292.0
All other	-566	-227	-321	-94	-41.4
Total	-8,014	-3,713	-4,310	-597	-16.0

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port

mill products. This increase was spread out over a number of products and resulted in the U.S. trade deficit in textile products being cut nearly in half, or by \$475 million, during this period. However, more than offsetting these more positive trends were increases in the U.S. trade deficits in apparel (up by \$737 million), and in footwear (up by \$597 million). The increase in the apparel deficit would have been greater except that the U.S. trade deficit in sweaters declined by \$285 million because of a shift in consumer tastes away from sweaters and uncertainty in the U.S. market over antidumping investigations involving imports from three of the largest suppliers of manmade-fiber

sweaters to the United States — Hong Kong, Korea, and Taiwan. Significant increases in trade deficits (by \$300 million or more) in specific apparel or footwear commodity groupings were seen in U.S. trade in trousers, shirts and blouses, and nonrubber footwear. The United States remains at a production-cost disadvantage, in general, in assembling these products.

### U.S. Bilateral Trade

The Big Three (Taiwan, Hong Kong, and Korea), China, the European Community (EC), Canada and Japan remain the major U.S. trading

partners for these products, both as overseas markets for U.S. goods and as sources of imports to this market. During the first half of 1990, the U.S. trade balance improved with four of these countries—Japan, Canada, the EC, and Taiwan.

The favorable value of the dollar relative to European, Canadian, and Japanese currencies has helped boost U.S. exports to these markets. Also, rising production costs in Japan and Taiwan have cut into the competitiveness of products from these countries. Increased imports contributed to the deterioration in the U.S. trade balances with Korea, China, Hong Kong and, to a lesser degree, Mexico.

For textiles and apparel<sup>1</sup>, the Big Three and China remained the major suppliers during the first half, accounting for nearly one-half of the total value of imports. Shipments from the Big Three and China together declined by 3 percent from their corresponding 1989 level. Imports from the EC, which provided 11 percent of total imports in the first half of 1990, decreased by 1 percent during the period.

Significant growth was recorded in imports of textiles and apparel from the ASEAN and CBI countries in the first half of 1990. Imports from the ASEAN countries increased by 20 percent, to nearly \$1.7 billion. The Philippines alone accounted for nearly 32 percent of the ASEAN shipments. The CBI countries supplied imports valued at nearly \$1.0 billion, a 17-percent increase over the corresponding period of 1989. The Dominican Republic, Costa Rica, and Jamaica together accounted for nearly two-thirds of the CBI imports. Another supplier showing significant growth was Mexico, whose shipments increased by 34 percent. The growth in imports from Mexico reflected further liberalization in January 1990 of the original United States-Mexican textile bilateral agreement. Trade between the United States and Canada has increased as a result of initial duty reductions under the FTA, which entered into force in January 1989.

The largest export market for U.S. textiles and apparel continued to be the EC, which accounted for 20 percent of the exports in the first half of 1990—1 percent less than in 1989. Increases also occurred in most other major markets, with exports to Japan, Canada, and Mexico rising by 22 percent, 77 percent, and 29 percent, respectively. A major part of the exports to Mexico consisted of apparel parts for assembly there and subsequent return as finished apparel.

<sup>1</sup> Footwear and textile fibers and waste are discussed in detail in succeeding sections. Included here are the commodities classified in the following portions of the *Harmonized Tariff Schedule of the United States*: chs. 54-65 (textile products and apparel) and parts of the following chapters providing for nontextile apparel: ch. 39 (plastics), ch. 41 (leather), ch. 43 (fur).

## Commodity Analyses

### *Textile fibers and waste*

Increased exports of cotton caused the trade surplus for the textile fibers sector to increase from \$1.1 billion in January-June 1989 to \$1.7 billion in the corresponding months of 1990. Cotton exports increased from \$1.0 billion in January-June 1989 to \$1.6 billion in the 1990 period. The increase in cotton exports was the result of strong foreign demand coupled with favorable U.S. cotton prices. The U.S. is a leading producer and exporter of cotton and is particularly competitive in export markets when world prices are high, as they were during the first half of 1990. During much of 1989, U.S. cotton was among the lower priced cotton in the world market.

Exports to the traditional cotton markets of Japan, Korea, West Germany, Italy, Thailand, and Hong Kong all increased. Of the large markets, only exports to China declined. This was because cotton exports to China during the first half of 1989 had been high because Chinese domestic production had been unable to meet demand. In the 1990 period, Chinese domestic cotton supply had improved, thus reducing its need for imports.

Imports for the sector declined from \$351 million in January-June 1989 to \$293 million. This decline in imports was the result of a decline in wool imports from \$204 million to \$97 million, the result of sluggish demand and high stocks at the beginning of 1990. Partially countering the decline in wool imports was an increase in imports of manmade fibers from \$102 million to \$145 million. The most significant increase was of rayon staple fiber. U.S. production of this fiber dropped sharply in late 1989 because a large producer ceased operating and the remaining producers were unable to meet demand. Imports made up for this insufficient domestic supply.

Changes in imports from different sources reflect the shifts described above. A decline of \$91 million was recorded in fiber imports from Australia and New Zealand. These two countries are primary sources of wool and were the leading sources of fiber imports in January-June 1989. Despite this decline, Australia and New Zealand were ranked just below Canada as the second- and third-largest sources of fiber imports in January-June 1990. Imports of fibers from Canada, the largest source in the first half of 1990, increased from \$34 million in the first half of 1989 to \$63 million. This increase is believed to have been due principally to imports by a leading U.S. producer of rayon staple from its Canadian affiliate.

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## Sweaters

The U.S. trade deficit in sweaters narrowed considerably in January-June 1990, shrinking by \$285 million from that in the corresponding period of 1989 to \$651 million. The improvement resulted entirely from a big drop in imports, which fell by 30 percent, to \$657 million. Trade sources stated that the decline in imports partly stemmed from softness in the U.S. sweater market, three-fourths of which is supplied by foreign producers. Some of these sources also indicated that consumer interest shifted from sweaters to other types of knit outerwear, such as, rugby shirts and fleecewear. Also, market conditions reportedly were affected by uncertainty among importers over the outcome of antidumping investigations being conducted by the U.S. Government on imports of manmade-fiber sweaters from Hong Kong, Taiwan, and Korea (the "Big Three").<sup>2</sup>

The Big Three's sweater sales in the U.S. market fell substantially in the first half, compared with the year-earlier period. Declines of 61 percent were recorded in shipments from Taiwan, 46 percent for Korea, and 10 percent for Hong Kong. All told, imports from the Big Three dropped by 39 percent, to \$315 million. The Big Three's relative importance in the sweater market continued to wane too, with their collective share of total imports shrinking from 55 to 48 percent during the period. The decline in Big Three's sales was concentrated in manmade-fiber sweaters, the major product covered by the dumping investigations, and also sweaters of miscellaneous fibers, such as silk blends, linen, and ramie, which had enjoyed unprecedented popularity in recent years. Taiwan and Korea hold the largest quotas for manmade-fiber sweaters, 4.0 million and 3.4 million dozen, respectively, in 1990. As of July 1990, Taiwan and Korea had filled only 14 and 31 percent of their respective annual manmade-fiber sweater quota. Hong Kong had filled only 20 percent of its annual 1.3 million dozen manmade-fiber sweater quota as of June 1990. Imports from and share of quotas filled by the Big Three during January-June 1990 were significantly below corresponding 1989 levels.

<sup>2</sup> The antidumping investigations were initiated in response to a petition filed on Sept. 22, 1989. Following affirmative preliminary determinations by the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce), on Apr. 27, 1990, Commerce directed the U.S. Customs Service to suspend liquidation on entries of manmade-fiber sweaters from the three countries. In final investigations, the Commission determined that the subject manmade-fiber sweater imports, which Commerce had determined in final investigations to be sold in the United States at less than fair value, materially injure a U.S. industry. As a result, on Sept. 24, 1990, Commerce published notice in the *Federal Register* of the issuance of antidumping orders on imports of manmade-fiber sweaters from Hong Kong, the Republic of Korea, and Taiwan. (55 FR 39033). The order applies to imports of manmade-fiber sweaters from the three countries entered or withdrawn from warehouse on or after Apr. 27, 1990.

China displaced Korea as the leading supplier of sweaters in 1989, and remained so during January-June 1990, when it supplied 26 percent of total imports. However, imports from China also declined in the first half, by 28 percent, to 1.6 million dozen, valued at \$169 million. Most of this decline occurred in sweaters of silk blends, linen, and ramie, of which China was the leading supplier by far, supplying slightly more than half the imports. The only significant suppliers to show gains in shipments to the U.S. market were Indonesia and the Philippines, but together they provided only 4 percent of total imports in the first half of 1990.

The decline in sweater imports touched all fiber categories, although manmade-fiber sweaters accounted for the bulk of the decline. The share of total imports made up of manmade-fiber sweaters fell by 4 percentage points in the first half of 1990, compared with the corresponding period in 1989, to 43 percent. Cotton sweaters rose by 3 points, to 12 percent, reflecting consumer preferences for cotton goods. The share of silk blend, linen, and ramie sweaters remained unchanged at 39 percent.

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## Trousers

U.S. imports of trousers, including shorts, increased by 10 percent in quantity and by 20 percent in value during the first half of 1990, compared with the year-earlier level, to 37 million dozen, valued at \$2.5 billion. Most of the increase occurred in cotton trousers, imports of which increased by 16 percent in quantity to 22 million dozen, valued at \$1.5 billion. Imports of cotton trousers were roughly split between women's and men's, although the latter accounted for most of the import growth. The use of cotton in trousers and other apparel items has recently been growing faster than other fibers, reflecting consumer perceptions of the natural fiber as a more comfortable and fashionable fiber. Imports of manmade-fiber trousers rose by only 8 percent during the period, to 13 million dozen, valued at \$715 million, whereas imports of trousers of other fibers such as wool and silk fell by 14 percent, to 2 million dozen, valued at \$195 million.

A large part of the growth in trouser imports was generated by secondary suppliers, especially the Philippines and Bangladesh. These two countries' shipments to the U.S. market grew by more than 40 percent each during the first half, to a total of 3.5 million dozen, valued at almost \$200 million. As a result, the Philippines emerged as the fourth-largest supplier in value terms after Hong Kong, China, and Taiwan. The Philippines and Bangladesh are benefiting from the ongoing trade shift away from the major suppliers, particularly Hong Kong and Taiwan, which are beset with rising wages and rent, as well as a shortage of la-

bor in Hong Kong. As evidence of this trade shift, imports from Taiwan decreased by 25 percent during the period, and imports from Hong Kong increased by a relatively small 5 percent. The Philippines is picking up production of moderately priced trousers. U.S. trouser imports from the Philippines had an average unit value of \$68 per dozen in the first half of 1990, compared with average unit values of \$98 per dozen for Hong Kong and \$74 per dozen for Taiwan. The average unit value of the imports from Bangladesh was considerably lower at \$41 per dozen.

Hong Kong, Taiwan, and China remained the largest suppliers during the first half of 1990, accounting for almost one-third of total trouser imports. These three countries hold the largest quotas for trousers, totaling 20 million dozen in 1990. However, the growth in imports from China, which amounted to 14 percent, is expected to slow down during the second half, because China had already filled 90 percent of its 1990 quota on cotton trousers in July 1990.

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### *Footwear*

The U.S. trade deficit in footwear,<sup>3</sup> which reached \$8 billion in 1989, widened further in the first half of 1990, increasing by 16 percent, or \$602 million, over that in the corresponding period of 1989 to \$4.3 billion (table 15). Imports and exports both advanced during the period, with imports increasing by 17 percent, to \$4.6 billion, and exports rising by 37 percent, to \$243 million.

The great bulk of the imports in the 1990 period consisted of nonrubber (mainly leather and vinyl) footwear. Imports of nonrubber footwear in the first half rose by 7 percent in volume over the corresponding level in 1989, to 454 million pairs, valued at \$3.9 billion. As a result, their share of the U.S. nonrubber footwear market

<sup>3</sup> Trade data for footwear includes nonrubber footwear, rubber footwear, and footwear parts.

climbed by 3 percentage points to 82 percent. The growth in these imports in the first half marked a halt, at least temporarily, to 3 consecutive years of decline.

Significant shifts in footwear trade have taken place in recent years. Taiwan and Korea, the major exporters of the 1980s, have been faced with rising manufacturing costs and appreciating currencies that have nearly priced them out of the low-cost shoe market. As a result, producers there have been shifting high-volume production to low-labor-cost countries and, at the same time, upgrading their home production base with new technology to produce better quality shoes and emphasizing the development and promotion of brand names. Imports of nonrubber footwear from Taiwan, which have accounted for most of the decline in overall imports the last 3 years, decreased further in the first half of 1990, when its shipments fell by 32 percent, to 97 million pairs, valued at \$688 million. Shipments from Korea partially recovered during the period, rising by 2 percent to 80 million pairs, valued at \$1.1 billion. Korea remained the largest supplier in terms of value, reflecting a product mix that is concentrated in higher valued, brand-name athletic shoes.

Taiwan and Korean investment in offshore shoe production has gone mostly to China, Thailand, and Indonesia, whose shoe shipments to the U.S. market have accelerated in recent years as a result. China supplanted Taiwan as the top-volume supplier to the U.S. market in the first half of 1990, when its shipments rose by 85 percent from the year-earlier level to 113 million pairs, valued at \$488 million. Shipments from the newer sources, Thailand and Indonesia, rose by 57 and 252 percent, respectively, to a total of almost 30 million pairs, valued at \$218 million. Substantial growth was also registered in imports from another small supplier, the Philippines, and imports from the EC, led by Italy, recovered in the first half, rising by 12 percent, to 44 million pairs, valued at \$747 million.

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Table 16

Fibers, textiles, apparel, and footwear sector: U.S. trade for selected commodity groups, by specified periods, January 1989-June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
TX001	Textile fibers and waste:					
	Exports .....	3,091	1,446	2,010	564	39.0
	Imports .....	634	351	293	-58	-16.5
	Trade balance .....	2,457	1,095	1,717	622	56.8
TX002	Spun yarns:					
	Exports .....	242	114	147	33	28.9
	Imports .....	309	163	130	-33	-20.2
	Trade balance .....	-67	-49	17	66	134.7
TX003	Filament yarns:					
	Exports .....	647	327	389	62	19.0
	Imports .....	332	163	171	8	4.9
	Trade balance .....	315	164	218	54	32.9
TX004	Miscellaneous yarns:					
	Exports .....	77	36	56	20	55.6
	Imports .....	42	19	23	4	21.1
	Trade balance .....	35	17	33	16	94.1
TX005	Broadwoven fabrics:					
	Exports .....	991	488	628	140	28.7
	Imports .....	2,608	1,303	1,276	-27	-2.1
	Trade balance .....	-1,617	-815	-648	167	20.5
TX006	Knit fabrics:					
	Exports .....	121	66	100	34	51.5
	Imports .....	117	55	68	13	23.6
	Trade balance .....	4	11	32	21	190.9
TX007	Miscellaneous fabrics:					
	Exports .....	118	53	71	18	34.0
	Imports .....	91	46	46	0	0
	Trade balance .....	27	7	25	18	257.1
TX008	Coated, covered, impregnated, or laminated textile fabrics:					
	Exports .....	239	123	145	22	17.9
	Imports .....	172	85	90	5	5.9
	Trade balance .....	67	38	55	17	44.7
TX009	Nonwoven fabrics:					
	Exports .....	243	127	188	61	48.0
	Imports .....	142	73	78	5	6.8
	Trade balance .....	101	54	110	56	103.7
TX010	Cordage, nets, and netting:					
	Exports .....	33	19	24	5	26.3
	Imports .....	127	75	90	15	20.0
	Trade balance .....	-94	-56	-66	-10	-17.9
TX011	Certain textile articles and fabrics suitable for industrial use:					
	Exports .....	153	75	99	24	32.0
	Imports .....	112	56	65	9	16.1
	Trade balance .....	41	19	34	15	78.9
TX012	Miscellaneous textiles and articles:					
	Exports .....	466	219	263	44	20.1
	Imports .....	525	265	349	84	31.7
	Trade balance .....	-59	-46	-86	-40	-87.0
TX013	Sacks and bags of textile materials:					
	Exports .....	12	6	9	3	50.0
	Imports .....	30	13	19	6	46.2
	Trade balance .....	-18	-7	-10	-3	-42.9
TX014	Carpets and rugs:					
	Exports .....	383	186	280	94	50.5
	Imports .....	613	310	311	1	0.3
	Trade balance .....	-230	-124	-31	93	75.0
TX015	Curtains and draperies:					
	Exports .....	7	3	7	4	133.3
	Imports .....	63	31	31	0	0
	Trade balance .....	-56	-28	-24	4	14.3
TX016	Bedding, linens, and miscella- neous furnishings:					
	Exports .....	139	65	88	23	35.4
	Imports .....	677	309	331	22	7.1
	Trade balance .....	-538	-244	-243	1	0.4

See footnotes at end of table.

Table 16—Continued

Fibers, textiles, apparel, and footwear sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
TX017	Men's and boys' suits and sports coats:					
	Exports .....	51	24	32	8	33.3
	Imports .....	576	291	249	-42	-14.4
	Trade balance .....	-525	-267	-217	50	18.7
TX018	Men's and boys' coats and jackets:					
	Exports .....	31	12	16	4	33.3
	Imports .....	917	303	395	92	30.4
	Trade balance .....	-886	-291	-379	-88	-30.2
TX019	Trousers:					
	Exports .....	579	281	340	59	21.0
	Imports .....	4,334	2,062	2,481	419	20.3
	Trade balance .....	-3,755	-1,781	-2,141	-360	-20.2
TX020	Shirts and blouses:					
	Exports .....	330	163	156	-7	-4.3
	Imports .....	6,781	3,213	3,510	297	9.2
	Trade balance .....	-6,451	-3,050	-3,354	-304	-10.0
TX021	Sweaters:					
	Exports .....	15	6	6	0	0
	Imports .....	2,675	942	657	-285	-30.3
	Trade balance .....	-2,660	-936	-651	285	30.4
TX022	Women's and girls' suits, skirts, and coats:					
	Exports .....	120	57	78	21	36.8
	Imports .....	2,203	971	1,085	114	11.7
	Trade balance .....	-2,083	-914	-1,007	-93	-10.2
TX023	Women's and girls' dresses:					
	Exports .....	42	19	25	6	31.6
	Imports .....	882	472	508	36	7.6
	Trade balance .....	-840	-453	-483	-30	-6.6
TX024	Robes:					
	Exports .....	16	8	48	40	500.0
	Imports .....	157	59	61	2	3.4
	Trade balance .....	-141	-51	-13	38	74.5
TX025	Underwear and nightwear:					
	Exports .....	133	64	87	23	35.9
	Imports .....	745	303	370	67	22.1
	Trade balance .....	-612	-239	-283	-44	-18.4
TX026	Hosiery:					
	Exports .....	59	27	35	8	29.6
	Imports .....	148	64	73	9	14.1
	Trade balance .....	-89	-37	-38	-1	-2.7
TX027	Body-supporting garments:					
	Exports .....	176	87	91	4	4.6
	Imports .....	338	161	174	13	8.1
	Trade balance .....	-162	-74	-83	-9	-12.2
TX028	Neckwear:					
	Exports .....	14	7	7	0	0
	Imports .....	407	201	125	-76	-37.8
	Trade balance .....	-393	-194	-118	76	39.2
TX029	Gloves, including gloves for sports:					
	Exports .....	182	97	81	-16	-16.5
	Imports .....	890	419	388	-31	-7.4
	Trade balance .....	-708	-322	-307	15	4.7
TX030	Headwear:					
	Exports .....	43	21	34	13	61.9
	Imports .....	341	153	200	47	30.7
	Trade balance .....	-298	-132	-166	-34	-25.8
TX031	Leather apparel and accessories:					
	Exports .....	63	25	30	5	20.0
	Imports .....	1,310	482	594	112	23.2
	Trade balance .....	-1,247	-457	-564	-107	-23.4
TX032	Fur apparel and other fur articles:					
	Exports .....	67	39	28	-11	-28.2
	Imports .....	370	114	84	-30	-26.3
	Trade balance .....	-303	-75	-56	19	25.3

See footnotes at end of table.

Table 16—Continued

Fibers, textiles, apparel, and footwear sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
TX033	Rubber, plastic, and coated- fabric apparel:					
	Exports .....	45	24	66	42	175.0
	Imports .....	160	75	65	-10	-13.3
	Trade balance .....	-115	-51	1	52	102.0
TX034	Nonwoven, paper, and felt apparel and footwear:					
	Exports .....	9	4	6	2	50.0
	Imports .....	49	27	72	45	166.7
	Trade balance .....	-40	-23	-66	-43	-187.0
TX035	Other wearing apparel:					
	Exports .....	121	61	73	12	19.7
	Imports .....	1,256	590	761	171	29.0
	Trade balance .....	-1,135	-529	-688	-159	-30.1
TX036	Nonrubber footwear and footwear parts:					
	Exports .....	362	175	240	65	37.1
	Imports .....	7,815	3,587	4,145	558	15.6
	Trade balance .....	-7,453	-3,412	-3,905	-493	-14.4
TX037	Rubber footwear:					
	Exports .....	4	2	3	1	50.0
	Imports .....	560	299	409	110	36.8
	Trade balance .....	-556	-297	-406	-109	-36.7

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.<sup>2</sup> 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.

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



## Chapter 5

### Energy And Chemicals

During January-June 1990, the U.S. trade deficit in chemicals, coal, petroleum, natural gas, and related products increased to \$17.2 billion, compared with a deficit of \$14.9 billion for these products during January-June 1989. The increase in the deficit is attributable to an increase of nearly 18 percent in the deficit for petroleum, natural gas, and related products (tables 17 and 18).

The U.S. chemicals industry, excluding petroleum and energy-related sectors, maintained its

position as a leading world producer of both chemical intermediates and chemical products during 1989 and the first six months of 1990. A trade surplus continued also, attaining a level of \$6.3 billion during the first six months of 1990, compared with \$5.5 billion during the same period of 1989. A growth of 13.6 percent in the trade surplus of chemicals and related products was reached largely through increased exports and trade position increases in medicinal chemicals, and other chemical product groups such as paints, inks and related items; and natural rubber and other synthetic rubber.

**Table 17**

**Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>**

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	5,074	2,749	2,424	-325	-11.8
Canada .....	5,524	2,886	4,268	1,382	47.8
European Community .....	10,701	5,498	5,929	431	7.8
West Germany .....	1,700	856	1,017	161	18.8
United Kingdom .....	1,746	905	893	-12	-1.3
Taiwan .....	1,818	1,012	736	-276	-27.2
Mexico .....	2,829	1,436	1,448	12	0.8
Republic of Korea .....	1,725	956	885	-71	-7.4
Hong Kong .....	737	401	385	-16	-3.9
Brazil .....	861	339	488	149	43.9
China .....	1,154	626	498	-128	-20.4
OPEC .....	1,530	813	792	-21	-2.5
All other .....	8,989	4,321	4,384	63	1.4
Total .....	40,942	21,037	22,237	1,200	5.7
U.S. imports for consumption:					
Japan .....	4,054	2,039	2,035	-4	-0.1
Canada .....	5,640	2,988	3,057	69	2.3
European Community .....	10,321	5,362	5,480	118	2.2
West Germany .....	3,222	1,647	1,816	169	10.2
United Kingdom .....	2,242	1,189	1,116	-73	-6.1
Taiwan .....	1,378	669	698	29	4.3
Mexico .....	968	480	486	6	1.2
Republic of Korea .....	558	260	353	93	35.7
Hong Kong .....	225	94	112	18	19.1
Brazil .....	471	249	234	-15	-6.0
China .....	496	213	336	123	57.7
OPEC .....	756	428	316	-112	-26.1
All other .....	5,204	2,712	2,836	124	4.5
Total .....	30,071	15,494	15,943	449	2.8
U.S. merchandise trade balance:					
Japan .....	1,020	710	389	-321	-45.2
Canada .....	-116	-102	1,211	1,313	1,287.2
European Community .....	380	136	449	313	230.1
West Germany .....	-1,522	-791	-799	-8	-1.0
United Kingdom .....	-496	-284	-223	61	21.4
Taiwan .....	440	343	38	-305	-88.9
Mexico .....	1,861	956	962	6	0.6
Republic of Korea .....	1,167	696	532	-164	-23.5
Hong Kong .....	512	307	273	-34	-11.0
Brazil .....	390	90	254	164	182.2
China .....	658	413	162	-251	-60.7
OPEC .....	774	385	476	91	23.6
All other .....	3,785	1,609	1,548	-61	-3.7
Total .....	10,871	5,543	6,294	751	13.5

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

Table 18

Petroleum, natural gas, and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	1,511	748	577	-171	-22.8
Canada .....	1,689	673	992	319	47.3
European Community .....	2,737	1,345	1,543	198	14.7
West Germany .....	105	46	57	11	23.9
United Kingdom .....	259	139	131	-8	-5.7
Taiwan .....	516	253	200	-53	-20.9
Mexico .....	714	402	381	-21	-5.2
Republic of Korea .....	344	166	231	65	39.1
Hong Kong .....	16	2	3	1	50.0
Brazil .....	311	160	146	-14	-8.7
China .....	14	3	1	-2	-66.6
OPEC .....	285	113	129	16	14.1
All other .....	1,751	794	1,005	211	26.5
Total .....	9,888	4,659	5,208	549	11.7
U.S. imports for consumption:					
Japan .....	140	81	39	-42	-51.8
Canada .....	7,766	3,982	4,172	190	4.7
European Community .....	3,650	1,718	2,213	495	28.8
West Germany .....	105	50	23	-27	-54.0
United Kingdom .....	1,630	651	941	290	44.5
Taiwan .....	0	0	0	0	0
Mexico .....	4,201	2,058	2,013	-45	-2.1
Republic of Korea .....	25	17	5	-12	-70.5
Hong Kong .....	0	0	0	0	0
Brazil .....	706	417	172	-245	-58.7
China .....	468	214	260	46	21.4
OPEC .....	25,811	12,189	14,965	2,776	22.7
All other .....	9,115	4,469	4,845	376	8.4
Total .....	51,882	25,145	28,684	3,539	14.0
U.S. merchandise trade balance:					
Japan .....	1,371	667	538	-129	-19.3
Canada .....	-6,077	-3,309	-3,180	129	3.8
European Community .....	-913	-373	-670	-297	-79.6
West Germany .....	0	-4	34	38	950.0
United Kingdom .....	-1,371	-512	-810	-298	-58.2
Taiwan .....	516	253	200	-53	-20.9
Mexico .....	-3,487	-1,656	-1,632	24	1.4
Republic of Korea .....	319	149	226	77	51.6
Hong Kong .....	16	2	3	1	50.0
Brazil .....	-395	-257	-26	231	89.8
China .....	-454	-211	-259	-48	-22.7
OPEC .....	-25,526	-12,076	-14,836	-2,760	-22.8
All other .....	-7,364	-3,675	-3,840	-165	-4.4
Total .....	-41,994	-20,486	-23,476	-2,990	-14.5

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

For petroleum, natural gas, and related products, the trade deficit increased to \$23.5 billion during the first six months of 1990, or an increase of 14.5 percent over the level of \$20.5 billion attained during the same period in 1989. Imports of products in this group increased by 14 percent to \$28.7 billion during January-June 1990, while exports increased by nearly 12 percent. Exports of these products to Canada provided the greatest absolute increase, from \$673 million in 1989 to \$992 million in 1990, a change of 47 percent.

### U.S. Bilateral Trade

The major sources of imports in the energy and chemical products sector during January-June 1990 were Canada, Japan, and West Germany. These major sources were also the top export markets for U.S. chemical products. The European Community was the largest source of imports, and market for exports of chemical products during this period, making up 27 percent of total U.S. exports and 35 percent of total imports.

Trade in the chemicals products sector reflected increased industrial and private consumer demands for imports of energy products. The three largest increases in the chemicals products sector were crude petroleum, petroleum products, and natural gas and components. Imports of crude petroleum increased by 18 percent to \$19.2 billion in the first quarter of 1990 compared with imports of \$16.3 billion in the corresponding period of 1989. Lower prices for crude petroleum during the first six months of 1990 are believed responsible for the rising imports of crude petroleum, as well as petroleum products import increases of 7.3 percent. Natural gas and components imports have increased by \$320 million (25.9 percent) to supplement domestic supplies available to local geographic areas such as the northeastern United States.

## Commodity Analyses

### *Benzenoid intermediate chemicals*

U.S. imports of benzenoid intermediate chemicals increased from a value of \$1.1 billion during January-June 1989, to \$1.2 billion during January-June 1990, or by 4 percent. The principal reason for this increase was an increase in imports of benzenoid commodity chemicals from \$256 million during January-June 1989, to \$264 million during January-June 1990. The increase in imports of certain of these commodity chemicals, such as ethylbenzene, styrene, and p-xylene, was to supplement domestic production of these products as U.S. consumption remained strong during these periods. Benzenoid specialty chemicals, used as precursors in the manufacture of pesticides, pharmaceuticals, and synthetic dyes and pigments, increased from \$861 million during the first half of 1989, to \$898 million during the first half of 1990. The principal reasons for this increase were an increase in related party transactions between U.S. firms and subsidiary or parent firms in foreign countries, and a shift to foreign sources of intermediate chemicals used by U.S. synthetic dyes and pigments producers as U.S. production of these intermediate chemicals continued to decline due to occupational health and safety factors and environmental concerns.

U.S. exports of benzenoid intermediate chemicals decreased from a value of \$2.1 billion during the first half of 1989, to \$2.0 billion during the first half of 1990. A decrease of 18 percent in the value of exports of benzenoid commodity chemicals was the major reason for this change. The decrease in the value of benzenoid commodity chemicals was attributable to increased consumption of domestic output of these chemicals and a 12 percent decrease in the unit value of

these products to 67 cents per kilogram during January-June 1990.

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### *Crude petroleum*

U.S. imports of crude petroleum continued to increase as domestic production fell. Imports of crude petroleum, which account for approximately half of the U.S. trade deficit, have accounted for more than 50 percent of domestic consumption of crude petroleum during most of 1990 compared with 46 percent during most of 1989. U.S. imports began to increase in late 1985 when world crude petroleum prices plummeted as a result to an oversupply of crude on the world market. U.S. imports of crude petroleum increased from 1 billion barrels during the first half of 1989 to 1.2 billion barrels during the first half of 1990. Saudi Arabia, Nigeria, and Venezuela, all members of OPEC, were the principal sources of imports during the first half of 1990.

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 approved by the Secretary of the Department of Energy. In 1987, small shipments of Alaskan North Slope crude petroleum were approved for export to the Republic of Korea, Taiwan, and Australia. U.S. exports remained relatively stable during the period, increasing slightly to 2.8 million barrels during the first half of 1990. Canada accounted for about 90 percent of these U.S. exports.

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### *Electrical energy*

Although most U.S. utilities do not use foreign sources to provide major portions of their electricity supply, both electricity imports and exports are trending upward. However, in comparing January-June 1989 with corresponding data in 1990, the value of U.S. imports decreased from \$293 million in 1989 to \$177 million in 1990. Exports increased from \$53 million during January-June 1989 to \$302 million during the same period in 1990. Electricity trade plays a varying role from region to region and fluctuates from year to year as a result of changing hydroelectric conditions.

Canada is the primary U.S. electricity trading partner. Trade in electricity is conducted over the existing interconnected transmission systems. Trade with Quebec uses direct current lines. The Provinces of New Brunswick, Ontario, Manitoba, and Saskatchewan are interconnected with the United States in an alternating current grid and are synchronized with utilities in the eastern U.S.

power grid. Alberta and British Columbia are synchronized with U.S. utilities operating in the western power grid and sell electricity to the western portion of the United States.

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### *Fertilizers*

U.S. imports of fertilizers decreased approximately 20 percent in value, from \$997 million during January-June 1989 to \$795 million, during January-June 1990. This decrease may be explained by a variety of factors.

The quantity of potassic fertilizer imports from Canada decreased significantly during January-June 1990 as compared with imports in the corresponding period of 1989, due to lower expected demand in early 1990. In addition, the price of potassic fertilizer imports from Canada decreased approximately \$10 per ton during January-June 1990 as compared to January-June 1989. This combination of lower price on less tonnage of potassic fertilizer imports from Canada contributed significantly to the decrease in total U.S. fertilizer imports during first half 1990 as compared to first half 1989. Lower ammonia prices and the termination of import requirements by a major U.S. fertilizer producer have also contributed to the overall price decline.

U.S. fertilizer exports decreased about 9 percent, from \$1.4 billion during January-June 1989 to \$1.3 billion during January-June 1990. This decrease can be partially attributed to lower unit values of fertilizers during the 1990 time period as compared to the same time period during 1989.

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### *Miscellaneous organic chemicals*

U.S. imports of miscellaneous organic chemicals increased from a value of \$1.3 billion during January-June 1989, to \$1.4 billion during January-June 1990, or by 6 percent. Although this is mainly attributable to continued growth in the U.S. economy during the first half of 1990, some countries such as Singapore supplied imports in a different mix than those supplied in the corresponding period of 1989. Higher-valued imports, consisting of prepared mixtures for electronics use, additives for plastics, and miscellaneous chemicals were supplied from Singapore, amounting to a total of \$154 million during January-June 1990, compared with \$625,000 during the same period in 1989.

U.S. exports of miscellaneous organic chemicals decreased from a value of \$2.8 billion during the first half of 1989, to \$2.4 billion during the first half of 1990. Decreases in traditional markets for chemicals, such as Japan, Belgium, and the

Netherlands accounted for much of the decrease. However, increases in exports to Brazil, primarily shipments of fuel-grade ethanol for Brazil's ProAlcol Alcohol Fuel Program, tended to offset a major portion of these decreases. Exports to Brazil more than tripled from a value of \$57 million during January-June 1989 to \$178 million in the corresponding period of 1990. At least three major U.S. producers of fuel-grade ethanol have been able to secure contracts to supply Brazil's program. General pressure by the Brazilian government to reduce its dependence on foreign oil imports, coupled with general acceptance of ethanol by Brazilian consumers, has currently outstripped Brazilian capacity to produce ethanol.

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### *Natural gas*

The value of imports of natural gas and products made from natural gas increased from \$1.2 billion during January-June 1989 to more than \$1.6 billion during the corresponding period of 1990. Much of this 26 percent increase was accounted for by increased imports of pipeline natural gas from Canada and the resumption of significant imports of liquefied natural gas (LNG), particularly from Algeria. The value of Canadian natural gas imported increased from nearly \$1.1 billion to about \$1.3 billion during this period, or by more than 17 percent. The increased imports have been used to supplement domestic supply in those specific geographic areas, such as the Northeast, where at times demand outstrips the domestic supply availability. The value of imports from Algeria increased by more than 150 percent, reaching \$161 million during January-June 1990.

### *Petroleum products*

The value of U.S. imports of petroleum products increased slightly from \$6.9 billion during the first half of 1989 to \$7.4 billion during the first half of 1990. Venezuela and Algeria, both members of OPEC, remained the leading import sources of petroleum products. The low per barrel price of crude has led to increased consumer demand for petroleum products, primarily motor fuels. U.S. refineries are operating at over 90 percent capacity with imports accounting for any remaining demand.

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### *Pharmaceuticals, including biotechnology*

U.S. imports of pharmaceuticals increased in value from \$1.90 billion during January-June 1989 to \$1.91 billion in the like period of 1990, or by 1 percent. The quantity of U.S. imports of these products decreased by 7 percent during the same time periods, however, from 1.5

billion kilograms to 1.4 billion kilograms. The relatively small change in the value of these imports was attributed primarily to the weakness of the U.S. dollar during these time periods versus the currencies of many foreign countries. The major sources of pharmaceutical imports in January-June 1990 were the United Kingdom (17 percent), West Germany (14 percent), and Switzerland (12 percent).

Antibiotics, traditionally a therapeutic class with a relatively low average unit value, accounted for about 85 percent of total pharmaceutical imports in terms of quantity during January-June 1990, but only 17 percent by value. U.S. imports of antibiotics increased to \$318 million during the first half of 1990 from \$256 million in the like period in 1989, or by 24 percent. The average unit value of these imports in the first six months of 1990 was about 27 cents per kilogram, compared with about \$8.00 per kilogram for imports of all other medicinal products.

The value of U.S. exports of medicinal chemicals except antibiotics increased during the first six months of 1990 to nearly \$2.0 billion from \$1.6 billion in the like period in 1989. The primary reason for this change was the increased attractiveness of U.S. exports because of the weakening of the U.S. dollar vis-a-vis many foreign currencies. Overall, the value of U.S. exports of pharmaceutical products, including antibiotics, increased by 19 percent in the first six months of 1990 to \$2.6 billion from \$2.2 billion in the like period in 1989. The quantity of such exports, however, increased by 80 percent, from 947 million kilograms to 1.7 billion kilograms. The relatively large increase in quantity compared with the moderate increase in value is attributable to the composition of the exports. Antibiotics accounted for 89 percent of the total by quantity and 29 percent by value. The average unit value of exports of antibiotics in 1990 was 42 cents per kilogram, compared with \$10.92 per kilogram for all other medicinal chemicals. U.S. exports of antibiotics in the first six months of 1990 amounted

to 1.5 billion kilograms, valued at \$641 million, compared with 854 million kilograms, valued at \$597 million. During January-June 1990, the three largest foreign markets by value for total pharmaceutical exports were Japan (18 percent), West Germany (14 percent), and Canada (13 percent).

Although the exact amount has not been quantified, a portion of these exports are the result of the passage in 1986 of the Drug Export Amendments Act. U.S. pharmaceutical and biopharmaceutical manufacturers, under certain conditions, are allowed to export drugs and biologics unapproved for sale in the United States to any of 21 developed countries, provided that the drug or biologic has been approved for sale by the importing country. This is important to the industry both because of 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 because many companies consider exports as important revenue sources.

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### *Pneumatic tires and tubes*

U.S. exports of these products increased from \$398 million during the first half of 1989 to \$537 million for the same period in 1990. This 35 percent increase in import value was mainly the result of increased exports to Canada. U.S. exports of these products have increased every year since 1987 and 1990 probably will be the fourth consecutive year for such increases. Acquisitions and mergers of major domestic tire manufacturers have led to a highly concentrated and efficient U.S. tire industry. A reduction in the rate of increase of U.S. tire imports and a steadily increasing level of exports are reflections of these domestic developments.

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**Table 19**  
**Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989-June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
CH001	Electrical energy:					
	Exports .....	180	53	302	249	469.8
	Imports .....	558	293	177	-116	-39.6
	Trade balance .....	-378	-240	125	365	152.1
CH002	Nuclear materials:					
	Exports .....	1,308	901	496	-405	-45.0
	Imports .....	945	382	499	117	30.6
	Trade balance .....	363	519	-3	-522	-100.6
CH003	Coal and other carbonaceous materials:					
	Exports .....	4,395	2,163	2,195	32	1.5
	Imports .....	415	229	142	-87	-38.0
	Trade balance .....	3,980	1,934	2,053	119	6.2
CH004	Coal chemicals:					
	Exports .....	412	233	143	-90	-38.6
	Imports .....	264	173	179	6	3.5
	Trade balance .....	148	60	-36	-96	-160.0
CH005	Crude petroleum:					
	Exports .....	62	38	77	39	102.6
	Imports .....	35,041	16,274	19,214	2,940	18.1
	Trade balance .....	-34,979	-16,236	-19,137	-2,901	-17.9
CH006	Petroleum products:					
	Exports .....	5,587	2,513	2,860	347	13.8
	Imports .....	13,161	6,924	7,427	503	7.3
	Trade balance .....	-7,574	-4,411	-4,567	-156	-3.5
CH007	Natural gas and components:					
	Exports .....	472	244	241	-3	-1.2
	Imports .....	2,412	1,237	1,557	320	25.9
	Trade balance .....	-1,940	-993	-1,316	-323	-32.5
CH008	Major primary olefins:					
	Exports .....	157	95	97	2	2.1
	Imports .....	250	143	139	-4	-2.8
	Trade balance .....	-93	-48	-42	6	12.5
CH009	Other olefins:					
	Exports .....	259	140	120	-20	-14.3
	Imports .....	31	20	6	-14	-70.0
	Trade balance .....	228	120	114	-6	-5.0
CH010	Benzene, toluene, and mixed xylenes:					
	Exports .....	182	111	91	-20	-18.0
	Imports .....	115	67	53	-14	-20.9
	Trade balance .....	67	44	38	-6	-13.6
CH011	Benzenoid commodity chemicals:					
	Exports .....	1,685	949	779	-170	-17.9
	Imports .....	430	256	264	8	3.1
	Trade balance .....	1,255	693	515	-178	-25.7
CH012	Benenoid specialty chemicals:					
	Exports .....	2,229	1,177	1,231	54	4.6
	Imports .....	1,630	861	897	36	4.2
	Trade balance .....	599	316	334	18	5.7
CH013	Miscellaneous organic chemicals:					
	Exports .....	5,402	2,839	2,417	-422	-14.9
	Imports .....	2,633	1,307	1,385	78	6.0
	Trade balance .....	2,769	1,532	1,032	-500	-32.6
CH014	Selected inorganic chemicals and elements:					
	Exports .....	859	446	450	4	0.9
	Imports .....	1,694	858	859	1	0.1
	Trade balance .....	-835	-412	-409	3	0.7
CH015	Inorganic acids:					
	Exports .....	104	57	53	-4	-7.0
	Imports .....	180	94	95	1	1.1
	Trade balance .....	-76	-37	-42	-5	-13.5
CH016	Salts and other inorganic chemicals:					
	Exports .....	1,680	801	917	116	14.5
	Imports .....	1,210	594	648	54	9.1
	Trade balance .....	470	207	269	62	30.0

See footnotes at end of table.

Table 19—Continued  
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	January-June—			Change from January-June 1989 to January-June 1990	
		1989	1989	1990	Value	Percentage change
		Million dollars				
CH017	Chlor-alkali chemicals:					
	Exports .....	822	385	388	3	0.8
	Imports .....	191	102	110	8	7.8
	Trade balance .....	631	283	278	-5	-1.8
CH018	Industrial gases					
	Exports .....	83	41	39	-2	-4.9
	Imports .....	29	15	15	0	0
	Trade balance .....	54	26	24	-2	-7.7
CH019	Fertilizers:					
	Exports .....	2,952	1,433	1,311	-122	-8.5
	Imports .....	1,641	997	795	-202	-20.3
	Trade balance .....	1,311	436	516	80	18.3
CH020	Certain inorganic pigments:					
	Exports .....	482	257	146	-111	-43.2
	Imports .....	248	136	114	-22	-16.2
	Trade balance .....	234	121	32	-89	-73.6
CH021	Synthetic organic pigments:					
	Exports .....	178	85	113	28	32.9
	Imports .....	177	89	95	6	6.7
	Trade balance .....	1	-4	18	22	550.0
CH022	Synthetic dyes and couplers:					
	Exports .....	125	62	85	23	37.1
	Imports .....	388	182	224	42	23.1
	Trade balance .....	-263	-120	-139	-19	-15.8
CH023	Synthetic tanning agents:					
	Exports .....	12	6	5	-1	-16.7
	Imports .....	3	1	2	1	100.0
	Trade balance .....	9	5	3	-2	-40.0
CH024	Natural tanning and dyeing materials:					
	Exports .....	14	8	5	-3	-37.5
	Imports .....	61	36	27	-9	-25.0
	Trade balance .....	-47	-28	-22	6	21.4
CH025	Photographic chemicals and preparations:					
	Exports .....	188	97	114	17	17.5
	Imports .....	355	167	184	17	10.2
	Trade balance .....	-167	-70	-70	0	0
CH026	Pesticide products and formulations:					
	Exports .....	1,251	647	787	140	21.6
	Imports .....	591	356	360	4	1.1
	Trade balance .....	660	291	427	136	46.7
CH027	Adhesives, glues, and gelatin:					
	Exports .....	163	84	106	22	26.2
	Imports .....	139	68	74	6	8.8
	Trade balance .....	24	16	32	16	100.0
CH028	Medicinal chemicals, except antibiotics:					
	Exports .....	3,251	1,605	1,979	374	23.3
	Imports .....	3,016	1,644	1,587	-57	-3.5
	Trade balance .....	235	-39	392	431	1,105.1
CH029	Antibiotics:					
	Exports .....	1,192	597	641	44	7.4
	Imports .....	558	256	318	62	24.2
	Trade balance .....	634	341	323	-18	-5.3
CH030	Essential oils and other flavoring materials:					
	Exports .....	562	295	345	50	16.9
	Imports .....	415	217	240	23	10.6
	Trade balance .....	147	78	105	27	34.6
CH031	Perfumes, cosmetics, and toiletries:					
	Exports .....	653	303	400	97	32.0
	Imports .....	598	284	304	20	7.0
	Trade balance .....	55	19	96	77	405.3

See footnotes at end of table.

Table 19—Continued  
Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods,  
January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
CH032	Soaps, detergents, and surface-active agents:					
	Exports .....	561	277	394	117	42.2
	Imports .....	250	127	158	31	24.4
	Trade balance .....	311	150	236	86	57.3
CH033	Fatty chemicals:					
	Exports .....	194	97	99	2	2.1
	Imports .....	71	37	36	-1	-2.7
	Trade balance .....	123	60	63	3	5.0
CH034	Miscellaneous chemical specialties:					
	Exports .....	583	293	464	171	58.4
	Imports .....	293	145	162	17	11.7
	Trade balance .....	290	148	302	154	104.1
CH035	Paints, inks, and related items:					
	Exports .....	765	316	616	300	94.9
	Imports .....	529	268	286	18	6.7
	Trade balance .....	236	48	330	282	587.5
CH036	Explosives and propellant powders:					
	Exports .....	164	92	76	-16	-17.4
	Imports .....	149	78	96	18	23.1
	Trade balance .....	15	14	-20	-34	-242.9
CH037	Naval stores and selected silvichemicals:					
	Exports .....	1,140	607	513	-94	-15.5
	Imports .....	408	225	270	45	20.0
	Trade balance .....	732	382	243	-139	-36.4
CH038	Polyethylene resins in primary forms:					
	Exports .....	629	347	333	-14	-4.0
	Imports .....	33	18	19	1	5.6
	Trade balance .....	596	329	314	-15	-4.6
CH039	PVC resins in primary forms:					
	Exports .....	388	187	214	27	14.4
	Imports .....	45	20	30	10	50.0
	Trade balance .....	343	167	184	17	10.2
CH040	Styrene polymers in primary forms:					
	Exports .....	457	233	237	4	1.7
	Imports .....	117	59	66	7	11.9
	Trade balance .....	340	174	171	-3	-1.7
CH041	PET and other polyester resins:					
	Exports .....	252	132	161	29	22.0
	Imports .....	51	29	27	-2	-6.9
	Trade balance .....	201	103	134	31	30.1
CH042	Other plastics in primary forms:					
	Exports .....	2,756	1,401	1,573	172	12.3
	Imports .....	917	476	501	25	5.3
	Trade balance .....	1,839	925	1,072	147	15.9
CH043	SBR rubber in primary forms:					
	Exports .....	203	100	102	2	2.0
	Imports .....	98	50	48	-2	-4.0
	Trade balance .....	105	50	54	4	8.0
CH044	Natural rubber and other synthetic rubber:					
	Exports .....	702	366	414	48	13.1
	Imports .....	1,385	789	568	-221	-28.0
	Trade balance .....	-683	-423	-154	269	63.6
CH045	Pneumatic tires and tubes (new):					
	Exports .....	812	398	537	139	34.9
	Imports .....	2,644	1,347	1,365	18	1.3
	Trade balance .....	-1,832	-949	-828	121	12.8
CH046	Other tires:					
	Exports .....	51	28	21	-7	-25.0
	Imports .....	77	44	33	-11	-25.0
	Trade balance .....	-26	-16	-12	4	25.0

See footnotes at end of table.



Table 19—Continued

Energy and chemicals sector: U.S. trade for selected commodity groups, by specified periods,  
January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
Million dollars						
CH047	Plastic or rubber semifabricated forms:					
	Exports .....	1,594	788	972	184	23.4
	Imports .....	1,232	599	652	53	8.8
	Trade balance .....	362	189	320	131	69.3
CH048	Plastic containers and closures:					
	Exports .....	413	202	278	76	37.6
	Imports .....	640	309	344	35	11.3
	Trade balance .....	-227	-107	-66	41	38.3
CH049	Hose, belting and plastic pipe:					
	Exports .....	528	266	319	53	19.9
	Imports .....	533	263	294	31	11.8
	Trade balance .....	-5	3	25	22	733.3
CH050	Miscellaneous rubber or plastics products:					
	Exports .....	1,737	866	1,189	323	37.3
	Imports .....	3,103	1,492	1,680	188	12.6
	Trade balance .....	-1,366	-626	-491	135	21.6

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> 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.

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



## Chapter 6 Minerals And Metals

A 26-percent decline in the minerals and metals sector trade deficit, to \$7.9 billion during the first half of 1990, continues to reflect the growing demand for certain U.S.-made products in principal export markets (Japan, Canada, and the European Community) and slackened demand for foreign-made products in the U.S. market; a deficit of \$10.7 billion was registered during the comparable period in 1989 (table 20). Total sector exports increased by 6 percent, to \$13.0 billion, whereas U.S. imports declined by 9 percent, to \$20.9 billion.

The improvement in the trade deficit reflects shifts toward a positive trade balance in precious metals (\$454 million improvement), certain base metals and chemical elements (\$367 million), unwrought aluminum (\$326 million), and steel mill products (\$324 million). These trade-balance shifts were largely a reflection of the following: (1) lower speculative activity in the United States, which dampened demand for imported precious metals, (2) a decline in demand in the U.S. market for foreign-produced unwrought nickel, which resulted in growing U.S. inventories, (3) declining aluminum prices, reflected in a significant decrease in import values of unwrought aluminum,

**Table 20**

**Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>**

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan	3,963	1,850	1,758	-92	-4.9
Canada	4,889	2,501	3,787	1,286	51.4
European Community	4,939	2,417	2,430	13	0.5
West Germany	885	426	449	23	5.3
United Kingdom	1,477	671	766	95	14.1
Taiwan	794	368	365	-3	-0.8
Mexico	2,044	1,009	1,120	111	11.0
Republic of Korea	1,367	627	673	46	7.3
Hong Kong	991	625	487	-138	-22.0
Brazil	222	88	92	4	4.5
China	407	199	90	-109	-54.7
OPEC	537	281	279	-2	-0.7
All other	4,550	2,301	1,945	-356	-15.4
Total	24,703	12,266	13,026	760	6.1
U.S. imports for consumption:					
Japan	5,235	2,574	2,420	-154	-5.9
Canada	10,791	5,829	4,717	-1,112	-19.0
European Community	9,923	4,930	4,662	-268	-5.4
West Germany	2,270	1,108	1,111	3	0.2
United Kingdom	1,704	876	838	-38	-4.3
Taiwan	2,290	1,090	1,065	-25	-2.2
Mexico	2,215	1,061	1,144	83	7.8
Republic of Korea	1,290	615	642	27	4.3
Hong Kong	396	187	181	-6	-3.2
Brazil	1,349	732	552	-180	-24.5
China	792	368	389	21	5.7
OPEC	657	296	335	39	13.1
All other	10,621	5,349	4,886	-463	-8.6
Total	45,559	23,031	20,993	-2,038	-8.8
U.S. merchandise trade balance:					
Japan	-1,272	-724	-662	62	8.5
Canada	-5,902	-3,328	-930	2,398	72.0
European Community	-4,984	-2,513	-2,232	281	11.1
West Germany	-1,385	-682	-662	20	2.9
United Kingdom	-227	-205	-72	133	64.8
Taiwan	-1,496	-722	-700	22	3.0
Mexico	-171	-52	-24	28	53.8
Republic of Korea	77	12	31	19	158.3
Hong Kong	595	438	306	-132	-30.1
Brazil	-1,127	-644	-460	184	28.5
China	-385	-169	-299	-130	-76.9
OPEC	-120	-15	-56	-41	-273.3
All other	-6,071	-3,048	-2,941	107	3.5
Total	-20,856	-10,765	-7,967	2,798	25.9

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

and (4) relatively low prices for steel mill products in the U.S. market, which reduced shipments of foreign-produced steel products to the United States. These positive trade-balance shifts were more than enough to offset the trade-balance declines that were recorded in copper ores and concentrates (\$163 million) and natural and synthetic gemstones (\$126 million).

### **U.S. Bilateral Trade**

In the minerals and metals sector, Japan, Canada, and the EC countries were the principal U.S. trading partners during January-June 1990. Aggregate trade with these countries accounted for 56 percent of total sector imports and 61 percent of sector exports, which resulted in a trade deficit of \$3.8 billion with these countries during January-June 1990 (42 percent lower than the deficit recorded during January-June 1989). The products that represented the largest value of trade with these countries during the 6-month period included iron and steel mill products, precious metals, unwrought aluminum, and natural and synthetic gemstones.

The most significant trade shifts in this sector during the first half of 1990 (on a country-by-country basis), occurred in trade of unwrought aluminum and precious metals with Canada. The \$309 million decline in the value of U.S. imports of unwrought aluminum is largely the result of reduced aluminum prices precipitated by an improved worldwide supply/demand situation. The \$276 million decline in imports of precious metals is primarily a reflection of reduced speculative activity, which lowered U.S. demand.

### **Commodity Analyses**

#### ***Steel mill products***

Continued strength of steel markets in Japan and the EC, a relative weakening of the U.S. market (and the resulting lower steel prices), and continuing improvement in the competitiveness of U.S. steel producers were the principal factors contributing to an 11-percent drop in the value of U.S. imports of steel mill products (to \$4.0 billion) and a 9-percent drop in the volume (to 7.2 million metric tons) for the first half of 1990 compared to the first half of 1989. U.S. exports, though considerably smaller and having less impact on the trade balance, also decreased, falling by 11 percent in value (to \$1.3 million) and 6 percent in volume (to 1.9 million metric tons). The net result was an 11-percent decrease (to \$2.7 billion) in the trade deficit for steel mill products in the first half of 1990.

Imports from Japan, traditionally the greatest source of steel imports, declined by 18 percent (to 1.4 million metric tons), as Japanese producers continued to focus on supplying their domestic

market, where they could obtain higher prices. The decline also represents the partial replacement of Japanese steel imports with steel produced by Japanese joint ventures in the United States. Imports from Brazil declined by 23 percent in volume (to 523,000 metric tons), reflecting in large part disruptions in steel production associated with the major economic restructuring efforts in that country. In terms of product categories, the decrease in imports was most marked for bars and heavy structurals, as declining prices (resulting from domestic capacity expansion and a weakening of the construction market) made those markets unattractive for foreign suppliers.

The decline in exports represented an abrupt change from the rapid growth experienced in 1988 and 1989, which culminated with exports reaching a 15-year high. The major source of the decline is the downturn in exports to China (from 242,000 metric tons to 3,500 metric tons), whose economic problems have resulted in diminished steel imports.

*Robert Mascola*  
202-252-1428

#### ***Metallic containers***

Increased exports of metal cans, especially to Canada, Mexico, and Japan, contributed to a 43-percent increase in exports of metallic containers, from \$157 million during January-June 1989 to \$200 million during January-June 1990. The increase principally reflected growth in the food and beverage container markets, especially aluminum, and the growing emphasis on can recycling in these countries. Aluminum cans are generally regarded as easier to recycle than steel cans. In Japan, increased demand for aluminum cans has been stimulated by widespread conversion from steel to aluminum food and beverage packaging in an effort to increase the country's rate of recycling. In Canada, increased exports of beer have spurred greater consumption of lighter-weight aluminum cans, which are less costly to transport. Major country markets included Canada, which accounted for 35 percent of container exports in January-June 1990; Mexico, 11 percent; and Japan, 7 percent.

*Nancy Fulcher*  
202-252-1434

#### ***Industrial fasteners of base metal***

A general rise in prices in principal export markets and sustained consumer spending in those markets for appliances and other durable goods that consume industrial fasteners (bolts, nuts, screws, and similar articles) resulted in an increase in the value of U.S. exports of 78 percent, to \$330 million between January-June 1989 and January-June 1990. Exports to Canada, which accounted for 56 percent of total industrial

fastener exports, increased by 193 percent during the 6-month period.

James M. Brandon  
202-252-1433

### *Nonpowered handtools*

Sustained industrial activity in Canada (the largest export market) which generated demand for wrenches, hammers, and certain interchangeable tools, coupled with the rising prices of those products, was largely responsible for a 26-percent increase in these U.S. exports, to \$546 million between January-June 1989 to January-June 1990. Exports to Canada increased by 88 percent, to \$186 million during the periods.

James M. Brandon  
202-252-1433

### *Cutlery other than tableware*

Development of new product lines and the closure of some foreign manufacturing facilities contributed to a 60-percent increase in exports of cutlery, machine blades, razors, and certain sewing implements during January-June of 1990. The Canadian market, which receives about one-third of all U.S. exports of such products, recorded a 200-percent increase (to \$38 million) over the same period in 1989.

Karen Laney-Cummings  
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### *Unwrought aluminum and waste and scrap*

An improved balance in the international supply/demand situation for primary aluminum and the ensuing decline of aluminum prices contributed to the improvement of the trade deficit by \$326 million. The value of unwrought aluminum and waste and scrap imports decreased by 23 percent to \$1.1 billion between January-June 1989 and January-June 1990, whereas the volume of these imports rose by 16 percent, to nearly 7 million metric tons. Imports from Canada, the traditional source of U.S. ingot imports, rose by 9 percent during the period, to 0.6 million metric tons (\$799 million) and accounted for 70 percent of the value of imports. Jamaica and Guinea were the principal sources of bauxite/alumina for the manufacture of primary aluminum.

The volume of U.S. exports of unwrought aluminum and waste and scrap rose by nearly 18 percent between January-June 1989 and January-June 1990, to 636,570 metric tons, while lower prices caused the value of these exports to fall by 2 percent, to \$905 million. The most significant increase occurred in exports to Japan, the principal U.S. export market and a net importer of unwrought aluminum and waste and scrap. Japanese purchases of U.S. unwrought aluminum and waste and scrap rose by 17 percent, to

385,420 metric tons, but the value of these purchases remained relatively stable at \$613 million.

Deborah A. McNay  
202-252-1425

### *Ferroalloys*

While the volume of ferroalloys imported into the United States was relatively stable during January-June 1989 and January-June 1990, demand worldwide weakened, leading to lower prices. The net result was a 19-percent decline in the value of imports, which fell from \$577 million to \$470 million. The primary exporters affected by the price declines were Brazil, South Africa, the Dominican Republic, and Mexico.

Laszlo Boszormenyi  
202-252-1437

### *Wire products of iron, steel, aluminum, copper and nickel*

The trade deficit in wire products fell by \$92 million to \$214 million between January-June 1989 and January-June 1990. This decrease was apparently due to the combined effects of reduced domestic consumption and lower unit prices for aluminum and copper metal, which reduced the value of wire product imports, and stronger construction activity abroad, which assisted exports. The decline in imports, which fell by 14 percent, to \$348 million, was also influenced by the commissioning of new foreign-owned domestic capacity for certain products (such as tire cord). Products that accounted for the bulk of the decline were carbon steel stranded wire and rope, brass-plated rope and cable, welded fencing and netting, and stranded aluminum wire and cable. On a country-by-country basis, the declines were greatest from Belgium, Spain, Canada, Italy, and Japan.

With respect to exports, which increased by 34 percent, to \$134 million, increases were greatest to Canada, Mexico, Iraq, and Taiwan. Relatively stronger construction activity abroad and the price effects of the dollar's depreciation against certain currencies assisted U.S. exports.

Charles Yost  
202-252-1442

### *Copper ores and concentrates*

A shift to a foreign supplier and the alleviation of production interruptions at a U.S. copper smelter caused the U.S. trade surplus in copper ores and concentrates to decline from \$260 million to \$97 million in first-half comparisons of 1989 and 1990. Imports increased mainly because a U.S. copper producer switched to a Mexican supplier in late 1989 when a contract dispute with a U.S. concentrate supplier caused the producer to seek a new source of concentrates. Exports de-

creased because of increased demand for concentrates by a new domestic copper smelter that operated continuously in the first half of 1990 following production problems and shutdowns in late 1988 and 1989. Overall, imports increased from \$5 million in the first half of 1989 to \$87 million in the first half of 1990 while exports decreased from \$265 million to \$184 million over the same time periods.

David Lundy  
202-252-1439

### *Precious metals and related articles*

A decrease in speculative demand for precious metals and the closure of a recycling plant caused the U.S. trade position in precious metals and related articles to improve from a deficit of \$438 million to a surplus of \$16 million in first-half comparisons of 1989 and 1990. Import demand for unwrought gold and silver bullion was lower because favorable political developments in Eastern Europe have led to a lessening of world tensions and reportedly have helped to lessen demand for speculative purchases of precious metals. At the same time, consistently rising U.S. production has caused gold bullion imports to decline over the last several years. Environmental compliance problems at a domestic recycling plant forced it to be shut down, resulting in increased exports of precious metal waste and scrap. Overall, imports of precious metals and related articles declined from almost \$2 billion in the first half of 1989 to \$1.7 billion in the first half of 1990 while exports increased from \$1.5 billion to \$1.8 billion over the same time periods. Trade with Canada showed the greatest change, with imports declining from \$613 million to \$345 million and exports increasing from \$216 million to \$322 million.

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202-252-1439

### *Zinc ores and residues*

Expanded U.S. mine production and increased foreign demand accounted for a 200-percent, or \$50 million, increase in exports of zinc concentrates in first-half comparisons of 1989 and 1990. The continued worldwide economic expansion over the last several years has caused the price of zinc to remain relatively high and has encouraged an increase in U.S. mine production of zinc. Several new mines producing zinc concentrates have started production since the latter half of 1989. Increased Canadian demand for zinc concentrates, caused by the shutdown of an exhausted Canadian mine, accounted for approximately one-half of the increase in U.S. exports.

David Lundy  
202-252-1439

### *Zinc and related articles*

Lower levels of automobile production, one of the main end-use sectors for zinc (for die-cast parts and galvanizing steel), largely accounted for a decrease in zinc consumption that contributed to a 25-percent (\$160 million) decline in zinc imports in first-half comparisons of 1989 and 1990. The price of zinc fell by about 10 percent but was still relatively high and substantially above U.S. production costs, and the U.S. industry actually increased production of unwrought zinc slightly. Imports from Canada, the leading U.S. supplier, fell by 22 percent and contributed approximately \$90 million to the decrease in imports.

David Lundy  
202-252-1439

### *Certain base metals and chemical elements*

A decline in demand for foreign-produced unwrought nickel, which accounted for 55 percent of all imports of certain base metals and chemical elements in 1989, resulted in a reduced trade deficit in these commodities to \$447 million (from \$814 million) in the 1989 and 1990 first-half comparisons. Declining demand caused a sharp rise in worldwide nickel inventories in the beginning of 1990 and a subsequent decline in the price of unwrought nickel to \$4.65 per pound in June 1990, from \$5.65 per pound in June 1989. U.S. imports of certain base metals and chemical elements declined to \$1.0 billion during the first 6 months of 1990, representing a 25-percent decrease over the same period in 1989. Canada was the principal supplier of U.S. imports of these products during the first 6 months of 1990, accounting for 43 percent of total imports.

Contributing to an improving trade position was the strong worldwide demand for titanium, for both aerospace and industrial uses, which resulted in U.S. exports of certain base metals and chemical elements increasing by 8 percent to \$537 million in 1989 and 1990 first-half comparisons. The United States is a leading world producer and supplier of titanium metal products. Canada accounted for 19 percent of all exports and was the leading U.S. export market.

Vincent DeSapio  
202-252-1435

### *Natural and synthetic gemstones*

Cumulative price increases of about 40 percent over the last few years have resulted in reduced demand for the more expensive diamonds, which the United States tends to export. This reduction in demand caused an increase in the U.S. trade deficit for gemstones of \$126 million, to \$2 billion during the first half of 1990 compared with the corresponding period in 1989. The value of exports of natural and synthetic gemstones decreased by 60 percent, to \$270 million,

of which natural diamonds accounted for 59 percent. Exports of natural diamonds decreased by 71 percent, to \$160 million, and colored gemstones and synthetics decreased by 8 percent, to \$110 million. Switzerland, Japan, Hong Kong, Canada, and Belgium accounted for 61 percent (\$166 million) of the export value.

The value of imports of natural and synthetic gemstones declined during the first half of 1990, by 11 percent, to \$2.2 billion. The United Kingdom and the diamond-cutting centers of Israel, Belgium, and India supplied 76 percent of U.S. imports of natural and synthetic gemstones.

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**Table 21**  
**Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989-June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:					
	Exports .....	634	316	350	34	10.8
	Imports .....	76	38	70	32	84.2
	Trade balance .....	558	278	280	2	0.7
MM002	Certain miscellaneous mineral substances:					
	Exports .....	5	3	3	0	0
	Imports .....	70	30	26	-4	-13.3
	Trade balance .....	-65	-27	-23	4	14.8
MM003	Iron ores and concentrates:					
	Exports .....	193	86	85	-1	-1.2
	Imports .....	520	245	206	-39	-15.9
	Trade balance .....	-327	-159	-121	38	23.9
MM004	Copper ores and concentrates:					
	Exports .....	571	265	184	-81	-30.6
	Imports .....	53	5	87	82	1,640.0
	Trade balance .....	518	260	97	-163	-62.7
MM005	Lead ores and residues:					
	Exports .....	30	13	24	11	84.6
	Imports .....	4	2	4	2	100.0
	Trade balance .....	26	11	20	9	81.8
MM006	Zinc ores and residues:					
	Exports .....	75	25	75	50	200.0
	Imports .....	32	14	10	-4	-28.6
	Trade balance .....	43	11	65	54	490.9
MM007	Certain ores, concentrates, ash, and residues:					
	Exports .....	550	300	205	-95	-31.7
	Imports .....	633	296	222	-74	-25.0
	Trade balance .....	-83	4	-17	-21	-525.0
MM008	Precious metal ores and concentrates:					
	Exports .....	2	1	11	10	1,000.0
	Imports .....	4	3	3	0	0
	Trade balance .....	-2	-2	8	10	500.0
MM009	Certain nonmetallic minerals and articles:					
	Exports .....	820	393	498	105	26.7
	Imports .....	1,845	900	961	-61	6.8
	Trade balance .....	-1,025	-507	-463	44	8.7
MM010	Refractory and heat-insulating articles:					
	Exports .....	208	106	133	27	25.5
	Imports .....	137	74	65	-9	-12.2
	Trade balance .....	71	32	68	36	112.5
MM011	Ceramic bricks and miscellaneous ceramic construction articles:					
	Exports .....	12	6	10	4	66.7
	Imports .....	27	13	12	-1	-7.7
	Trade balance .....	-15	-7	-2	5	71.4
MM012	Ceramic floor and wall tiles:					
	Exports .....	18	8	10	2	25.0
	Imports .....	431	205	224	19	9.3
	Trade balance .....	-413	-197	-214	-17	-8.6
MM013	Ceramic sanitary fixtures:					
	Exports .....	41	21	30	9	42.9
	Imports .....	73	36	38	2	5.6
	Trade balance .....	-32	-15	-8	7	46.7
MM014	Ceramic table, toilet, and kitchen articles:					
	Exports .....	53	26	24	-2	-7.7
	Imports .....	787	350	367	17	4.9
	Trade balance .....	-734	-324	-343	-19	-5.9

See footnotes at end of table.



**Table 21—Continued**  
**Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	January–June—			Change from January–June 1989 to January–June 1990	
		1989	1989	1990	Value	Percentage change
		Million dollars				
MM015	Miscellaneous ceramic articles:					
	Exports .....	123	60	66	6	10.0
	Imports .....	565	257	252	-5	-1.9
	Trade balance .....	-442	-197	-186	11	5.6
MM016	Flat glass and certain flat glass products:					
	Exports .....	533	256	369	113	44.1
	Imports .....	632	327	307	-20	-6.1
	Trade balance .....	-99	-71	62	133	187.3
MM017	Glass containers:					
	Exports .....	45	21	45	24	114.3
	Imports .....	175	89	104	15	16.9
	Trade balance .....	-130	-68	-59	9	13.2
MM018	Household glassware:					
	Exports .....	86	39	57	18	46.2
	Imports .....	513	226	235	9	4.0
	Trade balance .....	-427	-187	-178	9	4.8
MM019	Certain glass and glass products:					
	Exports .....	295	148	177	29	19.6
	Imports .....	297	150	149	-1	-0.7
	Trade balance .....	-2	-2	28	30	1,500.0
MM020	Fiber glass products:					
	Exports .....	356	180	182	2	1.1
	Imports .....	112	63	58	-5	-7.9
	Trade balance .....	244	117	124	7	6.0
MM021	Natural and synthetic gemstones:					
	Exports .....	1,361	675	270	-405	-60.0
	Imports .....	5,069	2,520	2,241	-279	-11.1
	Trade balance .....	-3,708	-1,845	-1,971	-126	-6.8
MM022	Precious metals and related articles:					
	Exports .....	3,167	1,542	1,757	215	13.9
	Imports .....	3,941	1,980	1,741	-239	-12.1
	Trade balance .....	-774	-438	16	454	103.7
MM023	Pig iron:					
	Exports .....	1	( <sup>3</sup> )	1	1	( <sup>4</sup> )
	Imports .....	73	38	26	-12	-31.6
	Trade balance .....	-72	-38	-25	13	34.2
MM024	Ferroalloys:					
	Exports .....	86	45	49	4	8.9
	Imports .....	1,050	577	470	-107	-18.5
	Trade balance .....	-964	-532	-421	111	20.9
MM025	Iron and steel waste and scrap:					
	Exports .....	1,755	901	852	-49	-5.4
	Imports .....	173	91	81	-10	-11.0
	Trade balance .....	1,582	810	771	-39	-4.8
MM026	Direct reduced iron, ferrous powders, and					
	Exports .....	34	15	27	12	80.0
	Imports .....	72	36	44	8	22.2
	Trade balance .....	-38	-21	-17	4	19.0
MM027	Steel mill products, all grades:					
	Exports .....	2,809	1,454	1,301	-153	-10.5
	Imports .....	8,958	4,484	4,007	-477	-10.6
	Trade balance .....	-6,149	-3,030	-2,706	324	10.7
MM028	Steel pipe and tube fittings, and certain cast products:					
	Exports .....	326	177	202	25	14.1
	Imports .....	368	182	183	1	0.5
	Trade balance .....	-42	-5	19	24	480.0
MM029	Fabricated structurals:					
	Exports .....	58	29	46	17	58.6
	Imports .....	79	41	42	1	2.4
	Trade balance .....	-21	-12	4	16	133.3
MM030	Metal construction components:					
	Exports .....	292	137	159	22	16.1
	Imports .....	182	84	79	-5	-6.0
	Trade balance .....	110	53	80	27	50.9

See footnotes at end of table.

Table 21—Continued  
Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods,  
January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
MM031	Metallic containers:					
	Exports .....	308	157	200	43	27.4
	Imports .....	269	139	130	-9	-6.5
	Trade balance .....	39	18	70	52	288.9
MM032	Wire products of iron, steel, aluminum, copper, and nickel:					
	Exports .....	202	100	134	34	34.0
	Imports .....	772	406	348	-58	-14.3
	Trade balance .....	-570	-306	-214	92	30.1
MM033	Chain:					
	Exports .....	326	174	163	-11	-6.3
	Imports .....	427	204	246	42	20.6
	Trade balance .....	-101	-30	-83	-53	-176.7
MM034	Industrial fasteners of base metal:					
	Exports .....	383	186	330	144	77.4
	Imports .....	1,490	765	768	3	0.4
	Trade balance .....	-1,107	-579	-438	141	24.4
MM035	Cooking and kitchen ware:					
	Exports .....	138	68	85	17	25.0
	Imports .....	735	334	319	-15	-4.5
	Trade balance .....	-597	-266	-234	32	12.0
MM036	Metal sanitary ware:					
	Exports .....	51	26	37	11	42.3
	Imports .....	107	52	50	-2	-3.8
	Trade balance .....	-56	-26	-13	13	50.0
MM037	Iron construction castings and other nonmalleable cast- iron articles:					
	Exports .....	50	25	18	-7	-28.0
	Imports .....	65	33	31	-2	-6.1
	Trade balance .....	-15	-8	-13	-5	-62.5
MM038	Copper and related articles:					
	Exports .....	1,539	750	866	116	15.5
	Imports .....	2,327	1,188	1,057	-131	-11.0
	Trade balance .....	-788	-438	-191	247	56.4
MM039	Unwrought aluminum:					
	Exports .....	2,044	921	905	-16	-1.7
	Imports .....	2,561	1,476	1,134	-342	-23.2
	Trade balance .....	-517	-555	-229	326	58.7
MM040	Aluminum mill products:					
	Exports .....	1,386	740	777	37	5.0
	Imports .....	1,253	683	633	-50	-7.3
	Trade balance .....	133	57	144	87	152.6
MM041	Lead and related articles:					
	Exports .....	66	26	53	27	103.8
	Imports .....	97	44	43	-1	-2.3
	Trade balance .....	-31	-18	10	28	155.6
MM042	Zinc and related articles:					
	Exports .....	118	53	54	1	1.9
	Imports .....	1,214	653	492	-161	-24.7
	Trade balance .....	-1,096	-600	-438	162	27.0
MM043	Certain base metals and chemical elements:					
	Exports .....	997	497	537	40	8.0
	Imports .....	2,447	1,311	984	-327	-24.9
	Trade balance .....	-1,450	-814	-447	367	45.1
MM044	Nonpowered handtools:					
	Exports .....	850	435	546	111	25.5
	Imports .....	1,383	672	678	6	0.9
	Trade balance .....	-533	-237	-132	105	44.3
MM045	Cutlery other than tableware, certain sewing implements, and related products:					
	Exports .....	159	72	115	43	59.7
	Imports .....	393	194	205	11	5.7
	Trade balance .....	-234	-122	-90	32	26.2

See footnotes at end of table.

**Table 21—Continued**  
**Minerals and metals sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	1989	January–June—		Change from January–June 1989 to January–June 1990	
			1989	1990	Value	Percentage change
Million dollars						
MM046	Table flatware and related products:					
	Exports .....	17	9	32	23	255.6
	Imports .....	185	92	84	-8	-8.7
	Trade balance .....	-168	-83	-52	31	37.3
MM047	Certain builders' hardware:					
	Exports .....	417	209	280	71	34.0
	Imports .....	829	397	433	36	9.1
	Trade balance .....	-412	-188	-153	35	18.6
MM048	Miscellaneous products of base metal:					
	Exports .....	1,112	571	698	127	22.2
	Imports .....	2,053	1,030	1,046	16	1.6
	Trade balance .....	-941	-459	-348	111	24.2

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> 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.

<sup>3</sup> Less than \$500,000.

<sup>4</sup> Cannot be calculated.

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



## Chapter 7

### Machinery And Equipment

U.S. merchandise trade in machinery and equipment showed a 57-percent improvement in the first half of 1990, with the trade deficit in these products decreasing to \$11.9 billion from the \$27.9 billion recorded for January-June 1989 (table 22). This improvement may be partially attributed to the weakening of the dollar versus the currencies of certain major trading partners, which resulted in a 21-percent rise in U.S. exports of these products over the relevant periods, from \$74.0 billion to \$89.4 billion. Principal export markets included Canada, Japan, and Mexico.

U.S. imports of machinery and equipment products decreased by less than 1 percent, from \$101.9 billion during January-June 1989, to \$101.4 billion for the first 6 months of 1990. Principal sources of imports were Japan, Canada, West Germany, and Mexico. Significant changes in the trade balance over the period for machinery and equipment sector occurred in internal combustion piston engines, other than for aircraft; fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment; certain motor-vehicle parts; miscellaneous industrial machinery; construction and mining equipment; records, tapes, compact discs, computer software, and other recorded media; and office machines.

**Table 22**  
Machinery and equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
Million dollars					
U.S. exports of domestic merchandise:					
Japan .....	11,526	5,196	6,849	1,653	31.8
Canada .....	33,310	17,650	23,783	6,133	34.7
European Community .....	40,639	20,369	23,731	3,362	16.5
West Germany .....	8,721	4,415	4,930	515	11.6
United Kingdom .....	11,349	5,623	7,077	1,454	25.8
Taiwan .....	4,572	2,092	2,762	670	32.0
Mexico .....	10,929	5,440	6,255	815	14.9
Republic of Korea .....	5,079	2,297	2,609	312	13.5
Hong Kong .....	2,094	1,052	1,223	171	16.2
Brazil .....	2,462	1,165	1,164	-1	0.0
China .....	1,870	718	1,125	407	56.6
OPEC .....	5,722	2,796	2,837	41	1.4
All other .....	32,254	15,245	17,066	1,821	11.9
Total .....	150,457	74,020	89,404	15,384	20.7
U.S. imports for consumption:					
Japan .....	72,135	35,951	33,141	-2,810	-7.8
Canada .....	39,170	20,632	21,117	485	2.3
European Community .....	35,297	17,884	19,075	1,191	6.6
West Germany .....	14,631	7,384	8,409	1,025	13.8
United Kingdom .....	7,704	3,773	3,958	185	4.9
Taiwan .....	8,765	4,113	4,185	72	1.7
Mexico .....	11,922	6,000	6,353	353	5.8
Republic of Korea .....	8,939	4,621	3,710	-911	-19.7
Hong Kong .....	2,731	1,283	1,158	-125	-9.7
Brazil .....	2,325	1,203	1,079	-124	-10.3
China .....	1,972	779	1,023	244	31.3
OPEC .....	95	35	71	36	102.8
All other .....	19,773	9,439	10,436	997	10.5
Total .....	203,124	101,940	101,348	-592	-0.5
U.S. merchandise trade balance:					
Japan .....	-60,609	-30,755	-26,292	4,463	14.5
Canada .....	-5,860	-2,982	2,666	5,648	189.4
European Community .....	5,342	2,485	4,656	2,171	87.3
West Germany .....	-5,910	-2,969	-3,479	-510	-17.1
United Kingdom .....	3,645	1,850	3,119	1,269	68.5
Taiwan .....	-4,193	-2,021	-1,423	598	29.5
Mexico .....	-993	-560	-98	462	82.5
Republic of Korea .....	-3,860	-2,324	-1,101	1,223	52.6
Hong Kong .....	-637	-231	65	296	128.1
Brazil .....	137	-38	85	123	323.6
China .....	-102	-61	102	163	267.2
OPEC .....	5,627	2,761	2,766	5	0.1
All other .....	12,481	5,806	6,630	824	14.1
Total .....	-52,667	-27,920	-11,944	15,976	57.2

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

## U.S. Bilateral Trade

The major U.S. trading partners in machinery and equipment during January-June 1990 were Japan, Canada, the EC, and Taiwan. The U.S. trade deficit with Japan decreased by approximately 15 percent over the period, dropping from \$30.8 billion for January-June 1989 to \$26.3 billion for January-June 1990. The trade deficit with Canada of \$3.0 billion during the first half of 1989 became a surplus of \$2.7 billion for the first half of 1990. The U.S. trade surplus with the EC continued to rise, increasing by 87 percent, to \$4.7 billion, and the trade deficit with Taiwan decreased by 30 percent, to \$1.4 billion.

Factors contributing to the decline in the trade deficit included the significant increases in U.S. exports of machinery and equipment to Canada, the EC, and other trading partners. U.S. exports of machinery and equipment to Canada rose by 35 percent between January-June 1989 and January-June 1990, rising from \$17.7 billion to \$23.8 billion. Exports to the EC increased by 17 percent over the same period, from \$20.4 billion to \$23.7 billion.

## Commodity Analyses

### *Aircraft engines and gas turbines*

The value of U.S. imports of aircraft engines and gas turbines increased from \$1.9 billion during the first 6 months of 1989 to \$2.3 billion during the first 6 months of 1990, or by 21 percent. Principal suppliers of these goods were France, the United Kingdom, and Canada, which accounted for 73 percent of total imports during January-June 1990. Each of these countries has a major turbine-engine producer that competes globally against the U.S. industry. The rise in imports was principally the result of the high global demand for aircraft.

U.S. exports of aircraft engines and gas turbines rose by 4 percent, from \$3.6 billion during January-June 1989 to \$3.8 billion during January-June 1990. France, the United Kingdom, and Canada accounted for 46 percent of such exports. Parts for civil aircraft engines accounted for 55 percent of total exports, or \$2.1 billion, during January-June 1990. Over the next few years, the absolute value of U.S. exports of engine parts is likely to increase modestly. The global market share for U.S. aircraft engines may decline, however, as competition from abroad intensifies.

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### *Internal combustion piston engines, other than for aircraft*

U.S. imports of internal combustion engines decreased by 2 percent, to \$3.1 billion in the first half of 1990, compared with imports for the corresponding period of 1989. U.S. imports from Canada, which accounted for nearly 35 percent of the imports in this category during both periods, decreased by 11 percent. U.S. imports from Japan, the second-largest supplier of the subject articles or products, increased by 1 percent, to \$802 million during January-June 1990, over the corresponding period in 1989. Increased U.S. imports from West Germany, the third-largest supplier, were largely offset by a significant decline in imports from Mexico.

A large portion of the decline in U.S. imports of internal combustion engines in the first half of 1990 was accounted for by decreasing U.S. imports of spark-ignition reciprocating piston engines,<sup>1</sup> which declined by 97 percent, from \$678 million in the first half of 1989 to \$18 million in the first half of 1990. According to industry sources, this precipitous decline occurred because two major U.S. producers closed several of their Canadian engine-production facilities. U.S. imports of spark-ignition reciprocating engines exceeding 1,000 cc for certain motor vehicles increased by 107 percent, from \$595 million to \$1.2 billion, between the two periods, largely offsetting the decrease in the smaller engines. Industry sources partially attribute this increase to one U.S. automaker's increased use of West German engines in its sport-utility vehicles.

U.S. exports of internal combustion engines increased by 21 percent, from \$2.4 billion during the first half of 1989 to \$2.9 billion in the first half of 1990. U.S. exports to Canada, the principal market for U.S. exports, were largely responsible for this increase, rising by 53 percent, from \$1.0 billion to \$1.6 billion between the periods. Spark-ignition piston engines exceeding 1,000 cc for certain motor vehicles accounted for the major portion of the increase, rising by 100 percent, from \$337 million during the first half of 1989 to \$675 million during January-June 1990. U.S. exports of these engines increased, in part, because of the opening of a new auto assembly plant in Canada that sources its engines from U.S. facilities.

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### *Fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment*

During January-June 1990, U.S. imports of fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment amounted

<sup>1</sup> Exceeding 50 cc but not exceeding 250 cc, for use in certain motor vehicles.

to \$1.7 billion, decreasing by \$38 million, or 2 percent, from the corresponding period of 1989. The majority of the decrease was in imports from Taiwan, Mexico, and Canada, which declined by 26, 24, and 18 percent, respectively. The decline in imports from Taiwan was largely due to decreasing production of ceiling fans and blowers by U.S. producers that import under the provision of HTS subheading 9802.00.80. Several large U.S. producers opted to shift production of these products to other low-cost supplier nations, such as China and Malaysia. The decrease in imports from Mexico and Canada was primarily attributable to weakened demand in the U.S. automotive and construction markets for products such as fuel-injection pumps, air and vacuum pumps, refrigeration compressors, and window air-conditioners.

U.S. exports of fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment increased by 15 percent, from \$1.3 billion during the first 6 months of 1989 to \$1.5 billion during the corresponding period of 1990. The largest U.S. export market for these products was Canada, whose share of total exports amounted to 34 percent (\$526 million) during the first 6 months of 1990, compared with 28 percent (\$377 million) during the corresponding period in 1989. The United States-Canada Free-Trade Agreement was largely responsible for the large increase in U.S. exports of fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment. Nearly all U.S. exports of these products to Canada have benefitted from either immediate duty-free access or accelerated tariff reductions that have significantly increased Canadian demand, particularly for component parts. The bulk of trade in these products is concentrated among firms that are affiliated with, or are subsidiaries of, U.S. companies.

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### *Electrical household appliances and certain heating equipment*

U.S. imports of these articles declined to \$1.1 billion during January-June 1990, down from \$1.2 billion in the corresponding period of 1989. A large share of the decline is attributed to the continued reduction in shipments of electric cooking stoves, ranges, and parts from such Pacific Rim countries as Japan, Korea, Taiwan, and Hong Kong. Despite the decline in shipments, however, these countries remained the principal U.S. suppliers of these articles, together accounting for nearly 40 percent of total imports during the first half of 1990. According to industry experts, Japanese producers are shifting production away from Japan and other Pacific Rim countries to their subsidiary manufacturing plants in the United States.

For the first time in recent years, Canada accounted for a significant share of the reduction in U.S. imports. Canadian subsidiaries of U.S. manufacturers have curtailed production of electrical appliances in Canada for shipment to the U.S. and Canadian markets. As a result of the United States-Canada Free-Trade Agreement, U.S. companies no longer manufacture products in Canada to avoid Canadian duties on products imported from the United States for the Canadian market.

During this same period, however, imports from Mexico increased by over 26 percent, to \$127 million in January-June 1990 from \$101 million in January-June 1989. U.S. appliance producers, as well as U.S. subsidiaries of Japanese producers, have established maquiladora assembly plants in Mexican border cities in order to export these types of products to the U.S. market.

During January-June 1990, U.S. exports to Mexico increased by over 14 percent, to \$111 million, up from \$97 million during the corresponding period in 1989. This increase was primarily due to U.S. producers and Japanese subsidiaries exporting parts and supplies to their border factories in Mexico. Exports to Canada increased by nearly 54 percent during the first half of 1990, from \$143 million for the corresponding period in 1989 to \$220 million. As noted earlier, this increase was due principally to the retrenchment of production in Canada by U.S. producers of electrical appliances.

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### *Construction and mining equipment*

U.S. imports of construction and mining equipment increased by 4 percent, from \$1.2 billion during January-June 1989 to \$1.3 billion during the same period of 1990. Japan continued to be the principal supplier of these products, accounting for 40 percent of total imports during January-June 1990. The modest increase in imports is an indication of the ongoing consolidation of the U.S. construction and mining equipment industry, as well as an increase in the number of joint ventures with foreign firms. These developments have been taking place as the result of a significant level of excess U.S. production capacity and a resulting increase in competitive pressures in the U.S. marketplace for this equipment. The consolidation process has led to a rise in "sole sourcing," whereby a particular piece of equipment may be manufactured only at one production site.

U.S. exports of construction and mining equipment increased by 28 percent, from \$1.3 billion during January-June 1989, to \$1.6 billion during the same period of 1990. Expanding global construction and mining activity was largely responsible for this increase in exports, notably to

Europe and Mexico. Canada continued to provide the largest market for U.S. equipment, receiving 31 percent of total U.S. exports during January-June 1990. The Canadian share of U.S. exports increased by 56 percent, from \$325 million during January-June 1989 to \$507 million during the corresponding period of 1990. According to U.S. industry sources, a recent increase in the development of Canadian natural resources contributed to the rise in the Canadian share of U.S. exports.

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### *Farm and garden machinery and equipment*

The value of U.S. exports of farm and garden machinery and equipment increased to \$2.0 billion during January-June 1990, up 17 percent from \$1.7 billion during the corresponding period of 1989. The bulk of the increased shipments were made up of tractor parts, mowers and parts, and other miscellaneous farm and garden machinery. The principal export markets, along with their respective shares of total U.S. exports of these products in 1990, were Canada (38 percent), Mexico (8 percent), and France (7 percent). Exports of farm and garden machinery and equipment to Canada, historically the primary U.S. export market for such products, increased by 24 percent during the first 6 months of 1990, as compared with the like period in 1989. This increase was largely due to efforts on the part of Canadian farmers to replace or repair older machinery as a result of increased net cash receipts and decreased debt-to-asset ratios during early 1990.

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### *Machine tools for cutting metal and parts; tool holders, work holders*

U.S. imports of the tools and related apparatus grouped under this heading fell by 10 percent, from \$1.2 billion in January-June 1989 to \$1.1 billion in the corresponding period of 1990. The bulk of the decline was accounted for by metal-cutting machine tools, which declined from \$937 million to \$868 million, and by machine-tool parts and accessories, which fell from \$282 million to \$226 million. Imports from Japan, the principal supplier, fell by 18 percent, from \$622 million in January-June 1989 to \$509 million in January-June 1990. Japanese machine-tool manufacturers have experienced increasing backlogs of orders during the past few years, and at the same time, their own domestic market has expanded considerably.

U.S. exports of metalworking machine tools and parts rose by 21 percent, from \$468 million in

January-June 1989 to \$580 million in the corresponding period of 1990, with increases in exports occurring especially in machining centers, lathes, and other machine-tool cutters. Foreign export orders were up considerably during January-June 1990, with most foreign machine-tool manufacturers already operating at near-full capacity and with current exchange rates favoring U.S. products. Canada was the primary market for U.S. exports, with \$140 million (24 percent) of the total during January-June 1990. During the same period, U.S. exports to West Germany and the United Kingdom rose by 70 and 34 percent, respectively, to \$48 million and \$57 million, respectively; other important markets included Mexico, Japan, and Korea.

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### *Office machines<sup>2</sup>*

The trade deficit in office machines for the first 6 months of 1990 was \$832 million, up from \$346 million in the corresponding period of 1989. This increase continues the trend that began in 1982. The first negative balance of trade in office machines and parts occurred in 1989. The continued worldwide rationalization of production by U.S. firms is a major cause of the declining trade balance.

U.S. imports of office machines and parts reached \$13.1 billion in the first 6 months of 1990, representing a 12-percent increase over those in the corresponding period in 1989. The principal imported items were input/output devices, displays, and printers, which increased by 18 percent; storage units and magnetic disk drives, which increased by 23 percent; and parts of ADP machines and computers, which increased by 16 percent. Low-priced display units from the Pacific Rim nations, designed mainly using television technology, were in great demand by U.S. consumers. Printers and disk drives that require significant manual assembly and alignment were also imported in large amounts from Asian nations.

Most parts and major subassemblies of office machines are duty free. Both U.S. and foreign firms assembled these parts and subassemblies into finished products in the United States. In the first half of 1990, \$6.9 billion, or 59 percent, of office machine imports were entered duty free. The principal suppliers of imports were Japan, which supplied 42 percent of U.S. imports during January-June 1990, and Singapore and Taiwan, which supplied 15 and 12 percent, respectively.

<sup>2</sup> Office machines included in this category are principally automatic data-processing (ADP) machines and units thereof, typewriters, word processing machines, calculators, cash registers, copying machines, mail-sorting machines, and automatic teller machines and parts thereof.



U.S. exports of office machines rose by 8 percent during January-June 1990, increasing to \$12.3 billion. Exports of major components and parts showed strong increases during the period compared with the corresponding period in 1989. Whereas exports of input/output units increased by only 4 percent, exports of storage units were up by 20 percent and exports of power supplies and other units were up by 28 percent. In addition, exports of digital processing units rose by 14 percent during the period. These components and parts together accounted for 71 percent of the value of U.S. exports during the first half of 1990.

The principal foreign markets for U.S. products were Canada, Japan, the United Kingdom, West Germany, the Netherlands, France, and Singapore, which together accounted for 69 percent of total exports. Compared to its sources for imports, the United States distributes its office machines to a much wider market.

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### *Miscellaneous industrial machinery<sup>3</sup>*

The value of U.S. exports of miscellaneous industrial machinery rose to \$4.5 billion, or by 14 percent, during January-June 1990, as compared with January-June 1989. Although a number of industries within this broad grouping experienced gains, the most significant were recorded by the industry manufacturing parts for oil, gas field, and other boring and sinking machinery (up \$65 million) and the semiconductor production and assembly equipment industry (up \$51 million). Other important increases were registered by parts manufacturers for the elevator and conveyor industry (up \$34 million) and the concrete and bituminous pavers, finishers, and spreaders industry (up \$29 million). Exports of these varied products went to many countries, with Canada, Japan, Mexico, and the United Kingdom accounting for about one-third of the total during January-June 1990, whereas the top 10 countries received 60 percent. U.S. exports are believed to have continued to benefit from the weaker U.S. dollar relative to certain foreign currencies and as the result of the United States-Canada FTA.

The value of U.S. imports of miscellaneous industrial machinery declined to \$2.8 billion in January-June 1990, down 8 percent from \$3.1 billion in January-June 1989. This decline was generally attributable to a decline in the expansion of U.S. industrial production capacity. Import-product categories that fell the most were industrial robots (down \$42 million), semiconductor production and assembly equipment (down

<sup>3</sup> This category consists of a miscellany of industrial machinery and parts covered by 114 HTS 8-digit item numbers.

\$26 million), machines for assembling electric or electronic lamps (down \$25 million), and injection-molding machines (down \$24 million). Japan, West Germany, and Canada supplied about two-thirds of imports, by value, in January-June 1989 and January-June 1990. In January-June 1990, West Germany replaced Canada as the second-leading supplier; furthermore, West Germany was the only one of the three largest suppliers to improve its performance (up 9 percent from January-June 1989). Italy became the fourth-leading supplier during January-June 1990, with its total reaching \$139 million, up 18 percent from January-June 1989.

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### *Telephone and telegraph apparatus*

U.S. exports of telephone and telegraph apparatus increased from \$961 million in the first half of 1989 to \$1.1 billion in the first half of 1990, or by 14 percent. The increase in exports was evident in both completed products and parts. The principal items exported were parts of telephonic switching apparatus, modems, and miscellaneous telephonic switching apparatus. The largest markets for U.S. exports were Canada, Japan, and Taiwan, which accounted for 13, 13, and 11 percent, respectively, of U.S. exports in the first half of 1990. U.S. exports to these three countries increased by 24 percent (Canada), 39 percent (Japan), and 106 percent (Taiwan). The large increase in exports to the Far East is generally believed to reflect purchases by U.S.-owned offshore production facilities.

U.S. imports of telephone and telegraph apparatus declined by 10 percent, falling from \$2.2 billion in the first half of 1989 to \$1.9 billion in the first half of 1990. The decline was apparent in imports of both complete units and parts. Also, imports of both business and consumer equipment, such as telephone sets and facsimile machines, declined. The overall decline in imports was likely due to weakening demand as growth in the U.S. economy slowed. The principal imported items were electrical telegraphic apparatus (which includes facsimile machines), telephone sets, and cordless handset telephones. Imports of cordless handset telephones increased as consumers continue to shift to more convenient cordless phones and away from corded telephone sets. The principal sources of imports in the first half of 1990 were Japan, Canada, and China, which supplied 37, 12, and 8 percent of imports, respectively. U.S. imports from Japan and Canada showed declines of 24 and 7 percent, respectively, comparing the periods; however, imports from China increased by 70 percent. The increase in imports from China is believed to result from the shifting of production of low-end consumer products by U.S. and foreign manufac-

turers to that country to take advantage of the lower labor costs.

The U.S. trade balance in telephone and telegraph apparatus improved from a deficit of \$1.2 billion in the first half of 1989 to a deficit of \$852 million in the first half of 1990. The trade balance with Japan improved from a deficit of \$852 million in the first half of 1989 to a deficit of \$585 million in the first half of 1990. Japan continued to account for the bulk of the U.S. trade deficit in telephone and telegraph apparatus.

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

U.S. imports of tape recorders, tape players, video cassette recorders (VCRs), turntables, and compact disc (CD) players declined by 18 percent in the first half of 1990, to reach \$1.92 billion, compared with \$2.36 billion in the comparable period of 1989. This decline in imports reflects a reduction in demand for VCRs in the U.S. market. VCRs are the dominant product within this category of U.S. imports. In early 1990, the Electronic Industries Association reported that over two thirds of U.S. households contained at least one VCR. As a result, U.S. sales of VCRs have declined as U.S. consumers are now buying additional, less expensive models of VCRs for use in bedrooms or dens, rather than the full-featured models they initially bought for the living room. At the same time, U.S. sales of CD players and camcorders continue to rise, leading to increased imports of these articles that partially offset the decline in U.S. imports of VCRs.

Japan remained the United States' largest supplier of tape recorders, tape players, VCRs, turntables, and CD players during the period, although U.S. imports from Japan fell by 17 percent. U.S. imports of these products from Japan were valued at \$1.3 billion in the first 6 months of 1990 (accounting for 69 percent of total U.S. imports of these devices), compared with \$1.6 billion in the first half of 1989 (68 percent). There is little differentiation among brands of tape recorders, tape players, VCRs, turntables, and CD players, and these items are produced in high volume. Producers of these items compete primarily on the basis of price, features, and size. Japanese firms have emerged as the dominant producers of these products because Japanese firms have succeeded in producing the critical components of these devices—i.e. the VCR's "read/write" head unit, the CD player's laser pickup device, and all of the miniaturized circuitry required to reduce the workings of a tape player into the compact size of SONY's "Walkman"—in high volume at relatively low per-unit costs.

Japan's share of total U.S. imports of these products has fluctuated between 62 and 88 percent during the past 5 years as a result of Japanese electronics firms' shifting production away from Japan to newly established facilities in nearby developing nations such as Korea, Taiwan, Hong Kong, and Singapore. These shifts in manufacturing were undertaken to lessen the effects of fluctuations in the value of the yen in international currency markets, to mitigate trade tensions resulting from the growing levels of imports from Japan in the United States and Europe, and to take advantage of both lower labor costs and the preferential tariff treatment that the United States and European nations extend to imports of these products from developing nations. U.S. imports of tape recorders, tape players, VCRs, turntables, and CD players from Korea, Taiwan, Hong Kong and Singapore declined by 50 percent during the period as a result, according to informed sources, of these nations' being graduated from the GSP in January of 1989. Japanese firms are now shifting manufacturing facilities from these so-called "Four Tigers" to Thailand, Mexico, Malaysia, and China; U.S. imports from these nations are still eligible for duty-free entry status under the GSP.

New production capacity in developing nations is often operated as a joint venture between Japanese firms and firms based in the host country. Some of these establishments are subsidiaries of Japanese producers, whereas others may be wholly independent of Japan, in which case they usually use Japanese technology and production machinery in exchange for paying licensing fees to Japanese firms.

U.S. exports of tape recorders, tape players, VCRs, turntables, and CD players rose by 12 percent in the first half of 1990, to reach \$235 million, compared with \$209 million in January-June 1989. Mexico, Canada, Japan, the United Kingdom, and West Germany were the major foreign markets for U.S. exports of these products in the first 6 months of 1990. The majority of these U.S. exports were actually reexports of either products that were imported from Japan or other Far East suppliers, or exports of finished merchandise that were assembled in the United States from imported components. Mexico and Canada accounted for 43 percent of U.S. exports of these devices in the first half of 1990, compared with 33 percent of these exports in the corresponding period in 1989.

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

U.S. imports of records, tapes, compact discs (CDs), computer software, and other recorded media rose by 13 percent in the first half of 1990,

increasing from \$126.0 million in the first half of 1989 to \$142.7 million in the comparable period of 1990. Canada, the United Kingdom, and West Germany remained the largest foreign suppliers to the U.S. market, accounting for 47 percent of U.S. imports of these products in the first half of 1990.

Fully 66 percent of the value of U.S. imports in this category fall under a single HTS subheading, 8524.90.40, "other recorded media," which includes computer software and CDs. U.S. sales of personal computers and CD players have been growing steadily in recent years, leading to a concomitant increase in demand for software for these items. U.S. establishments have been expanding production capacity, but these firms have been unable to keep up with the growth in the U.S. market. The Recording Industry Association of America (RIAA) reports that U.S. retail sales of CDs increased by 30 percent in the first half of 1990, to reach \$1.5 billion. RIAA further indicates that the total revenue derived from U.S. retail sales of music and video software in all formats reached \$3.48 billion during January-June 1990. This figure represents an increase of 15 percent over the \$3.03 billion in revenues the industry earned in the first half of 1989. There are no reliable estimates of the value of U.S. consumption of computer software during the period, however, because a large share of such software is developed by individual computer users whose output is never reported in shipments data compiled by the U.S. Department of Commerce or private firms. U.S. data on international trade in these products may be understated as well, because a significant share of trade in computer software crosses national borders through telephone lines, without being reported to the U.S. Customs Service or similar agencies in other nations.

U.S. exports of records, tapes, CDs, computer software, and other recorded media increased by 72 percent in the first half of 1990. In January-June 1990, these exports reached \$877 million, whereas in the corresponding period in 1989, these exports were valued at \$509 million. U.S. exports of these items to Canada rose by 225 percent during the period, causing Canada to supplant Japan as the largest export market for U.S. records, tapes, CDs, computer software, and other recorded media. The United Kingdom, West Germany, France, and Australia were also large markets for U.S. exports of these software products.

Together with the modest increase in U.S. imports of records, tapes, CDs, computer software, and other recorded media, the large increase in U.S. exports of these products resulted in a significant increase in the U.S. trade surplus in this product category. The U.S. surplus of trade in these products increased from \$383 million in the first half of 1989 to \$734 million in the like period

of 1990. Although trade in these software products usually transcends language barriers, English is the dominant language used in producing these items around the world.

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202-252-1389

### *Radio transmission and reception apparatus, including cellular telephones, and combinations thereof*

U.S. exports of radio transmission and reception apparatus increased by 49 percent in the first half of 1990 compared with the first half of 1989, from \$1.3 billion to \$1.9 billion. The principal products exported in 1990 were parts of radio transmission and reception apparatus, communications satellites, transceivers other than CB and low-power transceivers, and transmission apparatus incorporating reception apparatus. The products with the largest increase in exports in the first half of 1990 compared with the first half of 1989 were communications satellites, transmission apparatus incorporating reception apparatus, radio transceivers operating with frequencies over 400 mhz, radios in combination with sound-reproducing apparatus for use in motor vehicles, radio receivers for use in motor vehicles, and parts of radio transmission and reception apparatus. The largest foreign markets for these products were international organizations, Mexico, Canada, the United Kingdom, Japan, and Brazil.

The increase in exports of communications satellites (by \$218 million, or 148 percent) in the first half of 1990 was due to the launching of U.S.-built satellites by the United States for Intelsat, an international space consortium, which is identified as "international organizations" in trade statistics reported by the Census Bureau. "Export" through these launches accounted for 82 percent of satellite exports for the first half of 1990, and for almost 50 percent of the increase in total exports. There were no such exports to international organizations in 1989. These exports should not be construed to represent a particular trend but rather are the final result of competition in the marketplace over the course of several years. At the same time, the increase in exports of radio receivers for use in motor vehicles and radio receivers in combination with sound-reproducing apparatus for use in motor vehicles is likely the result of the major U.S. automobile manufacturers' rationalizing production of cars and car-audio components between these firms' manufacturing facilities in the United States and Canada.

U.S. imports of radio transmission and reception apparatus decreased by 8 percent in the first half of 1990 compared with the comparable period in 1989, declining from \$2.7 billion to \$2.5 billion. The principal products imported were radios in combination with sound-reproducing

apparatus for use in motor vehicles, transmission apparatus incorporating reception apparatus (including cellular telephones), portable radios in combination with sound-reproducing apparatus, and transceivers not specifically provided for. These articles were also the principal products imported in 1989. Imports of radios in combination with sound-reproducing apparatus for use in motor vehicles declined by 26 percent in the first half of 1990 compared with imports during the first half of 1989, whereas imports of transmission apparatus incorporating reception apparatus increased by 25 percent. The major sources of these products during the first half of 1990 were Japan, Korea, and Malaysia. Imports from Japan and Korea declined from 1989 to 1990, whereas imports from Malaysia increased. The decline in imports of radio receivers in combination with sound-reproducing apparatus for use in motor vehicles is likely due to the rationalization of U.S. automobile components manufacturing mentioned above. U.S. production of these radio receivers in combination with sound-reproducing apparatus increased during the period, partially displacing imports of these items. U.S. production of automobiles declined in the first half of 1990, compared with the first half of 1989, however, leading to a decrease in demand for these articles.

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#### *Articles for making and breaking electrical circuits<sup>4</sup>*

In the first half of 1990, the United States imported \$2.7 billion of articles for making and breaking electrical circuits. This figure represents an increase of 26 percent compared with U.S. imports of these devices in the first half of 1989. Canada was the primary source of this growth, displacing Japan as the largest foreign supplier to the U.S. market.<sup>5</sup> Compared with the 1988 period, U.S. imports of these devices from Canada increased by 104 percent, accounting for 25 percent of total U.S. imports of these devices. Japan, Mexico, and West Germany were the next-largest suppliers of U.S. imports of articles for making and breaking electrical circuits. All of these countries increased their supply of these imports during 1990. Japanese and West German firms together accounted for 31 percent of U.S. imports of these articles, and primarily supplied these devices to

<sup>4</sup> Articles for making and breaking electrical circuits include printed circuit boards, circuit breakers, switches, connectors, relays, and fuses as well as enclosures and parts for these devices. Articles for making and breaking electrical circuits permit the efficient use of electric power and are necessary in the construction of all equipment used for distributing electrical power.

<sup>5</sup> The large reported increase in U.S. imports and exports from Canada is likely a result of changes in practices used in accounting for, or classifying, printed circuit boards.

their automotive and computer electronics products plants in the United States. A large portion of U.S. imports of articles for making and breaking electrical circuits from Canada and Mexico are manufactured by U.S. firms that have established production facilities in these countries.

In the first half of 1990, there were \$2.5 billion in U.S. exports of these articles. This figure represents an increase of 50 percent over those exports in the first half of 1989. Canada was the primary source of most of this growth and superseded Japan as the largest foreign market for these U.S. exports.<sup>6</sup> Comparing the first half of 1989 with the first half of 1990, U.S. exports of these devices to Canada increased by 310 percent, accounting for 47 percent of total U.S. exports of these devices. Most of these U.S. exports were U.S. subassemblies, which were returned to the United States after further processing. Mexico, the United Kingdom, Japan, and West Germany were the largest markets following Canada for U.S. exports of articles for making and breaking electrical circuits.

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202-252-1391

#### *Semiconductors*

U.S. exports of semiconductors were valued at \$5.3 billion in the first half of 1990, representing an increase of 15 percent over those in the first half of 1989. A large share of this increase reflects semiconductor wire-bonding and assembly by U.S. firms overseas, and Japan's drive to comply with the market-access provisions of the Semiconductor Arrangement. This arrangement was entered into by the United States and Japan in 1986, and it aims to increase the foreign share of Japan's semiconductor market to 20 percent by September 1991. The principal markets for these U.S. exports were Malaysia, Canada, Japan, Singapore, and Korea. The share of U.S. exports accounted for by Malaysia was 14 percent; by Canada, 12 percent; and by Japan, 9 percent. A large proportion of U.S. exports to these foreign countries are returned to the United States after further processing or incorporation into electronic equipment.

U.S. imports of semiconductors declined just 1 percent from the first half of 1989 to the first half of 1990, to \$6.0 billion. Although Japan remained the largest source of U.S. imports, accounting for 28 percent of the total, the value of U.S. imports from Japan decreased 17 percent. The quantity and value of U.S. imports of high-density random access memory (RAM) chips wholly produced in Korea increased significantly between 1986 and 1989, accounting for about 6 percent of the value of total U.S. imports of semiconductors by 1989. During the first half of 1990,

<sup>6</sup> See previous note.

the dollar value of U.S. imports of these products from Korea decreased marginally. However, the quantity of these imports almost doubled, and their average reported customs value fell to 30 percent below the average reported customs value of similar imports from other sources.

With the exception of high-density RAM chips from Korea and U.S. imports from Japan, a large proportion of U.S. imports of semiconductors are monolithic integrated circuits assembled and wire bonded from dice produced in U.S. wafer-fabrication facilities. Korea, Malaysia, Singapore, and Canada were the largest sources of U.S. imports of semiconductors after Japan, and they accounted for 46 percent of all U.S. imports of these devices.

The fact that the value of U.S. imports remained essentially unchanged during January-June 1990 reflects both weaker prices and the slow growth of demand in the United States for memory chips and other integrated circuits. During the period, the value of U.S. imports of memory chips accounted for 22 percent of the value of all U.S. semiconductor imports and was 19 percent lower than in the first half of 1989. The value of U.S. imports of other integrated circuits accounted for 68 percent of the total value of semiconductor imports but was only 5 percent lower during the period. The weaker market for semiconductor devices developed during the period as demand for computer equipment and other semiconductor-using equipment grew relatively slowly. Because the increase in the supply of semiconductors outpaced the increase in demand, industry overcapacity led to decreases in the prices of most semiconductor products during the period.

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### *Automobiles, trucks, buses, and bodies and chassis of the foregoing*

U.S. imports of motor vehicles totaled \$29.6 billion in the first half of 1990, declining by about 4 percent, from \$30.7 billion, in the same period of 1989. Most imports consisted of passenger cars (about 80 percent) and light trucks (about 12 percent). Japan was the largest supplier of imported motor vehicles, accounting for 40 percent of total U.S. imports of these products. Imports from Japan decreased by 11 percent, from \$13.2 billion in the first half of 1989 to \$11.8 billion in the same period of 1990. The decline was related primarily to reduced U.S. motor-vehicle sales and increasing production of automobiles in the eight Japanese-owned assembly plants in the United States, the output of which often replaces autos imported from Japan. Canada, the second-largest supplier of motor vehicles to the United States, accounted for \$10.6 billion of U.S. motor-vehicle

imports in the first half of 1990, representing an increase of 2 percent from the first half of 1989. U.S. imports of motor vehicles from West Germany, the third-largest supplier, totaled \$3.2 billion in the first half of 1990, versus \$2.6 billion in the corresponding period of 1989, representing a 17-percent increase.

U.S. exports of motor vehicles increased by 12 percent, from \$6.9 billion in the first half of 1989 to \$7.7 billion in the first half of 1990. The increase was primarily the result of a modest rise in exports to Canada, which was the top market for U.S. exports of motor vehicles. Exports to Canada, which accounted for 66 percent of U.S. motor-vehicle exports, totaled \$4.7 billion in the first half of 1989 versus \$5.1 billion in the same period of 1990, representing a 7-percent increase. This rise appears to have resulted largely from a slight adjustment in U.S. automakers' production and sales strategies. U.S. automakers have assembly plants in Canada, and published production and sales data for Canada suggest that several firms have substituted some U.S. production for Canadian production. Taiwan, Japan, and West Germany accounted for between 4 percent and 7 percent of total U.S. motor-vehicle exports in 1990. Although these countries are of secondary importance as U.S. export markets, shipments to these countries rose substantially during the first half of 1990 compared with the first half of 1989, increasing by 32 percent to Taiwan (to \$500 million), 60 percent to Japan (to \$399 million), and 38 percent to West Germany (to \$246 million). These countries have been characterized by recent strong motor-vehicle sales, and U.S. automakers have increased their sales efforts in those markets.

The U.S. motor-vehicle trade deficit declined by 8 percent, to \$21.9 billion in the first half of 1990, compared with \$23.8 billion in the same period in 1989. The largest trade deficits in the first half of 1990 were with Japan (\$11.4 billion), Canada (\$5.5 billion), West Germany (\$3.0 billion), and Mexico (\$1.0 billion).

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### *Certain motor-vehicle parts<sup>7</sup>*

U.S. imports of certain motor-vehicle parts decreased by 4 percent from \$6.8 billion during January-June 1989 to \$6.5 billion during January-June 1990. U.S. imports from Canada, the leading source of certain motor-vehicle parts, decreased from \$3.3 billion in the first half of 1989 to \$2.9 billion in the first half of 1990, representing an 11-percent decline. The decrease in

<sup>7</sup> Products contained in this group include body stampings, bumpers, safety seat belts, brakes and parts, transmissions, wheels and parts, radiators, exhaust systems, shock absorbers, and miscellaneous parts and accessories.

U.S. imports from Canada was at least partially the result of a decline in U.S. auto production and sales and the gradual phaseout of Canadian export-based duty-remission programs. U.S. imports from Japan, the second-leading source of these products, increased by 4 percent, from \$1.57 billion during the first half of 1989 to \$1.64 billion during the corresponding period of 1990. The increased imports from Japan continued to be linked to the expansion of Japanese-owned automobile assembly facilities (transplants) located in the United States.

U.S. exports of certain motor-vehicle parts rose by 30 percent, from \$5.5 billion during January-June 1989 to \$7.1 billion during January-June 1990. Much of this increase was the result of increased export activity to Canada and Mexico. Exports to Canada, the leading export market, rose from \$3.4 billion to \$4.5 billion, or by 31 percent. This increase was largely the result of certain trade liberalizing provisions of the United States-Canada Free-Trade Agreement. U.S. exports of certain motor-vehicle parts to Mexico grew by 52 percent, from \$858 million to \$1.3 billion in the first half of 1990. This rise was generally attributable to recent increases in imports by foreign-owned automakers in Mexico and the greater overall rationalization and integration of the Mexican auto industry.

The United States experienced a trade surplus of \$624 million in this commodity grouping during the first half of 1990, representing a \$1.9 billion improvement in the trade balance over the first half of 1989, when unilateral trade resulted in a deficit of \$1.3 billion. Much of this improvement can be attributed to the significant export increases to Canada and Mexico.

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### *Aircraft, spacecraft, and related equipment*

The value of U.S. imports of aircraft, spacecraft, and related equipment rose by 5 percent during the first 6 months of 1990 when compared with the corresponding period in 1989. Imports, consisting primarily of aircraft and related equipment, rose from \$2.9 billion during January-June 1989 to \$3.1 billion during January-June 1990. Canada, the United Kingdom, and France were the principal sources of these goods, accounting for 61 percent of total imports in this group. Imports from Canada, primarily parts for aircraft, rose from \$595 million to \$755 million, or by 27 percent. Imports from the United Kingdom, principally military aircraft and parts, rose from \$408 million to \$594 million. The increase in imports from these countries was largely attributable to the increased maintenance needs of the U.S. commuter airline fleet and continued fulfillment of preexisting contracts for military goods.

U.S. exports of these goods rose by 40 percent over the comparative periods, from \$10.8 billion to \$15.1 billion. New large civilian passenger transports and cargo aircraft represented 59 percent of these exports. The United Kingdom, Japan, and West Germany were the principal markets for these products, together accounting for 35 percent of total exports. U.S. exports to the United Kingdom increased by 86 percent, to \$2.4 billion, and exports to Japan increased by 103 percent, to \$1.5 billion during January-June 1990. Exports rose principally because world demand for air travel and air cargo has spurred the U.S. airframe-manufacturing industry to record levels of sales. This trend is expected to continue through 1995, as deliveries typically represent sales contracts made several years ago, prior to the current rise in the worldwide price of oil.

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202-252-1388

**Table 23**  
**Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989-June 1990<sup>1</sup>**

				Change from January-June 1989 to January-June 1990		
USITC code <sup>2</sup>	Commodity group	January-June—			Value	Percentage change
		1989	1989	1990		
Million dollars						
ME001	Aircraft engines and gas turbines:					
	Exports .....	7,426	3,646	3,777	131	3.6
	Imports .....	4,119	1,881	2,273	392	20.8
	Trade balance .....	3,307	1,765	1,504	-261	-14.8
ME002	Internal combustion piston engines, other than for aircraft:					
	Exports .....	4,611	2,408	2,916	508	21.1
	Imports .....	5,824	3,132	3,075	-57	-1.8
	Trade balance .....	-1,213	-724	-159	565	78.0
ME003	Pumps for liquids:					
	Exports .....	1,375	671	787	116	17.3
	Imports .....	1,173	607	572	-35	-5.8
	Trade balance .....	202	64	215	151	235.9
ME004	Fans, blowers, compressors, air and vacuum pumps, and air- conditioning equipment:					
	Exports .....	2,544	1,341	1,547	206	15.4
	Imports .....	3,085	1,733	1,695	-38	-2.2
	Trade balance .....	-541	-392	-148	244	62.2
ME005	Certain industrial thermal- processing equipment and certain furnaces:					
	Exports .....	1,106	526	622	98	18.3
	Imports .....	563	264	271	7	2.7
	Trade balance .....	543	262	351	89	34.0
ME006	Commercial machinery:					
	Exports .....	1,218	631	723	92	14.6
	Imports .....	940	446	426	-20	-4.5
	Trade balance .....	278	185	297	112	60.5
ME007	Electrical household appliances and certain heating equipment:					
	Exports .....	1,319	654	747	93	14.2
	Imports .....	2,716	1,245	1,140	-105	-8.4
	Trade balance .....	-1,397	-591	-393	198	33.5
ME008	Centrifuges and filtering and purifying equipment:					
	Exports .....	1,027	474	687	213	44.9
	Imports .....	459	225	250	25	11.1
	Trade balance .....	568	249	437	188	75.5
ME009	Wrapping, packaging, and can- sealing machinery:					
	Exports .....	486	236	286	50	21.2
	Imports .....	597	299	294	-5	-1.7
	Trade balance .....	-111	-63	-8	55	87.3
ME010	Scales and weighing machinery:					
	Exports .....	83	39	47	8	20.5
	Imports .....	147	72	73	1	1.4
	Trade balance .....	-64	-33	-26	7	21.2
ME011	Forklift trucks and similar industrial vehicles:					
	Exports .....	511	256	284	28	10.9
	Imports .....	982	497	447	-50	-10.1
	Trade balance .....	-471	-241	-163	78	32.4
ME012	Construction and mining equipment:					
	Exports .....	2,591	1,287	1,644	357	27.7
	Imports .....	2,268	1,204	1,258	54	4.5
	Trade balance .....	323	83	386	303	365.1
ME013	Mineral processing machinery:					
	Exports .....	344	171	227	56	32.7
	Imports .....	287	156	126	-30	-19.2
	Trade balance .....	57	15	101	86	573.3
ME014	Farm and garden machinery and equipment:					
	Exports .....	3,168	1,704	1,998	294	17.3
	Imports .....	2,528	1,349	1,485	136	10.1
	Trade balance .....	640	355	513	158	44.5

See footnotes at end of tables.

Table 23—Continued  
Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods,  
January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
ME015	Industrial food-processing and related machinery:					
	Exports .....	452	206	234	28	13.6
	Imports .....	340	157	189	32	20.4
	Trade balance .....	112	49	45	-4	-8.2
ME016	Pulp, paper, and paperboard machinery:					
	Exports .....	496	241	316	75	31.1
	Imports .....	962	441	522	81	18.4
	Trade balance .....	-466	-200	-206	-6	-3.0
ME017	Printing, typesetting, and bookbinding machinery and printing plates:					
	Exports .....	906	447	539	92	20.6
	Imports .....	1,245	660	561	-99	-15.0
	Trade balance .....	-339	-213	-22	191	89.7
ME018	Textile machinery and parts:					
	Exports .....	623	278	356	78	28.1
	Imports .....	1,439	728	795	67	9.2
	Trade balance .....	-816	-450	-439	11	2.4
ME019	Metal rolling mills and parts thereof:					
	Exports .....	242	91	156	65	71.4
	Imports .....	142	80	73	-7	-8.8
	Trade balance .....	100	11	83	72	654.5
ME020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:					
	Exports .....	1,018	468	580	112	23.9
	Imports .....	2,429	1,219	1,094	-125	-10.3
	Trade balance .....	-1,411	-751	-514	237	31.6
ME021	Machine tools for metal forming and parts thereof:					
	Exports .....	662	345	344	-1	-0.3
	Imports .....	668	338	286	-52	-15.4
	Trade balance .....	-6	7	58	51	728.6
ME022	Non-metalworking machine tools and parts thereof:					
	Exports .....	393	207	182	-25	-12.1
	Imports .....	603	281	273	-8	-2.8
	Trade balance .....	-210	-74	-91	-17	-23.0
ME023	Office machines:					
	Exports .....	23,184	11,314	12,268	954	8.4
	Imports .....	25,625	11,660	13,100	1,440	12.4
	Trade balance .....	-2,441	-346	-832	-486	-140.5
ME024	Miscellaneous industrial machinery:					
	Exports .....	8,159	3,929	4,484	555	14.1
	Imports .....	5,860	3,064	2,807	-257	-8.4
	Trade balance .....	2,299	865	1,677	812	93.9
ME025	Taps, cocks, valves, and similar devices:					
	Exports .....	982	471	619	148	31.4
	Imports .....	1,437	724	782	58	8.0
	Trade balance .....	-455	-253	-163	90	35.6
ME026	Ball and roller bearings:					
	Exports .....	509	255	378	123	48.2
	Imports .....	995	507	498	-9	-1.8
	Trade balance .....	-486	-252	-120	132	52.4

See footnotes at end of tables.



**Table 23—Continued**  
**Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	January–June—			Change from January–June 1989 to January–June 1990	
		1989	1989	1990	Value	Percentage change
		Million dollars				
ME027	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:					
	Exports .....	397	181	281	100	55.2
	Imports .....	737	366	411	45	12.3
	Trade balance .....	-340	-185	-130	55	29.7
ME028	Boilers, turbines, and related machinery:					
	Exports .....	742	345	374	29	8.4
	Imports .....	337	173	160	-13	-7.5
	Trade balance .....	405	172	214	42	24.4
ME029	Electric motors, generators, and related equipment:					
	Exports .....	1,718	885	947	62	7.0
	Imports .....	2,115	1,076	1,099	23	2.1
	Trade balance .....	-397	-191	-152	39	20.4
ME030	Electrical transformers, static converters, and inductors:					
	Exports .....	862	424	522	98	23.1
	Imports .....	1,506	742	794	52	7.0
	Trade balance .....	-644	-318	-272	46	14.5
ME031	Primary cells and batteries and electric storage batteries:					
	Exports .....	479	233	268	35	15.0
	Imports .....	701	341	328	-13	-3.8
	Trade balance .....	-222	-108	-60	48	44.4
ME032	Portable electric handtools:					
	Exports .....	190	102	108	6	5.9
	Imports .....	393	188	173	-15	-8.0
	Trade balance .....	-203	-86	-65	21	24.4
ME033	Nonelectrically powered hand tools and parts thereof:					
	Exports .....	334	177	182	5	2.8
	Imports .....	459	237	222	-15	-6.3
	Trade balance .....	-125	-60	-40	20	33.3
ME034	Ignition, starting, lighting, and other electrical equipment:					
	Exports .....	592	308	421	113	36.7
	Imports .....	1,340	678	633	-45	-6.6
	Trade balance .....	-748	-370	-212	158	42.7
ME035	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:					
	Exports .....	316	165	218	53	32.1
	Imports .....	578	279	297	18	6.5
	Trade balance .....	-262	-114	-79	35	30.7
ME036	Electric and gas welding and soldering equipment:					
	Exports .....	317	157	202	45	28.7
	Imports .....	461	205	155	-50	-24.4
	Trade balance .....	-144	-48	47	95	197.9
ME037	Telephone and telegraph apparatus:					
	Exports .....	2,106	961	1,091	130	13.5
	Imports .....	4,321	2,166	1,943	-223	-10.3
	Trade balance .....	-2,215	-1,205	-852	353	29.3
ME038	Microphones, loudspeakers, audio amplifiers and combinations thereof:					
	Exports .....	463	229	285	56	24.5
	Imports .....	1,121	552	531	-21	-3.8
	Trade balance .....	-658	-323	-246	77	23.8

See footnotes at end of tables.

**Table 23—Continued**  
**Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	January-June—			Change from January-June 1989 to January-June 1990	
		1989	1989	1990	Value	Percentage change
		Million dollars				
ME039	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:					
	Exports .....	426	209	235	26	12.4
	Imports .....	5,016	2,356	1,921	-435	-18.5
	Trade balance .....	-4,590	-2,147	-1,686	461	21.5
ME040	Unrecorded magnetic tapes, discs, and other media:					
	Exports .....	1,292	624	824	200	32.1
	Imports .....	1,381	689	681	-8	-1.2
	Trade balance .....	-89	-65	143	208	320.0
ME041	Records, tapes, compact discs, computer software, and other recorded media:					
	Exports .....	1,126	509	877	368	72.3
	Imports .....	266	126	143	17	13.5
	Trade balance .....	860	383	734	351	91.6
ME042	Radio transmission and reception apparatus, including cellular telephones, and combinations thereof:					
	Exports .....	2,763	1,298	1,929	631	48.6
	Imports .....	5,592	2,680	2,471	-209	-7.8
	Trade balance .....	-2,829	-1,382	-542	840	60.8
ME043	Radio navigational aid, radar, and remote control apparatus:					
	Exports .....	1,193	598	604	6	1.0
	Imports .....	460	230	220	-10	-4.3
	Trade balance .....	733	368	384	16	4.3
ME044	Television receivers and video monitors and combinations including television receivers:					
	Exports .....	567	274	293	19	6.9
	Imports .....	3,405	1,582	1,531	-51	-3.2
	Trade balance .....	-2,838	-1,308	-1,238	70	5.4
ME045	Television apparatus (except receivers and monitors), including cameras, cam- corders, and cable apparatus:					
	Exports .....	515	266	292	26	9.8
	Imports .....	2,428	1,093	1,058	-35	-3.2
	Trade balance .....	-1,913	-827	-766	61	7.4
ME046	Electric sound and visual signaling apparatus:					
	Exports .....	401	194	251	57	29.4
	Imports .....	1,007	508	472	-36	-7.1
	Trade balance .....	-606	-314	-221	93	29.6
ME047	Electrical capacitors, and resistors:					
	Exports .....	762	391	401	10	2.6
	Imports .....	885	455	431	-24	-5.3
	Trade balance .....	-123	-64	-30	34	53.1
ME048	Apparatus for making, breaking, protecting, or connecting electrical circuits:					
	Exports .....	3,298	1,664	2,492	828	49.8
	Imports .....	4,409	2,119	2,674	555	26.2
	Trade balance .....	-1,111	-455	-182	273	60.0
ME049	Television picture tubes and other cathode ray tubes:					
	Exports .....	352	181	185	4	2.2
	Imports .....	664	292	324	32	11.0
	Trade balance .....	-312	-111	-139	-28	-25.2
ME050	Special-purpose tubes:					
	Exports .....	185	87	105	18	20.7
	Imports .....	154	75	68	-7	-9.3
	Trade balance .....	31	12	37	25	208.3

See footnotes at end of tables.

**Table 23—Continued**  
**Machinery and equipment sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

USITC code <sup>2</sup>	Commodity group	January–June—			Change from January–June 1989 to January–June 1990	
		1989	1989	1990	Value	Percentage change
		Million dollars				
ME051	Diodes, transistors, integrated circuits and similar semi-conductor solid-state devices:					
	Exports .....	9,581	4,575	5,271	696	15.2
	Imports .....	12,320	6,084	6,016	-68	-1.1
	Trade balance .....	-2,739	-1,509	-745	764	50.6
ME052	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:					
	Exports .....	1,695	903	933	30	3.3
	Imports .....	2,668	1,331	1,364	33	2.5
	Trade balance .....	-973	-428	-431	-3	-0.7
ME053	Rail locomotive and rolling stock:					
	Exports .....	433	226	226	0	0
	Imports .....	791	419	359	-60	-14.3
	Trade balance .....	-358	-193	-133	60	31.1
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing:					
	Exports .....	12,899	6,926	7,739	813	11.7
	Imports .....	58,760	30,731	29,581	-1,150	-3.7
	Trade balance .....	-45,861	-23,805	-21,842	1,963	8.2
ME055	Certain motor-vehicle parts:					
	Exports .....	10,844	5,493	7,142	1,649	30.0
	Imports .....	12,783	6,796	6,518	-278	-4.1
	Trade balance .....	-1,939	-1,303	624	1,927	147.9
ME056	Motorcycles, mopeds, and parts:					
	Exports .....	199	106	151	45	42.5
	Imports .....	637	294	192	-102	-34.7
	Trade balance .....	-438	-188	-41	147	78.2
ME057	Miscellaneous vehicles and transportation-related equipment:					
	Exports .....	1,629	703	880	177	25.2
	Imports .....	708	339	449	110	32.4
	Trade balance .....	921	364	431	67	18.4
ME058	Aircraft, spacecraft, and related equipment:					
	Exports .....	23,290	10,789	15,098	4,309	39.9
	Imports .....	5,728	2,900	3,057	157	5.4
	Trade balance .....	17,562	7,889	12,041	4,152	52.6
ME059	Ships, tugs, pleasure boats, and similar vessels:					
	Exports .....	1,011	572	724	152	26.6
	Imports .....	600	399	191	-208	-52.1
	Trade balance .....	411	173	533	360	208.1
ME060	Telecommunications products: <sup>3</sup>					
	Exports .....	5,043	2,345	2,643	298	12.7
	Imports .....	5,957	2,977	2,812	-165	-5.5
	Trade balance .....	-914	-632	-169	463	73.3
ME061	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:					
	Exports .....	1,984	939	1,044	105	11.2
	Imports .....	890	440	477	37	8.4
	Trade balance .....	1,094	499	567	68	13.6
ME062	Motors and engines, except internal combustion, aircraft, or electric:					
	Exports .....	62	29	61	32	110.3
	Imports .....	71	29	41	12	41.4
	Trade balance .....	-9	0	20	20	(*)

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> 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.

<sup>3</sup> The coverage of this digest corresponds to the definition of telecommunications products contained in section 1373 of the Omnibus Trade and Competitiveness Act of 1988. The trade data in this digest are contained in a number of separate digests and are reported here to provide a means of monitoring trade in telecommunications products as defined by section 1373.

<sup>4</sup> Cannot be calculated.

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



## Chapter 8

### Miscellaneous Manufactures

U.S. exports of miscellaneous manufactures exhibited strong growth during January-June 1990 as compared with such exports during January-June 1989, rising by \$2.3 billion (up 20 percent) to \$14.1 billion from \$11.8 billion (table 24). U.S. imports of miscellaneous manufactures rose by \$1.2 billion, or by 7 percent, from \$17.3 billion in January-June 1989 to \$18.5 billion during the corresponding period of 1990. The U.S. trade deficit in the miscellaneous manufactures sector improved to \$4.4 billion in January-June 1990,

decreasing by \$1.1 billion or 20 percent from the \$5.5 billion deficit recorded in January-June 1989.

The most sizable improvements in U.S. trade of miscellaneous manufactures occurred in scientific instruments, medical goods, furniture, and works of art. U.S. exports of scientific instruments increased by 11 percent, to \$4.3 billion during January-June 1990 as compared with the same period of 1989; the surplus in trade of scientific instruments rose to \$2.4 billion. Greater demand for advanced-technology products by U.S. trading partners, intensified efforts by U.S.

Table 24

Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1989, January-June 1989, and January-June 1990<sup>1</sup>

Item	January-June—			Change from January-June 1989 to January-June 1990	
	1989	1989	1990	Absolute	Percent
	Million dollars				
U.S. exports of domestic merchandise:					
Japan .....	4,070	1,949	2,088	139	7.1
Canada .....	2,687	1,302	2,303	1,001	76.8
European Community .....	8,332	4,268	4,726	458	10.7
West Germany .....	2,211	1,163	1,046	-117	-10.0
United Kingdom .....	2,185	1,109	1,214	105	9.4
Taiwan .....	578	251	317	66	26.2
Mexico .....	1,448	688	794	106	15.4
Republic of Korea .....	648	306	429	123	40.1
Hong Kong .....	364	176	178	2	1.1
Brazil .....	308	132	125	-7	-5.3
China .....	285	146	107	-39	-26.7
OPEC .....	626	338	304	-34	-10.0
All other .....	4,737	2,241	2,742	501	22.3
Total .....	24,083	11,797	14,113	2,316	19.6
U.S. imports for consumption:					
Japan .....	7,510	3,428	3,702	274	7.9
Canada .....	2,290	1,178	1,180	2	0.1
European Community .....	9,377	4,415	4,768	353	7.9
West Germany .....	2,248	1,065	1,146	81	7.6
United Kingdom .....	1,882	894	981	87	9.7
Taiwan .....	5,409	2,440	2,376	-64	-2.6
Mexico .....	1,675	801	895	94	11.7
Republic of Korea .....	1,973	918	885	-33	-3.5
Hong Kong .....	1,462	649	587	-62	-9.5
Brazil .....	254	125	93	-32	-25.6
China .....	3,032	1,091	1,518	427	39.1
OPEC .....	76	27	47	20	24.0
All other .....	5,031	2,240	2,483	243	10.8
Total .....	38,089	17,312	18,534	1,222	7.0
U.S. merchandise trade balance:					
Japan .....	-3,440	-1,479	-1,614	-135	-9.1
Canada .....	397	124	1,123	999	805.6
European Community .....	-1,045	-147	-42	105	71.4
West Germany .....	-37	98	-100	-198	-202.0
United Kingdom .....	303	215	233	18	8.3
Taiwan .....	-4,831	-2,189	-2,059	130	5.9
Mexico .....	-227	-113	-101	12	10.6
Republic of Korea .....	-1,325	-612	-456	156	25.4
Hong Kong .....	-1,098	-473	-409	64	13.5
Brazil .....	54	7	32	25	357.1
China .....	-2,747	-945	-1,411	-466	-49.3
OPEC .....	550	311	257	-54	-17.3
All other .....	-294	1	259	258	25,800.0
Total .....	-14,006	-5,515	-4,421	1,094	19.8

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

suppliers to export, rationalization of trade between Canadian and U.S. manufacturers, and investor-led inflation of the value of artworks were principal causes of the increased exports.

### U.S. Bilateral Trade

The major U.S. trading partners for miscellaneous manufactures during January-June 1990 were the EC, Japan, Canada, Taiwan, and Mexico. Together these markets represented 72 percent of total U.S. exports of miscellaneous manufactures. The EC, Canada, and Japan accounted for respective shares of 33, 16, and 15 percent. Foremost products exported were medical goods, scientific instruments, arms and ammunition, photographic supplies and cameras, and furniture. In a parallel manner, U.S. imports of miscellaneous manufactures from these nations represented 70 percent of the value of total imports of these products. The EC supplied 26 percent of the total, Japan, 20 percent and Taiwan, 13 percent. Primary products imported were furniture, scientific instruments, medical goods, games and fairground equipment, precious jewelry, toys and games, and luggage.

Major gains in trade with Canada resulted from the expanded use of the United States-Canada Free-Trade Agreement in furniture, scientific instruments, and medical goods. Investments in China by manufacturers located principally in Taiwan energized U.S. import trade in luggage, toys, and games from China at the expense of producers on Taiwan.

### Commodity Analyses

#### *Luggage, handbags, and flat goods*

The trade deficit for luggage, handbags, and flat goods worsened by \$92 million, or by 10 percent, during the period January-June 1990 compared with January-June 1989, going from \$884 million to \$976 million. While the percentage increase in U.S. exports (23 percent) was greater than that for U.S. imports (11 percent), the absolute value of U.S. imports during January-June 1990 (\$1 billion) was so much larger than that of U.S. exports (\$69 million) that the trade deficit widened. U.S. imports grew by \$105 million but U.S. exports rose only by \$13 million. Virtually all of the increase in U.S. imports of these articles was accounted for by an increase of \$101 million, or 23 percent, in U.S. imports of luggage. Similarly, virtually all of the increase in U.S. exports in this category was accounted for by a \$10 million, or 27-percent, increase in U.S. exports of luggage.

Most of the increase in U.S. imports of luggage occurred in travel, sports, and similar bags, principally inexpensive bags without frames and of nylon material. In contrast, imports decreased for

most categories of business cases and traditional luggage, such as suitcases.

China registered the largest volume increase in U.S. imports of luggage, handbags, and flat goods (\$80 million), followed by Thailand (\$15 million) and France (\$13 million). Conversely, Taiwan experienced a decrease of \$13 million and Italy, of \$8 million. For many years, Taiwan had been the principal supplying country for these articles. However, as the value of the New Taiwan dollar rose against the U.S. dollar, U.S. importers sought other suppliers. China has been the principal beneficiary of this trend, but in the last several years, such imports from Thailand increased even more rapidly. An industry source stated that entrepreneurs in the luggage industry in Taiwan are investing substantial amounts of money in the luggage industry in China because it is much cheaper to produce there than in Taiwan. One French company has been successful in establishing its presence in the U.S. market in recent years, both by manufacturing in the United States and by increasing its shipments from France.

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#### *Medical goods*

Buoyed by a healthy gain in exports, the U.S. surplus in medical goods grew by 32 percent, to \$1.2 billion in the first half of 1990, compared with the corresponding period of 1989. Although U.S. imports increased by almost 12 percent, to slightly less than \$1.5 billion, exports rose even faster, improving by 20 percent, to almost \$2.7 billion during the period.

Japan remained the largest market for U.S. exports of medical goods, accounting for \$389 million, or almost 15 percent of such exports. However, a 60-percent increase in exports to Canada (to \$359 million) resulted in that country's replacement of West Germany as the second-leading foreign market for U.S.-made medical equipment. That increase was also the single most important factor responsible for the rise in the U.S. surplus. Much of the exports to Canada consisted of traditional medical, surgical, dental, and orthopedic products and appliances, such as needles, bone plates, dental fittings, and prosthetic articles. However, there was also a significant increase in exports of x-ray equipment and apparatus to Canada.

Industry officials pointed to restructurings by several major U.S. suppliers to take advantage of new provisions of the United States-Canada Free-Trade Agreement as a major contributor to the increase in U.S. exports of medical goods. One large supplier with extensive manufacturing facilities throughout the United States and Canada, for example, realigned its North American marketing and distribution network from an East-West to a North-South orientation and closed down some

of its Canadian production facilities. The Canadian operations were previously maintained principally to satisfy certain Canadian provincial requirements made obsolete by the new trade accord. As a consequence, a greater portion of the Canadian market was supplied by exports of medical goods manufactured in consolidated U.S. manufacturing facilities.

Other major foreign markets contributing significantly to the growth in the U.S. trade surplus were the Netherlands, Mexico, and newly emerging markets such as the Soviet Union. U.S. exports to the Netherlands amounted to more than \$165 million in the first half of 1990, representing a 30-percent gain over the January-June period of 1989. Much of that growth reflected an increase in U.S. exports of high-technology electromedical equipment for sale in the EC as original equipment manufacturers under the label of a major Netherlands-based electronics firm. New markets for high-technology medical equipment such as the Soviet Union also contributed to the improvement in the U.S. trade surplus. U.S. exports of ultrasonic scanning apparatus to that country increased more than twentyfold, to over \$11 million, in the first half of 1990 as the Soviet Union attempted to modernize its antiquated health care delivery system.

Exports of medical-device components and subassemblies to Mexico continued to grow as U.S. manufacturers took advantage of relatively lower labor costs to reduce their overall costs of production in Mexican assembly facilities. A relatively large portion of the medical equipment assembled in Mexico returned to the United States under provisions of U.S. HTS subheading 9802.00.80, which results in duties assessed only on the value added in Mexico.

U.S. imports were a less significant factor than exports in affecting the increase in the U.S. surplus in trade of medical equipment and apparatus. Although imports grew less rapidly than exports, they still grew by 12 percent. Major suppliers showing the most rapid growth were Japan, Mexico, the Netherlands, Sweden, the Dominican Republic, and Singapore.

Much of the increase from Japan and the Western European countries consisted of intraindustry trade between U.S., Japanese, and European firms in the high-technology electromedical sector based on relatively narrow market and product differences between countries within the same general categories of medical goods. U.S. manufacturers often source certain specialized electromedical equipment or components from Japanese and Western European manufacturers for sale under their own labels in the United States while themselves supplying the foreign companies with exports of other equipment and components for a slightly different segment of the overseas market.

The increase in imports from Mexico, the Dominican Republic, and Singapore reflected increasing use of offshore assembly facilities by major U.S. manufacturers to take advantage of lower wage rates in those developing countries to lower their overall production costs. Such arrangements also often benefit from preferential tariff treatment afforded imports into the United States under such programs as the GSP and CBERA, and under HTS subheading 9802.00.80.

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### *Scientific instruments*

The trade surplus for scientific instruments reached \$2.4 billion during the first 6 months of 1990, up 17 percent from a surplus of \$2.0 billion in the corresponding period in 1989. The rising U.S. surplus reflects an 11-percent increase in U.S. exports, from \$3.9 billion to \$4.3 billion, and a smaller 3-percent rise in U.S. imports, from \$1.87 billion to \$1.94 billion.

U.S. export markets that experienced the largest growth were Canada, which increased by 73 percent, to \$756 million, followed by Korea, which grew by 36 percent, to \$192 million, and Italy, which increased by 16 percent, to \$161 million. The 11-percent gain in U.S. exports was due primarily to improved demands for advanced-technology products by our leading trading partners and because a growing number of U.S. manufacturers have become more export oriented. It is believed that the marked increase in U.S. exports to Canada was, for the most part, generated by the United States-Canada Free-Trade Agreement. This agreement has stimulated the rationalization of trade between the two countries. A growing number of independent Canadian firms, and affiliates of U.S. scientific instrument manufacturers and distributors in Canada, have increased their level of imports of instruments and parts from the United States (and exports to the United States) in order to achieve greater economies of scale. The considerable increase in U.S. exports to Korea was the result of the expanding Korean industrial infrastructure, as well as greater R&D activities. Korea has announced its intention to become one of the world's more technologically advanced countries. The gain in U.S. exports to certain European Community (EC) countries was stimulated by preparation for the EC single market after 1992, which has invigorated capital expenditure in the Community by EC and non-EC investors.

In terms of value, Japan was the largest source of U.S. imports of scientific instruments during the first 6 months of 1990, accounting for 24 percent of U.S. imports, followed by West Germany, with 14 percent; the United Kingdom, with 13 percent; and Canada, with 12 percent. The two countries that experienced the largest gain as sources of U.S. imports were Canada and Israel.

U.S. imports from Canada grew by 21 percent, to \$237 million, during the first 6 months of 1990, when compared with the similar period in 1989. During the same period, U.S. imports from Israel rose by 12 percent, to \$56 million. Israel, which is now the ninth-largest supplier of scientific instruments, has become a viable source of a select number of advanced-technology scientific instruments in recent years.

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### *Furniture*

The U.S. trade balance for furniture improved from a trade deficit of \$2 billion to one of \$1.7 billion during the first half of 1990 when compared with the similar period the year before. This improvement amounted to a 14-percent reduction in the trade deficit. U.S. imports rose by just 2 percent, to \$2.5 billion, and U.S. exports increased by 60 percent, to \$821 million. The slow growth in U.S. imports was the result of a depressed demand for furniture owing to a sluggish economy and subsequent weak housing market. Canada, Taiwan, and Mexico were the principal sources of U.S. imports.

Canada and Mexico are also significant markets for U.S. exports. Growth in U.S. exports to Canada accounted for a large part of the reduction in the U.S. trade deficit for furniture. U.S. exports to Canada rose by 172 percent, to \$372 million during the first 6 months of 1990 compared with the same period the year before. The U.S. trade deficit with Canada for furniture subsequently fell from \$472 million to \$246 million. The increase in exports to Canada occurred in virtually all product categories; however, the most rapid gains were shown by exports of (1) motor vehicle furniture and parts, (2) seats with wooden frames, and (3) wood living room and dining room furniture other than seats. Canadian furniture producers are at a competitive disadvantage to those in the United States owing to the relatively small size of the Canadian market—a condition that generally prevents Canadian producers from achieving a scale of production that is competitive by world standards. In addition, Canadian producers are suffering from a strong Canadian dollar and decreased protection because of lower tariff rates under the United States-Canada Free-Trade Agreement.

U.S. exports to Canada of motor vehicle seats and parts of motor vehicle furniture rose by 477 percent, to \$72 million, during the first half of 1990 when compared with the similar period the year before. The U.S. trade deficit with Canada for these products fell from \$251 million to \$207 million. A portion of the increase in U.S. exports of these products to Canada can be attributed to the highly integrated nature of North American car production. U.S. exports of these products

generally fluctuate from year to year as car manufacturers award auto seat contracts on a competitive basis to producers on either side of the border. However, in the last year certain U.S. producers of motor vehicles have relocated a portion of their automobile assembly operations to Canada. U.S. producers of seats supplied these relocated facilities.

U.S. exports of upholstered seats with wooden frames increased by 507 percent during January-June of 1990 compared with the corresponding period the year before, to \$50 million. U.S. exports of wood dining room and living room furniture other than seats nearly tripled, from \$13 million to \$38 million during the same period. The combined U.S. trade balance for these products improved from a trade deficit of \$49 million to a trade surplus of \$24 million. The Canadian household furniture industry is fragmented. Thus, although there are some larger Canadian firms that are better able to compete with those in the United States, most Canadian firms are relatively small, operate from single plants, and are unable to expand their market network to support wider distribution.

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### *Games and fairground equipment*

The U.S. trade deficit in games and fairground equipment deteriorated by 38 percent, to \$994 million during the first 6 months of 1990 compared with the same period in 1989. The deficit widened despite a 34-percent rise in exports, from \$187 million to \$250 million because U.S. imports increased by 37 percent (on a larger base), from \$909 million to \$1.2 billion.

Game machines, except those that are coin-operated, accounted for virtually all of the growth in imports of games and fairground amusements during the period. The growth in home video game systems was \$26 million; that of cartridges, \$155 million; and the rise in hand-held video games, \$157 million. Imports of fairground amusement equipment also rose, by 75 percent, to \$24 million. In contrast, coin-operated game machines (mainly arcade video games) dropped by 9 percent, to \$95 million. Other games (primarily board games) also declined, by 9 percent, to \$54 million. Japan was the top supplier of U.S. imports of games and fairground amusement equipment, accounting for 84 percent of the total value of such U.S. imports during this semiannual period.

The increase in imports of fairground amusement equipment was a result of the expansion and building of several theme parks in the United States. During January-June 1990, Italy, Switzerland, and West Germany were the top three suppliers of fairground amusement equipment, respectively accounting for 30 percent, 23 percent,



and 17 percent. Imports, however, supply only a small fraction of the U.S. market for fairground amusement equipment.

U.S. exports of games and fairground amusements increased by 34 percent, to \$250 million, in the first half of 1990 over the first half of 1989. Exports to Canada rose by 15 percent; to Japan, 12 percent; and to Mexico, 11 percent. Over one-third of the rise in U.S. exports of games and fairground amusements was due to a sharp growth

in exports to Mexico, from \$4 million to \$27 million between January-June 1990 and January-June 1989, propelling Mexico from being the eighth-leading market to the third-leading market. Most of this increase resulted from the introduction in the Mexican market of a new generation of home video games.

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Table 25

Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods, January 1989-June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January-June—		Change from January-June 1989 to January-June 1990	
			1989	1990	Value	Percentage change
			Million dollars			
GM001	Photographic supplies:					
	Exports .....	1,499	775	858	83	10.7
	Imports .....	1,330	674	699	25	3.7
	Trade balance .....	169	101	159	58	57.4
GM002	Exposed photographic plates, film, and paper:					
	Exports .....	85	41	52	11	26.8
	Imports .....	91	39	38	-1	-2.6
	Trade balance .....	-6	2	14	12	600.0
GM003	Luggage, handbags, and flatgoods:					
	Exports .....	103	56	69	13	23.2
	Imports .....	2,078	940	1,045	105	11.2
	Trade balance .....	-1,975	-884	-976	-92	-10.4
GM004	Certain other leather goods:					
	Exports .....	48	23	22	-1	-4.3
	Imports .....	138	60	70	10	16.7
	Trade balance .....	-90	-37	-48	-11	-29.7
GM005	Musical instruments and acces- sories:					
	Exports .....	250	117	134	17	14.5
	Imports .....	750	340	310	-30	-8.8
	Trade balance .....	-500	-223	-176	47	21.1
GM006	Umbrellas, whips, riding crops, and canes:					
	Exports .....	6	3	4	1	33.3
	Imports .....	136	65	80	15	23.1
	Trade balance .....	-130	-62	-76	-14	-22.6
GM007	Silverware and certain other articles of precious metal or metal clad with precious metal:					
	Exports .....	63	38	36	-2	-5.3
	Imports .....	61	30	25	-5	-16.7
	Trade balance .....	2	8	11	3	37.5
GM008	Precious jewelry and related articles:					
	Exports .....	424	187	199	12	6.4
	Imports .....	2,761	1,158	1,121	-37	-3.2
	Trade balance .....	-2,337	-971	-922	49	5.0
GM009	Costume jewelry and related articles:					
	Exports .....	89	41	50	9	22.0
	Imports .....	437	203	212	9	4.4
	Trade balance .....	-348	-162	-162	0	0
GM010	Bicycles:					
	Exports .....	46	20	50	30	150.0
	Imports .....	681	358	368	10	2.8
	Trade balance .....	-635	-338	-318	20	5.9
GM011	Optical fibers, optical fiber bundles and cables:					
	Exports .....	143	60	83	23	38.3
	Imports .....	40	17	27	10	58.8
	Trade balance .....	103	43	56	13	30.2
GM012	Optical goods, including ophthalmic goods:					
	Exports .....	933	442	497	55	12.4
	Imports .....	1,811	892	921	29	3.3
	Trade balance .....	-878	-450	-424	26	5.8
GM013	Photographic cameras and equipment:					
	Exports .....	759	407	380	-27	-6.6
	Imports .....	1,686	746	714	-32	-4.3
	Trade balance .....	-927	-339	-334	5	1.5
GM014	Medical goods:					
	Exports .....	4,493	2,214	2,658	444	20.1
	Imports .....	2,799	1,317	1,473	156	11.8
	Trade balance .....	1,694	897	1,185	288	32.1

See footnotes at end of tables.

**Table 25—Continued**  
**Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods,**  
**January 1989–June 1990<sup>1</sup>**

		January-June--			Change from January-June 1989 to January-June 1990	
USITC code <sup>2</sup>	Commodity group	1989	1989	1990	Value	Percentage change
Million dollars						
GM015	Scientific instruments:					
	Exports .....	7,971	3,908	4,318	410	10.5
	Imports .....	3,837	1,875	1,938	63	3.4
	Trade balance .....	4,134	2,033	2,380	347	17.1
GM016	Watches:					
	Exports .....	107	45	59	14	31.1
	Imports .....	749	359	328	-31	-8.6
	Trade balance .....	-642	-314	-269	45	14.3
GM017	Clocks and timing devices:					
	Exports .....	59	28	39	11	39.3
	Imports .....	128	69	53	-16	-23.2
	Trade balance .....	-69	-41	-14	27	65.9
GM018	Arms and ammunition:					
	Exports .....	1,859	1,007	1,177	170	16.9
	Imports .....	486	241	235	-6	-2.5
	Trade balance .....	1,373	766	942	176	23.0
GM019	Furniture and selected furnishings:					
	Exports .....	1,098	512	821	309	60.4
	Imports .....	4,962	2,479	2,517	38	1.5
	Trade balance .....	-3,864	-1,967	-1,696	271	13.8
GM020	Writing instruments and related articles:					
	Exports .....	168	90	98	8	8.9
	Imports .....	387	179	209	30	16.8
	Trade balance .....	-219	-89	-111	-22	-24.7
GM021	Certain office and cosmetic supplies:					
	Exports .....	94	50	58	8	16.0
	Imports .....	144	64	88	24	37.5
	Trade balance .....	-50	-14	-30	-16	-114.3
GM022	Lamps and lighting fittings:					
	Exports .....	246	122	150	28	23.0
	Imports .....	1,243	522	591	69	13.2
	Trade balance .....	-997	-400	-441	-41	-10.3
GM023	Prefabricated buildings:					
	Exports .....	154	79	91	12	15.2
	Imports .....	47	14	14	0	0
	Trade balance .....	107	65	77	12	18.5
GM024	Children's vehicles:					
	Exports .....	15	6	9	3	50.0
	Imports .....	183	78	93	15	19.2
	Trade balance .....	-168	-72	-84	-12	-16.7
GM025	Dolls:					
	Exports .....	19	5	6	1	20.0
	Imports .....	616	197	259	62	31.5
	Trade balance .....	-597	-192	-253	-61	-31.8
GM026	Toys and models:					
	Exports .....	294	118	161	43	36.4
	Imports .....	2,694	1,021	1,091	70	6.9
	Trade balance .....	-2,400	-903	-930	-27	-3.0
GM027	Games and fairground amuse- ments:					
	Exports .....	375	187	250	63	33.7
	Imports .....	2,413	909	1,244	335	36.9
	Trade balance .....	-2,038	-722	-994	-272	-37.7
GM028	Sporting goods:					
	Exports .....	795	382	456	74	19.4
	Imports .....	1,613	766	822	56	7.3
	Trade balance .....	-818	-384	-366	18	4.7
GM029	Smokers' articles:					
	Exports .....	48	23	31	8	34.8
	Imports .....	105	49	68	19	38.8
	Trade balance .....	-57	-26	-37	-11	-42.3
GM030	Works of art, collectors' pieces, and antiques:					
	Exports .....	1,620	689	1,185	496	72.0
	Imports .....	2,153	1,018	1,207	189	18.6
	Trade balance .....	-533	-329	-22	307	93.3

See footnotes at end of tables.

Table 25—Continued

Miscellaneous manufactures sector: U.S. trade for selected commodity groups, by specified periods, January 1989–June 1990<sup>1</sup>

USITC code <sup>2</sup>	Commodity group	1989	January–June—		Change from January–June 1989 to January–June 1990	
			1989	1990	Value	Percentage change
Million dollars						
GM031	Brooms, brushes, and hair grooming articles:					
	Exports .....	57	30	37	7	23.3
	Imports .....	436	200	204	4	2.0
	Trade balance .....	-379	-170	-167	3	1.8
GM032	Apparel fasteners:					
	Exports .....	44	21	28	7	33.3
	Imports .....	79	36	43	7	19.4
	Trade balance .....	-35	-15	-15	0	0
GM033	Miscellaneous articles:					
	Exports .....	122	67	45	-22	-32.8
	Imports .....	1,013	394	426	32	8.1
	Trade balance .....	-891	-327	-381	-54	-16.5

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.<sup>2</sup> 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.

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, and animal products
AG002	Live cattle and fresh, chilled, or frozen meat of cattle, except offal
AG003	Live swine and fresh, chilled, or frozen pork, except offal
AG004	Lamb, fresh, chilled, or frozen
AG005	Poultry
AG006	Fish, except shellfish, fresh or chilled
AG007	Fish, except shellfish, frozen
AG008	Fish, except shellfish, in airtight containers, or cured or otherwise prepared, including 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	Certain fresh, chilled, or frozen winter vegetables
AG020	Prepared or preserved vegetables
AG021	Olives
AG022	Dried vegetables
AG023	Mushrooms and truffles
AG024	Edible nuts
AG025	Certain tropical fruits, fresh or dried
AG026	Citrus fruits
AG027	Certain deciduous fruits, fresh
AG028	Other fresh fruits
AG029	Dried fruits, other than tropical
AG030	Fruit, uncooked, or cooked in water, frozen
AG031	Jams, fruit jellies and marmalades; cooked fruit or nut purees and pastes; and fruit or other edible parts of plants preserved by sugar
AG032	Canned fruits, provisionally preserved fruits and nuts, fruit flours, and fruits (except citrus) preserved in ways not elsewhere specified or included
AG033	Coffee and tea
AG034	Spices
AG035	Cereals
AG036	Milled grains, malts, and starches
AG037	Oilseeds
AG038	Natural gums, resins, and gum resins
AG039	Animal or vegetable fats and oils
AG040	Edible preparations
AG041	Cocoa, chocolate, and confectionery
AG042	Nonalcoholic beverages including fruit and vegetable juices
AG043	Malt beverages
AG044	Wine and certain other fermented beverages
AG045	Distilled spirits
AG046	Unmanufactured tobacco
AG047	Certain manufactured tobacco products, including cigars, smoking tobacco, chewing tobacco, and snuff
AG048	Cigarettes
AG049	Hides, skins, and leather
AG050	Furskins

## **Forest products sector**

AG051	Logs and rough wood products
AG052	Poles, piles, and posts
AG053	Lumber
AG054	Moldings, millwork, and joinery
AG055	Structural panel products
AG056	Wooden containers
AG057	Tools and tool handles of wood
AG058	Miscellaneous articles of wood
AG059	Cork and rattan
AG060	Pulp and wastepaper
AG061	Building papers and asphalt roofing shingles
AG062	Paper boxes and bags
AG063	Industrial papers and paperboards
AG064	Newsprint and other printing and writing papers
AG065	Certain specialty papers
AG066	Miscellaneous paper products
AG067	Printed matter

## **Fibers, textiles, apparel, and footwear sector**

TX001	Textile fibers and waste
TX002	Spun yarns
TX003	Filament yarns
TX004	Miscellaneous yarns

## **Fibers, textiles, apparel, and footwear sector—Continued**

TX005	Broadwoven fabrics
TX006	Knit fabrics
TX007	Miscellaneous fabrics
TX008	Coated, covered, impregnated, or laminated textile fabrics
TX009	Nonwoven fabrics
TX010	Cordage, nets, and netting
TX011	Certain textile articles and fabrics suitable for industrial use
TX012	Miscellaneous textiles and articles
TX013	Sacks and bags of textile materials
TX014	Carpets and rugs
TX015	Curtains and draperies
TX016	Bedding, linens, and miscellaneous furnishings
TX017	Men's and boys' suits and sports coats
TX018	Men's and boys' coats and jackets
TX019	Trousers
TX020	Shirts and blouses
TX021	Sweaters
TX022	Women's and girls' suits, skirts, and coats
TX023	Women's and girls' dresses
TX024	Robes
TX025	Underwear and nightwear
TX026	Hosiery
TX027	Body-supporting garments
TX028	Neckwear
TX029	Gloves, including gloves for sports
TX030	Headwear
TX031	Leather apparel and accessories
TX032	Fur apparel and other fur articles
TX033	Rubber, plastic, and coated-fabric apparel
TX034	Nonwoven, paper, and felt apparel and footwear
TX035	Other wearing apparel
TX036	Nonrubber footwear and footwear parts
TX037	Rubber footwear

## **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 couplers
CH023	Synthetics tanning agents
CH024	Natural tanning and dyeing materials
CH025	Photographic chemicals and preparations
CH026	Pesticide products and formulations
CH027	Adhesives, glues, and gelatin
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 chemical specialties
CH035	Paints, inks, and related items
CH036	Explosives and propellant powders
CH037	Naval stores and selected silvichemicals
CH038	Polyethylene resins in primary forms
CH039	PVC resins in primary forms
CH040	Styrene polymers in primary forms
CH041	PET and other polyester resins
CH042	Other plastics in primary forms
CH043	SBR rubber in primary forms
CH044	Natural rubber and other synthetic rubber

## Energy and chemicals sector—Continued

CH045	Pneumatic tires and tubes (new)
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

## 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	Refractory and heat-insulating articles
MM011	Ceramic bricks and miscellaneous ceramic construction articles
MM012	Ceramic floor and wall tiles
MM013	Ceramic sanitary fixtures
MM014	Ceramic table, toilet, and kitchen articles
MM015	Miscellaneous ceramic 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	Pig iron
MM024	Ferroalloys
MM025	Iron and steel waste and scrap
MM026	Direct reduced iron, ferrous powders, and grit and shot
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 sanitary ware
MM037	Iron construction castings and other nonmalleable cast-iron articles
MM038	Copper and related articles
MM039	Unwrought aluminum
MM040	Aluminum mill products
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

## Machinery and equipment sector

ME001	Aircraft engines and gas turbines
ME002	Internal combustion piston engines, other than for aircraft
ME003	Pumps for liquids
ME004	Fans, blowers, compressors, air and vacuum pumps, and air-conditioning equipment
ME005	Certain industrial thermal-processing equipment and certain furnaces
ME006	Commercial machinery
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



### **Machinery and equipment sector—Continued**

ME021	Machine tools for metal forming and parts thereof
ME022	Non-metalworking machine tools and parts thereof
ME023	Office machines
ME024	Miscellaneous industrial machinery
ME025	Taps, cocks, valves, and similar devices
ME026	Ball and roller bearings
ME027	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof
ME028	Boilers, turbines, and related machinery
ME029	Electric motors, generators, and related equipment
ME030	Electrical transformers, static converters, and inductors
ME031	Primary cells and batteries and electric storage batteries
ME032	Portable electric handtools
ME033	Nonelectrically powered hand tools and parts thereof
ME034	Ignition, starting, lighting, and other electrical equipment
ME035	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps
ME036	Electric and gas welding and soldering equipment
ME037	Telephone and telegraph apparatus
ME038	Microphones, loudspeakers, audio amplifiers and combinations thereof
ME039	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players
ME040	Unrecorded magnetic tapes, discs, and other media
ME041	Records, tapes, compact discs, computer software, and other recorded media
ME042	Radio transmission and reception apparatus, including cellular telephones, and combinations thereof
ME043	Radio navigational aid, radar, and remote control apparatus
ME044	Television receivers and video monitors and combinations including television receivers
ME045	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus
ME046	Electric sound and visual signaling apparatus
ME047	Electrical capacitors, and resistors
ME048	Apparatus for making, breaking, protecting, or connecting electrical circuits
ME049	Television picture tubes and other cathode ray tubes
ME050	Special-purpose tubes
ME051	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices
ME052	Insulated electrical wire and cable, and conduit; glass and ceramic insulators
ME053	Rail locomotive and rolling stock
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing
ME055	Certain motor-vehicle parts
ME056	Motorcycles, mopeds, and parts
ME057	Miscellaneous vehicles and transportation-related equipment
ME058	Aircraft, spacecraft, and related equipment
ME059	Ships, tugs, pleasure boats, and similar vessels
ME060	Telecommunications products
ME061	Electrical and electronic articles, apparatus, and parts not elsewhere provided for
ME062	Motors and engines, except internal combustion, aircraft, or electric

### **Miscellaneous manufactures sector**

GM001	Photographic supplies
GM002	Exposed photographic plates, film, and paper
GM003	Luggage, handbags, and flatgoods
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	Scientific instruments
GM016	Watches
GM017	Clocks and timing devices
GM018	Arms and ammunition
GM019	Furniture and selected furnishings
GM020	Writing instruments and related articles
GM021	Certain office and cosmetic supplies
GM022	Lamps and lighting fittings
GM023	Prefabricated buildings
GM024	Children's vehicles
GM025	Dolls
GM026	Toys and models
GM027	Games and fairground amusements
GM028	Sporting goods
GM029	Smokers' articles
GM030	Works of art, collectors' pieces, and antiques
GM031	Brooms, brushes, and hair grooming articles
GM032	Apparel fasteners
GM033	Miscellaneous articles



**APPENDIX B**  
**PROFILE OF U.S. INDUSTRY AND MARKET,**  
**BY COMMODITY/INDUSTRY GROUP, 1984-88**

*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.

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
	Agriculture, fisheries, and forest products							
AG001	Certain miscellaneous live animals, meat, and animal products:							
	Establishments (number)-----	210,337	199,734	190,091	184,015	181,488	(1.4)	(3.7)
	Employees (thousands)-----	232	221	211	205	203	(1.0)	(3.4)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	5,185	4,748	4,878	5,057	5,275	4.3	1.0
	U.S. exports (million dollars)-----	712	748	855	920	1,222	32.8	13.7
	U.S. imports (million dollars)-----	1,060	1,100	1,124	1,123	1,040	(7.4)	(0.2)
	Apparent U.S. consumption (million dollars)-----	5,533	5,100	5,147	5,260	5,093	(3.2)	(1.3)
	Trade balance (million dollars)-----	(348)	(352)	(269)	(203)	182	-	-
	Ratio of imports to apparent consumption (percent)-----	19.2	21.6	21.8	21.3	20.4	(4.4)	1.2
	Ratio of exports to shipments (percent)-----	13.7	15.8	17.5	18.2	23.2	27.3	12.6
AG002	Live cattle and fresh, chilled, or frozen meat of cattle, except offal:							
	Establishments (number)-----	1,544,990	1,489,231	1,440,000	1,395,777	1,365,909	(2.1)	(3.1)
	Employees (thousands)-----	1,676	1,619	1,574	1,525	1,489	(2.4)	(2.9)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	35,539	32,507	32,730	34,571	36,421	5.4	1.1
	U.S. exports (million dollars)-----	508	576	714	860	1,290	50.0	25.4
	U.S. imports (million dollars)-----	1,314	1,384	1,530	1,755	2,086	18.9	12.3
	Apparent U.S. consumption (million dollars)-----	36,345	33,315	33,546	35,466	37,217	4.9	1.1
	Trade balance (million dollars)-----	(806)	(808)	(816)	(895)	(796)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.6	4.2	4.6	4.9	5.6	13.3	11.1
	Ratio of exports to shipments (percent)-----	1.4	1.8	2.2	2.5	3.5	42.4	24.0
AG003	Live swine and fresh, chilled, or frozen pork, except offal:							
	Establishments (number)-----	430,880	389,880	347,340	329,822	334,650	1.5	(6.5)
	Employees (thousands)-----	512	471	423	408	420	2.9	(5.3)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	16,308	14,970	15,596	15,544	15,841	1.9	(0.2)
	U.S. exports (million dollars)-----	106	70	80	122	245	100.8	25.0
	U.S. imports (million dollars)-----	491	521	542	628	555	(11.6)	4.4
	Apparent U.S. consumption (million dollars)-----	16,693	15,421	16,058	16,050	16,151	0.6	(0.3)
	Trade balance (million dollars)-----	(385)	(451)	(462)	(506)	(310)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.9	3.4	3.4	3.9	3.4	(12.2)	4.7
	Ratio of exports to shipments (percent)-----	0.6	0.5	0.5	0.8	1.5	97.1	25.3

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG004	Lamb, fresh, chilled, or frozen:							
	Establishments (number)-----	127,500	118,228	113,570	114,546	114,317	(0.2)	(2.5)
	Employees (thousands)-----	129	120	115	116	116	0.0	(2.4)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	457	458	487	6.3	-
	U.S. exports (million dollars) 3/-----	0	0	0	0	0	-	-
	U.S. imports (million dollars)-----	14	33	26	29	34	17.2	17.9
	Apparent U.S. consumption (million dollars) 4/-----	2/	2/	483	487	521	7.0	-
	Trade balance (million dollars)-----	(14)	(33)	(26)	(29)	(34)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	5.4	6.0	6.5	9.6	-
	Ratio of exports to shipments (percent)-----	2/	2/	0.0	0.0	0.0	-	-
AG005	Poultry:							
	Establishments (number)-----	540	540	500	450	400	(11.1)	(7.5)
	Employees (thousands)-----	106	115	124	133	138	3.8	7.0
	Capacity utilization (percent)-----	90	90	90	90	90	0.0	0.0
	U.S. production (million dollars)-----	9,428	9,313	10,681	9,913	11,783	18.9	5.2
	U.S. exports (million dollars)-----	337	310	372	487	551	13.1	15.4
	U.S. imports (million dollars)-----	232	25	31	29	28	(3.4)	(33.5)
	Apparent U.S. consumption (million dollars)-----	9,323	9,028	10,340	9,455	11,260	19.1	4.3
	Trade balance (million dollars)-----	105	285	341	458	523	-	-
	Ratio of imports to apparent consumption (percent)-----	2.5	0.3	0.3	0.3	0.2	(18.9)	(36.3)
	Ratio of exports to shipments (percent)-----	3.6	3.3	3.5	4.9	4.7	(4.8)	9.7
AG006	Fish, except shellfish, fresh or chilled:							
	Establishments (number)-----	90,000	95,000	90,000	80,000	80,000	0.0	(4.0)
	Employees (thousands)-----	220	225	225	220	220	0.0	(0.2)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. production (million dollars)-----	1,189	1,193	1,319	1,629	2,023	24.2	14.7
	U.S. exports (million dollars)-----	219	290	346	405	549	35.6	24.3
	U.S. imports (million dollars)-----	203	271	371	433	462	6.7	23.5
	Apparent U.S. consumption (million dollars)-----	1,173	1,174	1,344	1,657	1,936	16.8	14.4
	Trade balance (million dollars)-----	16	19	(25)	(28)	87	-	-
	Ratio of imports to apparent consumption (percent)-----	17.3	23.1	27.6	26.1	23.9	(8.7)	8.0
	Ratio of exports to shipments (percent)-----	18.4	24.3	26.2	24.9	27.1	9.2	8.3

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1, 1984-1988
AG007	Fish, except shellfish, frozen:							
	Establishments (number)-----	1,200	1,200	1,200	1,000	1,000	0.0	(5.3)
	Employees (thousands)-----	75	80	80	75	72	(4.0)	(1.5)
	Capacity utilization (percent)-----	80	80	80	75	70	(6.7)	(3.3)
	U.S. production (million dollars)-----	515	490	490	587	515	(12.3)	1.8
	U.S. exports (million dollars)-----	284	361	456	557	781	40.2	27.9
	U.S. imports (million dollars)-----	1,078	1,191	1,420	1,865	1,527	(18.1)	12.1
	Apparent U.S. consumption (million dollars)-----	1,309	1,320	1,454	1,895	1,261	(33.5)	2.9
	Trade balance (million dollars)-----	(794)	(830)	(964)	(1,308)	(746)	-	-
	Ratio of imports to apparent consumption (percent)-----	82.4	90.2	97.7	98.4	121.1	23.0	9.0
	Ratio of exports to shipments (percent)-----	55.1	73.7	93.1	94.9	151.7	59.8	25.6
AG008	Fish, except shellfish, in airtight containers, or cured or otherwise :							
	Establishments (number)-----	900	800	800	800	700	(12.5)	(4.9)
	Employees (thousands)-----	30	28	27	27	25	(7.4)	(3.9)
	Capacity utilization (percent)-----	75	75	80	80	80	0.0	2.0
	U.S. production (million dollars)-----	1,600	1,400	1,550	1,600	1,500	(6.3)	0.0
	U.S. exports (million dollars)-----	201	225	235	249	374	50.2	14.4
	U.S. imports (million dollars)-----	434	551	581	601	660	9.8	9.7
	Apparent U.S. consumption (million dollars)-----	1,833	1,726	1,896	1,952	1,786	(8.5)	0.7
	Trade balance (million dollars)-----	(233)	(326)	(346)	(352)	(286)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.7	31.9	30.6	30.8	37.0	20.0	8.9
	Ratio of exports to shipments (percent)-----	12.6	16.1	15.2	15.6	24.9	60.2	14.3
AG009	Shellfish:							
	Establishments (number)-----	900	900	900	900	900	0.0	0.0
	Employees (thousands)-----	51	57	68	60	65	8.3	5.5
	Capacity utilization (percent)-----	66	66	66	66	66	0.0	0.0
	U.S. production (million dollars)-----	1,162	1,323	1,444	1,486	1,497	0.7	6.4
	U.S. exports (million dollars)-----	146	142	260	379	477	25.9	39.8
	U.S. imports (million dollars)-----	2,026	2,053	2,406	2,774	2,727	(1.7)	9.4
	Apparent U.S. consumption (million dollars)-----	3,042	3,234	3,590	3,881	3,747	(3.5)	6.2
	Trade balance (million dollars)-----	(1,880)	(1,911)	(2,146)	(2,395)	(2,250)	-	-
	Ratio of imports to apparent consumption (percent)-----	66.6	63.5	67.0	71.5	72.8	1.8	3.0
	Ratio of exports to shipments (percent)-----	12.6	10.7	18.0	25.5	31.9	24.9	31.3

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG010	Dairy produce, casein, and caseinates:							
	Establishments (number)-----	287,000	274,000	255,000	235,000	223,000	(5.1)	(6.4)
	Employees (thousands)-----	994	954	899	836	820	(1.9)	(5.0)
	Capacity utilization (percent)-----	76	81	80	81	81	0.0	1.3
	U.S. shipments (million dollars)-----	36,371	37,106	37,990	39,464	39,863	1.0	2.5
	U.S. exports (million dollars)-----	315	333	328	298	385	29.2	2.9
	U.S. imports (million dollars)-----	597	600	619	659	683	3.6	3.7
	Apparent U.S. consumption (million dollars)-----	36,653	37,373	38,281	39,825	40,161	0.8	2.5
	Trade balance (million dollars)-----	(282)	(267)	(291)	(361)	(298)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.6	1.6	1.6	1.7	1.7	2.8	1.2
	Ratio of exports to shipments (percent)-----	0.9	0.9	0.9	0.8	1.0	27.9	0.5
AG011	Eggs:							
	Establishments (number)-----	80	80	80	80	80	0.0	0.0
	Employees (thousands)-----	9	9	9	9	9	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. production (million dollars)-----	3,982	3,052	3,104	2,602	2,310	(11.2)	(11.7)
	U.S. exports (million dollars)-----	52	55	81	88	117	33.0	23.3
	U.S. imports (million dollars)-----	26	15	15	15	15	0.0	(10.4)
	Apparent U.S. consumption (million dollars)-----	3,956	3,012	3,038	2,529	2,208	(12.7)	(12.6)
	Trade balance (million dollars)-----	26	40	66	73	102	-	-
	Ratio of imports to apparent consumption (percent)-----	0.7	0.5	0.5	0.6	0.7	14.5	2.4
	Ratio of exports to shipments (percent)-----	1.3	1.8	2.6	3.4	5.1	49.8	39.7
AG012	Sugar and other sweeteners:							
	Establishments (number)-----	117	113	109	107	105	(1.9)	(2.7)
	Employees (thousands)-----	32	32	33	33	33	0.0	0.9
	Capacity utilization (percent)-----	85	87	88	89	89	0.0	1.2
	U.S. production (million dollars)-----	7,517	7,455	7,836	8,188	8,500	3.8	3.5
	U.S. exports (million dollars)-----	125	109	158	190	199	4.7	16.0
	U.S. imports (million dollars)-----	1,327	1,035	869	561	623	11.1	(19.1)
	Apparent U.S. consumption (million dollars)-----	8,719	8,381	8,547	8,559	8,924	4.3	0.7
	Trade balance (million dollars)-----	(1,202)	(926)	(711)	(371)	(424)	-	-
	Ratio of imports to apparent consumption (percent)-----	15.2	12.3	10.2	6.6	7.0	6.5	(19.7)
	Ratio of exports to shipments (percent)-----	1.7	1.5	2.0	2.3	2.3	0.9	12.1

Table 8-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG013	Animal feeds:							
	Establishments (number)-----	2,445	2,445	2,445	2,445	2,445	0.0	0.0
	Employees (thousands)-----	60	60	60	60	60	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. production (million dollars)-----	22,592	22,000	22,000	22,000	22,000	0.0	(0.5)
	U.S. exports (million dollars)-----	2,246	1,952	2,703	2,783	3,541	27.2	13.5
	U.S. imports (million dollars)-----	203	188	200	230	297	29.1	10.1
	Apparent U.S. consumption (million dollars)-----	20,549	20,236	19,497	19,447	18,756	(3.6)	(2.2)
	Trade balance (million dollars)-----	2,043	1,764	2,503	2,553	3,244	-	-
	Ratio of imports to apparent consumption (percent)-----	1.0	0.9	1.0	1.2	1.6	33.9	12.6
	Ratio of exports to shipments (percent)-----	9.9	8.9	12.3	12.7	16.1	27.2	14.1
AG014	Live plants:							
	Establishments (number)-----	25,000	25,000	25,000	25,000	25,000	0.0	0.0
	Employees (thousands)-----	125	125	125	125	125	0.0	0.0
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. shipments (million dollars)-----	4,032	5,131	5,865	6,694	6,865	2.6	14.2
	U.S. exports (million dollars)-----	32	30	34	35	41	17.1	6.7
	U.S. imports (million dollars)-----	95	104	122	132	146	10.6	11.6
	Apparent U.S. consumption (million dollars)-----	4,095	5,205	5,953	6,791	6,970	2.6	14.2
	Trade balance (million dollars)-----	(63)	(74)	(88)	(97)	(105)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.3	2.0	2.0	1.9	2.1	7.8	(2.3)
	Ratio of exports to shipments (percent)-----	0.8	0.6	0.6	0.5	0.6	14.2	(6.6)
AG015	Seeds:							
	Establishments (number)-----	15,000	15,000	15,000	15,000	15,000	0.0	0.0
	Employees (thousands)-----	230	230	230	230	230	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	250	250	250	250	250	0.0	0.0
	U.S. exports (million dollars)-----	203	186	212	225	265	17.8	7.5
	U.S. imports (million dollars)-----	64	69	95	129	122	(5.4)	21.1
	Apparent U.S. consumption (million dollars)-----	111	133	133	154	107	(30.5)	0.7
	Trade balance (million dollars)-----	139	117	117	96	143	-	-
	Ratio of imports to apparent consumption (percent)-----	57.7	51.9	71.4	83.8	114.0	36.1	20.2
	Ratio of exports to shipments (percent)-----	81.2	74.4	84.8	90.0	106.0	17.8	7.5



Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG016	Cut flowers:							
	Establishments (number)-----	3,000	3,000	3,000	3,000	3,000	0.0	0.0
	Employees (thousands)-----	39	39	39	39	39	0.0	0.0
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. shipments (million dollars)-----	361	397	383	464	476	2.6	7.3
	U.S. exports (million dollars)-----	11	6	7	7	11	57.1	1.6
	U.S. imports (million dollars)-----	219	225	235	253	295	16.6	7.4
	Apparent U.S. consumption (million dollars)-----	569	616	611	710	760	7.0	7.5
	Trade balance (million dollars)-----	(208)	(219)	(228)	(246)	(284)	-	-
	Ratio of imports to apparent consumption (percent)-----	38.5	36.5	38.5	35.6	38.8	8.9	(0.1)
	Ratio of exports to shipments (percent)-----	3.0	1.5	1.8	1.5	2.3	53.2	(5.4)
AG017	Miscellaneous vegetable substances:							
	Firms (number)-----	100	100	100	100	100	0.0	0.0
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. production (million dollars)-----	685	745	805	850	850	0.0	5.8
	U.S. exports (million dollars)-----	150	159	159	185	209	13.0	8.5
	U.S. imports (million dollars)-----	346	374	365	415	430	3.6	5.5
	Apparent U.S. consumption (million dollars)-----	881	960	1,011	1,080	1,071	(0.8)	5.2
	Trade balance (million dollars)-----	(196)	(215)	(206)	(230)	(221)	-	-
	Ratio of imports to apparent consumption (percent)-----	39.3	39.0	36.1	38.4	40.1	4.5	0.3
	Ratio of exports to shipments (percent)-----	21.9	21.3	19.8	21.8	24.6	13.0	2.5
AG018	Certain fresh, chilled, or frozen vegetables:							
	Firms (number)-----	36,000	36,500	36,000	35,500	35,000	(1.4)	(0.8)
	Employees (thousands)-----	40	39	39	39	39	0.0	(0.5)
	Capacity utilization (percent)-----	90	90	90	90	90	0.0	0.0
	U.S. production (million dollars)-----	3,856	3,728	3,888	4,047	3,871	(4.3)	0.9
	U.S. exports (million dollars)-----	266	194	219	251	305	21.5	5.5
	U.S. imports (million dollars)-----	227	227	259	321	347	8.1	12.7
	Apparent U.S. consumption (million dollars)-----	3,817	3,761	3,928	4,117	3,913	(5.0)	1.4
	Trade balance (million dollars)-----	39	(33)	(40)	(70)	(42)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.9	6.0	6.6	7.8	8.9	13.7	11.1
	Ratio of exports to shipments (percent)-----	6.9	5.2	5.6	6.2	7.9	27.0	4.5

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG019	Winter vegetables, fresh, chilled, or frozen:							
	Firms (number)-----	5,500	5,400	5,200	5,200	5,000	(3.8)	(2.3)
	Employees (thousands)-----	15	15	15	14	14	0.0	(2.0)
	Capacity utilization (percent)-----	90	90	90	90	90	0.0	0.0
	U.S. production (million dollars)-----	870	867	954	1,043	1,160	11.2	7.9
	U.S. exports (million dollars)-----	56	50	49	54	58	7.4	1.5
	U.S. imports (million dollars)-----	339	387	509	342	316	(7.6)	(2.6)
	Apparent U.S. consumption (million dollars)-----	1,153	1,204	1,414	1,331	1,418	6.5	5.3
	Trade balance (million dollars)-----	(283)	(337)	(460)	(288)	(258)	-	-
	Ratio of imports to apparent consumption (percent)-----	29.4	32.1	36.0	25.7	22.3	(13.3)	(7.5)
	Ratio of exports to shipments (percent)-----	6.4	5.8	5.1	5.2	5.0	(3.4)	(5.9)
AG020	Vegetables prepared or preserved:							
	Firms (number)-----	80	80	80	80	80	0.0	0.0
	Employees (thousands)-----	4	5	5	5	5	0.0	4.6
	Capacity utilization (percent)-----	85	90	90	80	85	6.3	(1.2)
	U.S. production (million dollars)-----	2,997	3,026	3,087	3,056	3,042	(0.5)	0.4
	U.S. exports (million dollars)-----	167	161	192	221	283	28.1	14.7
	U.S. imports (million dollars)-----	273	266	284	316	346	9.5	6.7
	Apparent U.S. consumption (million dollars)-----	3,103	3,131	3,179	3,151	3,105	(1.5)	0.1
	Trade balance (million dollars)-----	(106)	(105)	(92)	(95)	(63)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.8	8.5	8.9	10.0	11.1	11.1	6.6
	Ratio of exports to shipments (percent)-----	5.6	5.3	6.2	7.2	9.3	28.6	14.2
AG021	Olives:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	2	2	2	2	3	50.0	8.4
	U.S. imports (million dollars)-----	86	88	105	115	131	13.9	11.7
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(84)	(86)	(103)	(113)	(128)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG022	Dried desiccated, or dehydrated vegetables:							
	Firms (number)-----	25	25	24	23	22	(4.3)	(3.3)
	Employees (thousands)-----	5	4	4	4	4	0.0	(4.4)
	Capacity utilization (percent)-----	95	90	92	93	95	2.2	0.3
	U.S. production (million dollars)-----	819	811	828	844	826	(2.1)	0.6
	U.S. exports (million dollars)-----	304	301	377	341	385	12.9	6.2
	U.S. imports (million dollars)-----	70	75	82	95	107	12.6	11.5
	Apparent U.S. consumption (million dollars)-----	585	585	533	598	548	(8.4)	(1.1)
	Trade balance (million dollars)-----	234	226	295	246	278	-	-
	Ratio of imports to apparent consumption (percent)-----	12.0	12.8	15.4	15.9	19.5	22.9	12.7
	Ratio of exports to shipments (percent)-----	37.1	37.1	45.5	40.4	46.6	15.4	5.6
AG023	Mushrooms and truffles:							
	Firms (number)-----	25	25	24	23	22	(4.3)	(3.3)
	Employees (thousands)-----	12	12	11	11	10	(9.1)	(4.4)
	Capacity utilization (percent)-----	90	90	90	90	90	0.0	0.0
	U.S. production (million dollars)-----	224	237	400	539	545	1.1	29.7
	U.S. exports (million dollars)-----	6	3	5	5	7	40.0	8.5
	U.S. imports (million dollars)-----	186	163	147	156	147	(5.8)	(5.0)
	Apparent U.S. consumption (million dollars)-----	404	397	542	690	685	(0.7)	17.5
	Trade balance (million dollars)-----	(180)	(160)	(142)	(151)	(140)	-	-
	Ratio of imports to apparent consumption (percent)-----	46.0	41.1	27.1	22.6	21.5	(5.1)	(19.1)
	Ratio of exports to shipments (percent)-----	2.7	1.3	1.3	0.9	1.3	38.5	(16.3)
AG024	Edible nuts:							
	Establishments (number)-----	70,000	70,000	70,000	70,000	70,000	0.0	0.0
	Employees (thousands)-----	350	350	350	350	350	0.0	0.0
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. shipments (million dollars)-----	2,074	1,679	2,040	2,157	2,218	2.8	3.9
	U.S. exports (million dollars)-----	645	743	787	846	919	8.6	8.7
	U.S. imports (million dollars)-----	321	370	367	382	313	(18.1)	(0.2)
	Apparent U.S. consumption (million dollars)-----	1,750	1,306	1,620	1,693	1,612	(4.8)	1.0
	Trade balance (million dollars)-----	324	373	420	464	606	-	-
	Ratio of imports to apparent consumption (percent)-----	18.3	28.3	22.7	22.6	19.4	(13.9)	(1.1)
	Ratio of exports to shipments (percent)-----	31.1	44.3	38.6	39.2	41.4	5.6	4.6

Table 8-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG025	Certain tropical fruits, fresh or dried:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	29	17	28	41	43	4.9	18.2
	U.S. imports (million dollars)-----	712	811	799	872	895	2.6	5.4
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(683)	(794)	(771)	(831)	(852)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
AG026	Citrus fruits:							
	Establishments (number)-----	18,753	18,434	18,115	17,796	17,477	(1.8)	(1.7)
	Employees (thousands)-----	90,000	88,380	86,760	85,140	83,520	(1.9)	(1.9)
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. shipments (million dollars)-----	2,077	1,768	2,049	2,619	2,665	1.8	9.3
	U.S. exports (million dollars)-----	405	438	472	496	534	7.7	7.0
	U.S. imports (million dollars)-----	18	21	24	26	19	(26.9)	3.3
	Apparent U.S. consumption (million dollars)-----	1,690	1,351	1,601	2,149	2,150	0.0	9.9
	Trade balance (million dollars)-----	387	417	448	470	515	-	-
	Ratio of imports to apparent consumption (percent)-----	1.1	1.6	1.5	1.2	0.9	(27.0)	(6.0)
	Ratio of exports to shipments (percent)-----	19.5	24.8	23.0	18.9	20.0	5.8	(2.1)
AG027	Certain deciduous fruits, fresh:							
	Farms (number)-----	107,000	107,000	107,000	93,000	93,000	0.0	(4.1)
	Employees (thousands)-----	107	107	107	107	100	(6.5)	(1.3)
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. production (million dollars)-----	1,861	1,878	2,024	1,937	2,301	18.8	4.7
	U.S. exports (million dollars)-----	177	154	181	212	287	35.4	13.7
	U.S. imports (million dollars)-----	80	109	123	128	121	(5.5)	10.4
	Apparent U.S. consumption (million dollars)-----	1,764	1,833	1,966	1,853	2,135	15.2	4.0
	Trade balance (million dollars)-----	97	45	58	84	166	-	-
	Ratio of imports to apparent consumption (percent)-----	4.5	5.9	6.3	6.9	5.7	(18.0)	6.1
	Ratio of exports to shipments (percent)-----	9.5	8.2	8.9	10.9	12.5	14.0	8.7

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG028	Grapes, melons, and fruit n.s.p.f., fresh:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	153	144	175	199	238	19.6	12.8
	U.S. imports (million dollars)-----	205	268	287	384	428	11.5	20.1
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(52)	(124)	(112)	(185)	(190)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
AG029	Dried fruits, other than tropical:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	154	165	194	228	260	14.0	14.7
	U.S. imports (million dollars)-----	22	22	23	27	30	11.1	8.6
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	132	143	171	201	230	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
AG030	Fruit, uncooked, or cooked in water, frozen:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	14	11	16	25	28	12.0	24.7
	U.S. imports (million dollars)-----	31	33	41	54	43	(20.4)	12.2
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(17)	(22)	(25)	(29)	(15)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG031	Jams, fruit jellies and marmalades; cooked fruit or nut purees....							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	9	9	10	14	15	7.1	15.8
	U.S. imports (million dollars)-----	29	36	40	39	44	12.8	9.6
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(20)	(27)	(30)	(25)	(29)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
AG032	Canned fruits, provisionally preserved fruits and nuts, fruit flours,:							
	Establishments (number)-----	2/	2/	2/	2/	2/	-	-
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. exports (million dollars)-----	74	59	69	74	84	13.5	4.9
	U.S. imports (million dollars)-----	186	231	219	206	231	12.1	3.2
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	(112)	(172)	(150)	(132)	(147)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
AG033	Coffee and tea:							
	Establishments (number)-----	172	170	167	164	165	0.6	(1.2)
	Employees (thousands)-----	15	15	16	16	16	0.0	2.0
	Capacity utilization (percent)-----	84	89	89	89	87	(2.2)	0.7
	U.S. shipments (million dollars)-----	7,262	7,638	7,896	8,127	8,370	3.0	3.5
	U.S. exports (million dollars)-----	103	97	102	96	85	(11.5)	(3.9)
	U.S. imports (million dollars)-----	3,477	3,491	4,681	3,018	2,605	(13.7)	(7.0)
	Apparent U.S. consumption (million dollars)-----	10,636	11,032	12,475	11,049	10,890	(1.4)	0.5
	Trade balance (million dollars)-----	(3,374)	(3,394)	(4,579)	(2,922)	(2,520)	-	-
	Ratio of imports to apparent consumption (percent)-----	32.7	31.6	37.5	27.3	23.9	(12.4)	(7.4)
	Ratio of exports to shipments (percent)-----	1.4	1.3	1.3	1.2	1.0	(14.0)	(7.1)

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG034	Spices:							
	Establishments (number)-----	69	70	77	75	75	0.0	2.4
	Employees (thousands)-----	7	7	7	7	8	14.3	2.7
	Capacity utilization (percent)-----	69	70	77	75	75	0.0	2.4
	U.S. shipments (million dollars)-----	813	862	914	969	1,027	6.0	6.0
	U.S. exports (million dollars)-----	22	19	20	23	25	8.7	4.6
	U.S. imports (million dollars)-----	171	192	282	313	239	(23.6)	12.3
	Apparent U.S. consumption (million dollars)-----	962	1,035	1,176	1,259	1,241	(1.4)	7.3
	Trade balance (million dollars)-----	(149)	(173)	(262)	(290)	(214)	-	-
	Ratio of imports to apparent consumption (percent)-----	17.8	18.6	24.0	24.9	19.3	(22.5)	4.6
	Ratio of exports to shipments (percent)-----	2.7	2.2	2.2	2.4	2.4	2.6	(1.4)
AG035	Cereals:							
	Establishments (number)-----	576,000	575,500	575,000	574,500	574,000	(0.1)	(0.1)
	Employees (thousands)-----	2,900	2,800	2,700	2,600	2,500	(3.8)	(3.6)
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. production (million dollars)-----	34,618	31,852	20,897	21,122	25,000	18.4	(10.1)
	U.S. exports (million dollars)-----	15,535	10,489	6,862	7,584	11,739	54.8	(8.5)
	U.S. imports (million dollars)-----	135	153	153	153	272	77.8	15.0
	Apparent U.S. consumption (million dollars)-----	19,218	21,516	14,188	13,691	13,533	(1.2)	(10.9)
	Trade balance (million dollars)-----	15,400	10,336	6,709	7,431	11,467	-	-
	Ratio of imports to apparent consumption (percent)-----	0.7	0.7	1.1	1.1	2.0	79.9	29.1
	Ratio of exports to shipments (percent)-----	44.9	32.9	32.8	35.9	47.0	30.8	1.8
AG036	Milled grains, malts, and starches:							
	Establishments (number)-----	583	583	583	583	583	0.0	0.0
	Employees (thousands)-----	35	35	35	35	35	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. production (million dollars)-----	7,279	7,643	7,949	8,267	8,300	0.4	3.5
	U.S. exports (million dollars)-----	374	388	360	318	343	7.9	(3.7)
	U.S. imports (million dollars)-----	51	63	72	76	83	9.2	12.3
	Apparent U.S. consumption (million dollars)-----	6,956	7,318	7,661	8,025	8,040	0.2	3.9
	Trade balance (million dollars)-----	323	325	288	242	260	-	-
	Ratio of imports to apparent consumption (percent)-----	0.7	0.9	0.9	0.9	1.0	9.0	8.1
	Ratio of exports to shipments (percent)-----	5.1	5.1	4.5	3.8	4.1	7.4	(6.9)

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG037	Oilseeds:							
	Farms (number)-----	547	532	518	503	489	(2.8)	(2.8)
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. production (million dollars)-----	14,209	12,234	11,617	10,163	12,256	20.6	(4.7)
	U.S. exports (million dollars)-----	5,988	4,099	4,458	4,443	4,928	10.9	(3.0)
	U.S. imports (million dollars)-----	73	76	50	45	84	86.7	(2.4)
	Apparent U.S. consumption (million dollars)-----	8,294	8,211	7,209	5,765	7,412	28.6	(5.6)
	Trade balance (million dollars)-----	5,915	4,023	4,408	4,398	4,844	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	0.9	0.7	0.8	1.1	45.2	3.4
	Ratio of exports to shipments (percent)-----	42.1	33.5	38.4	43.7	40.2	(8.0)	1.7
AG038	Natural gums, resins, and gum resins:							
	Firms (number)-----	12	12	12	12	12	0.0	0.0
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	5/	5/	5/	5/	5/	-	-
	U.S. production (million dollars)-----	290	320	320	280	340	21.4	1.9
	U.S. exports (million dollars)-----	59	52	55	67	84	25.4	10.1
	U.S. imports (million dollars)-----	78	90	100	96	125	30.2	10.6
	Apparent U.S. consumption (million dollars)-----	309	358	365	309	381	23.3	2.8
	Trade balance (million dollars)-----	(19)	(38)	(45)	(29)	(41)	-	-
	Ratio of imports to apparent consumption (percent)-----	25.2	25.1	27.4	31.1	32.8	5.6	7.6
	Ratio of exports to shipments (percent)-----	20.3	16.3	17.2	23.9	24.7	3.2	8.1
AG039	Animal or vegetable fats and oils:							
	Firms (number)-----	432	410	388	366	344	(6.0)	(5.5)
	Employees (thousands)-----	35	35	35	33	34	3.0	(1.2)
	Capacity utilization (percent)-----	87	84	81	84	87	3.6	0.0
	U.S. shipments (million dollars)-----	5,400	5,300	5,451	5,327	5,689	6.8	1.1
	U.S. exports (million dollars)-----	1,979	1,486	1,064	1,028	1,511	47.0	(8.7)
	U.S. imports (million dollars)-----	677	634	492	548	755	37.8	0.7
	Apparent U.S. consumption (million dollars)-----	4,098	4,448	4,879	4,847	4,933	1.8	4.7
	Trade balance (million dollars)-----	1,302	852	572	480	756	-	-
	Ratio of imports to apparent consumption (percent)-----	16.5	14.3	10.1	11.3	15.3	35.4	(3.8)
	Ratio of exports to shipments (percent)-----	36.6	28.0	19.5	19.3	26.6	37.6	(9.7)



Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG040	Edible preparations:							
	Establishments (number)-----	5,199	5,207	5,189	5,095	5,088	(0.1)	(0.6)
	Employees (thousands)-----	398	396	395	394	393	(0.3)	(0.3)
	Capacity utilization (percent)-----	77	78	80	82	83	1.2	2.0
	U.S. production (million dollars)-----	53,602	59,120	64,560	72,453	77,162	6.5	9.8
	U.S. exports (million dollars)-----	586	567	590	660	777	17.7	7.4
	U.S. imports (million dollars)-----	506	602	697	756	789	4.4	11.8
	Apparent U.S. consumption (million dollars)-----	53,522	59,155	64,667	72,549	77,174	6.4	9.8
	Trade balance (million dollars)-----	80	(35)	(107)	(96)	(12)	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	1.0	1.1	1.0	1.0	(1.9)	1.8
	Ratio of exports to shipments (percent)-----	1.1	1.0	0.9	0.9	1.0	10.5	(2.1)
AG041	Coca, chocolate, and confectionery:							
	Establishments (number)-----	880	870	865	860	838	(2.6)	(1.1)
	Employees (thousands)-----	65	65	64	63	57	(9.5)	(2.9)
	Capacity utilization (percent)-----	68	69	73	74	75	1.4	2.7
	U.S. shipments (million dollars)-----	8,519	8,962	9,387	9,810	10,309	5.1	4.8
	U.S. exports (million dollars)-----	98	97	99	124	181	46.0	15.9
	U.S. imports (million dollars)-----	1,252	1,509	1,382	1,471	1,257	(14.5)	(0.2)
	Apparent U.S. consumption (million dollars)-----	9,673	10,374	10,670	11,157	11,385	2.0	4.1
	Trade balance (million dollars)-----	(1,154)	(1,412)	(1,283)	(1,347)	(1,076)	-	-
	Ratio of imports to apparent consumption (percent)-----	12.9	14.5	13.0	13.2	11.0	(16.3)	(4.1)
	Ratio of exports to shipments (percent)-----	1.2	1.1	1.1	1.3	1.8	38.9	10.5
AG042	Nonalcoholic beverages including fruit and vegetable juices:							
	Establishments (number)-----	15,500	15,000	14,500	14,000	13,500	(3.6)	(3.4)
	Employees (thousands)-----	100,000	95,000	90,000	90,000	90,000	0.0	(2.6)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	861	940	847	1,035	1,394	34.7	11.2
	U.S. exports (million dollars)-----	256	216	178	233	358	53.6	7.8
	U.S. imports (million dollars)-----	896	1,060	818	881	1,013	15.0	0.6
	Apparent U.S. consumption (million dollars)-----	1,501	1,784	1,487	1,683	2,049	21.7	5.8
	Trade balance (million dollars)-----	(640)	(844)	(640)	(648)	(655)	-	-
	Ratio of imports to apparent consumption (percent)-----	59.7	59.4	55.0	52.3	49.4	(5.6)	(4.9)
	Ratio of exports to shipments (percent)-----	29.7	23.0	21.0	22.5	25.7	14.1	(3.1)

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG043	Malt beverages:							
	Establishments (number)-----	54	46	39	32	32	0.0	(13.1)
	Employees (thousands)-----	39	40	34	32	33	3.1	(5.4)
	Capacity utilization (percent)-----	76	79	80	80	80	0.0	1.2
	U.S. shipments (million dollars)-----	11,781	12,146	12,559	13,505	14,200	5.1	4.9
	U.S. exports (million dollars)-----	25	45	38	55	66	20.0	23.9
	U.S. imports (million dollars)-----	577	633	784	882	918	4.1	13.4
	Apparent U.S. consumption (million dollars)-----	12,333	12,734	13,305	14,332	15,052	5.0	5.3
	Trade balance (million dollars)-----	(552)	(588)	(746)	(827)	(852)	-	-
	Ratio of imports to apparent consumption (percent)-----	4.7	5.0	5.9	6.2	6.1	(0.9)	7.7
	Ratio of exports to shipments (percent)-----	0.2	0.4	0.3	0.4	0.5	14.1	18.1
AG044	Wine and certain other fermented beverages:							
	Establishments (number)-----	372	398	426	458	491	7.2	7.2
	Employees (thousands)-----	12	13	13	13	13	0.0	1.6
	Capacity utilization (percent)-----	63	75	74	70	70	0.0	1.4
	U.S. shipments (million dollars)-----	2,513	2,561	2,940	3,009	3,391	12.7	7.9
	U.S. exports (million dollars)-----	26	28	35	61	86	41.0	37.3
	U.S. imports (million dollars)-----	955	1,011	1,031	1,018	955	(6.2)	0.1
	Apparent U.S. consumption (million dollars)-----	3,442	3,544	3,936	3,966	4,260	7.4	5.5
	Trade balance (million dollars)-----	(929)	(983)	(996)	(957)	(869)	-	-
	Ratio of imports to apparent consumption (percent)-----	27.7	28.5	26.2	25.7	22.4	(12.7)	(5.2)
	Ratio of exports to shipments (percent)-----	1.0	1.1	1.2	2.0	2.5	25.1	27.3
AG045	Distilled spirits:							
	Establishments (number)-----	62	57	53	47	44	(6.4)	(8.4)
	Employees (thousands)-----	11	11	10	10	10	0.0	(2.8)
	Capacity utilization (percent)-----	66	75	77	77	75	(2.6)	2.9
	U.S. shipments (million dollars)-----	3,222	3,417	3,509	3,578	3,533	(1.3)	2.3
	U.S. exports (million dollars)-----	83	90	113	133	186	39.8	22.2
	U.S. imports (million dollars)-----	1,254	1,202	1,169	1,238	1,283	3.6	0.8
	Apparent U.S. consumption (million dollars)-----	4,393	4,529	4,565	4,683	4,630	(1.1)	1.4
	Trade balance (million dollars)-----	(1,171)	(1,112)	(1,056)	(1,105)	(1,097)	-	-
	Ratio of imports to apparent consumption (percent)-----	28.5	26.5	25.6	26.4	27.7	4.8	(0.6)
	Ratio of exports to shipments (percent)-----	2.6	2.6	3.2	3.7	5.3	41.6	19.4

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG046	Unmanufactured tobacco:							
	Establishments (number)-----	231,000	224,000	218,000	212,000	209,000	(1.4)	(2.5)
	Employees (thousands)-----	2/	2/	2/	2/	2/	-	-
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	3,027	2,419	1,829	1,951	2,184	11.9	(8.3)
	U.S. exports (million dollars)-----	1,511	1,521	1,209	1,090	1,252	14.9	(6.8)
	U.S. imports (million dollars)-----	548	571	597	620	557	(10.2)	1.2
	Apparent U.S. consumption (million dollars)-----	2,064	1,469	1,217	1,481	1,489	0.5	(6.2)
	Trade balance (million dollars)-----	963	950	612	470	695	-	-
	Ratio of imports to apparent consumption (percent)-----	26.6	38.9	49.1	41.9	37.4	(10.6)	7.9
	Ratio of exports to shipments (percent)-----	49.9	62.9	66.1	55.9	57.3	2.6	1.6
AG047	Certain manufactured tobacco products, including cigars,....:							
	Establishments (number)-----	116	114	121	120	119	(0.8)	1.0
	Employees (thousands)-----	7	7	7	6	6	0.0	(4.5)
	Capacity utilization (percent)-----	66	70	69	68	69	1.5	0.6
	U.S. shipments (million dollars)-----	1,145	1,229	1,208	1,244	1,257	1.0	2.0
	U.S. exports (million dollars)-----	72	88	224	262	256	(2.3)	43.7
	U.S. imports (million dollars)-----	75	67	69	71	64	(9.9)	(2.6)
	Apparent U.S. consumption (million dollars)-----	1,148	1,208	1,053	1,053	1,065	1.1	(2.8)
	Trade balance (million dollars)-----	(3)	21	155	191	192	-	-
	Ratio of imports to apparent consumption (percent)-----	6.5	5.5	6.6	6.7	6.0	(10.9)	0.3
	Ratio of exports to shipments (percent)-----	6.3	7.2	18.5	21.1	20.4	(3.3)	40.9
AG048	Cigarettes:							
	Establishments (number)-----	8	8	8	8	8	0.0	0.0
	Employees (thousands)-----	36	36	33	32	31	(3.1)	(4.1)
	Capacity utilization (percent)-----	93	93	97	97	97	0.0	1.3
	U.S. shipments (million dollars)-----	13,123	14,086	15,028	18,045	19,240	6.6	10.7
	U.S. exports (million dollars)-----	1,120	1,180	1,298	2,047	2,645	29.2	25.5
	U.S. imports (million dollars)-----	13	12	17	22	22	0.0	18.0
	Apparent U.S. consumption (million dollars)-----	12,016	12,918	13,747	16,020	16,617	3.7	9.0
	Trade balance (million dollars)-----	1,107	1,168	1,281	2,025	2,623	-	-
	Ratio of imports to apparent consumption (percent)-----	0.1	0.1	0.1	0.1	0.1	(3.6)	8.3
	Ratio of exports to shipments (percent)-----	8.5	8.4	8.6	11.3	13.7	21.2	13.4

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG049	Hides, skins, and leather:							
	Establishments (number)-----	1,826	1,758	1,684	1,619	1,517	(6.3)	(4.4)
	Employees (thousands)-----	22	19	18	18	18	0.0	(4.5)
	Capacity utilization (percent)-----	71	75	74	76	76	0.0	1.5
	U.S. shipments (million dollars)-----	3,276	2,938	3,207	3,798	4,261	12.2	8.1
	U.S. exports (million dollars)-----	1,483	1,369	1,623	1,831	2,142	17.0	10.8
	U.S. imports (million dollars)-----	483	479	483	658	866	31.6	16.0
	Apparent U.S. consumption (million dollars)-----	2,276	2,048	2,067	2,625	2,985	13.7	8.2
	Trade balance (million dollars)-----	1,000	890	1,140	1,173	1,276	-	-
	Ratio of imports to apparent consumption (percent)-----	21.2	23.4	23.4	25.1	29.0	15.7	7.2
	Ratio of exports to shipments (percent)-----	45.3	46.6	50.6	48.2	50.3	4.3	2.5
AG050	Furskins:							
	Establishments (number)-----	1,084	1,042	989	1,027	1,027	0.0	(1.2)
	Employees (thousands)-----	4	4	4	4	4	0.0	0.0
	Capacity utilization (percent)-----	74	73	72	71	78	9.9	0.8
	U.S. shipments (million dollars)-----	369	368	406	444	366	(17.6)	1.7
	U.S. exports (million dollars)-----	282	283	294	405	316	(22.0)	6.0
	U.S. imports (million dollars)-----	200	205	169	243	170	(30.0)	(1.5)
	Apparent U.S. consumption (million dollars)-----	287	290	281	282	220	(22.0)	(5.4)
	Trade balance (million dollars)-----	82	78	125	162	146	-	-
	Ratio of imports to apparent consumption (percent)-----	69.7	70.7	60.1	86.2	77.3	(10.3)	4.1
	Ratio of exports to shipments (percent)-----	76.4	76.9	72.4	91.2	86.3	(5.3)	4.2
AG051	Logs and rough wood products:							
	Establishments (number)-----	11,400	11,300	11,200	11,100	11,100	0.0	(0.7)
	Employees (thousands)-----	83	76	72	72	72	0.0	(3.3)
	Capacity utilization (percent)-----	77	93	82	85	85	0.0	1.1
	U.S. shipments (million dollars)-----	6,926	6,767	6,683	6,962	8,209	17.9	3.8
	U.S. exports (million dollars)-----	1,402	1,469	1,437	1,864	2,576	38.2	15.7
	U.S. imports (million dollars)-----	294	257	242	229	253	10.5	(4.1)
	Apparent U.S. consumption (million dollars)-----	5,818	5,555	5,488	5,327	5,886	10.5	(0.2)
	Trade balance (million dollars)-----	1,108	1,212	1,195	1,635	2,323	-	-
	Ratio of imports to apparent consumption (percent)-----	5.1	4.6	4.4	4.3	4.3	(0.0)	(3.9)
	Ratio of exports to shipments (percent)-----	20.2	21.7	21.5	26.8	31.4	17.2	11.5

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
Forest products:								
AG052	Poles, piles, and posts:							
	Establishments (number)-----	102	103	105	105	110	4.8	1.7
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	68	61	62	60	64	6.7	(1.4)
	U.S. shipments (million dollars)-----	106	104	118	134	143	6.7	8.9
	U.S. exports (million dollars)-----	7	8	10	13	16	23.1	23.8
	U.S. imports (million dollars)-----	8	10	12	21	21	0.0	30.6
	Apparent U.S. consumption (million dollars)-----	107	106	120	142	148	4.2	9.9
	Trade balance (million dollars)-----	(1)	(2)	(2)	(8)	(5)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.5	9.4	10.0	14.8	14.2	(4.1)	18.9
	Ratio of exports to shipments (percent)-----	6.6	7.7	8.5	9.7	11.2	15.3	13.7
AG053	Lumber:							
	Establishments (number)-----	5,520	5,515	5,510	5,500	5,500	0.0	(0.1)
	Employees (thousands)-----	133	127	135	136	136	0.0	1.1
	Capacity utilization (percent)-----	81	85	92	93	92	(1.1)	3.5
	U.S. shipments (million dollars)-----	12,209	12,080	13,881	14,586	15,258	4.6	6.5
	U.S. exports (million dollars)-----	814	741	977	1,326	1,789	34.9	24.1
	U.S. imports (million dollars)-----	2,700	2,926	2,980	3,084	2,963	(3.9)	2.4
	Apparent U.S. consumption (million dollars)-----	14,095	14,265	15,884	16,344	16,432	0.5	4.5
	Trade balance (million dollars)-----	(1,886)	(2,185)	(2,003)	(1,758)	(1,174)	-	-
	Ratio of imports to apparent consumption (percent)-----	19.2	20.5	18.8	18.9	18.0	(4.4)	(2.0)
	Ratio of exports to shipments (percent)-----	6.7	6.1	7.0	9.1	11.7	29.0	16.4
AG054	Moldings, millwork, and joinery:							
	Establishments (number)-----	2,468	2,645	2,675	2,680	2,680	0.0	1.8
	Employees (thousands)-----	83	82	82	82	82	0.0	(0.2)
	Capacity utilization (percent)-----	88	85	83	85	84	(1.2)	(0.9)
	U.S. shipments (million dollars)-----	7,238	7,503	8,409	9,116	9,758	7.0	8.2
	U.S. exports (million dollars)-----	76	83	124	144	167	16.0	23.7
	U.S. imports (million dollars)-----	364	376	428	579	586	1.2	14.8
	Apparent U.S. consumption (million dollars)-----	7,526	7,796	8,713	9,551	10,177	6.6	8.4
	Trade balance (million dollars)-----	(288)	(293)	(304)	(435)	(419)	-	-
	Ratio of imports to apparent consumption (percent)-----	4.8	4.8	4.9	6.1	5.8	(5.0)	5.9
	Ratio of exports to shipments (percent)-----	1.1	1.1	1.5	1.6	1.7	8.3	14.3

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG055	Structural panel products:							
	Establishments (number)-----	584	594	601	606	605	(0.2)	0.9
	Employees (thousands)-----	80	82	87	88	87	(1.1)	2.4
	Capacity utilization (percent)-----	85	85	89	88	85	(3.4)	0.3
	U.S. production (million dollars)-----	8,055	8,280	8,803	8,898	8,706	(2.2)	2.3
	U.S. exports (million dollars)-----	251	222	322	432	572	32.4	26.0
	U.S. imports (million dollars)-----	781	796	870	1,032	995	(3.6)	7.7
	Apparent U.S. consumption (million dollars)-----	8,585	8,854	9,351	9,498	9,129	(3.9)	1.9
	Trade balance (million dollars)-----	(530)	(574)	(548)	(600)	(423)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.1	9.0	9.3	10.9	10.9	0.3	5.7
	Ratio of exports to shipments (percent)-----	3.1	2.7	3.7	4.9	6.6	35.3	23.2
AG056	Wooden containers:							
	Firms (number)-----	2,380	2,470	2,540	2,580	2,590	0.4	2.1
	Employees (thousands)-----	35	33	32	32	33	3.1	(1.5)
	Capacity utilization (percent)-----	48	84	83	80	80	0.0	10.2
	U.S. production (million dollars)-----	2,017	1,976	2,041	2,102	2,185	3.9	2.2
	U.S. exports (million dollars)-----	30	25	30	33	43	30.3	10.5
	U.S. imports (million dollars)-----	130	148	169	208	207	(0.5)	13.5
	Apparent U.S. consumption (million dollars)-----	2,117	2,099	2,180	2,277	2,349	3.2	2.9
	Trade balance (million dollars)-----	(100)	(123)	(139)	(175)	(164)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.1	7.1	7.8	9.1	8.8	(3.5)	10.3
	Ratio of exports to shipments (percent)-----	1.5	1.3	1.5	1.6	2.0	25.4	8.1
AG057	Tools and tool handles of wood:							
	Firms (number)-----	136	137	138	139	138	(0.7)	0.4
	Employees (thousands)-----	3	3	3	3	3	0.0	0.0
	Capacity utilization (percent)-----	81	78	72	75	75	0.0	(1.9)
	U.S. shipments (million dollars)-----	139	137	142	149	150	0.7	2.4
	U.S. exports (million dollars)-----	6	6	4	5	7	40.0	1.3
	U.S. imports (million dollars)-----	86	84	91	106	108	1.9	7.1
	Apparent U.S. consumption (million dollars)-----	219	215	229	250	251	0.4	4.3
	Trade balance (million dollars)-----	(80)	(78)	(87)	(101)	(101)	-	-
	Ratio of imports to apparent consumption (percent)-----	39.3	39.1	39.7	42.4	43.0	1.5	2.7
	Ratio of exports to shipments (percent)-----	4.3	4.4	2.8	3.4	4.7	39.1	(1.1)

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG058	Miscellaneous articles of wood:							
	Establishments (number)-----	608	650	660	680	685	0.7	2.9
	Employees (thousands)-----	30	30	31	32	32	0.0	2.0
	Capacity utilization (percent)-----	81	78	72	75	75	0.0	(1.9)
	U.S. shipments (million dollars)-----	2,150	2,050	2,100	2,200	2,290	4.1	2.0
	U.S. exports (million dollars)-----	76	71	83	100	114	14.0	12.2
	U.S. imports (million dollars)-----	185	190	217	278	299	7.6	14.3
	Apparent U.S. consumption (million dollars)-----	2,259	2,169	2,234	2,378	2,475	4.1	2.8
	Trade balance (million dollars)-----	(109)	(119)	(134)	(178)	(185)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.2	8.8	9.7	11.7	12.1	3.3	11.3
	Ratio of exports to shipments (percent)-----	3.5	3.5	4.0	4.5	5.0	9.5	10.0
AG059	Cork and rattan:							
	Establishments (number)-----	25	27	28	31	35	12.9	8.4
	Employees (thousands)-----	1	1	2	2	2	0.0	23.1
	Capacity utilization (percent)-----	83	78	72	75	75	0.0	(2.4)
	U.S. shipments (million dollars)-----	44	37	39	45	60	33.3	8.5
	U.S. exports (million dollars)-----	7	8	7	10	13	30.0	15.7
	U.S. imports (million dollars)-----	222	211	228	272	293	7.7	8.4
	Apparent U.S. consumption (million dollars)-----	259	240	260	307	340	10.7	8.2
	Trade balance (million dollars)-----	(215)	(203)	(221)	(262)	(280)	-	-
	Ratio of imports to apparent consumption (percent)-----	85.7	87.9	87.7	88.6	86.2	(2.7)	0.2
	Ratio of exports to shipments (percent)-----	15.9	21.6	17.9	22.2	21.7	(2.5)	6.7
AG060	Pulp and wastepaper:							
	Establishments (number)-----	35	31	29	29	29	0.0	(4.3)
	Employees (thousands)-----	17	16	16	17	17	0.0	0.6
	Capacity utilization (percent)-----	98	91	96	96	95	(1.0)	(0.1)
	U.S. shipments (million dollars)-----	5,000	4,700	6,200	7,400	9,000	21.6	17.7
	U.S. exports (million dollars)-----	1,989	1,792	2,159	2,905	3,732	28.5	19.0
	U.S. imports (million dollars)-----	1,869	1,539	1,618	2,096	2,642	26.0	10.5
	Apparent U.S. consumption (million dollars)-----	4,880	4,447	5,659	6,591	7,910	20.0	14.6
	Trade balance (million dollars)-----	120	253	541	809	1,090	-	-
	Ratio of imports to apparent consumption (percent)-----	38.3	34.6	28.6	31.8	33.4	5.0	(3.5)
	Ratio of exports to shipments (percent)-----	39.8	38.1	34.8	39.3	41.5	5.6	1.1

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG061	Building papers and asphalt roofing shingles:							
	Establishments (number)-----	50	50	50	50	50	0.0	0.0
	Employees (thousands)-----	6	6	6	6	6	0.0	0.0
	Capacity utilization (percent)-----	70	70	80	80	80	0.0	4.1
	U.S. shipments (million dollars)-----	1,200	1,200	1,300	1,200	1,200	0.0	0.0
	U.S. exports (million dollars)-----	67	64	64	82	96	17.1	10.2
	U.S. imports (million dollars)-----	75	84	102	111	112	0.9	11.4
	Apparent U.S. consumption (million dollars)-----	1,208	1,220	1,338	1,229	1,216	(1.1)	0.2
	Trade balance (million dollars)-----	(8)	(20)	(38)	(29)	(16)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.2	6.9	7.6	9.0	9.2	2.0	11.2
	Ratio of exports to shipments (percent)-----	5.6	5.3	4.9	6.8	8.0	17.1	10.2
AG062	Paper boxes and bags:							
	Establishments (number)-----	2,700	2,600	2,600	2,600	2,600	0.0	(0.8)
	Employees (thousands)-----	215	212	212	214	215	0.5	0.1
	Capacity utilization (percent)-----	92	90	94	96	95	(1.0)	1.3
	U.S. shipments (million dollars)-----	24,700	25,000	25,800	27,400	30,000	9.5	4.9
	U.S. exports (million dollars)-----	187	152	156	197	282	43.1	11.4
	U.S. imports (million dollars)-----	91	79	102	129	153	18.6	16.5
	Apparent U.S. consumption (million dollars)-----	24,604	24,927	25,746	27,332	29,871	9.3	4.9
	Trade balance (million dollars)-----	96	73	54	68	129	-	-
	Ratio of imports to apparent consumption (percent)-----	0.4	0.3	0.4	0.5	0.5	8.5	11.1
	Ratio of exports to shipments (percent)-----	0.8	0.6	0.6	0.7	0.9	30.7	6.2
AG063	Industrial papers and paperboards:							
	Establishments (number)-----	700	700	700	700	700	0.0	0.0
	Employees (thousands)-----	160	160	160	160	160	0.0	0.0
	Capacity utilization (percent)-----	92	90	94	96	95	(1.0)	1.3
	U.S. shipments (million dollars)-----	31,300	31,700	35,000	38,000	42,000	10.5	8.0
	U.S. exports (million dollars)-----	1,575	1,376	1,586	1,941	2,256	16.2	11.2
	U.S. imports (million dollars)-----	420	478	607	750	848	13.1	20.4
	Apparent U.S. consumption (million dollars)-----	30,145	30,802	34,021	36,809	40,592	10.3	8.0
	Trade balance (million dollars)-----	1,155	898	979	1,191	1,408	-	-
	Ratio of imports to apparent consumption (percent)-----	1.4	1.6	1.8	2.0	2.1	2.5	11.4
	Ratio of exports to shipments (percent)-----	5.0	4.3	4.5	5.1	5.4	5.2	3.0



Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG064	Newsprint and other printing and writing papers:							
	Establishments (number)-----	180	150	150	150	150	0.0	(3.6)
	Employees (thousands)-----	133	133	140	140	140	0.0	1.6
	Capacity utilization (percent)-----	96	94	97	94	95	1.1	(0.2)
	U.S. shipments (million dollars)-----	15,000	14,400	15,500	16,250	19,500	20.0	6.7
	U.S. exports (million dollars)-----	345	323	374	443	595	34.3	15.1
	U.S. imports (million dollars)-----	4,456	4,765	4,883	5,574	6,414	15.1	9.3
	Apparent U.S. consumption (million dollars)-----	19,111	18,842	20,009	21,381	25,319	18.4	7.1
	Trade balance (million dollars)-----	(4,111)	(4,442)	(4,509)	(5,131)	(5,819)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.3	25.3	24.4	26.1	25.3	(2.8)	2.0
	Ratio of exports to shipments (percent)-----	2.3	2.2	2.4	2.7	3.1	11.9	7.9
AG065	Certain specialty papers:							
	Establishments (number)-----	350	350	350	350	350	0.0	0.0
	Employees (thousands)-----	40	40	41	42	44	4.8	2.4
	Capacity utilization (percent)-----	95	93	95	94	95	1.1	0.1
	U.S. shipments (million dollars)-----	4,200	4,300	4,500	4,700	4,550	(3.2)	2.5
	U.S. exports (million dollars)-----	179	167	164	204	263	28.9	10.2
	U.S. imports (million dollars)-----	248	265	343	407	436	7.1	16.9
	Apparent U.S. consumption (million dollars)-----	4,269	4,398	4,679	4,903	4,723	(3.7)	3.2
	Trade balance (million dollars)-----	(69)	(98)	(179)	(203)	(173)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.8	6.0	7.3	8.3	9.2	11.2	13.3
	Ratio of exports to shipments (percent)-----	4.3	3.9	3.6	4.3	5.8	33.2	7.5
AG066	Miscellaneous paper products:							
	Establishments (number)-----	2575	2545	2550	2600	2600	0.0	0.4
	Employees (thousands)-----	180	182	184	186	188	1.1	1.1
	Capacity utilization (percent)-----	87	82	87	85	2/	-	-
	U.S. shipments (million dollars)-----	15,000	15,600	16,700	18,000	19,000	5.6	6.4
	U.S. exports (million dollars)-----	269	242	245	293	362	23.5	8.2
	U.S. imports (million dollars)-----	212	238	278	328	367	11.9	15.2
	Apparent U.S. consumption (million dollars)-----	14,943	15,596	16,733	18,035	19,005	5.4	6.5
	Trade balance (million dollars)-----	57	4	(33)	(35)	(5)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.4	1.5	1.7	1.8	1.9	6.2	8.2
	Ratio of exports to shipments (percent)-----	1.8	1.6	1.5	1.6	1.9	17.0	1.7

Table B-1

Agricultural, animal, and vegetable products sector and forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
AG067	Printed matter:							
	Establishments (number)-----	53,000	53,000	53,000	53,000	53,000	0.0	0.0
	Employees (thousands)-----	1,250	1,300	1,400	1,450	1,400	(3.4)	3.4
	Capacity utilization (percent)-----	87	88	87	87	3/	-	-
	U.S. shipments (million dollars)-----	103,000	111,500	120,000	129,000	140,000	8.5	7.9
	U.S. exports (million dollars)-----	1,359	1,248	1,310	1,527	1,867	22.3	8.7
	U.S. imports (million dollars)-----	966	1,102	1,356	1,457	1,544	6.0	12.9
	Apparent U.S. consumption (million dollars)-----	102,607	111,354	120,046	128,930	139,677	8.3	7.9
	Trade balance (million dollars)-----	393	146	(46)	70	323	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	1.0	1.1	1.1	1.1	(2.2)	4.6
	Ratio of exports to shipments (percent)-----	1.3	1.1	1.1	1.2	1.3	12.7	0.8

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

2/ Not available.

3/ Less than \$0.5 million.

4/ Does not reflect changes in inventory.

5/ Capacity utilization is not meaningful in this agricultural industry.

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
	Textiles, apparel, and footwear:							
TX001	Textile fibers and waste: 2/							
	Establishments (number)-----	2/	2/	2/	2/	2/	2/	2/
	Employees (thousands)-----	2/	2/	2/	2/	2/	2/	2/
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	2/	2/
	U.S. shipments (million dollars)-----	6,646	7,636	7,885	6,996	9,325	33.3	6.1
	U.S. exports (million dollars)-----	2,984	2,129	1,230	2,162	2,588	19.7	(2.7)
	U.S. imports (million dollars)-----	406	375	404	476	580	21.8	10.0
	Apparent U.S. consumption (million dollars)-----	4,068	5,882	7,059	5,310	7,317	37.8	11.3
	Trade balance (million dollars)-----	3,662	5,507	6,655	4,834	2,008	-	-
	Ratio of imports to apparent consumption (percent)-----	735.0	567.7	304.5	454.2	7.9	(98.3)	(60.5)
	Ratio of exports to shipments (percent)-----	44.9	27.9	15.6	30.9	27.8	(10.2)	(8.2)
TX002	Spun yarns:							
	Establishments (number)-----	403	400	392	414	432	4.3	1.7
	Employees (thousands)-----	78	74	74	78	77	(1.3)	0.3
	Capacity utilization (percent)-----	75	83	89	84	93	10.7	4.5
	U.S. shipments (million dollars)-----	5,504	5,087	5,664	7,094	7,335	3.4	9.5
	U.S. exports (million dollars)-----	99	133	114	168	230	36.9	21.2
	U.S. imports (million dollars)-----	262	243	325	372	312	(16.1)	8.1
	Apparent U.S. consumption (million dollars)-----	5,667	5,197	5,875	7,298	7,417	1.6	9.2
	Trade balance (million dollars)-----	(163)	(110)	(211)	(204)	(82)	-	-
	Ratio of imports to apparent consumption (percent)-----	4.6	4.7	5.5	5.1	4.2	(17.5)	(1.0)
	Ratio of exports to shipments (percent)-----	1.8	2.6	2.0	2.4	3.1	32.4	10.7
TX003	Filament yarns:							
	Establishments (number)-----	211	205	205	209	217	3.8	0.8
	Employees (thousands)-----	50	48	49	47	49	4.3	(0.6)
	Capacity utilization (percent)-----	80	92	78	93	82	(11.8)	0.6
	U.S. shipments (million dollars)-----	6,112	5,939	6,280	6,679	6,956	4.1	3.8
	U.S. exports (million dollars)-----	522	567	538	558	748	34.1	7.3
	U.S. imports (million dollars)-----	180	191	244	229	250	9.2	8.7
	Apparent U.S. consumption (million dollars)-----	5,770	5,563	5,986	6,350	6,458	1.7	3.6
	Trade balance (million dollars)-----	342	376	294	329	498	-	-
	Ratio of imports to apparent consumption (percent)-----	3.1	3.4	4.1	3.6	3.9	7.3	4.9
	Ratio of exports to shipments (percent)-----	8.5	9.5	8.6	8.4	10.8	28.7	3.3

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX004	Miscellaneous yarns: 3/							
	Establishments (number)-----	69	66	64	59	59	0.0	(4.2)
	Employees (thousands)-----	11	11	10	9	8	(11.1)	(8.0)
	Capacity utilization (percent) 3/-----	66	71	73	84	88	4.8	7.7
	U.S. shipments (million dollars)-----	663	651	668	775	888	14.6	7.9
	U.S. exports (million dollars)-----	70	64	69	78	103	32.1	10.2
	U.S. imports (million dollars)-----	21	27	33	39	37	(5.1)	16.2
	Apparent U.S. consumption (million dollars)-----	614	614	632	736	822	11.7	7.9
	Trade balance (million dollars)-----	49	37	36	39	66	-	-
	Ratio of imports to apparent consumption (percent)-----	3.4	4.4	5.2	5.3	4.5	(15.1)	7.6
	Ratio of exports to shipments (percent)-----	10.6	9.8	10.3	10.1	11.6	15.2	2.1
TX005	Broadwoven fabrics:							
	Establishments (number)-----	1,008	1,032	1,008	1,063	1,107	4.1	2.2
	Employees (thousands)-----	241	216	209	211	211	0.0	(2.9)
	Capacity utilization (percent)-----	78	80	87	91	89	(2.2)	4.0
	U.S. shipments (million dollars)-----	12,418	11,345	11,467	12,181	12,188	0.1	0.3
	U.S. exports (million dollars)-----	545	576	693	752	833	10.8	11.8
	U.S. imports (million dollars)-----	2,078	2,117	2,406	2,729	2,486	(8.9)	6.3
	Apparent U.S. consumption (million dollars)-----	13,951	12,886	13,180	14,158	13,841	(2.2)	0.8
	Trade balance (million dollars)-----	(1,533)	(1,541)	(1,713)	(1,977)	(1,653)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.9	16.4	18.3	19.3	18.0	(6.8)	5.5
	Ratio of exports to shipments (percent)-----	4.4	5.1	6.0	6.2	6.8	10.7	11.4
TX006	Knit fabrics:							
	Establishments (number)-----	512	503	484	467	536	14.8	0.2
	Employees (thousands)-----	39	37	38	41	44	7.3	3.5
	Capacity utilization (percent)-----	80	74	73	71	69	(2.8)	(3.3)
	U.S. shipments (million dollars)-----	4,048	3,880	4,096	5,502	5,154	(6.3)	8.7
	U.S. exports (million dollars)-----	109	93	99	102	138	35.3	5.8
	U.S. imports (million dollars)-----	44	50	78	99	102	3.0	26.7
	Apparent U.S. consumption (million dollars)-----	3,983	3,837	4,075	5,499	5,118	(6.9)	9.0
	Trade balance (million dollars)-----	65	43	21	3	36	-	-
	Ratio of imports to apparent consumption (percent)-----	1.1	1.3	1.9	1.8	2.0	10.7	16.2
	Ratio of exports to shipments (percent)-----	2.7	2.4	2.4	1.9	2.7	44.4	(2.6)

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX007	Miscellaneous fabrics:							
	Establishments (number) 4/-----	305	305	300	297	300	1.0	(0.6)
	Employees (thousands) 4/-----	19	18	18	19	19	0.0	0.5
	Capacity utilization (percent) 5/-----	76	45	67	75	75	0.0	5.0
	U.S. shipments (million dollars) 4/-----	665	632	599	691	700	1.3	1.9
	U.S. exports (million dollars)-----	48	45	54	62	86	38.7	16.0
	U.S. imports (million dollars)-----	40	49	57	65	69	6.2	14.7
	Apparent U.S. consumption (million dollars)-----	657	636	602	694	683	(1.6)	1.7
	Trade balance (million dollars)-----	8	(4)	(3)	(3)	17	-	-
	Ratio of imports to apparent consumption (percent)-----	6.1	7.7	9.5	9.4	10.1	7.9	12.8
	Ratio of exports to shipments (percent)-----	7.2	7.1	9.0	9.0	12.3	36.9	13.8
TX008	Coated, covered, impregnated or laminated textile fabrics:							
	Establishments (number)-----	380	393	380	380	390	2.6	0.2
	Employees (thousands)-----	23	23	22	22	22	0.0	(1.3)
	Capacity utilization (percent)-----	62	59	46	50	50	0.0	(5.8)
	U.S. shipments (million dollars)-----	2,180	2,133	2,091	2,125	2,200	3.5	0.1
	U.S. exports (million dollars)-----	221	196	218	248	321	29.4	10.3
	U.S. imports (million dollars)-----	69	95	115	145	151	4.1	22.0
	Apparent U.S. consumption (million dollars)-----	2,028	2,032	1,988	2,022	2,030	0.4	(0.0)
	Trade balance (million dollars)-----	152	101	103	103	170	-	-
	Ratio of imports to apparent consumption (percent)-----	3.4	4.7	5.8	7.2	7.4	3.7	22.0
	Ratio of exports to shipments (percent)-----	10.1	9.2	10.4	11.7	14.6	25.0	10.2
TX009	Nonwoven fabrics:							
	Establishments (number)-----	47	47	51	50	52	4.0	2.7
	Employees (thousands)-----	5	5	6	6	6	0.0	5.6
	Capacity utilization (percent)-----	59	62	69	75	80	6.7	8.3
	U.S. shipments (million dollars)-----	1,490	1,520	1,600	2,000	2,340	17.0	12.5
	U.S. exports (million dollars)-----	69	62	76	82	107	30.5	12.3
	U.S. imports (million dollars)-----	36	36	38	47	70	48.9	17.3
	Apparent U.S. consumption (million dollars)-----	1,457	1,494	1,562	1,965	2,303	17.2	12.6
	Trade balance (million dollars)-----	33	26	38	35	37	-	-
	Ratio of imports to apparent consumption (percent)-----	2.5	2.4	2.4	2.4	3.0	27.1	4.2
	Ratio of exports to shipments (percent)-----	4.6	4.1	4.8	4.1	4.6	11.5	(0.2)

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX010	Cordage, nets, and netting:							
	Establishments (number)-----	190	195	187	191	193	1.0	0.1
	Employees (thousands)-----	8	8	8	8	8	0.0	0.0
	Capacity utilization (percent)-----	53	67	62	60	60	0.0	1.4
	U.S. shipments (million dollars)-----	371	362	378	370	400	8.1	1.7
	U.S. exports (million dollars)-----	15	11	15	15	20	33.3	9.3
	U.S. imports (million dollars)-----	111	115	102	116	138	19.0	4.5
	Apparent U.S. consumption (million dollars)-----	467	466	465	471	518	10.0	2.2
	Trade balance (million dollars)-----	(96)	(104)	(87)	(101)	(118)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.8	24.7	21.9	24.6	26.6	8.2	2.3
	Ratio of exports to shipments (percent)-----	4.0	3.0	4.0	4.1	5.0	23.3	7.4
TX011	Certain textile articles and fabrics suitable for industrial use:							
	Establishments (number)-----	196	206	214	215	210	(2.3)	1.8
	Employees (thousands)-----	20	20	19	19	19	0.0	(1.5)
	Capacity utilization (percent)-----	62	62	62	62	60	(3.2)	(0.7)
	U.S. shipments (million dollars)-----	2,918	2,763	2,685	2,800	2,915	4.1	0.1
	U.S. exports (million dollars)-----	137	140	152	171	163	(4.7)	5.6
	U.S. imports (million dollars)-----	39	45	60	68	86	26.5	22.1
	Apparent U.S. consumption (million dollars)-----	2,820	2,668	2,593	2,697	2,838	5.2	0.2
	Trade balance (million dollars)-----	98	95	92	103	77	-	-
	Ratio of imports to apparent consumption (percent)-----	1.4	1.7	2.3	2.5	3.0	20.2	21.8
	Ratio of exports to shipments (percent)-----	4.7	5.1	5.7	6.1	5.6	(8.4)	5.5
TX012	Miscellaneous textiles and articles:							
	Establishments (number)-----	2,130	2,240	2,320	2,340	2,539	8.5	4.0
	Employees (thousands)-----	57	61	62	62	65	4.8	2.8
	Capacity utilization (percent)-----	61	61	61	61	61	-	-
	U.S. shipments (million dollars)-----	7,096	7,097	7,565	7,835	8,256	5.4	4.1
	U.S. exports (million dollars)-----	395	363	433	499	561	12.4	10.7
	U.S. imports (million dollars)-----	367	440	564	620	645	4.0	15.8
	Apparent U.S. consumption (million dollars)-----	7,068	7,174	7,696	7,956	8,340	4.8	4.4
	Trade balance (million dollars)-----	28	(77)	(131)	(121)	(84)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.2	6.1	7.3	7.8	7.7	(0.8)	10.9
	Ratio of exports to shipments (percent)-----	5.6	5.1	5.7	6.4	6.8	6.7	6.4

Table 8-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX013	Sacks and bags of textile materials:							
	Establishments (number)-----	119	118	114	119	125	5.0	1.1
	Employees (thousands)-----	4	4	4	4	5	25.0	4.6
	Capacity utilization (percent)-----	70	61	74	70	70	0.0	1.4
	U.S. shipments (million dollars)-----	234	243	250	260	280	7.7	4.4
	U.S. exports (million dollars)-----	11	19	10	12	18	50.0	5.4
	U.S. imports (million dollars)-----	9	17	13	17	27	58.8	24.6
	Apparent U.S. consumption (million dollars)-----	232	241	253	265	289	9.1	5.5
	Trade balance (million dollars)-----	2	2	(3)	(5)	(9)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.9	7.1	5.1	6.4	9.3	45.6	18.1
	Ratio of exports to shipments (percent)-----	4.7	7.8	4.0	4.6	6.4	39.3	1.0
TX014	Carpets and rugs:							
	Establishments (number)-----	520	534	556	550	570	3.6	2.2
	Employees (thousands)-----	52	53	55	54	59	9.3	2.7
	Capacity utilization (percent)-----	71	72	77	81	81	0.0	3.9
	U.S. shipments (million dollars)-----	7,404	7,670	8,371	8,807	9,247	5.0	6.0
	U.S. exports (million dollars)-----	216	165	181	217	332	53.0	12.0
	U.S. imports (million dollars)-----	490	538	614	689	609	(11.6)	7.1
	Apparent U.S. consumption (million dollars)-----	7,678	8,043	8,804	9,279	9,524	2.6	5.9
	Trade balance (million dollars)-----	(274)	(373)	(433)	(472)	(277)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.4	6.7	7.0	7.4	6.4	(13.9)	1.1
	Ratio of exports to shipments (percent)-----	2.9	2.2	2.2	2.5	3.6	45.7	5.7
TX015	Curtains and draperies:							
	Establishments (number)-----	988	981	984	1,011	1,027	1.6	1.1
	Employees (thousands)-----	27	26	25	26	25	(3.8)	(1.5)
	Capacity utilization (percent)-----	76	71	71	78	78	0.0	1.5
	U.S. shipments (million dollars)-----	1,249	1,268	1,287	1,307	1,326	1.5	1.5
	U.S. exports (million dollars)-----	13	9	7	8	9	12.5	(8.2)
	U.S. imports (million dollars)-----	22	34	41	42	47	11.9	18.9
	Apparent U.S. consumption (million dollars)-----	1,258	1,293	1,321	1,341	1,364	1.7	2.0
	Trade balance (million dollars)-----	(9)	(25)	(34)	(34)	(38)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.7	2.6	3.1	3.1	3.4	10.0	16.5
	Ratio of exports to shipments (percent)-----	1.0	0.7	0.5	0.6	0.7	10.9	(9.5)

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX016	Bedding, linens, and miscellaneous furnishings:							
	Establishments (number)-----	1,226	1,234	1,228	1,228	1,065	(13.3)	(2.8)
	Employees (thousands)-----	71	72	69	68	69	1.5	(1.1)
	Capacity utilization (percent)-----	76	71	71	78	78	0.0	1.5
	U.S. shipments (million dollars)-----	7,858	7,730	7,864	8,471	8,979	6.0	3.6
	U.S. exports (million dollars)-----	96	87	79	89	120	34.8	4.8
	U.S. imports (million dollars)-----	362	472	521	584	606	3.8	13.2
	Apparent U.S. consumption (million dollars)-----	8,124	8,115	8,306	8,966	9,465	5.6	4.1
	Trade balance (million dollars)-----	(266)	(385)	(442)	(495)	(486)	-	-
	Ratio of imports to apparent consumption (percent)-----	4.5	5.8	6.3	6.5	6.4	(1.7)	8.7
	Ratio of exports to shipments (percent)-----	1.2	1.1	1.0	1.1	1.3	27.2	1.1
TX017	Men's and boys' suits and sport coats:							
	Establishments (number)-----	453	424	400	398	393	(1.3)	(3.4)
	Employees (thousands)-----	69	60	56	55	55	0.0	(5.3)
	Capacity utilization (percent)-----	80	90	78	89	82	(7.9)	0.4
	U.S. shipments (million dollars)-----	2,328	2,354	2,412	2,310	2,521	9.1	1.4
	U.S. exports (million dollars)-----	7	19	24	42	53	26.2	62.3
	U.S. imports (million dollars)-----	383	415	421	462	524	13.4	7.6
	Apparent U.S. consumption (million dollars)-----	2,704	2,750	2,809	2,730	2,992	9.6	2.0
	Trade balance (million dollars)-----	(376)	(396)	(397)	(420)	(471)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.2	15.1	15.0	16.9	17.5	3.5	5.5
	Ratio of exports to shipments (percent)-----	0.3	0.8	1.0	1.8	2.1	15.6	60.0
TX018	Men's and boys' coats and jackets:							
	Establishments (number)-----	438	439	427	427	424	(0.7)	(0.9)
	Employees (thousands)-----	32	30	29	29	29	0.0	(2.3)
	Capacity utilization (percent)-----	80	90	78	89	82	(7.9)	0.4
	U.S. shipments (million dollars)-----	1,004	1,068	1,057	1,184	1,234	4.2	5.3
	U.S. exports (million dollars)-----	17	14	13	25	39	56.0	25.1
	U.S. imports (million dollars)-----	604	603	614	711	851	19.7	8.9
	Apparent U.S. consumption (million dollars)-----	1,591	1,657	1,658	1,870	2,046	9.4	6.4
	Trade balance (million dollars)-----	(587)	(589)	(601)	(686)	(812)	-	-
	Ratio of imports to apparent consumption (percent)-----	38.0	36.4	37.0	38.0	41.6	9.4	2.3
	Ratio of exports to shipments (percent)-----	1.7	1.3	1.2	2.1	3.2	49.7	18.8



Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX019	Trousers and shorts:							
	Establishments (number)-----	2,850	3,230	3,358	3,534	3,640	3.0	6.0
	Employees (thousands)-----	230	226	223	225	225	0.0	(0.5)
	Capacity utilization (percent)-----	75	79	77	83	87	4.8	3.5
	U.S. shipments (million dollars)-----	8,744	8,643	8,755	8,989	9,809	9.1	2.7
	U.S. exports (million dollars)-----	118	112	139	210	319	51.9	29.9
	U.S. imports (million dollars)-----	1,953	2,175	2,627	3,174	3,504	10.4	16.7
	Apparent U.S. consumption (million dollars)-----	10,579	10,706	11,243	11,953	12,994	8.7	5.4
	Trade balance (million dollars)-----	(1,835)	(2,063)	(2,488)	(2,964)	(3,185)	-	-
	Ratio of imports to apparent consumption (percent)-----	18.5	20.3	23.4	26.6	27.0	1.6	10.8
	Ratio of exports to shipments (percent)-----	1.3	1.3	1.6	2.3	3.3	39.2	26.5
TX020	Shirts and blouses:							
	Establishments (number)-----	2,120	2,015	1,900	1,839	1,690	(8.1)	(5.3)
	Employees (thousands)-----	164	146	145	141	126	(10.6)	(5.5)
	Capacity utilization (percent)-----	85	83	87	91	92	1.1	2.5
	U.S. shipments (million dollars)-----	7,413	7,327	7,257	7,737	8,685	12.3	3.8
	U.S. exports (million dollars)-----	102	96	126	177	214	20.9	23.3
	U.S. imports (million dollars)-----	3,678	4,200	5,024	5,956	5,849	(1.8)	13.6
	Apparent U.S. consumption (million dollars)-----	10,989	11,431	12,155	13,516	14,320	5.9	7.2
	Trade balance (million dollars)-----	(3,576)	(4,104)	(4,898)	(5,779)	(5,635)	-	-
	Ratio of imports to apparent consumption (percent)-----	33.5	36.7	41.3	44.1	40.8	(7.3)	6.0
	Ratio of exports to shipments (percent)-----	1.4	1.3	1.7	2.3	2.5	7.7	18.8
TX021	Sweaters:							
	Establishments (number)-----	382	416	427	443	454	2.5	4.2
	Employees (thousands)-----	27	26	28	29	29	0.0	2.6
	Capacity utilization (percent)-----	71	92	93	77	82	6.5	1.1
	U.S. shipments (million dollars)-----	1,093	1,125	1,226	1,303	1,113	(14.6)	1.8
	U.S. exports (million dollars)-----	3	2	3	4	7	75.0	27.0
	U.S. imports (million dollars)-----	1,658	2,162	2,531	2,761	2,296	(16.8)	9.4
	Apparent U.S. consumption (million dollars)-----	2,748	3,285	3,754	4,060	3,402	(16.2)	6.6
	Trade balance (million dollars)-----	(1,655)	(2,160)	(2,528)	(2,757)	(2,289)	-	-
	Ratio of imports to apparent consumption (percent)-----	60.3	65.8	67.4	68.0	67.5	(0.8)	2.6
	Ratio of exports to shipments (percent)-----	0.3	0.2	0.2	0.3	0.6	104.9	24.7

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX022	Women's and girls' suits, skirts, and coats: 7/							
	Establishments (number)-----	1,331	1,238	1,143	1,086	1,062	(2.2)	(5.7)
	Employees (thousands)-----	64	57	54	51	49	(3.9)	(6.2)
	Capacity utilization (percent)-----	73	73	60	73	60	(17.8)	(3.8)
	U.S. shipments (million dollars)-----	3,736	3,450	3,469	3,569	3,542	(0.8)	(0.7)
	U.S. exports (million dollars)-----	31	33	40	45	64	42.2	19.2
	U.S. imports (million dollars)-----	1,252	1,365	1,739	2,184	2,123	(2.8)	16.5
	Apparent U.S. consumption (million dollars)-----	4,957	4,782	5,168	5,708	5,601	(1.9)	4.3
	Trade balance (million dollars)-----	(1,221)	(1,332)	(1,699)	(2,139)	(2,059)	-	-
	Ratio of imports to apparent consumption (percent)-----	25.3	28.5	33.6	38.3	37.9	(0.9)	11.7
	Ratio of exports to shipments (percent)-----	0.8	1.0	1.2	1.3	1.8	43.3	20.1
TX023	Women's and girls' dresses: 7/							
	Establishments (number)-----	4,314	3,545	3,285	3,170	3,040	(4.1)	(7.8)
	Employees (thousands)-----	137	115	107	101	100	(1.0)	(7.3)
	Capacity utilization (percent)-----	73	73	70	73	73	0.0	0.0
	U.S. shipments (million dollars)-----	3,943	4,070	3,867	4,572	4,324	(5.4)	3.1
	U.S. exports (million dollars)-----	38	32	36	34	51	50.0	6.7
	U.S. imports (million dollars)-----	415	526	664	773	826	6.9	19.3
	Apparent U.S. consumption (million dollars)-----	4,320	4,564	4,495	5,311	5,099	(4.0)	5.0
	Trade balance (million dollars)-----	(377)	(494)	(628)	(739)	(775)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.6	11.5	14.8	14.6	16.2	11.3	13.6
	Ratio of exports to shipments (percent)-----	1.0	0.8	0.9	0.7	1.2	58.6	3.5
TX024	Robes: 8/							
	Establishments (number)-----	121	111	101	88	87	(1.1)	(8.5)
	Employees (thousands)-----	8	8	8	7	7	0.0	(3.9)
	Capacity utilization (percent)-----	73	73	70	73	70	(4.1)	(0.8)
	U.S. shipments (million dollars)-----	407	387	422	545	422	(22.6)	4.2
	U.S. exports (million dollars)-----	6	7	9	7	13	85.7	16.7
	U.S. imports (million dollars)-----	62	76	103	113	141	24.8	22.6
	Apparent U.S. consumption (million dollars)-----	463	456	516	651	550	(15.5)	7.3
	Trade balance (million dollars)-----	(56)	(69)	(94)	(106)	(128)	-	-
	Ratio of imports to apparent consumption (percent)-----	13.4	16.7	20.0	17.4	25.6	47.7	14.3
	Ratio of exports to shipments (percent)-----	1.5	1.8	2.1	1.3	3.1	139.8	12.0

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX025	Underwear and nightwear:							
	Establishments (number)-----	831	805	775	760	766	0.8	(2.2)
	Employees (thousands)-----	114	106	107	107	110	2.8	(0.6)
	Capacity utilization (percent)-----	88	88	88	88	93	5.7	1.1
	U.S. shipments (million dollars)-----	3,430	3,464	3,445	3,774	3,994	5.8	4.0
	U.S. exports (million dollars)-----	60	49	61	81	119	46.9	20.6
	U.S. imports (million dollars)-----	248	325	399	493	591	19.9	24.0
	Apparent U.S. consumption (million dollars)-----	3,618	3,740	3,783	4,186	4,466	6.7	5.5
	Trade balance (million dollars)-----	(188)	(276)	(338)	(412)	(472)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.9	8.7	10.5	11.8	13.2	12.4	17.6
	Ratio of exports to shipments (percent)-----	1.7	1.4	1.8	2.1	3.0	38.8	16.0
TX026	Hosiery:							
	Establishments (number)-----	641	639	634	630	649	3.0	0.1
	Employees (thousands)-----	70	70	72	72	70	(2.8)	0.3
	Capacity utilization (percent)-----	75	73	77	79	82	3.8	2.6
	U.S. shipments (million dollars)-----	3,259	3,119	3,301	3,449	3,517	2.0	2.6
	U.S. exports (million dollars)-----	30	28	35	41	52	26.8	16.0
	U.S. imports (million dollars)-----	39	67	76	81	90	11.1	20.5
	Apparent U.S. consumption (million dollars)-----	3,268	3,158	3,342	3,489	3,555	1.9	2.7
	Trade balance (million dollars)-----	(9)	(39)	(41)	(40)	(38)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.2	2.1	2.3	2.3	2.5	9.0	17.3
	Ratio of exports to shipments (percent)-----	0.9	0.9	1.1	1.2	1.5	24.4	13.1
TX027	Body-supporting garments:							
	Establishments (number)-----	182	164	178	181	131	(27.6)	(5.4)
	Employees (thousands)-----	17	15	15	15	14	(6.7)	(3.8)
	Capacity utilization (percent)-----	51	60	71	81	81	0.0	13.0
	U.S. shipments (million dollars)-----	902	956	937	1,015	1,100	8.4	4.7
	U.S. exports (million dollars)-----	88	78	92	103	128	24.3	10.8
	U.S. imports (million dollars)-----	202	231	225	264	310	17.4	10.4
	Apparent U.S. consumption (million dollars)-----	1,016	1,109	1,070	1,176	1,282	9.0	5.4
	Trade balance (million dollars)-----	(114)	(153)	(133)	(161)	(182)	-	-
	Ratio of imports to apparent consumption (percent)-----	19.9	20.8	21.0	22.4	24.2	7.7	4.8
	Ratio of exports to shipments (percent)-----	9.8	8.2	9.8	10.1	11.6	14.7	5.9

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX028	Neckwear: 9/							
	Establishments (number)-----	177	179	174	175	176	0.6	(0.3)
	Employees (thousands)-----	7	7	7	8	8	0.0	4.1
	Capacity utilization (percent)-----	90	94	99	86	97	12.8	0.6
	U.S. shipments (million dollars)-----	367	342	342	476	500	5.0	10.0
	U.S. exports (million dollars)-----	4	4	4	6	8	33.3	19.6
	U.S. imports (million dollars)-----	112	131	179	233	369	58.4	34.5
	Apparent U.S. consumption (million dollars)-----	475	469	517	703	861	22.5	17.3
	Trade balance (million dollars)-----	(108)	(127)	(175)	(227)	(361)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.6	27.9	34.6	33.1	42.9	29.3	14.6
	Ratio of exports to shipments (percent)-----	1.1	1.2	1.2	1.3	1.6	26.9	8.8
TX029	Gloves, including gloves for sports:							
	Establishments (number)-----	249	241	235	230	225	(2.2)	(2.5)
	Employees (thousands)-----	15	15	14	13	13	0.0	(4.2)
	Capacity utilization (percent)-----	84	86	87	87	85	(2.3)	0.4
	U.S. shipments (million dollars)-----	662	667	724	846	927	9.6	9.5
	U.S. exports (million dollars)-----	109	101	124	132	190	43.9	14.8
	U.S. imports (million dollars)-----	500	545	551	630	1,097	74.1	18.7
	Apparent U.S. consumption (million dollars)-----	1,053	1,111	1,151	1,344	1,834	36.5	13.9
	Trade balance (million dollars)-----	(391)	(444)	(427)	(498)	(907)	-	-
	Ratio of imports to apparent consumption (percent)-----	47.5	49.1	47.9	46.9	59.8	27.6	4.3
	Ratio of exports to shipments (percent)-----	16.5	15.1	17.1	15.6	20.5	31.4	4.8
TX030	Headwear							
	Establishments (number)-----	349	329	337	343	336	(2.0)	(0.3)
	Employees (thousands)-----	17	16	15	15	15	0.0	(3.1)
	Capacity utilization (percent)-----	48	41	43	41	45	9.8	(1.3)
	U.S. shipments (million dollars)-----	716	695	704	746	790	5.9	2.7
	U.S. exports (million dollars)-----	40	38	41	51	63	23.5	12.8
	U.S. imports (million dollars)-----	195	228	239	263	284	8.0	9.4
	Apparent U.S. consumption (million dollars)-----	871	885	902	958	1,011	5.5	3.8
	Trade balance (million dollars)-----	(155)	(190)	(198)	(212)	(221)	-	-
	Ratio of imports to apparent consumption (percent)-----	22.4	25.8	26.5	27.5	28.1	2.3	5.3
	Ratio of exports to shipments (percent)-----	5.6	5.5	5.8	6.8	8.0	16.6	9.8

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX031	Leather apparel and accessories:							
	Establishments (number)-----	506	499	477	486	504	3.7	(0.3)
	Employees (thousands)-----	14	13	12	13	14	7.7	0.0
	Capacity utilization (percent)-----	54	70	70	80	85	6.3	11.0
	U.S. shipments (million dollars)-----	473	442	437	527	530	0.6	4.1
	U.S. exports (million dollars)-----	13	14	25	37	52	40.5	45.4
	U.S. imports (million dollars)-----	451	425	464	699	938	34.2	21.7
	Apparent U.S. consumption (million dollars)-----	911	853	876	1,189	1,416	19.1	12.9
	Trade balance (million dollars)-----	(438)	(411)	(439)	(662)	(886)	-	-
	Ratio of imports to apparent consumption (percent)-----	49.5	49.8	53.0	58.8	66.2	12.7	7.8
	Ratio of exports to shipments (percent)-----	2.7	3.2	5.7	7.0	9.8	39.7	39.7
TX032	Fur apparel and other fur articles:							
	Establishments (number)-----	590	564	524	506	484	(4.3)	(4.9)
	Employees (thousands)-----	3	3	3	3	3	0.0	0.0
	Capacity utilization (percent)-----	73	70	70	75	70	(6.7)	(0.1)
	U.S. shipments (million dollars)-----	398	384	360	422	420	(0.5)	2.0
	U.S. exports (million dollars)-----	34	33	39	59	64	8.5	20.3
	U.S. imports (million dollars)-----	337	436	438	513	424	(17.3)	6.4
	Apparent U.S. consumption (million dollars)-----	701	787	759	876	780	(11.0)	3.3
	Trade balance (million dollars)-----	(303)	(403)	(399)	(454)	(360)	-	-
	Ratio of imports to apparent consumption (percent)-----	48.1	55.4	57.7	58.6	54.4	(7.2)	3.1
	Ratio of exports to shipments (percent)-----	8.5	8.6	10.8	14.0	15.2	9.0	17.9
TX033	Rubber, plastics, and coated-fabric apparel:							
	Establishments (number)-----	78	75	70	65	63	(3.1)	(5.5)
	Employees (thousands)-----	4	3	3	3	3	0.0	(5.6)
	Capacity utilization (percent)-----	55	60	60	60	60	0.0	1.8
	U.S. shipments (million dollars)-----	188	177	171	164	161	(1.8)	(3.8)
	U.S. exports (million dollars)-----	33	39	40	44	52	18.2	10.9
	U.S. imports (million dollars)-----	267	166	175	251	325	29.5	8.4
	Apparent U.S. consumption (million dollars)-----	422	304	306	371	434	17.0	2.6
	Trade balance (million dollars)-----	(234)	(127)	(135)	(207)	(273)	-	-
	Ratio of imports to apparent consumption (percent)-----	63.3	54.6	57.2	67.7	74.9	10.7	5.7
	Ratio of exports to shipments (percent)-----	17.6	22.0	23.4	26.8	32.3	20.4	15.2

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX034	Nonwoven, paper, and felt apparel and footwear:							
	Establishments (number)-----	25	25	25	25	25	0.0	0.0
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	75	75	75	75	75	0.0	0.0
	U.S. shipments (million dollars)-----	35	43	54	68	73	7.4	21.3
	U.S. exports (million dollars)-----	2	2	2	4	4	0.0	23.1
	U.S. imports (million dollars)-----	37	43	46	60	67	11.7	16.4
	Apparent U.S. consumption (million dollars)-----	70	84	98	124	136	9.7	18.7
	Trade balance (million dollars)-----	(35)	(41)	(44)	(56)	(63)	-	-
	Ratio of imports to apparent consumption (percent)-----	52.9	51.2	46.9	48.4	49.3	1.8	(2.0)
	Ratio of exports to shipments (percent)-----	5.7	4.7	3.7	5.9	5.5	(6.8)	1.5
TX035	Other wearing apparel:							
	Establishments (number)-----	6/	6/	6/	6/	6/	-	-
	Employees (thousands)-----	6/	6/	6/	6/	6/	-	-
	Capacity utilization (percent)-----	6/	6/	6/	6/	6/	-	-
	U.S. shipments (million dollars)-----	6/	6/	6/	6/	6/	-	-
	U.S. exports (million dollars)-----	113	86	104	131	163	24.4	12.2
	U.S. imports (million dollars)-----	1,269	1,042	1,034	1,235	1,352	9.5	3.0
	Apparent U.S. consumption (million dollars)-----	6/	6/	6/	6/	6/	-	-
	Trade balance (million dollars)-----	(1,156)	(956)	(930)	(1,104)	(1,189)	-	-
	Ratio of imports to apparent consumption (percent)-----	6/	6/	6/	6/	6/	-	-
	Ratio of exports to shipments (percent)-----	6/	6/	6/	6/	6/	-	-
TX036	Nonrubber footwear and footwear parts:							
	Establishments (number)-----	341	285	245	240	224	(6.7)	(9.6)
	Employees (thousands)-----	115	100	93	89	83	(6.7)	(7.4)
	Capacity utilization (percent)-----	71	73	68	70	70	0.0	(0.7)
	U.S. shipments (million dollars)-----	4,426	3,935	3,573	3,486	3,710	6.4	(4.6)
	U.S. exports (million dollars)-----	168	174	200	264	334	26.5	19.6
	U.S. imports (million dollars)-----	4,883	5,678	6,435	7,160	7,915	10.5	12.7
	Apparent U.S. consumption (million dollars)-----	9,141	9,439	9,808	10,382	11,291	8.8	5.3
	Trade balance (million dollars)-----	(4,715)	(5,504)	(6,235)	(6,896)	(7,581)	-	-
	Ratio of imports to apparent consumption (percent)-----	53.4	60.2	65.6	69.0	70.1	1.6	7.0
	Ratio of exports to shipments (percent)-----	3.8	4.4	5.6	7.6	9.0	18.9	25.4

Table B-2

Fibers, textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
TX037	Rubber footwear:							
	Establishments (number)-----	66	73	65	65	64	(1.5)	(1.8)
	Employees (thousands)-----	16	13	11	12	12	0.0	(6.3)
	Capacity utilization (percent)-----	77	92	92	86	85	(1.2)	1.3
	U.S. shipments (million dollars)-----	417	386	440	488	555	13.7	8.4
	U.S. exports (million dollars)-----	3	3	3	5	8	60.0	28.0
	U.S. imports (million dollars)-----	362	274	291	366	463	26.5	8.1
	Apparent U.S. consumption (million dollars)-----	776	657	728	849	1,010	19.0	8.1
	Trade balance (million dollars)-----	(359)	(271)	(288)	(361)	(455)	-	-
	Ratio of imports to apparent consumption (percent)-----	46.6	41.7	40.0	43.1	45.8	6.3	(0.0)
	Ratio of exports to shipments (percent)-----	0.7	0.8	0.7	1.0	1.4	40.7	18.1

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

2/ Not available owing to the diversity of products covered that include both agricultural and manufactured goods.

3/ Establishments primarily engaged in manufacturing thread.

4/ This data includes only the narrow fabrics and lace and netting industries. These industries account for the vast majority of this grouping.

5/ Capacity utilization is for the narrow fabrics industry.

6/ Not available.

7/ Data includes infants.

8/ Data includes dressing gowns.

9/ Includes ties, mufflers, scarves, shawls, and veils.

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
	Energy and chemicals:							
CH001	Electrical energy:							
	Establishments (number)-----	3,130	3,150	3,175	3,200	3,200	0.0	0.6
	Employees (thousands)-----	800	800	800	800	800	0.0	0.0
	Capacity utilization (percent)-----	82	82	82	82	82	0.0	0.0
	U.S. shipments (million dollars)-----	145,000	148,000	149,000	156,000	160,000	2.6	2.5
	U.S. exports (million dollars)-----	2/	2/	2/	2/	2/	-	-
	U.S. imports (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Apparent U.S. consumption (million dollars)-----	145,000	148,000	149,000	156,000	160,000	2.6	2.5
	Trade balance (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
CH002	Nuclear materials:							
	Establishments (number)-----	59	50	44	40	37	(7.5)	(10.9)
	Employees (thousands)-----	33	31	31	31	31	0.0	(1.2)
	Capacity utilization (percent)-----	67	65	52	52	50	(3.8)	(7.8)
	U.S. shipments (million dollars)-----	4,175	3,761	4,027	4,027	3,800	(5.6)	(1.2)
	U.S. exports (million dollars)-----	1,429	1,320	1,312	1,027	877	(14.6)	(11.6)
	U.S. imports (million dollars)-----	1,399	1,422	1,384	1,012	1,099	8.6	(7.9)
	Apparent U.S. consumption (million dollars)-----	4,145	3,863	4,099	4,012	4,022	0.2	(0.2)
	Trade balance (million dollars)-----	30	(102)	(72)	15	(222)	-	-
	Ratio of imports to apparent consumption (percent)-----	33.8	36.8	33.8	25.2	27.3	8.3	(7.7)
	Ratio of exports to shipments (percent)-----	34.2	35.1	32.6	25.5	23.1	(9.5)	(10.5)
CH003	Coal and other carbonaceous materials:							
	Establishments (number)-----	5,000	4,764	4,500	4,500	4,600	2.2	(2.2)
	Employees (thousands)-----	178	175	170	163	170	4.3	(1.6)
	Capacity utilization (percent)-----	90	88	85	85	90	5.9	(0.3)
	U.S. production (million dollars)-----	29,944	22,304	21,652	21,248	30,400	43.1	(0.2)
	U.S. exports (million dollars)-----	4,241	4,584	4,036	3,459	4,139	19.7	(3.2)
	U.S. imports (million dollars)-----	198	213	200	193	282	46.1	6.3
	Apparent U.S. consumption (million dollars)-----	25,901	17,933	17,816	17,982	26,543	47.6	0.5
	Trade balance (million dollars)-----	4,043	4,371	3,836	3,266	3,857	-	-
	Ratio of imports to apparent consumption (percent)-----	0.8	1.2	1.1	1.1	1.1	(1.0)	5.7
	Ratio of exports to production (percent)-----	14.2	20.6	18.6	16.3	13.6	(16.4)	(3.1)



Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH004	Coal chemicals:							
	Establishments (number)-----	27	27	30	28	28	0.0	1.1
	Employees (thousands)-----	20	20	20	18	18	0.0	(3.1)
	Capacity utilization (percent)-----	80	80	80	80	80	0.0	0.0
	U.S. production (million dollars)-----	394	390	390	390	390	0.0	(0.2)
	U.S. exports (million dollars)-----	390	360	360	371	453	22.1	3.4
	U.S. imports (million dollars)-----	103	101	74	70	69	(1.4)	(11.0)
	Apparent U.S. consumption (million dollars)-----	107	131	104	89	6	(93.3)	(45.9)
	Trade balance (million dollars)-----	287	259	286	301	384	-	-
	Ratio of imports to apparent consumption (percent)-----	96.3	77.1	71.2	78.7	1150.0	1,362.1	64.6
	Ratio of exports to production (percent)-----	99.0	92.3	92.3	95.1	116.2	22.1	3.6
CH005	Crude petroleum:							
	Establishments (number)-----	19,000	19,000	19,000	19,000	19,000	0.0	0.0
	Employees (thousands)-----	260	260	200	200	200	0.0	(7.6)
	Capacity utilization (percent)-----	100	100	100	100	100	0.0	0.0
	U.S. production (million dollars)-----	82,880	78,881	40,109	46,747	37,376	(20.0)	(19.1)
	U.S. exports (million dollars)-----	185	226	117	126	77	(38.9)	(20.8)
	U.S. imports (million dollars)-----	36,445	32,902	22,608	29,130	25,654	(11.9)	(7.9)
	Apparent U.S. consumption (million dollars)-----	119,140	111,557	62,600	75,751	62,953	(16.9)	(15.3)
	Trade balance (million dollars)-----	(36,260)	(32,676)	(22,491)	(29,004)	(25,577)	-	-
	Ratio of imports to apparent consumption (percent)-----	30.6	29.5	36.1	38.5	40.8	6.0	8.8
	Ratio of exports to production (percent)-----	0.2	0.3	0.3	0.3	0.2	(23.6)	(2.2)
CH006	Petroleum products:							
	Establishments (number)-----	214	191	189	182	182	0.0	(3.7)
	Employees (thousands)-----	95	86	85	82	82	0.0	(3.4)
	Capacity utilization (percent)-----	92	92	95	95	95	0.0	1.0
	U.S. shipments (million dollars)-----	177,692	167,502	110,716	117,243	138,782	18.4	(8.2)
	U.S. exports (million dollars)-----	5,118	5,269	4,361	4,711	4,603	(2.3)	(3.2)
	U.S. imports (million dollars)-----	19,060	16,355	11,138	11,735	11,928	1.6	(11.9)
	Apparent U.S. consumption (million dollars)-----	191,634	178,588	117,493	124,267	146,107	17.6	(8.7)
	Trade balance (million dollars)-----	(13,942)	(11,086)	(6,777)	(7,024)	(7,325)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.9	9.2	9.5	9.4	8.2	(13.5)	(3.6)
	Ratio of exports to shipments (percent)-----	2.9	3.1	3.9	4.0	3.3	(17.5)	5.4

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH007	Natural gas and components:							
	Establishments (number)-----	1,850	1,850	1,800	1,800	1,750	(2.8)	(1.4)
	Employees (thousands)-----	260	260	200	200	200	0.0	(7.6)
	Capacity utilization (percent)-----	80	80	80	80	80	0.0	0.0
	U.S. shipments (million dollars)-----	88,000	82,000	69,800	63,000	65,000	3.2	(8.3)
	U.S. exports (million dollars)-----	530	573	380	311	367	18.0	(12.6)
	U.S. imports (million dollars)-----	4,860	4,078	2,958	2,473	2,544	2.9	(16.4)
	Apparent U.S. consumption (million dollars)-----	92,330	85,505	72,378	65,162	67,177	3.1	(8.7)
	Trade balance (million dollars)-----	(4,330)	(3,505)	(2,578)	(2,162)	(2,177)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.3	4.8	4.1	3.8	3.8	(0.2)	(8.5)
	Ratio of exports to shipments (percent)-----	0.6	0.7	0.5	0.5	0.6	14.4	(4.7)
CH008	Major primary olefins:							
	Firms (number)-----	42	41	37	38	39	2.6	(2.2)
	Employees (thousands)-----	6	6	5	5	6	20.0	(0.8)
	Capacity utilization (percent)-----	85	84	93	97	98	1.0	4.4
	U.S. production (million dollars)-----	9,771	8,029	7,179	9,036	13,752	52.2	8.3
	U.S. exports (million dollars)-----	78	122	90	93	124	33.3	6.8
	U.S. imports (million dollars)-----	347	311	142	199	237	19.1	(11.4)
	Apparent U.S. consumption (million dollars)-----	10,040	8,218	7,231	9,142	13,865	51.7	7.8
	Trade balance (million dollars)-----	(269)	(189)	(52)	(106)	(113)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.5	3.8	2.0	2.2	1.7	(21.5)	(17.8)
	Ratio of exports to production (percent)-----	0.8	1.5	1.3	1.0	0.9	(12.4)	(1.4)
CH009	Other olefins:							
	Firms (number)-----	25	24	22	23	24	4.3	(1.2)
	Employees (thousands)-----	3/	3/	3/	3/	1	-	-
	Capacity utilization (percent)-----	85	87	90	88	90	2.3	1.3
	U.S. production (million dollars)-----	827	845	828	836	933	11.6	2.3
	U.S. exports (million dollars)-----	104	101	125	138	182	31.9	15.4
	U.S. imports (million dollars)-----	11	19	14	13	21	61.5	9.6
	Apparent U.S. consumption (million dollars)-----	734	763	717	711	772	8.6	0.3
	Trade balance (million dollars)-----	93	82	111	125	161	-	-
	Ratio of imports to apparent consumption (percent)-----	1.5	2.5	2.0	1.8	2.7	48.8	9.2
	Ratio of exports to production (percent)-----	12.6	12.0	15.1	16.5	19.5	18.2	12.8

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH010	Benzene, toluene, and mixed xylenes:							
	Firms (number)-----	39	32	32	31	31	0.0	(4.8)
	Employees (thousands)-----	3	2	2	2	2	0.0	(7.8)
	Capacity utilization (percent)-----	56	50	51	59	62	5.1	3.8
	U.S. production (million dollars)-----	3,500	3,246	2,292	3,331	3,310	(0.6)	(0.9)
	U.S. exports (million dollars)-----	139	84	64	190	205	7.9	17.3
	U.S. imports (million dollars)-----	349	405	284	292	258	(11.6)	(8.9)
	Apparent U.S. consumption (million dollars)-----	3,710	3,567	2,512	3,433	3,363	(2.0)	(2.3)
	Trade balance (million dollars)-----	(210)	(321)	(220)	(102)	(53)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.4	11.4	11.3	8.5	7.7	(9.8)	(6.7)
	Ratio of exports to production (percent)-----	4.0	2.6	2.8	5.7	6.2	8.6	18.3
CH011	Benzenoid commodity chemicals:							
	Firms (number)-----	72	62	56	54	54	0.0	(6.9)
	Employees (thousands)-----	16	15	14	14	14	0.0	(3.3)
	Capacity utilization (percent)-----	79	85	90	92	90	(2.2)	3.5
	U.S. production (million dollars)-----	9,783	9,241	8,711	11,618	13,083	12.6	8.4
	U.S. exports (million dollars)-----	793	775	676	948	1,275	34.5	12.2
	U.S. imports (million dollars)-----	185	245	214	308	478	55.2	23.7
	Apparent U.S. consumption (million dollars)-----	9,175	8,711	8,249	10,978	12,286	11.9	8.5
	Trade balance (million dollars)-----	608	530	462	640	797	-	-
	Ratio of imports to apparent consumption (percent)-----	2.0	2.8	2.6	2.8	3.9	38.7	14.0
	Ratio of exports to production (percent)-----	8.1	8.4	7.8	8.2	9.7	19.4	3.5
CH012	Benzenoid specialty chemicals:							
	Firms (number)-----	265	260	250	250	248	(0.8)	(1.7)
	Employees (thousands)-----	107	103	97	96	95	(1.0)	(3.0)
	Capacity utilization (percent)-----	77	79	86	89	85	(4.5)	3.2
	U.S. production (million dollars)-----	6,550	6,685	7,693	8,740	7,359	(15.8)	5.1
	U.S. exports (million dollars)-----	1,517	1,508	1,695	1,899	2,263	19.2	10.9
	U.S. imports (million dollars)-----	987	1,147	1,070	1,177	1,503	27.7	9.1
	Apparent U.S. consumption (million dollars)-----	6,020	6,324	7,068	8,018	6,599	(17.7)	4.3
	Trade balance (million dollars)-----	530	361	625	722	760	-	-
	Ratio of imports to apparent consumption (percent)-----	16.4	18.1	15.1	14.7	22.8	55.2	4.6
	Ratio of exports to production (percent)-----	23.2	22.6	22.0	21.7	30.8	41.5	5.4

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH013	Miscellaneous organic chemicals:							
	Firms (number)-----	112	114	104	102	102	0.0	(2.9)
	Employees (thousands)-----	95	97	87	85	85	0.0	(3.5)
	Capacity utilization (percent)-----	82	80	82	82	82	0.0	0.2
	U.S. shipments (million dollars)-----	30,000	32,062	28,760	30,900	35,100	13.6	2.8
	U.S. exports (million dollars)-----	2,954	2,930	3,157	3,791	4,818	27.1	13.2
	U.S. imports (million dollars)-----	1,845	1,965	2,216	2,404	3,222	34.0	14.1
	Apparent U.S. consumption (million dollars)-----	28,891	31,097	27,819	29,513	33,504	13.5	2.5
	Trade balance (million dollars)-----	1,109	965	941	1,387	1,596	-	-
	Ratio of imports to apparent consumption (percent)-----	6.4	6.3	8.0	8.1	9.6	18.1	11.3
	Ratio of exports to shipments (percent)-----	9.8	9.1	11.0	12.3	13.7	11.9	10.1
CH014	Selected inorganic chemicals and elements:							
	Firms (number)-----	480	480	480	480	480	0.0	0.0
	Employees (thousands)-----	84	84	84	84	84	0.0	0.0
	Capacity utilization (percent)-----	56	61	60	66	70	6.1	5.4
	U.S. shipments (million dollars)-----	1,667	1,354	1,311	1,523	2,006	31.7	5.0
	U.S. exports (million dollars)-----	482	360	396	542	674	24.4	11.4
	U.S. imports (million dollars)-----	1,258	1,109	926	971	1,317	35.6	(0.4)
	Apparent U.S. consumption (million dollars)-----	2,443	2,103	1,841	1,952	2,649	35.7	0.9
	Trade balance (million dollars)-----	(776)	(749)	(530)	(429)	(643)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.5	52.7	50.3	49.7	49.7	(0.1)	(1.3)
	Ratio of exports to shipments (percent)-----	28.9	26.6	30.2	35.6	33.6	(5.6)	6.1
CH015	Inorganic acids:							
	Establishments (number)-----	150	145	145	145	145	0.0	(0.7)
	Employees (thousands)-----	9	9	9	9	9	0.0	0.0
	Capacity utilization (percent)-----	70	70	80	80	80	0.0	4.1
	U.S. shipments (million dollars)-----	1,220	1,292	1,120	1,210	1,300	7.4	0.6
	U.S. exports (million dollars)-----	383	431	423	498	556	11.6	9.3
	U.S. imports (million dollars)-----	148	147	165	153	172	12.4	3.5
	Apparent U.S. consumption (million dollars)-----	985	1,008	862	865	916	5.9	(2.9)
	Trade balance (million dollars)-----	235	284	258	345	384	-	-
	Ratio of imports to apparent consumption (percent)-----	15.0	14.6	19.1	17.7	18.8	6.2	6.6
	Ratio of exports to shipments (percent)-----	31.4	33.4	37.8	41.2	42.8	3.9	8.6

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH016	Salts and other inorganic chemicals:							
	Establishments (number)-----	710	690	630	630	630	0.0	(3.2)
	Employees (thousands)-----	90	89	87	84	87	3.6	(1.2)
	Capacity utilization (percent)-----	73	73	73	77	78	1.3	1.9
	U.S. shipments (million dollars)-----	14,130	13,800	14,360	14,800	16,052	8.5	3.3
	U.S. exports (million dollars)-----	1,108	1,080	1,059	1,240	1,533	23.6	8.2
	U.S. imports (million dollars)-----	839	834	856	954	1,157	21.3	8.1
	Apparent U.S. consumption (million dollars)-----	13,861	13,554	14,157	14,514	15,676	8.0	3.2
	Trade balance (million dollars)-----	269	246	203	286	376	-	-
	Ratio of imports to apparent consumption (percent)-----	6.1	6.2	6.0	6.6	7.4	12.3	4.7
	Ratio of exports to shipments (percent)-----	7.8	7.8	7.4	8.4	9.6	14.0	4.7
CH017	Chlor-alkali chemicals:							
	Firms (number)-----	35	35	35	35	35	0.0	0.0
	Employees (thousands)-----	8	8	8	8	8	0.0	0.0
	Capacity utilization (percent)-----	77	79	86	89	90	1.1	4.4
	U.S. shipments (million dollars)-----	2,304	2,111	1,864	2,031	2,531	24.6	1.5
	U.S. exports (million dollars)-----	323	321	356	430	648	50.7	18.4
	U.S. imports (million dollars)-----	103	107	109	119	205	72.3	16.0
	Apparent U.S. consumption (million dollars)-----	2,084	1,897	1,617	1,720	2,088	21.4	(0.9)
	Trade balance (million dollars)-----	220	214	247	311	443	-	-
	Ratio of imports to apparent consumption (percent)-----	4.9	5.6	6.7	6.9	9.8	41.9	17.1
	Ratio of exports to shipments (percent)-----	14.0	15.2	19.1	21.2	25.6	20.9	16.6
CH018	Industrial gases:							
	Firms (number)-----	78	78	78	78	78	0.0	0.0
	Employees (thousands)-----	8	8	8	8	8	0.0	0.0
	Capacity utilization (percent)-----	84	78	76	76	75	(1.3)	(2.5)
	U.S. shipments (million dollars)-----	2,212	2,236	2,249	2,260	2,200	(2.7)	(0.0)
	U.S. exports (million dollars)-----	48	51	55	69	84	21.7	15.3
	U.S. imports (million dollars)-----	17	16	16	18	21	16.7	5.6
	Apparent U.S. consumption (million dollars)-----	2,181	2,201	2,210	2,209	2,137	(3.3)	(0.4)
	Trade balance (million dollars)-----	31	35	39	51	63	-	-
	Ratio of imports to apparent consumption (percent)-----	0.8	0.7	0.7	0.8	1.0	20.6	5.9
	Ratio of exports to shipments (percent)-----	2.2	2.3	2.4	3.1	3.8	25.1	15.3

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH019	Fertilizers:							
	Establishments (number)-----	800	750	690	675	650	(3.7)	(5.1)
	Employees (thousands)-----	48	47	43	42	41	(2.4)	(4.2)
	Capacity utilization (percent)-----	83	79	74	70	75	7.1	(3.2)
	U.S. shipments (million dollars)-----	8,669	8,049	6,132	6,601	7,150	8.3	(5.7)
	U.S. exports (million dollars)-----	2,495	2,374	1,620	1,792	1,967	9.8	(7.3)
	U.S. imports (million dollars)-----	1,843	1,572	1,321	1,213	1,575	29.8	(5.6)
	Apparent U.S. consumption (million dollars)-----	8,017	7,247	5,833	6,022	6,758	12.2	(5.1)
	Trade balance (million dollars)-----	652	802	299	579	392	-	-
	Ratio of imports to apparent consumption (percent)-----	23.0	21.7	22.6	20.1	23.3	15.7	(0.5)
	Ratio of exports to shipments (percent)-----	28.8	29.5	26.4	27.1	27.5	1.3	(1.7)
CH020	Certain inorganic pigments:							
	Firms (number)-----	95	95	98	98	100	2.0	1.3
	Employees (thousands)-----	12	12	13	13	14	7.7	4.0
	Capacity utilization (percent)-----	75	75	75	75	75	0.0	0.0
	U.S. shipments (million dollars)-----	2,500	2,600	2,600	2,550	2,650	3.9	1.0
	U.S. exports (million dollars)-----	110	111	148	177	205	15.8	18.7
	U.S. imports (million dollars)-----	110	105	96	124	161	29.8	9.7
	Apparent U.S. consumption (million dollars)-----	2,500	2,594	2,548	2,497	2,606	4.4	0.5
	Trade balance (million dollars)-----	0	6	52	53	44	-	-
	Ratio of imports to apparent consumption (percent)-----	4.4	4.0	3.8	5.0	6.2	24.4	9.2
	Ratio of exports to shipments (percent)-----	4.4	4.3	5.7	6.9	7.7	11.4	17.5
CH021	Synthetic organic pigments:							
	Firms (number)-----	32	32	32	32	32	0.0	0.0
	Employees (thousands)-----	11	11	11	11	11	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	493	448	513	586	694	18.4	10.0
	U.S. exports (million dollars)-----	80	74	88	120	145	20.8	18.2
	U.S. imports (million dollars)-----	103	104	121	155	165	6.5	14.4
	Apparent U.S. consumption (million dollars)-----	516	478	546	621	714	15.0	9.5
	Trade balance (million dollars)-----	(23)	(30)	(33)	(35)	(20)	-	-
	Ratio of imports to apparent consumption (percent)-----	20.0	21.8	22.2	25.0	23.1	(7.4)	4.4
	Ratio of exports to shipments (percent)-----	16.2	16.5	17.2	20.5	20.9	2.0	7.5

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH022	Synthetic dyes and azoic couples							
	Firms (number)-----	33	33	33	33	33	0.0	0.0
	Employees (thousands)-----	18	18	18	18	18	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	691	651	652	677	766	13.1	2.5
	U.S. exports (million dollars)-----	73	59	82	91	105	15.4	12.3
	U.S. imports (million dollars)-----	256	251	371	468	440	(6.0)	18.6
	Apparent U.S. consumption (million dollars)-----	874	843	941	1,054	1,101	4.5	7.1
	Trade balance (million dollars)-----	(183)	(192)	(289)	(377)	(335)	-	-
	Ratio of imports to apparent consumption (percent)-----	29.3	29.8	39.4	44.4	40.0	(10.0)	10.7
	Ratio of exports to shipments (percent)-----	10.6	9.1	12.6	13.4	13.7	2.0	9.6
CH023	Synthetic tanning agents:							
	Firms (number)-----	5	5	5	5	5	0.0	0.0
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	15	16	16	16	20	25.0	5.9
	U.S. exports (million dollars)-----	12	11	10	12	17	41.7	8.2
	U.S. imports (million dollars)-----	19	20	21	24	28	16.7	10.1
	Apparent U.S. consumption (million dollars)-----	22	25	27	28	31	10.7	8.3
	Trade balance (million dollars)-----	(7)	(9)	(11)	(12)	(11)	-	-
	Ratio of imports to apparent consumption (percent)-----	86.4	80.0	77.8	85.7	90.3	5.4	1.6
	Ratio of exports to shipments (percent)-----	80.0	68.8	62.5	75.0	85.0	13.3	2.1
CH024	Natural tanning and dyeing materials:							
	Firms (number)-----	5	5	5	5	5	0.0	0.0
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	20	20	20	20	20	0.0	0.0
	U.S. exports (million dollars)-----	4	4	3	4	5	25.0	4.6
	U.S. imports (million dollars)-----	30	31	36	40	57	42.5	16.6
	Apparent U.S. consumption (million dollars)-----	46	47	53	56	72	28.6	11.3
	Trade balance (million dollars)-----	(26)	(27)	(33)	(36)	(52)	-	-
	Ratio of imports to apparent consumption (percent)-----	65.2	66.0	67.9	71.4	79.2	10.8	4.8
	Ratio of exports to shipments (percent)-----	20.0	20.0	15.0	20.0	25.0	25.0	4.6

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH025	Photographic chemicals and preparations: 4/							
	Firms (number)-----	9	9	9	9	9	0.0	0.0
	Employees (thousands)-----	7	7	7	7	7	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	17	23	37	47	48	2.1	32.2
	U.S. exports (million dollars)-----	104	103	110	106	113	6.6	2.0
	U.S. imports (million dollars)-----	13	15	21	32	196	512.5	85.6
	Apparent U.S. consumption (million dollars)-----	2/	2/	2/	2/	2/	-	-
	Trade balance (million dollars)-----	91	88	89	74	(83)	-	-
	Ratio of imports to apparent consumption (percent)-----	2/	2/	2/	2/	2/	-	-
	Ratio of exports to shipments (percent)-----	2/	2/	2/	2/	2/	-	-
CH026	Pesticide products and formulations:							
	Firms (number)-----	60	60	60	60	60	0.0	0.0
	Employees (thousands)-----	25	25	25	25	25	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	4,730	4,437	4,234	4,170	4,354	4.4	(2.3)
	U.S. exports (million dollars)-----	970	870	928	996	1,183	18.8	5.5
	U.S. imports (million dollars)-----	286	340	301	360	484	34.4	11.7
	Apparent U.S. consumption (million dollars)-----	4,046	3,907	3,607	3,534	3,655	3.4	(3.0)
	Trade balance (million dollars)-----	684	530	627	636	699	-	-
	Ratio of imports to apparent consumption (percent)-----	7.1	8.7	8.3	10.2	13.2	30.0	15.2
	Ratio of exports to shipments (percent)-----	20.5	19.6	21.9	23.9	27.2	13.8	7.9
CH027	Adhesives, glues, and gelatin:							
	Establishments (number)-----	634	639	643	648	653	0.8	0.7
	Employees (thousands)-----	16	16	16	18	20	11.1	5.8
	Capacity utilization (percent)-----	80	78	80	82	85	3.7	1.7
	U.S. shipments (million dollars)-----	2,873	2,964	3,048	3,626	3,925	8.2	8.6
	U.S. exports (million dollars)-----	115	109	122	142	176	23.9	11.8
	U.S. imports (million dollars)-----	79	94	129	158	162	2.5	21.6
	Apparent U.S. consumption (million dollars)-----	2,837	2,949	3,055	3,642	3,911	7.4	8.9
	Trade balance (million dollars)-----	36	15	(7)	(16)	14	-	-
	Ratio of imports to apparent consumption (percent)-----	2.8	3.2	4.2	4.3	4.1	(4.5)	11.7
	Ratio of exports to shipments (percent)-----	4.0	3.7	4.0	3.9	4.5	14.5	2.9



Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH028	Medicinal chemicals, except antibiotics:							
	Firms (number)-----	75	75	75	75	75	0.0	0.0
	Employees (thousands)-----	167	164	165	165	167	1.2	0.1
	Capacity utilization (percent)-----	77	78	80	80	80	0.0	1.0
	U.S. shipments (million dollars)-----	26,500	28,600	30,800	33,200	34,200	3.0	6.8
	U.S. exports (million dollars)-----	1,856	1,887	2,206	2,324	2,877	23.8	11.5
	U.S. imports (million dollars)-----	1,223	1,384	1,609	1,856	2,277	22.7	16.6
	Apparent U.S. consumption (million dollars)-----	25,867	28,097	30,203	32,732	33,600	2.7	7.0
	Trade balance (million dollars)-----	633	503	597	468	600	-	-
	Ratio of imports to apparent consumption (percent)-----	4.7	4.9	5.3	5.7	6.8	19.5	9.0
	Ratio of exports to shipments (percent)-----	7.0	6.6	7.2	7.0	8.4	20.2	4.3
CH029	Antibiotics:							
	Firms (number)-----	20	20	20	20	20	0.0	0.0
	Employees (thousands)-----	124	124	123	123	124	0.8	(0.1)
	Capacity utilization (percent)-----	77	78	80	80	79	(1.3)	0.8
	U.S. shipments (million dollars)-----	1,370	1,200	2,000	2,200	2,200	0.0	16.8
	U.S. exports (million dollars)-----	823	836	940	949	1,124	18.4	7.8
	U.S. imports (million dollars)-----	251	304	366	520	593	14.0	25.3
	Apparent U.S. consumption (million dollars)-----	798	668	1,426	1,771	1,669	(5.8)	27.8
	Trade balance (million dollars)-----	572	532	574	429	531	-	-
	Ratio of imports to apparent consumption (percent)-----	31.5	45.5	25.7	29.4	35.5	21.0	(1.9)
	Ratio of exports to shipments (percent)-----	60.1	69.7	47.0	43.1	51.1	18.4	(7.7)
CH030	Essential oils and other flavoring materials:							
	Establishments (number)-----	62	60	58	58	58	0.0	(1.7)
	Employees (thousands)-----	56	56	55	54	54	0.0	(1.1)
	Capacity utilization (percent)-----	75	75	75	75	75	0.0	0.0
	U.S. shipments (million dollars)-----	1,360	1,435	1,450	1,440	1,500	4.2	2.0
	U.S. exports (million dollars)-----	318	312	337	383	443	15.7	9.1
	U.S. imports (million dollars)-----	362	431	415	435	481	10.6	5.9
	Apparent U.S. consumption (million dollars)-----	1,404	1,554	1,528	1,492	1,538	3.1	1.4
	Trade balance (million dollars)-----	(44)	(119)	(78)	(52)	(38)	-	-
	Ratio of imports to apparent consumption (percent)-----	25.8	27.7	27.2	29.2	31.3	7.3	4.5
	Ratio of exports to shipments (percent)-----	23.4	21.7	23.2	26.6	29.5	11.0	6.9

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH031	Perfumes, cosmetics, and toiletries:							
	Establishments (number)-----	642	645	647	647	650	0.5	0.3
	Employees (thousands)-----	61	60	57	55	57	3.6	(2.2)
	Capacity utilization (percent)-----	82	84	83	83	85	2.4	0.6
	U.S. shipments (million dollars)-----	12,155	12,826	13,470	14,040	15,000	6.8	5.2
	U.S. exports (million dollars)-----	295	282	286	343	451	31.5	11.0
	U.S. imports (million dollars)-----	293	334	388	446	518	16.1	15.4
	Apparent U.S. consumption (million dollars)-----	12,153	12,878	13,572	14,143	15,067	6.5	5.4
	Trade balance (million dollars)-----	2	(52)	(102)	(103)	(67)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.4	2.6	2.9	3.2	3.4	9.0	9.5
	Ratio of exports to shipments (percent)-----	2.4	2.2	2.1	2.4	3.0	23.1	5.5
CH032	Soaps, detergents, and surface-active agents:							
	Establishments (number)-----	935	938	940	945	945	0.0	0.3
	Employees (thousands)-----	42	43	44	44	44	0.0	1.2
	Capacity utilization (percent)-----	82	82	82	83	84	1.2	0.6
	U.S. shipments (million dollars)-----	10,845	10,997	11,058	11,377	11,700	2.8	1.9
	U.S. exports (million dollars)-----	333	303	327	384	431	12.2	7.8
	U.S. imports (million dollars)-----	150	213	242	245	305	24.5	16.9
	Apparent U.S. consumption (million dollars)-----	10,662	10,907	10,973	11,238	11,574	3.0	2.0
	Trade balance (million dollars)-----	183	90	85	139	126	-	-
	Ratio of imports to apparent consumption (percent)-----	1.4	2.0	2.2	2.2	2.6	20.9	14.6
	Ratio of exports to shipments (percent)-----	3.1	2.8	3.0	3.4	3.7	9.1	5.8
CH033	Fatty chemicals:							
	Establishments (number)-----	13	12	12	12	12	0.0	(1.6)
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	80	80	80	80	80	0.0	0.0
	U.S. shipments (million dollars)-----	400	400	400	400	400	0.0	0.0
	U.S. exports (million dollars)-----	99	84	80	95	112	17.9	3.8
	U.S. imports (million dollars)-----	32	30	36	44	52	18.2	14.5
	Apparent U.S. consumption (million dollars)-----	333	346	356	349	340	(2.6)	0.5
	Trade balance (million dollars)-----	67	54	44	51	60	-	-
	Ratio of imports to apparent consumption (percent)-----	9.6	8.7	10.1	12.6	15.3	21.3	13.9
	Ratio of exports to shipments (percent)-----	24.8	21.0	20.0	23.8	28.0	17.9	3.8

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH034	Miscellaneous chemicals specialties:							
	Establishments (number)-----	1,700	1,700	1,700	1,700	1,700	0.0	0.0
	Employees (thousands)-----	60	60	60	60	60	0.0	0.0
	Capacity utilization (percent)-----	85	85	85	85	85	0.0	0.0
	U.S. shipments (million dollars)-----	7,300	8,000	8,725	9,540	10,440	9.4	9.3
	U.S. exports (million dollars)-----	387	419	414	477	567	18.9	9.3
	U.S. imports (million dollars)-----	149	167	180	216	242	12.0	13.1
	Apparent U.S. consumption (million dollars)-----	7,062	7,748	8,491	9,279	10,115	9.0	9.4
	Trade balance (million dollars)-----	238	252	234	261	325	-	-
	Ratio of imports to apparent consumption (percent)-----	2.1	2.2	2.1	2.3	2.4	2.8	3.3
	Ratio of exports to shipments (percent)-----	5.3	5.2	4.7	5.0	5.4	8.6	0.0
CH035	Paints, inks, and related items:							
	Firms (number)-----	2,400	2,400	2,400	2,400	2,400	0.0	0.0
	Employees (thousands)-----	80	82	85	85	90	5.9	2.8
	Capacity utilization (percent)-----	80	80	80	80	80	0.0	0.0
	U.S. shipments (million dollars)-----	13,000	13,300	13,000	12,800	13,500	5.5	0.4
	U.S. exports (million dollars)-----	528	503	550	683	780	14.2	11.5
	U.S. imports (million dollars)-----	392	432	532	599	638	6.5	13.9
	Apparent U.S. consumption (million dollars)-----	12,864	13,229	12,982	12,716	13,358	5.0	0.4
	Trade balance (million dollars)-----	136	71	18	84	142	-	-
	Ratio of imports to apparent consumption (percent)-----	3.0	3.3	4.1	4.7	4.8	1.4	13.5
	Ratio of exports to shipments (percent)-----	4.1	3.8	4.2	5.3	5.8	8.3	11.1
CH036	Explosives and propellant powders:							
	Firms (number)-----	115	121	127	129	134	3.9	3.8
	Employees (thousands)-----	13	13	13	14	14	0.0	2.2
	Capacity utilization (percent)-----	70	70	70	70	70	0.0	0.0
	U.S. shipments (million dollars)-----	1,136	1,111	1,020	1,119	1,250	11.7	2.0
	U.S. exports (million dollars)-----	230	183	178	218	256	17.4	4.0
	U.S. imports (million dollars)-----	88	106	117	120	126	5.0	8.8
	Apparent U.S. consumption (million dollars)-----	994	1,034	959	1,021	1,120	9.7	2.3
	Trade balance (million dollars)-----	142	77	61	98	130	-	-
	Ratio of imports to apparent consumption (percent)-----	8.9	10.3	12.2	11.8	11.3	(4.3)	6.4
	Ratio of exports to shipments (percent)-----	20.2	16.5	17.5	19.5	20.5	5.1	1.9

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH037	Polyethylene resins in primary forms:							
	Establishments (number)-----	26	24	24	25	25	0.0	(0.4)
	Employees (thousands)-----	25	24	24	24	23	(4.2)	(1.7)
	Capacity utilization (percent)-----	91	92	93	98	95	(3.1)	1.5
	U.S. production (million dollars)-----	5,701	5,214	4,918	6,086	9,485	55.8	12.4
	U.S. exports (million dollars)-----	639	627	635	803	1,083	34.9	13.9
	U.S. imports (million dollars)-----	91	117	176	220	380	72.7	41.8
	Apparent U.S. consumption (million dollars)-----	5,153	4,704	4,459	5,503	8,782	59.6	13.0
	Trade balance (million dollars)-----	548	510	459	583	703	-	-
	Ratio of imports to apparent consumption (percent)-----	1.8	2.5	3.9	4.0	4.3	8.2	25.4
	Ratio of exports to production (percent)-----	11.2	12.0	12.9	13.2	11.4	(13.5)	1.3
CH038	Polypropylene resins in primary forms:							
	Establishments (number)-----	16	16	17	17	17	0.0	1.8
	Employees (thousands)-----	24	20	18	18	17	(5.6)	(7.6)
	Capacity utilization (percent)-----	92	85	95	97	88	(9.3)	0.4
	U.S. production (million dollars)-----	1,982	1,922	2,002	2,651	3,483	31.4	15.6
	U.S. exports (million dollars)-----	322	276	378	610	871	42.8	32.1
	U.S. imports (million dollars)-----	10	12	18	18	28	55.6	28.0
	Apparent U.S. consumption (million dollars)-----	1,670	1,658	1,642	2,059	2,640	28.2	12.0
	Trade balance (million dollars)-----	312	264	360	592	843	-	-
	Ratio of imports to apparent consumption (percent)-----	0.6	0.7	1.1	0.9	1.1	21.3	14.2
	Ratio of exports to production (percent)-----	16.2	14.4	18.9	23.0	25.0	8.7	14.3
CH039	PVC resins in primary forms:							
	Establishments (number)-----	34	34	31	29	26	(10.3)	(6.7)
	Employees (thousands)-----	10	10	9	8	7	(12.5)	(8.9)
	Capacity utilization (percent)-----	82	89	90	98	89	(9.2)	2.6
	U.S. production (million dollars)-----	2,185	2,067	2,185	3,252	3,521	8.3	15.1
	U.S. exports (million dollars)-----	155	119	148	198	288	45.5	19.1
	U.S. imports (million dollars)-----	92	96	61	50	63	26.0	(13.1)
	Apparent U.S. consumption (million dollars)-----	2,122	2,044	2,098	3,104	3,296	6.2	13.9
	Trade balance (million dollars)-----	63	23	87	148	225	-	-
	Ratio of imports to apparent consumption (percent)-----	4.3	4.7	2.9	1.6	1.9	18.7	(23.7)
	Ratio of exports to shipments (percent)-----	7.1	5.8	6.8	6.1	8.2	34.3	3.5

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH040	Styrene polymers in primary forms:							
	Establishments (number)-----	55	62	62	62	62	0.0	2.4
	Employees (thousands)-----	12	14	14	14	14	0.0	3.1
	Capacity utilization (percent)-----	70	70	93	95	94	(1.1)	9.4
	U.S. production (million dollars)-----	3,908	3,759	3,468	4,887	7,164	46.6	15.9
	U.S. exports (million dollars)-----	160	139	177	276	467	69.2	32.7
	U.S. imports (million dollars)-----	117	80	85	116	93	(19.8)	(0.9)
	Apparent U.S. consumption (million dollars)-----	3,865	3,700	3,376	4,727	6,790	43.6	14.7
	Trade balance (million dollars)-----	43	59	92	160	374	-	-
	Ratio of imports to apparent consumption (percent)-----	3.0	2.2	2.5	2.5	1.4	(44.2)	(13.6)
	Ratio of exports to production (percent)-----	4.1	3.7	5.1	5.6	6.5	15.4	14.5
CH041	PET and other polyester resins:							
	Establishments (number)-----	26	30	29	29	27	(6.9)	0.4
	Employees (thousands)-----	4	4	5	6	5	(16.7)	8.9
	Capacity utilization (percent)-----	85	83	87	94	88	(6.4)	2.0
	U.S. production (million dollars)-----	1,012	1,028	1,397	2,265	2,484	9.7	29.5
	U.S. exports (million dollars)-----	105	101	84	78	121	55.1	0.3
	U.S. imports (million dollars)-----	17	21	23	17	23	35.3	4.0
	Apparent U.S. consumption (million dollars)-----	924	948	1,336	2,204	2,386	8.3	31.5
	Trade balance (million dollars)-----	88	80	61	61	98	-	-
	Ratio of imports to apparent consumption (percent)-----	1.8	2.2	1.7	0.8	1.0	25.0	(20.9)
	Ratio of exports to production (percent)-----	10.4	9.8	6.0	3.4	4.9	41.5	(22.6)
CH042	Other plastics in primary forms:							
	Establishments (number)-----	318	314	277	280	283	1.1	(3.4)
	Employees (thousands)-----	112	106	101	101	103	2.0	(2.1)
	Capacity utilization (percent)-----	79	80	93	95	91	(4.2)	4.7
	U.S. production (million dollars)-----	9,822	10,009	9,631	11,194	12,620	12.7	6.3
	U.S. exports (million dollars)-----	1,446	1,387	1,602	1,945	2,510	29.0	15.5
	U.S. imports (million dollars)-----	367	434	498	553	614	11.0	13.6
	Apparent U.S. consumption (million dollars)-----	8,743	9,056	8,527	9,802	10,724	9.4	5.0
	Trade balance (million dollars)-----	1,079	953	1,104	1,392	1,896	-	-
	Ratio of imports to apparent consumption (percent)-----	4.2	4.8	5.8	5.6	5.7	1.5	8.2
	Ratio of exports to production (percent)-----	14.7	13.9	16.6	17.4	19.9	14.5	8.6

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH043	SBR rubber in primary forms:							
	Establishments (number)-----	14	17	16	14	15	7.1	(0.6)
	Employees (thousands)-----	5	4	4	4	4	0.0	(4.4)
	Capacity utilization (percent)-----	77	60	69	79	81	2.5	3.8
	U.S. production (million dollars)-----	920	547	757	870	1,030	18.4	7.1
	U.S. exports (million dollars)-----	90	75	95	143	148	3.5	17.8
	U.S. imports (million dollars)-----	64	68	67	72	78	8.3	4.6
	Apparent U.S. consumption (million dollars)-----	894	540	729	799	960	20.2	5.5
	Trade balance (million dollars)-----	26	7	28	71	70	-	-
	Ratio of imports to apparent consumption (percent)-----	7.2	12.6	9.2	9.0	8.1	(9.8)	(0.8)
	Ratio of exports to production (percent)-----	9.8	13.7	12.5	16.4	14.4	(12.6)	10.0
CH044	Natural rubber and other synthetic rubber:							
	Establishments (number)-----	32	37	35	34	33	(2.9)	(0.2)
	Employees (thousands)-----	8	7	7	7	7	0.0	(2.6)
	Capacity utilization (percent)-----	70	60	65	75	78	4.0	4.5
	U.S. production (million dollars)-----	2,952	2,975	2,875	3,123	3,287	5.3	2.7
	U.S. exports (million dollars)-----	640	616	671	793	930	17.3	10.5
	U.S. imports (million dollars)-----	1,096	968	897	1,080	1,403	29.9	6.2
	Apparent U.S. consumption (million dollars)-----	3,408	3,327	3,101	3,410	3,760	10.3	2.2
	Trade balance (million dollars)-----	(456)	(352)	(226)	(287)	(473)	-	-
	Ratio of imports to apparent consumption (percent)-----	32.2	29.1	28.9	31.7	37.3	17.8	3.9
	Ratio of exports to shipments (percent)-----	21.7	20.7	23.3	25.4	28.3	11.4	7.6
CH045	Pneumatic tires and tubes (new):							
	Establishments (number)-----	45	44	41	39	39	0.0	(4.0)
	Employees (thousands)-----	70	70	66	64	67	4.7	(1.8)
	Capacity utilization (percent)-----	99	93	97	101	99	(2.0)	0.8
	U.S. shipments (million dollars)-----	9,941	9,673	10,013	10,371	10,900	5.1	2.6
	U.S. exports (million dollars)-----	334	293	269	463	698	50.8	21.3
	U.S. imports (million dollars)-----	1,780	1,860	1,931	2,212	2,389	8.0	7.9
	Apparent U.S. consumption (million dollars)-----	11,387	11,240	11,675	12,120	12,591	3.9	2.8
	Trade balance (million dollars)-----	(1,446)	(1,567)	(1,662)	(1,749)	(1,691)	-	-
	Ratio of imports to apparent consumption (percent)-----	15.6	16.5	16.5	18.3	19.0	4.0	5.0
	Ratio of exports to shipments (percent)-----	3.4	3.0	2.7	4.5	6.4	43.4	18.3

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH046	Other tires:							
	Establishments (number)-----	2,600	2,500	2,419	2,248	2,225	(1.0)	(4.1)
	Employees (thousands)-----	9	8	8	8	8	0.0	(2.3)
	Capacity utilization (percent)-----	88	85	83	85	84	(1.2)	(0.9)
	U.S. shipments (million dollars)-----	2,251	2,051	1,958	1,955	1,988	1.7	(2.9)
	U.S. exports (million dollars)-----	58	50	46	51	74	45.1	5.2
	U.S. imports (million dollars)-----	56	62	54	58	56	(3.4)	(0.7)
	Apparent U.S. consumption (million dollars)-----	2,249	2,063	1,966	1,962	1,970	0.4	(3.1)
	Trade balance (million dollars)-----	2	(12)	(8)	(7)	18	-	-
	Ratio of imports to apparent consumption (percent)-----	2.5	3.0	2.7	3.0	2.8	(3.8)	2.5
	Ratio of exports to shipments (percent)-----	2.6	2.4	2.3	2.6	3.7	42.7	8.4
CH047	Plastic or rubber semifabricated forms:							
	Establishments (number)-----	12,900	13,200	13,200	13,300	13,300	0.0	0.7
	Employees (thousands)-----	620	640	640	660	660	0.0	1.6
	Capacity utilization (percent)-----	80	78	78	80	80	0.0	0.3
	U.S. shipments (million dollars)-----	55,600	57,880	63,670	70,050	71,200	1.6	7.1
	U.S. exports (million dollars)-----	965	907	1,003	1,226	1,524	24.3	12.9
	U.S. imports (million dollars)-----	691	721	832	928	1,130	21.8	13.2
	Apparent U.S. consumption (million dollars)-----	55,326	57,694	63,499	69,752	70,806	1.5	7.1
	Trade balance (million dollars)-----	274	186	171	298	394	-	-
	Ratio of imports to apparent consumption (percent)-----	1.2	1.2	1.3	1.3	1.6	20.0	5.7
	Ratio of exports to shipments (percent)-----	1.7	1.6	1.6	1.8	2.1	22.3	5.4
CH048	Plastic containers and closures:							
	Establishments (number)-----	1,410	1,500	1,590	1,680	1,750	4.2	5.6
	Employees (thousands)-----	98	105	113	122	126	3.3	6.7
	Capacity utilization (percent)-----	70	80	85	87	90	3.4	6.0
	U.S. shipments (million dollars)-----	6,200	6,572	7,000	7,500	7,900	5.3	6.4
	U.S. exports (million dollars)-----	196	193	210	261	357	36.8	16.2
	U.S. imports (million dollars)-----	210	272	343	404	538	33.2	25.6
	Apparent U.S. consumption (million dollars)-----	6,214	6,651	7,133	7,643	8,081	5.7	6.9
	Trade balance (million dollars)-----	(14)	(79)	(133)	(143)	(181)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.4	4.1	4.8	5.3	6.7	26.0	17.5
	Ratio of exports to shipments (percent)-----	3.2	2.9	3.0	3.5	4.5	29.9	9.2

Table B-3

Energy and chemicals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change, 1988 over 1987	Annual rate of change 1/ 1984-1988
CH049	Hose, belting and plastic pipe:							
	Establishments (number)-----	250	250	250	250	245	(2.0)	(0.4)
	Employees (thousands)-----	40	40	40	40	39	(2.5)	(0.5)
	Capacity utilization (percent)-----	70	70	70	70	73	4.3	0.8
	U.S. shipments (million dollars)-----	3,995	3,950	4,125	4,350	4,500	3.4	3.4
	U.S. exports (million dollars)-----	306	263	268	331	338	2.1	4.4
	U.S. imports (million dollars)-----	276	318	358	419	512	22.2	16.3
	Apparent U.S. consumption (million dollars)-----	3,965	4,005	4,215	4,438	4,674	5.3	4.4
	Trade balance (million dollars)-----	30	(55)	(90)	(88)	(174)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.0	7.9	8.5	9.4	11.0	16.0	11.4
	Ratio of exports to shipments (percent)-----	7.7	6.7	6.5	7.6	7.5	(1.3)	0.9
CH050	Miscellaneous rubber or plastics products:							
	Establishments (number)-----	12,900	13,200	13,200	13,300	13,300	0.0	0.7
	Employees (thousands)-----	620	635	650	670	680	1.5	2.4
	Capacity utilization (percent)-----	80	78	78	80	85	6.3	1.5
	U.S. shipments (million dollars)-----	55,600	57,880	63,670	70,044	75,500	7.8	8.4
	U.S. exports (million dollars)-----	898	848	900	1,106	1,410	27.5	12.4
	U.S. imports (million dollars)-----	1,482	1,797	2,274	2,778	3,131	12.7	21.3
	Apparent U.S. consumption (million dollars)-----	56,184	58,829	65,044	71,716	77,221	7.7	8.7
	Trade balance (million dollars)-----	(584)	(949)	(1,374)	(1,672)	(1,721)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.6	3.1	3.5	3.9	4.1	4.7	11.6
	Ratio of exports to shipments (percent)-----	1.6	1.5	1.4	1.6	1.9	18.3	3.7

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

2/ Not available.

3/ Less than 500.

4/ 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.



Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
Minerals and metals:								
MM001	Clays and nonmetallic minerals and products, not elsewhere:							
	Establishments (number)-----	430	420	430	340	330	(2.9)	(7.1)
	Employees (thousands)-----	17	16	16	14	14	0.0	(5.1)
	Capacity utilization (percent)-----	77	82	75	79	82	3.8	0.9
	U.S. shipments (million dollars)-----	1,787	1,734	1,853	1,961	2,284	16.5	6.3
	U.S. exports (million dollars)-----	390	385	435	576	633	9.9	14.7
	U.S. imports (million dollars)-----	56	57	80	83	97	16.9	15.9
	Apparent U.S. consumption (million dollars)-----	1,453	1,406	1,498	1,468	1,748	19.1	4.2
	Trade balance (million dollars)-----	334	328	355	493	536	-	-
	Ratio of imports to apparent consumption (percent)-----	3.9	4.1	5.3	5.7	5.5	(1.9)	11.2
	Ratio of exports to shipments (percent)-----	21.8	22.2	23.5	29.4	27.7	(5.6)	7.9
MM002	Certain miscellaneous mineral substances:							
	Establishments (number)-----	12	12	12	10	10	0.0	(5.3)
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	90	83	92	92	90	(2.2)	1.0
	U.S. shipments (million dollars)-----	41	41	41	44	45	2.3	2.6
	U.S. exports (million dollars)-----	21	16	19	18	19	5.6	(0.8)
	U.S. imports (million dollars)-----	63	48	44	47	61	29.8	(0.9)
	Apparent U.S. consumption (million dollars)-----	83	73	66	73	87	19.2	0.9
	Trade balance (million dollars)-----	(42)	(32)	(25)	(29)	(42)	-	-
	Ratio of imports to apparent consumption (percent)-----	75.9	65.8	66.7	64.4	70.1	8.9	(1.8)
	Ratio of exports to shipments (percent)-----	51.2	39.0	46.3	40.9	42.2	3.2	(3.3)
MM003	Iron ores and concentrates:							
	Establishments (number)-----	20	20	19	19	21	10.5	0.5
	Employees (thousands)-----	8	8	6	6	7	16.7	(5.4)
	Capacity utilization (percent)-----	56	56	46	55	86	56.4	8.8
	U.S. shipments (million dollars)-----	1,945	2,248	2,077	1,503	1,717	14.2	(6.3)
	U.S. exports (million dollars)-----	240	241	205	199	195	(2.0)	(5.9)
	U.S. imports (million dollars)-----	528	464	464	407	481	18.2	(3.1)
	Apparent U.S. consumption (million dollars)-----	2,233	2,471	2,336	1,711	2,003	17.1	(5.7)
	Trade balance (million dollars)-----	(288)	(223)	(259)	(208)	(286)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.6	18.8	19.9	23.8	24.0	1.0	2.7
	Ratio of exports to shipments (percent)-----	12.3	10.7	9.9	13.2	11.4	(14.2)	0.5

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM004	Copper ores and concentrates:							
	Establishments (number)-----	31	23	21	22	22	0.0	(7.0)
	Employees (thousands)-----	16	13	11	13	13	0.0	(4.1)
	Capacity utilization (percent)-----	68	66	60	63	66	4.8	(1.1)
	U.S. shipments (million dollars)-----	1,500	1,500	1,700	2,200	3,129	42.2	20.4
	U.S. exports (million dollars)-----	69	131	188	157	380	142.0	43.2
	U.S. imports (million dollars)-----	47	2	3	2	14	600.0	(21.5)
	Apparent U.S. consumption (million dollars)-----	1,478	1,371	1,515	2,045	2,763	35.1	18.0
	Trade balance (million dollars)-----	22	129	185	155	366	-	-
	Ratio of imports to apparent consumption (percent)-----	3.2	0.1	0.2	0.1	0.5	418.1	(33.5)
	Ratio of exports to shipments (percent)-----	4.6	8.7	11.1	7.1	12.1	70.2	19.0
MM005	Lead ores and residues:							
	Establishments (number)-----	18	17	14	14	14	0.0	(6.7)
	Employees (thousands)-----	2	2	2	1	1	0.0	(18.8)
	Capacity utilization (percent)-----	65	76	63	49	60	22.4	(5.8)
	U.S. shipments (million dollars)-----	105	97	95	138	178	29.0	15.1
	U.S. exports (million dollars)-----	10	10	6	6	19	216.7	8.0
	U.S. imports (million dollars)-----	91	6	7	3	15	400.0	(34.9)
	Apparent U.S. consumption (million dollars)-----	186	93	96	135	174	28.9	2.4
	Trade balance (million dollars)-----	(81)	4	(1)	3	4	-	-
	Ratio of imports to apparent consumption (percent)-----	48.9	6.5	7.3	2.2	8.6	287.9	(36.5)
	Ratio of exports to shipments (percent)-----	9.5	10.3	6.3	4.3	10.7	145.5	(6.2)
MM006	Zinc ores and residues:							
	Establishments (number)-----	14	15	15	14	13	(7.1)	(2.1)
	Employees (thousands)-----	3	3	2	2	2	0.0	(11.5)
	Capacity utilization (percent)-----	68	64	63	66	73	10.6	1.7
	U.S. shipments (million dollars)-----	238	175	145	166	255	53.6	0.9
	U.S. exports (million dollars)-----	19	12	4	12	23	91.7	3.9
	U.S. imports (million dollars)-----	36	40	26	22	36	63.6	(5.8)
	Apparent U.S. consumption (million dollars)-----	255	203	167	176	268	52.3	(0.4)
	Trade balance (million dollars)-----	(17)	(28)	(22)	(10)	(13)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.1	19.7	15.6	12.5	13.4	7.5	(5.4)
	Ratio of exports to shipments (percent)-----	8.0	6.9	2.8	7.2	9.0	24.8	3.0

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM007	Certain ores, concentrates, ash, and residues:							
	Establishments (number)-----	70	60	55	55	55	0.0	(5.5)
	Employees (thousands)-----	7	5	3	3	3	0.0	(19.8)
	Capacity utilization (percent)-----	40	40	40	50	55	10.0	9.0
	U.S. shipments (million dollars)-----	1,000	800	800	790	820	3.8	(4.0)
	U.S. exports (million dollars)-----	335	341	255	308	380	23.4	1.5
	U.S. imports (million dollars)-----	324	298	276	321	444	38.3	7.3
	Apparent U.S. consumption (million dollars)-----	989	757	821	803	884	10.1	(1.6)
	Trade balance (million dollars)-----	11	43	(21)	(13)	(64)	-	-
	Ratio of imports to apparent consumption (percent)-----	32.8	39.4	33.6	40.0	50.2	25.6	9.1
	Ratio of exports to shipments (percent)-----	33.5	42.6	31.9	39.0	46.3	18.9	5.8
MM008	Precious metal ores and concentrates:							
	Establishments (number)-----	270	262	306	330	330	0.0	6.5
	Employees (thousands)-----	8	8	9	12	12	0.0	12.9
	Capacity utilization (percent)-----	85	85	90	90	90	0.0	1.7
	U.S. shipments (million dollars)-----	1,203	1,027	1,490	2,470	3,254	31.7	33.2
	U.S. exports (million dollars)-----	13	3	7	21	21	0.0	33.7
	U.S. imports (million dollars)-----	14	5	9	15	11	(26.7)	6.4
	Apparent U.S. consumption (million dollars)-----	1,204	1,029	1,492	2,464	3,244	31.7	33.0
	Trade balance (million dollars)-----	(1)	(2)	(2)	6	10	-	-
	Ratio of imports to apparent consumption (percent)-----	1.2	0.5	0.6	0.6	0.3	(44.3)	(20.1)
	Ratio of exports to shipments (percent)-----	1.1	0.3	0.5	0.9	0.6	(24.1)	0.4
MM009	Certain nonmetallic minerals and articles:							
	Establishments (number)-----	20,000	20,000	21,000	21,000	21,000	0.0	1.5
	Employees (thousands)-----	345	347	362	374	374	0.0	2.4
	Capacity utilization (percent)-----	72	74	74	82	82	0.0	3.7
	U.S. shipments (million dollars)-----	32,306	33,632	35,347	38,500	38,600	0.3	5.0
	U.S. exports (million dollars)-----	620	557	550	621	759	22.2	5.3
	U.S. imports (million dollars)-----	1,129	1,486	1,852	1,599	1,778	11.2	10.3
	Apparent U.S. consumption (million dollars)-----	32,815	34,561	36,649	39,478	39,619	0.4	5.2
	Trade balance (million dollars)-----	(509)	(929)	(1,302)	(978)	(1,019)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.4	4.3	5.1	4.1	4.5	10.8	4.8
	Ratio of exports to shipments (percent)-----	1.9	1.7	1.6	1.6	2.0	21.9	0.2

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM010	Refractory and heat-insulating articles:							
	Establishments (number)-----	171	163	150	145	140	(3.4)	(5.0)
	Employees (thousands)-----	12	12	12	11	11	0.0	(2.6)
	Capacity utilization (percent)-----	60	58	56	62	62	0.0	1.3
	U.S. shipments (million dollars)-----	1,632	1,582	1,521	1,671	1,695	1.4	1.3
	U.S. exports (million dollars)-----	149	142	129	166	216	30.1	9.4
	U.S. imports (million dollars)-----	78	81	96	111	131	18.0	14.5
	Apparent U.S. consumption (million dollars)-----	1,561	1,521	1,488	1,616	1,610	(0.4)	1.2
	Trade balance (million dollars)-----	71	61	33	55	85	-	-
	Ratio of imports to apparent consumption (percent)-----	5.0	5.3	6.5	6.9	8.1	18.5	13.1
	Ratio of exports to shipments (percent)-----	9.1	9.0	8.5	9.9	12.7	28.3	8.0
MM011	Ceramic bricks and miscellaneous ceramic construction articles:							
	Establishments (number)-----	353	352	356	357	360	0.8	0.5
	Employees (thousands)-----	20	20	21	21	21	0.0	1.5
	Capacity utilization (percent)-----	62	54	58	58	58	0.0	(0.6)
	U.S. shipments (million dollars)-----	1,179	1,355	1,520	1,301	1,279	(1.7)	1.2
	U.S. exports (million dollars)-----	12	13	11	12	13	8.3	0.8
	U.S. imports (million dollars)-----	30	27	29	29	28	(3.4)	(0.7)
	Apparent U.S. consumption (million dollars)-----	1,197	1,369	1,538	1,318	1,294	(1.8)	1.2
	Trade balance (million dollars)-----	(18)	(14)	(18)	(17)	(15)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.5	2.0	1.9	2.2	2.2	(1.7)	(1.8)
	Ratio of exports to shipments (percent)-----	1.0	1.0	0.7	0.9	1.0	10.2	(0.4)
MM012	Ceramic floor and wall tiles:							
	Establishments (number)-----	111	114	112	117	129	10.3	3.3
	Employees (thousands)-----	10	10	10	10	10	0.0	0.0
	Capacity utilization (percent)-----	80	80	82	84	84	0.0	1.5
	U.S. shipments (million dollars)-----	499	473	556	608	624	2.6	7.2
	U.S. exports (million dollars)-----	12	8	7	8	12	50.0	0.0
	U.S. imports (million dollars)-----	249	266	315	378	411	8.7	14.5
	Apparent U.S. consumption (million dollars)-----	736	731	864	978	1,023	4.6	10.0
	Trade balance (million dollars)-----	(237)	(258)	(308)	(370)	(399)	-	-
	Ratio of imports to apparent consumption (percent)-----	33.8	36.4	36.5	38.7	40.2	3.9	4.1
	Ratio of exports to shipments (percent)-----	2.4	1.7	1.3	1.3	1.9	46.2	(6.7)

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM013	Ceramic sanitary fixtures:							
	Establishments (number)-----	76	77	78	77	73	(5.2)	(0.8)
	Employees (thousands)-----	10	9	11	10	10	0.0	1.1
	Capacity utilization (percent)-----	89	84	86	78	78	0.0	(3.3)
	U.S. shipments (million dollars)-----	580	634	681	719	758	5.4	6.8
	U.S. exports (million dollars)-----	13	13	12	14	28	100.0	17.5
	U.S. imports (million dollars)-----	22	37	64	60	65	8.3	30.3
	Apparent U.S. consumption (million dollars)-----	589	658	733	765	795	3.9	7.8
	Trade balance (million dollars)-----	(9)	(24)	(52)	(46)	(37)	-	-
	Ratio of imports to apparent consumption (percent)-----	3.7	5.6	8.7	7.8	8.2	4.2	20.9
	Ratio of exports to shipments (percent)-----	2.2	2.1	1.8	1.9	3.7	89.7	9.9
MM014	Ceramic table, toilet, and kitchen articles:							
	Establishments (number)-----	80	80	80	78	78	0.0	(0.8)
	Employees (thousands)-----	9	9	9	7	7	0.0	(7.3)
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	324	324	291	392	2/	-	-
	U.S. exports (million dollars)-----	32	23	23	32	48	50.0	12.1
	U.S. imports (million dollars)-----	520	554	578	637	648	1.7	6.0
	Apparent U.S. consumption (million dollars)-----	812	855	846	997	600	(39.8)	(4.4)
	Trade balance (million dollars)-----	(488)	(531)	(555)	(605)	(600)	-	-
	Ratio of imports to apparent consumption (percent)-----	64.0	64.8	68.3	63.9	108.0	69.0	10.9
	Ratio of exports to shipments (percent)-----	9.9	7.1	7.9	8.2	2/	-	-
MM015	Miscellaneous ceramic articles:							
	Establishments (number)-----	642	646	686	726	785	8.1	5.3
	Employees (thousands)-----	11	10	10	11	13	18.2	4.4
	Capacity utilization (percent)-----	63	62	63	72	72	0.0	4.3
	U.S. shipments (million dollars)-----	462	397	378	459	472	2.8	1.9
	U.S. exports (million dollars)-----	34	40	42	49	56	14.3	12.8
	U.S. imports (million dollars)-----	458	502	583	714	730	2.2	13.7
	Apparent U.S. consumption (million dollars)-----	886	859	919	1,124	1,146	2.0	8.2
	Trade balance (million dollars)-----	(424)	(462)	(541)	(665)	(674)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.7	58.4	63.4	63.5	63.7	0.3	5.1
	Ratio of exports to shipments (percent)-----	7.4	10.1	11.1	10.7	11.9	11.1	10.7

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM016	Flat glass and certain flat glass products:							
	Establishments (number)-----	420	420	430	450	525	16.7	5.3
	Employees (thousands)-----	44	43	44	45	45	0.0	0.9
	Capacity utilization (percent)-----	81	85	90	95	95	0.0	4.4
	U.S. shipments (million dollars)-----	4,593	4,800	5,300	5,600	6,200	10.7	7.8
	U.S. exports (million dollars)-----	317	294	283	381	458	20.2	10.5
	U.S. imports (million dollars)-----	393	472	527	614	619	0.8	12.4
	Apparent U.S. consumption (million dollars)-----	4,669	4,978	5,544	5,833	6,361	9.1	8.1
	Trade balance (million dollars)-----	(76)	(178)	(244)	(233)	(161)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.4	9.5	9.5	10.5	9.7	(7.6)	4.0
	Ratio of exports to shipments (percent)-----	6.9	6.1	5.3	6.8	7.4	8.6	2.4
MM017	Glass containers:							
	Establishments (number)-----	115	115	115	105	105	0.0	(2.7)
	Employees (thousands)-----	49	44	44	40	40	0.0	(4.9)
	Capacity utilization (percent)-----	70	75	74	95	2/	-	-
	U.S. shipments (million dollars)-----	4,479	4,600	4,627	4,520	4,860	7.5	1.5
	U.S. exports (million dollars)-----	65	27	21	29	36	24.1	(10.5)
	U.S. imports (million dollars)-----	99	119	137	135	156	15.6	10.9
	Apparent U.S. consumption (million dollars)-----	4,513	4,692	4,743	4,626	4,980	7.7	1.8
	Trade balance (million dollars)-----	(34)	(92)	(116)	(106)	(120)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.2	2.5	2.9	2.9	3.1	7.3	8.9
	Ratio of exports to shipments (percent)-----	1.5	0.6	0.5	0.6	0.7	15.5	(11.8)
MM018	Household glassware:							
	Establishments (number)-----	237	237	237	237	237	0.0	0.0
	Employees (thousands)-----	26	26	26	26	26	0.0	0.0
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	1,307	1,215	1,263	1,300	2/	-	-
	U.S. exports (million dollars)-----	64	48	45	58	65	12.1	2.2
	U.S. imports (million dollars)-----	364	371	430	445	480	7.9	7.6
	Apparent U.S. consumption (million dollars)-----	1,607	1,538	1,648	1,687	415	(75.4)	(23.0)
	Trade balance (million dollars)-----	(300)	(323)	(385)	(387)	(415)	-	-
	Ratio of imports to apparent consumption (percent)-----	22.7	24.1	26.1	26.4	115.7	338.5	39.8
	Ratio of exports to shipments (percent)-----	4.9	4.0	3.6	4.5	2/	-	-

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM019	Certain glass and glass products:							
	Establishments (number)-----	180	180	180	180	180	0.0	0.0
	Employees (thousands)-----	56	57	57	57	57	0.0	0.4
	Capacity utilization (percent)-----	75	80	83	90	90	0.0	4.9
	U.S. shipments (million dollars)-----	1,700	1,800	1,800	1,800	1,900	5.6	2.2
	U.S. exports (million dollars)-----	208	209	215	226	277	22.6	6.7
	U.S. imports (million dollars)-----	182	216	260	315	343	8.9	17.9
	Apparent U.S. consumption (million dollars)-----	1,674	1,807	1,845	1,889	1,966	4.1	3.7
	Trade balance (million dollars)-----	26	(7)	(45)	(89)	(66)	-	-
	Ratio of imports to apparent consumption (percent)-----	10.9	12.0	14.1	16.7	17.4	4.6	13.6
	Ratio of exports to shipments (percent)-----	12.2	11.6	11.9	12.6	14.6	16.1	4.4
MM020	Fiber glass products:							
	Establishments (number)-----	16	16	14	12	9	(25.0)	(13.4)
	Employees (thousands)-----	30	29	28	28	28	0.0	(1.7)
	Capacity utilization (percent)-----	85	78	78	85	88	3.5	1.6
	U.S. shipments (million dollars)-----	3,164	3,175	3,207	3,131	3,260	4.1	0.5
	U.S. exports (million dollars)-----	177	179	189	225	279	24.0	12.1
	U.S. imports (million dollars)-----	60	78	75	96	105	9.4	14.2
	Apparent U.S. consumption (million dollars)-----	3,047	3,074	3,093	3,002	3,086	2.8	0.0
	Trade balance (million dollars)-----	117	101	114	129	174	-	-
	Ratio of imports to apparent consumption (percent)-----	2.0	2.5	2.4	3.2	3.4	6.4	14.2
	Ratio of exports to shipments (percent)-----	5.6	5.6	5.9	7.2	8.6	19.1	11.5
MM021	Natural and synthetic gemstones:							
	Establishments (number)-----	287	287	290	290	335	15.5	3.2
	Employees (thousands)-----	4	4	5	5	6	20.0	10.9
	Capacity utilization (percent)-----	80	85	80	87	89	2.3	2.4
	U.S. shipments (million dollars)-----	662	702	880	930	1,100	18.3	13.8
	U.S. exports (million dollars)-----	499	529	678	841	1,134	34.8	23.4
	U.S. imports (million dollars)-----	3,484	3,528	4,031	3,949	4,944	25.2	8.5
	Apparent U.S. consumption (million dollars)-----	3,647	3,701	4,233	4,038	4,910	21.6	7.1
	Trade balance (million dollars)-----	(2,985)	(2,999)	(3,353)	(3,108)	(3,810)	-	-
	Ratio of imports to apparent consumption (percent)-----	95.5	95.3	95.2	97.8	100.7	3.0	1.3
	Ratio of exports to shipments (percent)-----	75.4	75.4	77.0	90.4	103.1	14.0	8.4

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM022	Precious metals and related articles:							
	Establishments (number)-----	47	48	43	42	42	0.0	(3.5)
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	85	80	85	90	90	0.0	2.3
	U.S. shipments (million dollars)-----	3,027	2,421	2,091	4,079	5,629	38.0	19.3
	U.S. exports (million dollars)-----	2,342	1,636	2,176	2,222	5,297	138.4	21.4
	U.S. imports (million dollars)-----	5,078	4,797	7,908	3,537	3,241	(8.4)	(11.3)
	Apparent U.S. consumption (million dollars)-----	5,763	5,582	7,823	5,394	3,573	(33.8)	(9.4)
	Trade balance (million dollars)-----	(2,736)	(3,161)	(5,732)	(1,315)	2,056	-	-
	Ratio of imports to apparent consumption (percent)-----	88.1	85.9	101.1	65.6	90.7	38.3	(2.1)
	Ratio of exports to shipments (percent)-----	77.4	67.6	104.1	54.5	94.1	72.7	1.8
MM023	Pig iron:							
	Establishments (number)-----	12	12	14	15	15	0.0	6.9
	Employees (thousands)-----	21	20	18	20	23	15.0	1.8
	Capacity utilization (percent)-----	61	60	54	63	65	3.2	1.8
	U.S. shipments (million dollars)-----	8,512	8,266	7,200	7,938	9,135	15.1	1.0
	U.S. exports (million dollars)-----	6	4	5	5	8	60.0	8.3
	U.S. imports (million dollars)-----	82	50	42	52	89	71.2	2.1
	Apparent U.S. consumption (million dollars)-----	8,588	8,312	7,237	7,985	9,216	15.4	1.0
	Trade balance (million dollars)-----	(76)	(46)	(37)	(47)	(81)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.0	0.6	0.6	0.7	1.0	48.3	1.0
	Ratio of exports to shipments (percent)-----	0.1	0.0	0.1	0.1	0.1	39.0	7.2
MM024	Ferroalloys:							
	Establishments (number)-----	30	35	33	31	32	3.2	0.1
	Employees (thousands)-----	6	5	4	4	6	50.0	(2.2)
	Capacity utilization (percent)-----	46	39	36	35	48	37.1	(0.2)
	U.S. shipments (million dollars)-----	570	525	532	550	739	34.4	5.8
	U.S. exports (million dollars)-----	66	64	39	44	74	68.2	(1.4)
	U.S. imports (million dollars)-----	536	485	541	533	986	85.0	14.0
	Apparent U.S. consumption (million dollars)-----	1,040	946	1,034	1,039	1,651	58.9	10.7
	Trade balance (million dollars)-----	(470)	(421)	(502)	(489)	(912)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.5	51.3	52.3	51.3	59.7	16.4	3.0
	Ratio of exports to shipments (percent)-----	11.6	12.2	7.3	8.0	10.0	25.2	(6.9)



Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM025	Iron and steel waste and scrap:							
	Establishments (number)-----	1,274	1,256	1,200	1,260	1,210	(4.0)	(1.0)
	Employees (thousands)-----	22	21	21	22	23	4.5	1.4
	Capacity utilization (percent)-----	69	70	70	72	75	4.2	2.0
	U.S. shipments (million dollars)-----	6,415	5,858	5,557	5,191	7,452	43.6	1.8
	U.S. exports (million dollars)-----	949	944	1,095	1,031	1,416	37.3	9.3
	U.S. imports (million dollars)-----	52	49	59	92	140	52.2	29.8
	Apparent U.S. consumption (million dollars)-----	5,518	4,963	4,521	4,252	6,176	45.2	0.7
	Trade balance (million dollars)-----	897	895	1,036	939	1,276	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	1.0	1.3	2.2	2.3	4.8	28.9
	Ratio of exports to shipments (percent)-----	14.8	16.1	19.7	19.9	19.0	(4.3)	7.4
MM026	Direct reduced iron, ferrous powders, and grit and shot:							
	Establishments (number)-----	22	21	22	22	21	(4.5)	(0.5)
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	38	51	53	64	77	20.3	17.8
	U.S. shipments (million dollars)-----	262	236	249	268	315	17.5	5.1
	U.S. exports (million dollars)-----	28	15	17	22	29	31.8	4.6
	U.S. imports (million dollars)-----	40	35	37	42	58	38.1	9.7
	Apparent U.S. consumption (million dollars)-----	274	256	269	288	344	19.4	5.9
	Trade balance (million dollars)-----	(12)	(20)	(20)	(20)	(29)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.6	13.7	13.8	14.6	16.9	15.6	3.6
	Ratio of exports to shipments (percent)-----	10.7	6.4	6.8	8.2	9.2	12.2	(0.4)
MM027	Steel mill products, all grades:							
	Establishments (number)-----	700	700	800	850	850	0.0	6.0
	Employees (thousands)-----	290	260	230	230	250	8.7	(4.1)
	Capacity utilization (percent)-----	68	66	64	80	89	11.3	7.6
	U.S. shipments (million dollars)-----	47,700	44,800	41,600	48,400	57,000	17.8	4.4
	U.S. exports (million dollars)-----	923	876	767	949	1,661	75.0	13.4
	U.S. imports (million dollars)-----	9,963	9,367	7,821	8,178	9,921	21.3	(1.4)
	Apparent U.S. consumption (million dollars)-----	56,740	53,291	48,654	55,629	65,260	17.3	3.3
	Trade balance (million dollars)-----	(9,040)	(8,491)	(7,054)	(7,229)	(8,260)	-	-
	Ratio of imports to apparent consumption (percent)-----	17.6	17.6	16.1	14.7	15.2	3.4	(4.6)
	Ratio of exports to shipments (percent)-----	1.9	2.0	1.8	2.0	2.9	48.6	8.6

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM028	Steel pipe and tube fittings, and certain cast products:							
	Establishments (number)-----	316	306	294	294	288	(2.0)	(2.2)
	Employees (thousands)-----	180	175	170	177	170	(4.0)	(1.0)
	Capacity utilization (percent)-----	60	55	50	65	65	0.0	3.3
	U.S. shipments (million dollars)-----	12,607	12,776	12,788	12,830	12,796	(0.3)	0.3
	U.S. exports (million dollars)-----	283	230	208	218	297	36.2	0.4
	U.S. imports (million dollars)-----	223	282	236	219	313	42.9	4.3
	Apparent U.S. consumption (million dollars)-----	12,547	12,828	12,816	12,831	12,812	(0.1)	0.4
	Trade balance (million dollars)-----	60	(52)	(28)	(1)	(16)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.8	2.2	1.8	1.7	2.4	43.1	3.9
	Ratio of exports to shipments (percent)-----	2.2	1.8	1.6	1.7	2.3	36.6	0.1
MM029	Fabricated structurals:							
	Establishments (number)-----	2,700	2,600	2,550	2,500	2,420	(3.2)	(2.5)
	Employees (thousands)-----	94	93	87	83	80	(3.6)	(4.3)
	Capacity utilization (percent)-----	64	67	66	65	65	0.0	0.0
	U.S. shipments (million dollars)-----	7,880	8,550	8,530	8,360	8,380	0.2	1.0
	U.S. exports (million dollars)-----	130	97	67	74	102	37.8	(7.3)
	U.S. imports (million dollars)-----	130	162	186	146	116	(20.5)	(3.3)
	Apparent U.S. consumption (million dollars)-----	7,880	8,615	8,649	8,432	8,394	(0.5)	1.1
	Trade balance (million dollars)-----	0	(65)	(119)	(72)	(14)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.6	1.9	2.2	1.7	1.4	(20.2)	(4.3)
	Ratio of exports to shipments (percent)-----	1.6	1.1	0.8	0.9	1.2	37.5	(8.2)
MM030	Metal construction components:							
	Establishments (number)-----	3,500	3,540	3,580	3,800	3,800	0.0	2.4
	Employees (thousands)-----	117	120	123	147	145	(1.4)	6.5
	Capacity utilization (percent)-----	75	75	75	75	75	0.0	0.0
	U.S. shipments (million dollars)-----	9,500	10,300	10,700	10,200	10,000	(2.0)	0.9
	U.S. exports (million dollars)-----	292	158	114	141	173	22.7	(11.0)
	U.S. imports (million dollars)-----	80	123	151	162	160	(1.2)	18.1
	Apparent U.S. consumption (million dollars)-----	9,288	10,265	10,737	10,221	9,987	(2.3)	1.4
	Trade balance (million dollars)-----	212	35	(37)	(21)	13	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	1.2	1.4	1.6	1.6	1.1	16.4
	Ratio of exports to shipments (percent)-----	3.1	1.5	1.1	1.4	1.7	25.1	(11.8)

Table 8-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM031	Metallic containers:							
	Establishments (number)-----	673	675	680	612	620	1.3	(2.6)
	Employees (thousands)-----	79	72	72	71	69	(2.8)	(2.8)
	Capacity utilization (percent)-----	73	58	59	56	60	7.1	(4.2)
	U.S. shipments (million dollars)-----	15,263	15,413	14,742	14,811	15,526	4.8	(0.1)
	U.S. exports (million dollars)-----	188	167	166	183	275	50.3	8.9
	U.S. imports (million dollars)-----	167	316	189	214	277	29.4	6.4
	Apparent U.S. consumption (million dollars)-----	15,242	15,562	14,765	14,842	15,528	4.6	(0.1)
	Trade balance (million dollars)-----	21	(149)	(23)	(31)	(2)	-	-
	Ratio of imports to apparent consumption (percent)-----	1.1	2.0	1.3	1.4	1.8	23.7	6.5
	Ratio of exports to shipments (percent)-----	1.2	1.1	1.1	1.2	1.8	43.4	9.0
MM032	Wire products of iron, steel, aluminum, copper, and nickel:							
	Establishments (number)-----	1,409	1,414	1,434	1,462	1,462	0.0	1.1
	Employees (thousands)-----	69	66	65	68	68	0.0	0.0
	Capacity utilization (percent)-----	70	75	70	80	85	6.3	4.6
	U.S. shipments (million dollars)-----	6,880	6,670	6,860	8,150	8,150	0.0	5.5
	U.S. exports (million dollars)-----	185	163	169	198	226	14.1	6.1
	U.S. imports (million dollars)-----	512	516	546	573	700	22.2	7.6
	Apparent U.S. consumption (million dollars)-----	7,207	7,023	7,237	8,525	8,624	1.2	5.7
	Trade balance (million dollars)-----	(327)	(353)	(377)	(375)	(474)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.1	7.3	7.5	6.7	8.1	20.8	1.8
	Ratio of exports to shipments (percent)-----	2.7	2.4	2.5	2.4	2.8	14.1	0.6
MM033	Chain:							
	Establishments (number)-----	40	40	38	35	33	(5.7)	(5.1)
	Employees (thousands)-----	8	8	7	7	7	0.0	(3.9)
	Capacity utilization (percent)-----	73	73	75	75	75	0.0	0.8
	U.S. shipments (million dollars)-----	678	680	647	645	635	(1.6)	(1.8)
	U.S. exports (million dollars)-----	208	187	170	199	283	42.2	7.0
	U.S. imports (million dollars)-----	221	257	308	353	390	10.5	15.6
	Apparent U.S. consumption (million dollars)-----	691	750	785	799	742	(7.1)	2.1
	Trade balance (million dollars)-----	(13)	(70)	(138)	(154)	(107)	-	-
	Ratio of imports to apparent consumption (percent)-----	32.0	34.3	39.2	44.2	52.6	19.0	13.3
	Ratio of exports to shipments (percent)-----	30.7	27.5	26.3	30.9	44.6	44.5	9.0

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM034	Industrial fasteners of base metal:							
	Establishments (number)-----	630	625	625	625	625	0.0	(0.2)
	Employees (thousands)-----	34	32	31	31	31	0.0	(2.1)
	Capacity utilization (percent)-----	70	65	70	70	70	0.0	0.7
	U.S. shipments (million dollars)-----	3,645	3,500	3,869	4,024	4,185	4.0	4.2
	U.S. exports (million dollars)-----	349	299	312	377	412	9.3	5.8
	U.S. imports (million dollars)-----	1,124	1,054	1,116	1,298	1,469	13.2	7.7
	Apparent U.S. consumption (million dollars)-----	4,420	4,255	4,673	4,945	5,242	6.0	5.0
	Trade balance (million dollars)-----	(775)	(755)	(804)	(921)	(1,057)	-	-
	Ratio of imports to apparent consumption (percent)-----	25.4	24.8	23.9	26.2	28.0	6.8	2.6
	Ratio of exports to shipments (percent)-----	9.6	8.5	8.1	9.4	9.8	5.1	1.5
MM035	Cooking and kitchen ware:							
	Establishments (number)-----	22	22	20	20	18	(10.0)	(4.8)
	Employees (thousands)-----	6	5	4	4	4	0.0	(9.8)
	Capacity utilization (percent)-----	65	65	65	65	70	7.7	1.5
	U.S. shipments (million dollars)-----	681	599	570	568	626	10.2	(2.2)
	U.S. exports (million dollars)-----	212	157	148	208	201	(3.4)	1.8
	U.S. imports (million dollars)-----	549	559	632	711	782	10.0	9.9
	Apparent U.S. consumption (million dollars)-----	1,018	1,001	1,054	1,071	1,207	12.7	4.2
	Trade balance (million dollars)-----	(337)	(402)	(484)	(503)	(581)	-	-
	Ratio of imports to apparent consumption (percent)-----	53.9	55.8	60.0	66.4	64.8	(2.4)	5.5
	Ratio of exports to shipments (percent)-----	31.1	26.2	26.0	36.6	32.1	(12.3)	4.0
MM036	Metal sanitary ware:							
	Establishments (number)-----	209	200	190	190	190	0.0	(2.4)
	Employees (thousands)-----	19	19	18	18	18	0.0	(1.6)
	Capacity utilization (percent)-----	60	65	75	80	80	0.0	8.1
	U.S. shipments (million dollars)-----	2,450	2,621	2,180	3,150	3,000	(4.8)	6.1
	U.S. exports (million dollars)-----	38	34	30	37	50	35.1	6.5
	U.S. imports (million dollars)-----	53	54	75	98	96	(2.0)	19.5
	Apparent U.S. consumption (million dollars)-----	2,465	2,641	2,225	3,211	3,046	(5.1)	6.4
	Trade balance (million dollars)-----	(15)	(20)	(45)	(61)	(46)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.2	2.0	3.4	3.1	3.2	3.3	12.4
	Ratio of exports to shipments (percent)-----	1.6	1.3	1.4	1.2	1.7	41.9	0.4

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM037	Iron construction castings and other nonmalleable cast-iron articles:							
	Establishments (number)-----	31	31	30	29	29	0.0	(2.0)
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	50	61	81	87	86	(1.1)	15.5
	U.S. shipments (million dollars)-----	133	144	128	139	146	5.0	1.5
	U.S. exports (million dollars)-----	21	20	21	28	35	25.0	14.5
	U.S. imports (million dollars)-----	46	52	60	70	67	(4.3)	11.1
	Apparent U.S. consumption (million dollars)-----	158	176	167	181	178	(1.7)	2.7
	Trade balance (million dollars)-----	(25)	(32)	(39)	(42)	(32)	-	-
	Ratio of imports to apparent consumption (percent)-----	29.1	29.5	35.9	38.7	37.6	(2.7)	8.1
	Ratio of exports to shipments (percent)-----	15.8	13.9	16.4	20.1	24.0	19.0	12.8
MM038	Copper and related articles:							
	Establishments (number)-----	173	119	117	117	117	0.0	(7.7)
	Employees (thousands)-----	32	29	29	29	29	0.0	(1.9)
	Capacity utilization (percent)-----	63	67	67	67	70	4.5	2.1
	U.S. shipments (million dollars)-----	13,292	13,183	13,751	13,040	13,100	0.5	(0.4)
	U.S. exports (million dollars)-----	725	700	646	785	1,307	66.5	13.8
	U.S. imports (million dollars)-----	1,595	1,281	1,548	1,673	2,172	29.8	9.2
	Apparent U.S. consumption (million dollars)-----	14,162	13,764	14,653	13,928	13,965	0.3	(0.2)
	Trade balance (million dollars)-----	(870)	(581)	(902)	(888)	(865)	-	-
	Ratio of imports to apparent consumption (percent)-----	11.3	9.3	10.6	12.0	15.6	29.5	9.4
	Ratio of exports to shipments (percent)-----	5.5	5.3	4.7	6.0	10.0	65.7	14.3
MM039	Unwrought aluminum:							
	Establishments (number)-----	109	100	94	96	96	0.0	(2.9)
	Employees (thousands)-----	24	23	22	21	21	0.0	(3.5)
	Capacity utilization (percent)-----	84	74	75	82	95	15.9	3.5
	U.S. shipments (million dollars)-----	6,649	4,691	9,717	6,348	6,667	5.0	3.1
	U.S. exports (million dollars)-----	693	805	644	873	1,714	96.3	20.8
	U.S. imports (million dollars)-----	1,776	1,367	2,041	2,315	2,801	21.0	15.5
	Apparent U.S. consumption (million dollars)-----	7,732	5,253	11,114	7,790	7,754	(0.5)	4.1
	Trade balance (million dollars)-----	(1,083)	(562)	(1,397)	(1,442)	(1,087)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.0	26.0	18.4	29.7	36.1	21.6	10.9
	Ratio of exports to shipments (percent)-----	10.4	17.2	6.6	13.8	25.7	86.9	17.2

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM040	Aluminum mill products:							
	Establishments (number)-----	482	436	436	436	436	0.0	(2.0)
	Employees (thousands)-----	60	54	54	54	54	0.0	(2.1)
	Capacity utilization (percent)-----	80	70	75	80	85	6.3	2.6
	U.S. shipments (million dollars)-----	13,597	12,432	12,683	15,339	20,025	30.5	10.3
	U.S. exports (million dollars)-----	602	504	535	788	1,206	53.0	20.2
	U.S. imports (million dollars)-----	1,160	979	1,067	1,009	1,246	23.5	1.7
	Apparent U.S. consumption (million dollars)-----	14,155	12,907	13,215	15,560	20,065	29.0	9.3
	Trade balance (million dollars)-----	(558)	(475)	(532)	(221)	(40)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.2	7.6	8.1	6.5	6.2	(4.2)	(6.9)
	Ratio of exports to shipments (percent)-----	4.4	4.1	4.2	5.1	6.0	17.2	8.9
MM041	Lead and related articles:							
	Establishments (number)-----	102	90	74	70	70	0.0	(9.6)
	Employees (thousands)-----	3	3	3	3	3	0.0	0.0
	Capacity utilization (percent)-----	60	78	70	76	80	5.3	5.6
	U.S. shipments (million dollars)-----	838	736	769	1,162	1,224	5.3	12.9
	U.S. exports (million dollars)-----	47	54	51	56	71	26.8	9.0
	U.S. imports (million dollars)-----	97	64	69	148	127	(14.2)	14.8
	Apparent U.S. consumption (million dollars)-----	888	746	787	1,254	1,280	2.1	13.3
	Trade balance (million dollars)-----	(50)	(10)	(18)	(92)	(56)	-	-
	Ratio of imports to apparent consumption (percent)-----	10.9	8.6	8.8	11.8	9.9	(15.9)	1.3
	Ratio of exports to shipments (percent)-----	5.6	7.3	6.6	4.8	5.8	20.4	(3.5)
MM042	Zinc and related articles:							
	Establishments (number)-----	39	39	36	39	39	0.0	0.0
	Employees (thousands)-----	3	3	3	2	2	0.0	(11.5)
	Capacity utilization (percent)-----	55	71	67	73	97	32.9	12.3
	U.S. shipments (million dollars)-----	489	418	379	450	622	38.2	5.7
	U.S. exports (million dollars)-----	25	26	41	55	84	52.7	37.3
	U.S. imports (million dollars)-----	645	519	497	588	848	44.2	7.0
	Apparent U.S. consumption (million dollars)-----	1,109	911	835	983	1,386	41.0	5.4
	Trade balance (million dollars)-----	(620)	(493)	(456)	(533)	(764)	-	-
	Ratio of imports to apparent consumption (percent)-----	58.2	57.0	59.5	59.8	61.2	2.3	1.5
	Ratio of exports to shipments (percent)-----	5.1	6.2	10.8	12.2	13.5	10.5	29.9

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM043	Certain base metals and chemical elements:							
	Establishments (number)-----	81	76	72	70	70	0.0	(3.7)
	Employees (thousands)-----	11	9	7	6	6	0.0	(14.9)
	Capacity utilization (percent)-----	65	85	81	80	80	0.0	3.6
	U.S. shipments (million dollars)-----	2,300	2,150	1,600	1,550	1,575	1.6	(10.3)
	U.S. exports (million dollars)-----	687	707	613	657	852	29.7	3.6
	U.S. imports (million dollars)-----	1,695	1,558	1,112	1,292	2,136	65.3	2.8
	Apparent U.S. consumption (million dollars)-----	3,308	3,001	2,099	2,185	2,859	30.8	(5.9)
	Trade balance (million dollars)-----	(1,008)	(851)	(499)	(635)	(1,284)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.2	51.9	53.0	59.1	74.7	26.4	9.2
	Ratio of exports to shipments (percent)-----	29.9	32.9	38.3	42.4	54.1	27.6	15.5
MM044	Nonpowered handtools:							
	Establishments (number)-----	1,260	1,260	1,255	1,255	1,255	0.0	(0.1)
	Employees (thousands)-----	115	115	110	110	110	0.0	(1.3)
	Capacity utilization (percent)-----	70	70	75	75	75	0.0	2.1
	U.S. shipments (million dollars)-----	11,161	11,389	12,585	13,214	13,874	5.0	6.0
	U.S. exports (million dollars)-----	632	641	539	608	720	18.4	2.1
	U.S. imports (million dollars)-----	803	895	950	1,156	1,299	12.4	13.0
	Apparent U.S. consumption (million dollars)-----	11,332	11,643	12,996	13,762	14,453	5.0	6.8
	Trade balance (million dollars)-----	(171)	(254)	(411)	(548)	(579)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.1	7.7	7.3	8.4	9.0	7.0	5.8
	Ratio of exports to shipments (percent)-----	5.7	5.6	4.3	4.6	5.2	12.8	(3.7)
MM045	Cutlery other than tableware, certain sewing implements, and related:							
	Establishments (number)-----	113	88	67	53	50	(5.7)	(19.2)
	Employees (thousands)-----	10	9	9	8	8	0.0	(5.5)
	Capacity utilization (percent)-----	66	77	90	82	80	(2.4)	4.6
	U.S. shipments (million dollars)-----	470	470	448	472	469	(0.6)	(0.0)
	U.S. exports (million dollars)-----	66	62	68	72	95	31.9	9.2
	U.S. imports (million dollars)-----	248	273	316	322	352	9.3	9.0
	Apparent U.S. consumption (million dollars)-----	652	681	696	722	726	0.6	2.8
	Trade balance (million dollars)-----	(182)	(211)	(248)	(250)	(257)	-	-
	Ratio of imports to apparent consumption (percent)-----	38.0	40.1	45.4	44.6	48.5	8.7	6.1
	Ratio of exports to shipments (percent)-----	14.0	13.2	15.2	15.3	20.3	32.8	9.2

Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM046	Table flatware and related products:							
	Establishments (number)-----	13	12	11	6	6	0.0	(20.1)
	Employees (thousands)-----	7	6	6	5	5	0.0	(8.2)
	Capacity utilization (percent)-----	90	90	90	90	90	0.0	0.0
	U.S. shipments (million dollars)-----	190	181	156	146	145	(0.7)	(7.3)
	U.S. exports (million dollars)-----	21	21	19	19	23	21.1	0.8
	U.S. imports (million dollars)-----	171	161	164	169	191	13.0	2.7
	Apparent U.S. consumption (million dollars)-----	340	321	301	296	313	5.7	(2.4)
	Trade balance (million dollars)-----	(150)	(140)	(145)	(150)	(168)	-	-
	Ratio of imports to apparent consumption (percent)-----	50.3	50.2	54.5	57.1	61.0	6.9	5.3
	Ratio of exports to shipments (percent)-----	11.1	11.6	12.2	13.0	15.9	21.9	8.7
MM047	Certain builders' hardware:							
	Establishments (number)-----	800	798	795	795	795	0.0	(0.2)
	Employees (thousands)-----	52	52	50	50	50	0.0	(1.2)
	Capacity utilization (percent)-----	75	75	80	80	80	0.0	2.0
	U.S. shipments (million dollars)-----	2,813	2,897	3,042	3,255	3,385	4.0	5.0
	U.S. exports (million dollars)-----	228	217	218	261	326	24.9	9.4
	U.S. imports (million dollars)-----	423	492	605	738	854	15.7	19.8
	Apparent U.S. consumption (million dollars)-----	3,008	3,172	3,429	3,732	3,913	4.8	7.1
	Trade balance (million dollars)-----	(195)	(275)	(387)	(477)	(528)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.1	15.5	17.6	19.8	21.8	10.4	11.9
	Ratio of exports to shipments (percent)-----	8.1	7.5	7.2	8.0	9.6	20.1	4.2



Table B-4

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage change 1988 over 1987	Annual rate of change 1/ 1984-1988
MM048	Miscellaneous products of base metal:							
	Establishments (number)-----	2,035	2,035	2,035	2,035	2,035	0.0	0.0
	Employees (thousands)-----	105	105	105	105	105	0.0	0.0
	Capacity utilization (percent)-----	70	70	70	70	70	0.0	0.0
	U.S. shipments (million dollars)-----	20,350	20,850	21,580	22,600	24,860	10.0	4.9
	U.S. exports (million dollars)-----	699	645	617	804	956	18.9	8.8
	U.S. imports (million dollars)-----	1,217	1,347	1,486	1,744	1,987	13.9	13.2
	Apparent U.S. consumption (million dollars)-----	20,868	21,552	22,449	23,540	25,891	10.0	5.3
	Trade balance (million dollars)-----	(518)	(702)	(869)	(940)	(1,031)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.8	6.3	6.6	7.4	7.7	3.6	7.5
	Ratio of exports to shipments (percent)-----	3.4	3.1	2.9	3.6	3.8	8.1	3.7

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

2/ Not available.

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
	Machinery and equipment:							
ME001	Aircraft engines and gas turbines:							
	Establishments (number)-----	40	40	42	26	26	0.0	(12.1)
	Employees (thousands)-----	140	148	150	157	145	(7.6)	1.3
	Capacity utilization (percent)-----	66	70	76	78	87	11.5	6.8
	U.S. shipments (million dollars)-----	11,878	12,541	12,642	14,882	17,881	20.2	10.4
	U.S. exports (million dollars)-----	3,567	3,755	4,096	4,757	6,057	27.3	13.8
	U.S. imports (million dollars)-----	1,649	2,372	2,898	2,841	2,993	5.4	14.7
	Apparent U.S. consumption (million dollars)-----	9,960	11,158	11,444	12,966	14,817	14.3	9.9
	Trade balance (million dollars)-----	1,918	1,383	1,198	1,916	3,064	-	-
	Ratio of imports to apparent consumption (percent)-----	16.6	21.3	25.3	21.9	20.2	(7.8)	4.4
	Ratio of exports to shipments (percent)-----	30.0	29.9	32.4	32.0	33.9	6.0	3.1
ME002	Internal combustion piston engines, other than for aircraft:							
	Establishments (number)-----	58	60	58	55	55	0.0	(1.9)
	Employees (thousands)-----	140	145	134	135	135	0.0	(1.4)
	Capacity utilization (percent)-----	76	76	74	72	72	0.0	(1.6)
	U.S. shipments (million dollars)-----	27,248	28,079	28,543	28,250	28,815	2.0	1.2
	U.S. exports (million dollars)-----	3,968	4,032	3,752	4,022	4,923	22.4	4.4
	U.S. imports (million dollars)-----	4,141	4,431	4,613	5,269	6,064	15.1	9.8
	Apparent U.S. consumption (million dollars)-----	27,421	28,478	29,404	29,497	29,956	1.6	2.1
	Trade balance (million dollars)-----	(173)	(399)	(861)	(1,247)	(1,141)	-	-
	Ratio of imports to apparent consumption (percent)-----	15.1	15.6	15.7	17.9	20.2	13.3	7.5
	Ratio of exports to shipments (percent)-----	14.6	14.4	13.1	14.2	17.1	20.0	3.2
ME003	Pumps for liquids:							
	Establishments (number)-----	615	615	610	613	613	0.0	(0.1)
	Employees (thousands)-----	58	56	55	56	57	1.8	(0.3)
	Capacity utilization (percent)-----	56	59	52	55	55	0.0	(1.1)
	U.S. shipments (million dollars)-----	5,804	5,707	5,453	5,780	6,196	7.2	1.4
	U.S. exports (million dollars)-----	962	933	849	928	1,110	19.6	2.8
	U.S. imports (million dollars)-----	592	666	767	885	1,155	30.5	17.6
	Apparent U.S. consumption (million dollars)-----	5,434	5,440	5,371	5,737	6,241	8.8	3.4
	Trade balance (million dollars)-----	370	267	82	43	(45)	-	-
	Ratio of imports to apparent consumption (percent)-----	10.9	12.2	14.3	15.4	18.5	20.0	13.8
	Ratio of exports to shipments (percent)-----	16.6	16.3	15.6	16.1	17.9	11.6	1.4

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME004	Fans, blowers, compressors, air and:							
	Establishments (number)-----	1,210	1,210	1,205	1,205	1,205	0.0	(0.1)
	Employees (thousands)-----	180	178	174	172	172	0.0	(1.2)
	Capacity utilization (percent)-----	68	69	70	72	72	0.0	1.6
	U.S. shipments (million dollars)-----	17,688	17,800	17,585	18,640	18,994	1.9	1.9
	U.S. exports (million dollars)-----	1,672	1,580	1,402	1,657	2,137	29.0	5.5
	U.S. imports (million dollars)-----	1,638	1,802	2,048	2,466	2,807	13.8	14.9
	Apparent U.S. consumption (million dollars)-----	17,654	18,022	18,231	19,449	19,664	1.1	3.0
	Trade balance (million dollars)-----	34	(222)	(646)	(809)	(670)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.3	10.0	11.2	12.7	14.3	12.6	11.6
	Ratio of exports to shipments (percent)-----	9.5	8.9	8.0	8.9	11.3	26.6	3.6
ME005	Certain industrial thermal-processing equipment and certain:							
	Establishments (number)-----	310	310	307	308	308	0.0	(0.2)
	Employees (thousands)-----	34	35	33	34	34	0.0	(0.3)
	Capacity utilization (percent)-----	68	63	67	65	65	0.0	(0.6)
	U.S. shipments (million dollars)-----	2,880	3,059	2,948	3,096	3,155	1.9	2.0
	U.S. exports (million dollars)-----	518	548	607	637	818	28.4	11.2
	U.S. imports (million dollars)-----	220	283	325	366	405	10.7	15.9
	Apparent U.S. consumption (million dollars)-----	2,582	2,794	2,666	2,825	2,742	(2.9)	1.3
	Trade balance (million dollars)-----	298	265	282	271	413	-	-
	Ratio of imports to apparent consumption (percent)-----	8.5	10.1	12.2	13.0	14.8	14.0	14.4
	Ratio of exports to shipments (percent)-----	18.0	17.9	20.6	20.6	25.9	26.0	9.1
ME006	Commercial machinery appliances:							
	Establishments (number)-----	425	425	440	440	410	(6.8)	(0.4)
	Employees (thousands)-----	55	57	58	60	60	0.0	2.3
	Capacity utilization (percent)-----	75	75	80	87	87	0.0	4.6
	U.S. shipments (million dollars)-----	7,474	7,705	7,943	8,189	8,435	3.0	3.1
	U.S. exports (million dollars)-----	773	701	723	942	1,329	41.1	14.8
	U.S. imports (million dollars)-----	858	978	1,166	1,326	1,460	10.1	14.7
	Apparent U.S. consumption (million dollars)-----	7,559	7,982	8,386	8,573	8,566	(0.1)	3.3
	Trade balance (million dollars)-----	(85)	(277)	(443)	(384)	(131)	-	-
	Ratio of imports to apparent consumption (percent)-----	11.4	12.3	13.9	15.5	17.0	10.2	11.0
	Ratio of exports to shipments (percent)-----	10.3	9.1	9.1	11.5	15.8	37.0	11.4

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME007	Electrical household appliances and certain heating equipment:							
	Establishments (number)-----	940	940	940	950	950	0.0	0.3
	Employees (thousands)-----	109	110	113	115	115	0.0	1.5
	Capacity utilization (percent)-----	74	75	75	86	87	1.2	4.7
	U.S. shipments (million dollars)-----	14,715	14,805	15,220	15,501	15,966	3.0	2.1
	U.S. exports (million dollars)-----	586	548	529	693	966	39.4	13.1
	U.S. imports (million dollars)-----	1,436	1,684	1,870	1,958	2,125	8.5	9.8
	Apparent U.S. consumption (million dollars)-----	15,565	15,941	16,561	16,766	17,125	2.1	2.4
	Trade balance (million dollars)-----	(850)	(1,136)	(1,341)	(1,265)	(1,159)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.2	10.6	11.3	11.7	12.4	6.3	7.2
	Ratio of exports to shipments (percent)-----	4.0	3.7	3.5	4.5	6.1	35.3	10.8
ME008	Centrifuges and filtering and purifying equipment:							
	Establishments (number)-----	260	260	250	245	245	0.0	(1.8)
	Employees (thousands)-----	21	31	27	24	26	8.3	1.7
	Capacity utilization (percent)-----	59	59	56	55	57	3.6	(1.4)
	U.S. shipments (million dollars)-----	2,182	2,180	1,850	1,560	1,795	15.1	(7.0)
	U.S. exports (million dollars)-----	576	477	458	575	871	51.5	10.7
	U.S. imports (million dollars)-----	163	199	228	304	368	21.1	22.8
	Apparent U.S. consumption (million dollars)-----	1,769	1,902	1,620	1,289	1,292	0.2	(9.7)
	Trade balance (million dollars)-----	413	278	230	271	503	-	-
	Ratio of imports to apparent consumption (percent)-----	9.2	10.5	14.1	23.6	28.5	20.8	35.9
	Ratio of exports to shipments (percent)-----	26.4	21.9	24.8	36.9	48.5	31.6	19.0
ME009	Wrapping, packaging, and can-sealing machinery:							
	Establishments (number)-----	350	350	350	350	340	(2.9)	(0.6)
	Employees (thousands)-----	29	29	28	28	28	0.0	(1.0)
	Capacity utilization (percent)-----	76	75	79	79	80	1.3	1.6
	U.S. shipments (million dollars)-----	1,712	1,836	1,946	1,997	2,135	6.9	5.4
	U.S. exports (million dollars)-----	300	267	260	283	382	35.0	5.6
	U.S. imports (million dollars)-----	293	331	432	466	517	10.9	15.9
	Apparent U.S. consumption (million dollars)-----	1,705	1,900	2,118	2,180	2,270	4.1	7.4
	Trade balance (million dollars)-----	7	(64)	(172)	(183)	(135)	-	-
	Ratio of imports to apparent consumption (percent)-----	17.2	17.4	20.4	21.4	22.8	6.5	8.0
	Ratio of exports to shipments (percent)-----	17.5	14.5	13.4	14.2	17.9	26.3	0.2

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME010	Scales and weighing machinery:							
	Establishments (number)-----	112	115	115	115	110	(4.3)	(0.4)
	Employees (thousands)-----	7	7	7	7	7	0.0	0.0
	Capacity utilization (percent)-----	73	73	73	75	77	2.7	1.3
	U.S. shipments (million dollars)-----	558	546	539	595	655	10.1	4.1
	U.S. exports (million dollars)-----	62	60	56	59	74	25.4	3.4
	U.S. imports (million dollars)-----	81	95	114	120	137	14.2	13.7
	Apparent U.S. consumption (million dollars)-----	577	581	597	656	718	9.5	5.7
	Trade balance (million dollars)-----	(19)	(35)	(58)	(61)	(63)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.0	16.4	19.1	18.3	19.1	4.3	7.5
	Ratio of exports to shipments (percent)-----	11.1	11.0	10.4	9.9	11.3	13.9	(0.7)
ME011	Forklift trucks and similar industrial vehicles:							
	Establishments (number)-----	459	457	411	400	402	0.5	(3.9)
	Employees (thousands)-----	24	25	25	25	25	0.0	0.8
	Capacity utilization (percent)-----	56	76	75	75	75	0.0	5.9
	U.S. shipments (million dollars)-----	2,269	2,536	2,546	2,572	2,575	0.1	2.7
	U.S. exports (million dollars)-----	225	252	263	301	398	32.2	14.1
	U.S. imports (million dollars)-----	453	545	674	733	851	16.1	16.9
	Apparent U.S. consumption (million dollars)-----	2,497	2,829	2,957	3,004	3,028	0.8	4.6
	Trade balance (million dollars)-----	(228)	(293)	(411)	(432)	(453)	-	-
	Ratio of imports to apparent consumption (percent)-----	18.1	19.3	22.8	24.4	28.1	15.2	11.8
	Ratio of exports to shipments (percent)-----	9.9	9.9	10.3	11.7	15.5	32.1	11.1
ME012	Construction and mining equipment:							
	Establishments (number)-----	1,426	1,410	1,390	1,400	1,403	0.2	(0.4)
	Employees (thousands)-----	113	110	112	115	118	2.6	1.3
	Capacity utilization (percent)-----	65	69	65	58	68	17.2	(0.8)
	U.S. shipments (million dollars)-----	15,000	15,700	16,000	16,300	17,000	4.3	2.9
	U.S. exports (million dollars)-----	2,117	2,329	1,974	1,872	2,425	29.5	0.5
	U.S. imports (million dollars)-----	1,287	1,889	2,128	2,221	2,392	7.7	15.0
	Apparent U.S. consumption (million dollars)-----	14,170	15,260	16,154	16,649	16,967	1.9	4.6
	Trade balance (million dollars)-----	830	440	(154)	(349)	33	-	-
	Ratio of imports to apparent consumption (percent)-----	9.1	12.4	13.2	13.3	14.1	5.7	10.0
	Ratio of exports to shipments (percent)-----	14.1	14.8	12.3	11.5	14.3	24.2	(2.3)

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME013	Mineral processing machinery:							
	Establishments (number)-----	100	100	100	100	100	0.0	0.0
	Employees (thousands)-----	17	16	15	15	15	0.0	(3.1)
	Capacity utilization (percent)-----	72	71	57	57	57	0.0	(6.6)
	U.S. shipments (million dollars)-----	525	597	575	580	608	4.8	2.7
	U.S. exports (million dollars)-----	193	190	191	231	269	16.5	9.0
	U.S. imports (million dollars)-----	112	154	186	218	234	7.3	20.0
	Apparent U.S. consumption (million dollars)-----	444	561	570	567	573	1.1	5.3
	Trade balance (million dollars)-----	81	36	5	13	35	-	-
	Ratio of imports to apparent consumption (percent)-----	25.2	27.5	32.6	38.4	40.8	6.2	13.9
	Ratio of exports to shipments (percent)-----	36.8	31.8	33.2	39.8	44.2	11.1	6.1
ME014	Farm and garden machinery and equipment:							
	Establishments (number)-----	2,150	2,100	2,100	2,100	2,150	2.4	0.0
	Employees (thousands)-----	96	87	79	107	110	2.8	4.9
	Capacity utilization (percent)-----	45	42	29	65	65	0.0	12.4
	U.S. shipments (million dollars)-----	9,630	8,200	7,750	8,150	8,300	1.8	(3.0)
	U.S. exports (million dollars)-----	4,679	4,596	3,980	4,531	5,515	21.7	3.2
	U.S. imports (million dollars)-----	1,885	1,762	1,920	2,212	2,572	16.3	8.9
	Apparent U.S. consumption (million dollars)-----	6,836	5,366	5,690	5,831	5,357	(8.1)	(4.0)
	Trade balance (million dollars)-----	2,794	2,834	2,060	2,319	2,943	-	-
	Ratio of imports to apparent consumption (percent)-----	27.6	32.8	33.7	37.9	48.0	26.6	13.4
	Ratio of exports to shipments (percent)-----	48.6	56.0	51.4	55.6	66.4	19.5	6.4
ME015	Industrial food-processing and related machinery:							
	Establishments (number)-----	509	511	512	513	510	(0.6)	0.1
	Employees (thousands)-----	11	11	10	10	13	30.0	2.4
	Capacity utilization (percent)-----	76	76	87	87	87	0.0	4.1
	U.S. shipments (million dollars)-----	1,285	1,288	1,318	1,321	1,360	3.0	1.4
	U.S. exports (million dollars)-----	306	278	277	343	408	19.0	8.2
	U.S. imports (million dollars)-----	198	254	331	359	397	10.6	19.0
	Apparent U.S. consumption (million dollars)-----	1,177	1,264	1,372	1,337	1,349	0.9	3.3
	Trade balance (million dollars)-----	108	24	(54)	(16)	11	-	-
	Ratio of imports to apparent consumption (percent)-----	16.8	20.1	24.1	26.9	29.4	9.6	15.1
	Ratio of exports to shipments (percent)-----	23.8	21.6	21.0	26.0	30.0	15.5	6.7

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME016	Pulp, paper, and paperboard machinery:							
	Establishments (number)-----	250	250	250	250	255	2.0	0.4
	Employees (thousands)-----	15	16	15	15	16	6.7	0.6
	Capacity utilization (percent)-----	71	70	65	65	70	7.7	(1.0)
	U.S. shipments (million dollars)-----	1,130	1,152	1,296	1,612	2,000	24.1	15.9
	U.S. exports (million dollars)-----	227	264	286	328	455	38.7	17.4
	U.S. imports (million dollars)-----	301	442	532	517	726	40.4	21.1
	Apparent U.S. consumption (million dollars)-----	1,204	1,330	1,542	1,801	2,271	26.1	17.0
	Trade balance (million dollars)-----	(74)	(178)	(246)	(189)	(271)	-	-
	Ratio of imports to apparent consumption (percent)-----	25.0	33.2	34.5	28.7	32.0	11.4	3.5
	Ratio of exports to shipments (percent)-----	20.1	22.9	22.1	20.3	22.8	11.8	1.3
ME017	Printing, typesetting, and bookbinding machinery and printing plates:							
	Establishments (number)-----	1,800	1,790	1,790	1,790	1,805	0.8	0.1
	Employees (thousands)-----	59	57	58	59	61	3.4	1.0
	Capacity utilization (percent)-----	83	83	86	86	88	2.3	1.5
	U.S. shipments (million dollars)-----	4,333	4,573	4,757	5,266	6,300	19.6	9.3
	U.S. exports (million dollars)-----	466	440	487	629	806	28.1	15.6
	U.S. imports (million dollars)-----	669	835	1,074	1,132	1,125	(0.6)	14.4
	Apparent U.S. consumption (million dollars)-----	4,536	4,968	5,344	5,769	6,619	14.7	9.5
	Trade balance (million dollars)-----	(203)	(395)	(587)	(503)	(319)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.7	16.8	20.1	19.6	17.0	(13.4)	4.5
	Ratio of exports to shipments (percent)-----	10.8	9.6	10.2	11.9	12.8	7.1	5.8
ME018	Textile machinery and parts:							
	Establishments (number)-----	550	550	550	550	550	0.0	0.0
	Employees (thousands)-----	18	16	16	17	18	5.9	0.6
	Capacity utilization (percent)-----	58	58	58	58	58	0.0	0.0
	U.S. shipments (million dollars)-----	1,089	1,020	1,132	1,226	1,342	9.5	6.2
	U.S. exports (million dollars)-----	276	277	320	369	492	33.3	15.5
	U.S. imports (million dollars)-----	852	699	955	1,212	1,461	20.5	17.7
	Apparent U.S. consumption (million dollars)-----	1,665	1,442	1,767	2,069	2,311	11.7	10.7
	Trade balance (million dollars)-----	(576)	(422)	(635)	(843)	(969)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.2	48.5	54.0	58.6	63.2	7.9	6.3
	Ratio of exports to shipments (percent)-----	25.3	27.2	28.3	30.1	36.7	21.8	8.8

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME019	Metal rolling mills and parts thereof:							
	Establishments (number)-----	25	25	24	20	20	0.0	(6.5)
	Employees (thousands)-----	3	4	4	4	4	0.0	5.9
	Capacity utilization (percent)-----	63	57	71	65	73	12.3	4.4
	U.S. shipments (million dollars)-----	273	352	264	367	340	(7.4)	4.9
	U.S. exports (million dollars)-----	74	97	139	95	126	32.6	11.0
	U.S. imports (million dollars)-----	59	75	112	142	261	83.8	43.5
	Apparent U.S. consumption (million dollars)-----	258	330	237	414	475	14.7	15.6
	Trade balance (million dollars)-----	15	22	27	(47)	(135)	-	-
	Ratio of imports to apparent consumption (percent)-----	22.9	22.7	47.3	34.3	54.9	60.2	24.2
	Ratio of exports to shipments (percent)-----	27.1	27.6	52.7	25.9	37.1	43.2	5.8
ME020	Machine tools for cutting metal and parts; tool holders,:							
	Establishments (number)-----	1,000	970	950	920	880	(4.3)	(3.0)
	Employees (thousands)-----	52	53	49	46	42	(8.7)	(5.5)
	Capacity utilization (percent)-----	40	50	50	70	70	0.0	15.7
	U.S. shipments (million dollars)-----	3,753	3,909	3,884	4,128	3,632	(12.0)	(0.1)
	U.S. exports (million dollars)-----	591	661	741	796	929	16.7	11.5
	U.S. imports (million dollars)-----	1,423	1,825	2,176	1,953	2,100	7.5	8.8
	Apparent U.S. consumption (million dollars)-----	4,585	5,073	5,319	5,285	4,803	(9.1)	1.3
	Trade balance (million dollars)-----	(832)	(1,164)	(1,435)	(1,157)	(1,171)	-	-
	Ratio of imports to apparent consumption (percent)-----	31.0	36.0	40.9	37.0	43.7	18.3	7.4
	Ratio of exports to shipments (percent)-----	15.7	16.9	19.1	19.3	25.6	32.6	11.6
ME021	Machine tools for metal forming and parts thereof:							
	Establishments (number)-----	400	400	390	380	380	0.0	(1.5)
	Employees (thousands)-----	16	18	16	17	18	5.9	1.8
	Capacity utilization (percent)-----	71	69	61	65	70	7.7	(0.9)
	U.S. shipments (million dollars)-----	1,363	1,433	1,430	1,403	1,360	(3.1)	(0.3)
	U.S. exports (million dollars)-----	314	307	372	458	584	27.5	17.8
	U.S. imports (million dollars)-----	308	371	606	545	514	(5.7)	15.1
	Apparent U.S. consumption (million dollars)-----	1,357	1,497	1,664	1,490	1,290	(13.4)	(1.1)
	Trade balance (million dollars)-----	6	(64)	(234)	(87)	70	-	-
	Ratio of imports to apparent consumption (percent)-----	22.7	24.8	36.4	36.6	39.8	8.9	16.4
	Ratio of exports to shipments (percent)-----	23.0	21.4	26.0	32.6	42.9	31.5	18.1



Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME022	Non-metal working machine tools and parts thereof:							
	Establishments (number)-----	375	350	350	350	340	(2.9)	(1.9)
	Employees (thousands)-----	14	13	13	13	14	7.7	0.0
	Capacity utilization (percent)-----	64	65	72	80	85	6.3	8.1
	U.S. shipments (million dollars)-----	1,119	1,193	1,101	1,211	1,332	10.0	3.7
	U.S. exports (million dollars)-----	249	253	260	325	447	37.5	15.3
	U.S. imports (million dollars)-----	284	317	407	488	607	24.4	21.5
	Apparent U.S. consumption (million dollars)-----	1,154	1,257	1,248	1,374	1,492	8.6	6.2
	Trade balance (million dollars)-----	(35)	(64)	(147)	(163)	(160)	-	-
	Ratio of imports to apparent consumption (percent)-----	24.6	25.2	32.6	35.5	40.7	14.5	14.4
	Ratio of exports to shipments (percent)-----	22.3	21.2	23.6	26.8	33.6	25.0	11.2
ME023	Office machines:							
	Establishments (number)-----	2,090	2,180	2,265	2,350	2,540	8.1	4.8
	Employees (thousands)-----	478	464	427	436	459	5.3	(1.4)
	Capacity utilization (percent)-----	72	66	62	65	70	7.7	(0.7)
	U.S. shipments (million dollars)-----	53,046	53,072	51,130	54,141	59,875	10.6	2.7
	U.S. exports (million dollars)-----	14,575	14,918	15,426	18,634	23,066	23.8	12.1
	U.S. imports (million dollars)-----	10,415	11,290	14,441	18,296	22,424	22.6	22.3
	Apparent U.S. consumption (million dollars)-----	48,886	49,444	50,145	53,803	59,233	10.1	4.8
	Trade balance (million dollars)-----	4,160	3,628	985	338	642	-	-
	Ratio of imports to apparent consumption (percent)-----	21.3	22.8	28.8	34.0	37.9	11.3	16.7
	Ratio of exports to shipments (percent)-----	27.5	28.1	30.2	34.4	38.5	11.9	9.2
ME024	Special industry machinery:							
	Establishments (number)-----	5,865	5,898	5,845	5,845	5,800	(0.8)	(0.3)
	Employees (thousands)-----	270	290	300	295	290	(1.7)	1.6
	Capacity utilization (percent)-----	65	67	70	70	72	2.9	2.5
	U.S. shipments (million dollars)-----	21,230	22,450	23,050	24,550	27,000	10.0	5.9
	U.S. exports (million dollars)-----	5,266	5,521	5,173	5,016	6,449	28.6	3.1
	U.S. imports (million dollars)-----	2,972	3,472	4,142	4,791	5,577	16.4	17.1
	Apparent U.S. consumption (million dollars)-----	18,936	20,401	22,019	24,325	26,128	7.4	8.5
	Trade balance (million dollars)-----	2,294	2,049	1,031	225	872	-	-
	Ratio of imports to apparent consumption (percent)-----	15.7	17.0	18.8	19.7	21.3	8.4	7.9
	Ratio of exports to shipments (percent)-----	24.8	24.6	22.4	20.4	23.9	16.9	(2.6)

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME025	Taps, cocks, valves, and similar devices:							
	Establishments (number)-----	945	900	900	910	910	0.0	(0.6)
	Employees (thousands)-----	95	88	88	90	98	8.9	0.9
	Capacity utilization (percent)-----	56	54	55	57	57	0.0	0.9
	U.S. shipments (million dollars)-----	9,026	9,006	8,874	9,140	10,182	11.4	2.6
	U.S. exports (million dollars)-----	673	610	609	711	798	12.2	5.1
	U.S. imports (million dollars)-----	664	839	1,024	1,166	1,413	21.2	20.2
	Apparent U.S. consumption (million dollars)-----	9,017	9,235	9,289	9,595	10,797	12.5	4.1
	Trade balance (million dollars)-----	9	(229)	(415)	(455)	(615)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.4	9.1	11.0	12.2	13.1	7.7	15.5
	Ratio of exports to shipments (percent)-----	7.5	6.8	6.9	7.8	7.8	0.8	2.4
ME026	Ball and roller bearings:							
	Establishments (number)-----	164	177	147	140	142	1.4	(5.1)
	Employees (thousands)-----	43	43	42	41	41	0.0	(1.4)
	Capacity utilization (percent)-----	67	63	59	59	61	3.4	(2.5)
	U.S. shipments (million dollars)-----	4,073	3,931	3,841	3,840	3,975	3.5	(0.7)
	U.S. exports (million dollars)-----	369	341	316	384	443	15.4	5.0
	U.S. imports (million dollars)-----	633	645	672	715	908	27.0	8.6
	Apparent U.S. consumption (million dollars)-----	4,337	4,235	4,197	4,171	4,440	6.4	0.3
	Trade balance (million dollars)-----	(264)	(304)	(356)	(331)	(465)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.6	15.2	16.0	17.1	20.5	19.3	8.3
	Ratio of exports to shipments (percent)-----	9.1	8.7	8.2	10.0	11.1	11.4	5.7
ME027	Gear boxes and other speed changers; torque converters:							
	Establishments (number)-----	300	300	285	270	260	(3.7)	(3.8)
	Employees (thousands)-----	43	39	36	36	34	(5.6)	(5.3)
	Capacity utilization (percent)-----	70	70	75	80	85	6.3	5.4
	U.S. shipments (million dollars)-----	3,400	3,400	3,300	3,800	4,100	7.9	5.0
	U.S. exports (million dollars)-----	209	218	203	216	251	16.2	3.6
	U.S. imports (million dollars)-----	230	282	351	441	559	26.8	24.9
	Apparent U.S. consumption (million dollars)-----	3,421	3,464	3,448	4,025	4,408	9.5	6.8
	Trade balance (million dollars)-----	(21)	(64)	(148)	(225)	(308)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.7	8.1	10.2	11.0	12.7	15.7	17.0
	Ratio of exports to shipments (percent)-----	6.1	6.4	6.2	5.7	6.1	7.7	(1.3)

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME028	Boilers, turbines, and related machinery:							
	Establishments (number)-----	50	45	40	40	40	0.0	(5.5)
	Employees (thousands)-----	51	51	40	40	38	(5.0)	(8.0)
	Capacity utilization (percent)-----	63	61	62	58	55	(5.2)	(3.2)
	U.S. shipments (million dollars)-----	4,475	4,793	3,800	2,841	2,900	2.1	(13.0)
	U.S. exports (million dollars)-----	703	678	513	559	615	10.0	(4.5)
	U.S. imports (million dollars)-----	162	231	236	273	282	3.3	13.6
	Apparent U.S. consumption (million dollars)-----	3,934	4,346	3,523	2,555	2,567	0.5	(12.9)
	Trade balance (million dollars)-----	541	447	277	286	333	-	-
	Ratio of imports to apparent consumption (percent)-----	4.1	5.3	6.7	10.7	11.0	2.8	30.5
	Ratio of exports to shipments (percent)-----	15.7	14.1	13.5	19.7	21.2	7.8	9.7
ME029	Electric motors, generators, and related equipment:							
	Establishments (number)-----	33	328	324	316	316	0.0	56.5
	Employees (thousands)-----	101	94	91	90	91	1.1	(2.5)
	Capacity utilization (percent)-----	68	65	63	62	65	4.8	(1.4)
	U.S. shipments (million dollars)-----	7,765	7,610	7,460	7,550	7,800	3.3	0.0
	U.S. exports (million dollars)-----	1,052	965	887	983	1,382	40.6	5.8
	U.S. imports (million dollars)-----	1,008	1,270	1,395	1,523	1,962	28.8	16.3
	Apparent U.S. consumption (million dollars)-----	7,721	7,915	7,968	8,090	8,380	3.6	1.9
	Trade balance (million dollars)-----	44	(305)	(508)	(540)	(580)	-	-
	Ratio of imports to apparent consumption (percent)-----	13.1	16.0	17.5	18.8	23.4	24.4	14.2
	Ratio of exports to shipments (percent)-----	13.5	12.7	11.9	13.0	17.7	36.1	5.8
ME030	Electrical transformers, static converters, and inductors:							
	Establishments (number)-----	315	320	315	310	305	(1.6)	(1.0)
	Employees (thousands)-----	55	52	51	49	48	(2.0)	(3.3)
	Capacity utilization (percent)-----	71	74	73	71	68	(4.2)	(1.3)
	U.S. shipments (million dollars)-----	4,725	4,805	4,820	4,645	4,570	(1.6)	(1.0)
	U.S. exports (million dollars)-----	406	407	411	451	596	32.2	9.1
	U.S. imports (million dollars)-----	1,083	1,180	1,253	1,611	2,127	32.0	18.1
	Apparent U.S. consumption (million dollars)-----	5,402	5,578	5,662	5,805	6,101	5.1	2.9
	Trade balance (million dollars)-----	(677)	(773)	(842)	(1,160)	(1,531)	-	-
	Ratio of imports to apparent consumption (percent)-----	20.0	21.2	22.1	27.8	34.9	25.6	14.8
	Ratio of exports to shipments (percent)-----	8.6	8.5	8.5	9.7	13.0	34.3	10.2

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME031	Primary cells and batteries and electric storage batteries:							
	Establishments (number)-----	258	252	250	250	250	0.0	(0.7)
	Employees (thousands)-----	36	35	35	36	36	0.0	0.3
	Capacity utilization (percent)-----	84	82	80	84	82	(2.4)	(0.2)
	U.S. shipments (million dollars)-----	4,184	4,222	4,462	4,795	5,131	7.0	5.5
	U.S. exports (million dollars)-----	287	247	253	332	406	22.3	10.4
	U.S. imports (million dollars)-----	305	364	475	611	779	27.5	27.0
	Apparent U.S. consumption (million dollars)-----	4,202	4,339	4,684	5,074	5,504	8.5	7.2
	Trade balance (million dollars)-----	(18)	(117)	(222)	(279)	(373)	-	-
	Ratio of imports to apparent consumption (percent)-----	7.3	8.4	10.1	12.0	14.2	17.5	18.5
	Ratio of exports to shipments (percent)-----	6.9	5.9	5.7	6.9	7.9	14.3	4.6
ME032	Portable electric handtools:							
	Establishments (number)-----	37	35	34	30	30	-0.0	(5.6)
	Employees (thousands)-----	9	9	8	8	8	0.0	(3.5)
	Capacity utilization (percent)-----	60	68	56	62	67	8.1	1.3
	U.S. shipments (million dollars)-----	950	935	920	960	1,000	4.2	1.3
	U.S. exports (million dollars)-----	91	77	79	102	161	57.8	15.3
	U.S. imports (million dollars)-----	189	237	331	388	419	8.0	23.2
	Apparent U.S. consumption (million dollars)-----	1,048	1,095	1,172	1,246	1,258	1.0	5.1
	Trade balance (million dollars)-----	(98)	(160)	(252)	(286)	(258)	-	-
	Ratio of imports to apparent consumption (percent)-----	18.0	21.6	28.2	31.1	33.3	7.0	17.2
	Ratio of exports to shipments (percent)-----	9.6	8.2	8.6	10.6	16.1	51.5	13.8
ME033	Nonelectrically powered hand tools and parts thereof:							
	Establishments (number)-----	60	60	50	50	50	0.0	(5.3)
	Employees (thousands)-----	9	10	9	10	11	10.0	4.1
	Capacity utilization (percent)-----	60	68	56	75	80	6.7	7.0
	U.S. shipments (million dollars)-----	1,076	1,097	1,052	1,157	1,260	8.9	3.8
	U.S. exports (million dollars)-----	234	214	225	271	344	26.9	10.6
	U.S. imports (million dollars)-----	330	370	416	467	477	2.1	10.2
	Apparent U.S. consumption (million dollars)-----	1,172	1,253	1,243	1,353	1,393	3.0	4.3
	Trade balance (million dollars)-----	(96)	(156)	(191)	(196)	(133)	-	-
	Ratio of imports to apparent consumption (percent)-----	28.2	29.5	33.5	34.5	34.2	(0.9)	5.6
	Ratio of exports to shipments (percent)-----	21.7	19.5	21.4	23.4	27.3	16.6	6.6

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME034	Ignition, starting, lighting, and other electrical equipment:							
	Establishments (number)-----	522	522	522	525	525	0.0	0.2
	Employees (thousands)-----	68	66	67	67	68	1.5	0.2
	Capacity utilization (percent)-----	82	82	78	78	78	0.0	(1.5)
	U.S. shipments (million dollars)-----	7,390	7,379	7,801	8,191	8,682	6.0	4.4
	U.S. exports (million dollars)-----	535	545	547	709	776	9.4	10.6
	U.S. imports (million dollars)-----	455	558	825	1,046	1,133	8.3	27.8
	Apparent U.S. consumption (million dollars)-----	7,310	7,392	8,079	8,528	9,039	6.0	5.8
	Trade balance (million dollars)-----	80	(13)	(278)	(337)	(357)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.2	7.5	10.2	12.3	12.5	2.2	20.7
	Ratio of exports to shipments (percent)-----	7.2	7.4	7.0	8.7	8.9	3.3	6.0
ME035	Flashlights and other similar electric lights, light bulbs:							
	Establishments (number)-----	380	380	377	376	380	1.1	(0.1)
	Employees (thousands)-----	36	35	35	34	35	2.9	(0.8)
	Capacity utilization (percent)-----	62	68	65	63	65	3.2	0.2
	U.S. shipments (million dollars)-----	3,937	4,365	4,467	4,826	4,815	(0.2)	5.2
	U.S. exports (million dollars)-----	153	156	166	195	250	28.2	12.8
	U.S. imports (million dollars)-----	328	384	449	497	613	23.3	16.3
	Apparent U.S. consumption (million dollars)-----	4,112	4,593	4,750	5,128	5,178	1.0	5.9
	Trade balance (million dollars)-----	(175)	(228)	(283)	(302)	(363)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.0	8.4	9.5	9.7	11.8	22.1	9.8
	Ratio of exports to shipments (percent)-----	3.9	3.6	3.7	4.0	5.2	28.5	7.3
ME036	Electric and gas welding and soldering equipment:							
	Establishments (number)-----	170	170	170	185	190	2.7	3.1
	Employees (thousands)-----	16	15	15	17	17	0.0	2.5
	Capacity utilization (percent)-----	55	55	55	60	65	8.3	4.3
	U.S. shipments (million dollars)-----	1,500	1,500	1,550	1,700	1,800	5.9	5.0
	U.S. exports (million dollars)-----	517	478	502	622	838	34.7	13.1
	U.S. imports (million dollars)-----	185	265	285	316	381	20.6	17.6
	Apparent U.S. consumption (million dollars)-----	1,168	1,287	1,333	1,394	1,343	(3.7)	3.7
	Trade balance (million dollars)-----	332	213	217	306	457	-	-
	Ratio of imports to apparent consumption (percent)-----	15.8	20.6	21.4	22.7	28.4	25.1	13.4
	Ratio of exports to shipments (percent)-----	34.5	31.9	32.4	36.6	46.6	27.2	7.7

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME037	Telephone and telegraph apparatus:							
	Establishments (number)-----	163	173	161	158	157	(0.6)	(1.6)
	Employees (thousands)-----	133	131	111	103	92	(10.7)	(9.3)
	Capacity utilization (percent)-----	66	62	68	68	67	(1.5)	1.2
	U.S. shipments (million dollars)-----	14,241	16,062	15,133	15,523	15,969	2.9	2.0
	U.S. exports (million dollars)-----	957	1,026	1,107	1,249	1,666	33.4	13.9
	U.S. imports (million dollars)-----	2,266	2,395	2,797	3,347	4,130	23.4	16.6
	Apparent U.S. consumption (million dollars)-----	15,550	17,431	16,823	17,621	18,433	4.6	3.6
	Trade balance (million dollars)-----	(1,309)	(1,369)	(1,690)	(2,098)	(2,464)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.6	13.7	16.6	19.0	22.4	18.0	12.6
	Ratio of exports to shipments (percent)-----	6.7	6.4	7.3	8.0	10.4	29.7	11.7
ME038	Microphones, loudspeakers, audio amplifiers and combinations:							
	Establishments (number)-----	130	130	130	130	128	(1.5)	(0.3)
	Employees (thousands)-----	6	6	5	6	6	0.0	0.0
	Capacity utilization (percent)-----	75	72	70	70	71	1.4	(1.4)
	U.S. shipments (million dollars)-----	922	785	815	935	1,019	9.0	3.8
	U.S. exports (million dollars)-----	181	171	181	234	339	44.9	17.0
	U.S. imports (million dollars)-----	801	942	921	1,044	1,171	12.2	9.0
	Apparent U.S. consumption (million dollars)-----	1,542	1,556	1,555	1,745	1,851	6.1	4.9
	Trade balance (million dollars)-----	(620)	(771)	(740)	(810)	(832)	-	-
	Ratio of imports to apparent consumption (percent)-----	51.9	60.5	59.2	59.8	63.3	5.7	3.9
	Ratio of exports to shipments (percent)-----	19.6	21.8	22.2	25.0	33.3	32.9	12.7
ME039	Tape recorders, tape players, video cassette recorders, turntables,:							
	Establishments (number)-----	54	51	51	50	51	2.0	(1.3)
	Employees (thousands)-----	5	6	6	5	6	20.0	1.8
	Capacity utilization (percent)-----	75	72	61	61	65	6.6	(4.4)
	U.S. shipments (million dollars)-----	316	496	696	778	710	(8.7)	23.0
	U.S. exports (million dollars)-----	209	217	223	263	334	27.0	12.0
	U.S. imports (million dollars)-----	4,134	5,797	6,481	4,769	4,393	(7.9)	(0.7)
	Apparent U.S. consumption (million dollars)-----	4,241	6,076	6,954	5,284	4,769	(9.7)	1.0
	Trade balance (million dollars)-----	(3,925)	(5,580)	(6,258)	(4,506)	(4,099)	-	-
	Ratio of imports to apparent consumption (percent)-----	97.5	95.4	93.2	90.3	92.1	2.1	(1.7)
	Ratio of exports to shipments (percent)-----	66.1	43.8	32.0	33.8	47.0	39.2	(9.0)

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME040	Unrecorded magnetic tapes, discs, and other media:							
	Establishments (number)-----	64	64	65	65	67	3.1	1.1
	Employees (thousands)-----	18	19	18	19	19	0.0	1.1
	Capacity utilization (percent)-----	73	76	78	73	75	2.7	0.1
	U.S. shipments (million dollars)-----	3,037	3,232	3,384	3,194	3,300	3.3	1.6
	U.S. exports (million dollars)-----	494	473	579	773	1,172	51.6	24.8
	U.S. imports (million dollars)-----	710	1,067	1,374	1,301	1,347	3.5	15.9
	Apparent U.S. consumption (million dollars)-----	3,253	3,826	4,179	3,722	3,475	(6.6)	1.1
	Trade balance (million dollars)-----	(216)	(594)	(795)	(528)	(175)	-	-
	Ratio of imports to apparent consumption (percent)-----	21.8	27.9	32.9	35.0	38.8	10.9	14.7
	Ratio of exports to shipments (percent)-----	16.3	14.6	17.1	24.2	35.5	46.7	22.9
ME041	Records, tapes, compact discs, computer software, and other:							
	Establishments (number)-----	15,800	16,000	16,250	16,600	17,000	2.4	1.8
	Employees (thousands)-----	80	78	77	75	72	(4.0)	(2.5)
	Capacity utilization (percent)-----	94	82	84	85	87	2.4	(1.2)
	U.S. shipments (million dollars)-----	5,535	5,664	6,209	7,835	8,300	5.9	12.0
	U.S. exports (million dollars)-----	321	323	413	539	784	45.5	25.8
	U.S. imports (million dollars)-----	178	205	358	334	258	(22.8)	13.1
	Apparent U.S. consumption (million dollars)-----	5,392	5,546	6,154	7,630	7,774	1.9	11.1
	Trade balance (million dollars)-----	143	118	55	205	526	-	-
	Ratio of imports to apparent consumption (percent)-----	3.3	3.7	5.8	4.4	3.3	(24.2)	1.8
	Ratio of exports to shipments (percent)-----	5.8	5.7	6.7	6.9	9.4	37.3	12.3
ME042	Radio transmission and reception apparatus, including cellular:							
	Establishments (number)-----	325	313	318	318	318	0.0	(0.3)
	Employees (thousands)-----	122	130	130	113	115	1.8	(2.6)
	Capacity utilization (percent)-----	78	77	85	87	87	0.0	3.5
	U.S. shipments (million dollars)-----	10,533	11,406	11,827	11,793	11,850	0.5	2.7
	U.S. exports (million dollars)-----	1,188	1,370	1,375	1,578	1,902	20.5	11.4
	U.S. imports (million dollars)-----	4,144	4,876	5,042	5,839	6,935	18.8	12.9
	Apparent U.S. consumption (million dollars)-----	13,489	14,912	15,494	16,054	16,883	5.2	5.4
	Trade balance (million dollars)-----	(2,956)	(3,506)	(3,667)	(4,261)	(5,033)	-	-
	Ratio of imports to apparent consumption (percent)-----	30.7	32.7	32.5	36.4	41.1	12.9	7.1
	Ratio of exports to shipments (percent)-----	11.3	12.0	11.6	13.4	16.1	20.0	8.5

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME043	Radio navigational aid, radar, and remote control apparatus:							
	Establishments (number)-----	135	135	130	120	120	0.0	(3.5)
	Employees (thousands)-----	140	155	161	159	161	1.3	3.1
	Capacity utilization (percent)-----	70	74	74	73	75	2.7	1.3
	U.S. shipments (million dollars)-----	11,327	13,651	14,465	14,647	14,800	1.0	6.2
	U.S. exports (million dollars)-----	811	893	883	1,046	1,300	24.3	11.6
	U.S. imports (million dollars)-----	185	221	336	421	423	0.5	25.8
	Apparent U.S. consumption (million dollars)-----	10,701	12,979	13,918	14,022	13,923	(0.7)	6.2
	Trade balance (million dollars)-----	626	672	547	625	877	-	-
	Ratio of imports to apparent consumption (percent)-----	1.7	1.7	2.4	3.0	3.0	1.2	18.5
	Ratio of exports to shipments (percent)-----	7.2	6.5	6.1	7.1	8.8	23.0	5.1
ME044	Television receivers and video monitors and combinations including:							
	Establishments (number)-----	30	31	35	34	34	0.0	3.5
	Employees (thousands)-----	28	27	27	26	26	0.0	(1.8)
	Capacity utilization (percent)-----	89	80	79	70	70	0.0	(6.0)
	U.S. shipments (million dollars)-----	4,200	4,000	4,100	3,900	4,000	2.6	(1.2)
	U.S. exports (million dollars)-----	369	340	381	423	665	57.2	15.0
	U.S. imports (million dollars)-----	2,954	3,153	3,621	3,396	3,172	(6.6)	2.2
	Apparent U.S. consumption (million dollars)-----	6,785	6,813	7,340	6,873	6,507	(5.3)	(0.7)
	Trade balance (million dollars)-----	(2,585)	(2,813)	(3,240)	(2,973)	(2,507)	-	-
	Ratio of imports to apparent consumption (percent)-----	43.5	46.3	49.3	49.4	48.7	(1.3)	3.0
	Ratio of exports to shipments (percent)-----	8.8	8.5	9.3	10.8	16.6	53.3	16.4
ME045	Television apparatus (except receivers and monitors):							
	Establishments (number)-----	140	145	135	130	130	0.0	(2.5)
	Employees (thousands)-----	14	14	13	13	13	0.0	(2.2)
	Capacity utilization (percent)-----	75	77	77	77	77	0.0	0.5
	U.S. shipments (million dollars)-----	1,136	1,209	1,174	1,150	1,150	0.0	(0.3)
	U.S. exports (million dollars)-----	260	244	272	323	408	26.3	12.5
	U.S. imports (million dollars)-----	1,102	1,002	935	1,019	909	(10.8)	(3.6)
	Apparent U.S. consumption (million dollars)-----	1,978	1,967	1,837	1,846	1,651	(10.6)	(4.2)
	Trade balance (million dollars)-----	(842)	(758)	(663)	(696)	(501)	-	-
	Ratio of imports to apparent consumption (percent)-----	55.7	50.9	50.9	55.2	55.1	(0.3)	0.6
	Ratio of exports to shipments (percent)-----	22.9	20.2	23.2	28.1	35.5	26.3	12.8



Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME046	Electric sound and visual signaling apparatus:							
	Establishments (number)-----	238	233	224	227	230	1.3	(0.9)
	Employees (thousands)-----	29	30	31	32	32	0.0	2.6
	Capacity utilization (percent)-----	69	70	71	71	71	0.0	0.7
	U.S. shipments (million dollars)-----	2,502	2,607	2,725	2,838	2,979	5.0	4.4
	U.S. exports (million dollars)-----	343	282	266	291	364	25.1	1.5
	U.S. imports (million dollars)-----	441	515	659	784	913	16.5	20.6
	Apparent U.S. consumption (million dollars)-----	2,600	2,840	3,118	3,331	3,528	5.9	8.0
	Trade balance (million dollars)-----	(98)	(233)	(393)	(493)	(549)	-	-
	Ratio of imports to apparent consumption (percent)-----	17.0	18.1	21.1	23.5	25.9	10.0	11.7
	Ratio of exports to shipments (percent)-----	13.7	10.8	9.8	10.3	12.2	19.2	(2.8)
ME047	Electrical capacitors and resistors:							
	Establishments (number)-----	175	172	172	158	149	(5.7)	(4.0)
	Employees (thousands)-----	38	32	30	30	33	10.0	(3.4)
	Capacity utilization (percent)-----	76	66	65	71	73	2.8	(0.1)
	U.S. shipments (million dollars)-----	2,526	2,249	2,260	2,350	2,485	5.7	0.1
	U.S. exports (million dollars)-----	520	417	475	551	654	18.7	7.7
	U.S. imports (million dollars)-----	733	575	611	736	848	15.2	5.5
	Apparent U.S. consumption (million dollars)-----	2,739	2,407	2,396	2,535	2,679	5.7	0.1
	Trade balance (million dollars)-----	(213)	(158)	(136)	(185)	(194)	-	-
	Ratio of imports to apparent consumption (percent)-----	26.8	23.9	25.5	29.0	31.7	9.0	5.5
	Ratio of exports to shipments (percent)-----	20.6	18.5	21.0	23.4	26.3	12.2	7.5
ME048	Apparatus for making, breaking, protecting, or connecting electrical:							
	Establishments (number)-----	1,779	1,792	1,773	1,708	1,703	(0.3)	(1.3)
	Employees (thousands)-----	189	186	190	197	199	1.0	1.6
	Capacity utilization (percent)-----	70	62	65	66	67	1.5	(0.3)
	U.S. shipments (million dollars)-----	18,399	17,939	17,824	18,574	19,218	3.5	1.2
	U.S. exports (million dollars)-----	2,180	2,039	2,191	2,553	3,350	31.2	11.5
	U.S. imports (million dollars)-----	1,871	1,949	2,334	2,992	3,858	28.9	20.6
	Apparent U.S. consumption (million dollars)-----	18,090	17,849	17,967	19,013	19,726	3.8	2.4
	Trade balance (million dollars)-----	309	90	(143)	(439)	(508)	-	-
	Ratio of imports to apparent consumption (percent)-----	10.3	10.9	13.0	15.7	19.6	24.3	17.8
	Ratio of exports to shipments (percent)-----	11.8	11.4	12.3	13.7	17.4	26.8	10.1

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME049	Television picture tubes and other cathode ray tubes:							
	Establishments (number)-----	20	19	19	19	19	0.0	(1.0)
	Employees (thousands)-----	17	15	13	12	12	0.0	(8.8)
	Capacity utilization (percent)-----	73	67	69	70	73	4.3	0.4
	U.S. shipments (million dollars)-----	1,057	970	1,041	1,029	1,050	2.0	0.5
	U.S. exports (million dollars)-----	149	161	184	170	276	62.4	13.7
	U.S. imports (million dollars)-----	252	295	362	293	385	31.4	8.8
	Apparent U.S. consumption (million dollars)-----	1,160	1,104	1,219	1,152	1,159	0.6	0.4
	Trade balance (million dollars)-----	(103)	(134)	(178)	(123)	(109)	-	-
	Ratio of imports to apparent consumption (percent)-----	21.7	26.7	29.7	25.4	33.2	30.6	8.3
	Ratio of exports to shipments (percent)-----	14.1	16.6	17.7	16.5	26.3	59.1	13.2
ME050	Special-purpose tubes:							
	Establishments (number)-----	44	44	40	40	40	0.0	(2.8)
	Employees (thousands)-----	14	13	13	13	13	0.0	(1.5)
	Capacity utilization (percent)-----	50	73	82	82	82	0.0	11.7
	U.S. shipments (million dollars)-----	1,179	1,167	1,107	1,147	1,170	2.0	(0.3)
	U.S. exports (million dollars)-----	170	172	206	179	223	24.6	6.0
	U.S. imports (million dollars)-----	80	85	103	142	142	0.0	18.1
	Apparent U.S. consumption (million dollars)-----	1,089	1,080	1,004	1,110	1,089	(1.9)	0.3
	Trade balance (million dollars)-----	90	87	103	37	81	-	-
	Ratio of imports to apparent consumption (percent)-----	7.3	7.9	10.3	12.8	13.0	1.9	17.7
	Ratio of exports to shipments (percent)-----	14.4	14.7	18.6	15.6	19.1	22.1	6.3
ME051	Diodes, transistors, integrated circuits and similar semiconductor:							
	Establishments (number)-----	368	354	349	350	350	0.0	(1.1)
	Employees (thousands)-----	192	190	183	181	181	0.0	(1.7)
	Capacity utilization (percent)-----	83	69	70	77	85	10.4	1.6
	U.S. shipments (million dollars)-----	17,396	14,755	14,599	17,779	21,700	22.1	6.5
	U.S. exports (million dollars)-----	5,371	4,271	4,898	6,270	8,079	28.9	12.8
	U.S. imports (million dollars)-----	7,715	5,747	6,028	7,699	10,862	41.1	10.3
	Apparent U.S. consumption (million dollars)-----	19,740	16,231	15,729	19,208	24,483	27.5	6.2
	Trade balance (million dollars)-----	(2,344)	(1,476)	(1,130)	(1,429)	(2,783)	-	-
	Ratio of imports to apparent consumption (percent)-----	39.1	35.4	38.3	40.1	44.4	10.7	3.8
	Ratio of exports to shipments (percent)-----	30.9	28.9	33.6	35.3	37.2	5.6	5.9

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME052	Insulated electrical wire and cable, and conduit; glass and ceramic:							
	Establishments (number)-----	390	385	380	375	380	1.3	(0.8)
	Employees (thousands)-----	80	75	79	80	82	2.5	1.1
	Capacity utilization (percent)-----	77	70	73	76	80	5.3	1.6
	U.S. shipments (million dollars)-----	9,620	8,990	9,640	10,430	12,120	16.2	6.3
	U.S. exports (million dollars)-----	751	836	885	1,147	1,449	26.3	17.7
	U.S. imports (million dollars)-----	961	1,211	1,461	1,765	2,282	29.3	23.4
	Apparent U.S. consumption (million dollars)-----	9,830	9,365	10,216	11,048	12,953	17.2	7.4
	Trade balance (million dollars)-----	(210)	(375)	(576)	(618)	(833)	-	-
	Ratio of imports to apparent consumption (percent)-----	9.8	12.9	14.3	16.0	17.6	10.3	14.9
	Ratio of exports to shipments (percent)-----	7.8	9.3	9.2	11.0	12.0	8.7	10.7
ME053	Rail locomotive and rolling stock:							
	Establishments (number)-----	130	130	120	120	125	4.2	(1.6)
	Employees (thousands)-----	30	28	24	24	25	4.2	(5.1)
	Capacity utilization (percent)-----	47	49	49	49	55	12.2	3.2
	U.S. shipments (million dollars)-----	2,671	2,295	2,341	2,388	2,550	6.8	(0.5)
	U.S. exports (million dollars)-----	608	446	560	373	344	(7.8)	(12.3)
	U.S. imports (million dollars)-----	358	320	478	593	450	(24.1)	11.3
	Apparent U.S. consumption (million dollars)-----	2,421	2,169	2,259	2,608	2,656	1.8	3.8
	Trade balance (million dollars)-----	250	126	82	(220)	(106)	-	-
	Ratio of imports to apparent consumption (percent)-----	14.8	14.8	21.2	22.7	16.9	(25.5)	7.3
	Ratio of exports to shipments (percent)-----	22.8	19.4	23.9	15.6	13.5	(13.6)	(11.9)
ME054	Automobiles, trucks, buses, and bodies and chassis of the foregoing:							
	Establishments (number)-----	1,075	1,100	1,125	1,130	1,074	(5.0)	0.3
	Employees (thousands)-----	310	313	311	318	312	(1.9)	0.3
	Capacity utilization (percent)-----	83	90	87	86	85	(1.2)	0.0
	U.S. shipments (million dollars)-----	99,425	102,992	98,980	97,975	95,275	(2.8)	(1.3)
	U.S. exports (million dollars)-----	7,170	8,712	9,187	10,236	12,334	20.5	13.3
	U.S. imports (million dollars)-----	38,163	47,463	58,806	61,737	61,584	(0.2)	13.0
	Apparent U.S. consumption (million dollars)-----	130,418	141,743	148,599	149,476	144,525	(3.3)	2.6
	Trade balance (million dollars)-----	(30,993)	(38,751)	(49,619)	(51,501)	(49,250)	-	-
	Ratio of imports to apparent consumption (percent)-----	29.3	33.5	39.6	41.3	42.6	3.2	10.1
	Ratio of exports to shipments (percent)-----	7.2	8.5	9.3	10.4	12.9	23.9	14.8

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME055	Certain motor-vehicle parts:							
	Establishments (number)-----	2,675	2,725	2,700	2,747	2,800	1.9	1.0
	Employees (thousands)-----	378	375	372	380	385	1.3	0.5
	Capacity utilization (percent)-----	79	77	76	75	76	1.3	(1.0)
	U.S. shipments (million dollars)-----	52,583	57,931	57,393	60,696	63,731	5.0	4.4
	U.S. exports (million dollars)-----	4,790	4,918	4,361	4,803	5,772	20.2	3.6
	U.S. imports (million dollars)-----	6,954	7,960	8,977	10,172	11,897	17.0	14.1
	Apparent U.S. consumption (million dollars)-----	54,747	60,973	62,009	66,065	69,856	5.7	5.8
	Trade balance (million dollars)-----	(2,164)	(3,042)	(4,616)	(5,369)	(6,125)	-	-
	Ratio of imports to apparent consumption (percent)-----	12.7	13.1	14.5	15.4	17.0	10.6	7.8
	Ratio of exports to shipments (percent)-----	9.1	8.5	7.6	7.9	9.1	14.5	(0.8)
ME056	Motorcycles, mopeds, and parts:							
	Establishments (number)-----	60	60	60	60	58	(3.3)	(0.7)
	Employees (thousands)-----	4	4	4	4	4	0.0	0.0
	Capacity utilization (percent)-----	76	77	80	78	78	0.0	0.7
	U.S. shipments (million dollars)-----	445	500	525	525	500	(4.8)	2.9
	U.S. exports (million dollars)-----	85	68	75	124	220	77.4	28.4
	U.S. imports (million dollars)-----	713	926	887	610	658	7.9	(5.6)
	Apparent U.S. consumption (million dollars)-----	1,073	1,358	1,337	1,011	938	(7.2)	(5.5)
	Trade balance (million dollars)-----	(628)	(858)	(812)	(486)	(438)	-	-
	Ratio of imports to apparent consumption (percent)-----	66.4	68.2	66.3	60.3	70.1	16.3	(0.1)
	Ratio of exports to shipments (percent)-----	19.1	13.6	14.3	23.6	44.0	86.3	24.9
ME057	Miscellaneous vehicles and transportation-related equipment:							
	Establishments (number)-----	1,240	1,208	1,210	1,212	1,214	0.2	(0.4)
	Employees (thousands)-----	85	80	74	74	75	1.4	(3.2)
	Capacity utilization (percent)-----	51	62	54	54	56	3.7	0.5
	U.S. shipments (million dollars)-----	9,160	8,354	7,455	7,460	7,495	0.5	(5.0)
	U.S. exports (million dollars)-----	3,663	3,798	3,164	3,433	4,116	19.9	1.3
	U.S. imports (million dollars)-----	817	1,150	1,104	1,034	876	(15.3)	0.3
	Apparent U.S. consumption (million dollars)-----	6,314	5,706	5,395	5,061	4,255	(15.9)	(8.7)
	Trade balance (million dollars)-----	2,846	2,648	2,060	2,399	3,240	-	-
	Ratio of imports to apparent consumption (percent)-----	12.9	20.2	20.5	20.4	20.6	0.8	9.9
	Ratio of exports to shipments (percent)-----	40.0	45.5	42.4	46.0	54.9	19.3	6.7

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME058	Aircraft, spacecraft, and related equipment:							
	Establishments (number)-----	300	313	320	340	350	2.9	4.0
	Employees (thousands)-----	453	488	524	544	549	0.9	5.1
	Capacity utilization (percent)-----	68	72	82	88	85	(3.4)	6.7
	U.S. shipments (million dollars)-----	26,072	35,119	43,691	47,443	46,035	(3.0)	15.5
	U.S. exports (million dollars)-----	10,888	14,286	15,101	16,881	19,949	18.2	14.8
	U.S. imports (million dollars)-----	2,850	3,492	4,420	4,570	5,230	14.4	16.0
	Apparent U.S. consumption (million dollars)-----	18,034	24,325	33,010	35,132	31,316	(10.9)	15.9
	Trade balance (million dollars)-----	8,038	10,794	10,681	12,311	14,719	-	-
	Ratio of imports to apparent consumption (percent)-----	15.8	14.4	13.4	13.0	16.7	28.4	0.1
	Ratio of exports to shipments (percent)-----	41.8	40.7	34.6	35.6	43.3	21.8	(0.6)
ME059	Ships, tugs, pleasure boats, and similar vessels:							
	Establishments (number)-----	2,540	2,530	2,515	2,500	2,600	4.0	0.3
	Employees (thousands)-----	155	152	155	152	160	5.3	0.6
	Capacity utilization (percent)-----	58	57	52	55	60	9.1	0.3
	U.S. shipments (million dollars)-----	13,912	13,975	13,729	13,584	14,900	9.7	1.1
	U.S. exports (million dollars)-----	336	406	429	494	854	72.9	22.9
	U.S. imports (million dollars)-----	317	391	430	488	587	20.3	15.6
	Apparent U.S. consumption (million dollars)-----	13,893	13,960	13,730	13,578	14,633	7.8	0.8
	Trade balance (million dollars)-----	19	15	(1)	6	267	-	-
	Ratio of imports to apparent consumption (percent)-----	2.3	2.8	3.1	3.6	4.0	11.6	14.8
	Ratio of exports to shipments (percent)-----	2.4	2.9	3.1	3.6	5.7	57.6	21.6
ME060	Telecommunications apparatus:							
	Establishments (number)-----	702	711	716	767	825	7.6	4.1
	Employees (thousands)-----	227	239	220	216	214	(0.9)	(2.2)
	Capacity utilization (percent)-----	66	62	68	68	67	(1.5)	1.2
	U.S. shipments (million dollars)-----	23,785	27,046	26,633	27,953	29,464	5.4	4.7
	U.S. exports (million dollars)-----	1,972	2,185	2,369	2,652	3,303	24.5	13.0
	U.S. imports (million dollars)-----	3,054	3,069	3,474	4,421	5,816	31.6	18.0
	Apparent U.S. consumption (million dollars)-----	24,867	27,930	27,738	29,722	31,977	7.6	5.8
	Trade balance (million dollars)-----	(1,082)	(884)	(1,105)	(1,769)	(2,513)	-	-
	Ratio of imports to apparent consumption (percent)-----	12.3	11.0	12.5	14.9	18.2	22.3	11.5
	Ratio of exports to shipments (percent)-----	8.3	8.1	8.9	9.5	11.2	18.2	7.9

Table B-5

Machinery and equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
ME061	Electrical and electronic articles, apparatus, and parts not elsewhere:							
	Establishments (number)-----	10,000	9,750	9,950	10,400	10,750	3.4	2.1
	Employees (thousands)-----	96	96	92	94	95	1.1	(0.4)
	Capacity utilization (percent)-----	82	75	81	82	84	2.4	1.4
	U.S. shipments (million dollars)-----	9,300	9,250	9,620	10,300	11,000	6.8	4.5
	U.S. exports (million dollars)-----	427	423	444	517	698	35.0	12.6
	U.S. imports (million dollars)-----	786	835	1,035	1,183	1,295	9.5	14.4
	Apparent U.S. consumption (million dollars)-----	9,659	9,662	10,211	10,966	11,597	5.8	5.0
	Trade balance (million dollars)-----	(359)	(412)	(591)	(666)	(597)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.1	8.6	10.1	10.8	11.2	3.5	8.9
	Ratio of exports to shipments (percent)-----	4.6	4.6	4.6	5.0	6.3	26.4	7.7
ME062	Motors and engines, except internal combustion, aircraft, or electric:							
	Establishments (number)-----	40	40	40	42	42	0.0	1.5
	Employees (thousands)-----	9	9	9	9	9	0.0	0.0
	Capacity utilization (percent)-----	80	80	82	84	82	(2.4)	1.0
	U.S. shipments (million dollars)-----	3,492	3,563	3,567	3,571	3,625	1.5	0.8
	U.S. exports (million dollars)-----	39	46	69	54	87	61.1	19.3
	U.S. imports (million dollars)-----	96	130	129	139	167	20.1	12.5
	Apparent U.S. consumption (million dollars)-----	3,549	3,647	3,627	3,656	3,705	1.3	0.9
	Trade balance (million dollars)-----	(57)	(84)	(60)	(85)	(80)	-	-
	Ratio of imports to apparent consumption (percent)-----	2.7	3.6	3.6	3.8	4.5	18.6	11.5
	Ratio of exports to shipments (percent)-----	1.1	1.3	1.9	1.5	2.4	58.7	18.4

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
	Miscellaneous manufactures:							
GM001	Photographic supplies:							
	Establishments (number)-----	115	118	117	118	118	0.0	0.5
	Employees (thousands)-----	42	39	37	38	38	0.0	(2.2)
	Capacity utilization (percent)-----	77	71	71	73	73	0.0	(0.8)
	U.S. shipments (million dollars)-----	5,426	5,393	5,475	5,585	5,716	2.3	1.4
	U.S. exports (million dollars)-----	1,323	1,176	1,268	1,317	1,429	8.5	2.7
	U.S. imports (million dollars)-----	881	941	1,032	1,152	1,270	10.2	9.8
	Apparent U.S. consumption (million dollars)-----	4,984	5,158	5,239	5,420	5,557	2.5	2.7
	Trade balance (million dollars)-----	442.0	235.0	236.0	165.0	159.0	-	-
	Ratio of imports to apparent consumption (percent)-----	17.7	18.2	19.7	21.3	22.9	7.5	6.9
	Ratio of exports to shipments (percent)-----	24.4	21.8	23.2	23.6	25.0	6.0	1.3
GM002	Exposed photographic plates, film, and paper:							
	Establishments (number)-----	125	140	180	200	200	0.0	13.8
	Employees (thousands)-----	218	221	219	231	231	0.0	1.6
	Capacity utilization (percent)-----	2/	2/	2/	2/	2/	-	-
	U.S. shipments (million dollars)-----	3,806	3,723	3,463	4,033	4,200	4.1	2.8
	U.S. exports (million dollars)-----	84	73	76	82	81	(1.2)	0.4
	U.S. imports (million dollars)-----	32	49	89	67	63	(6.0)	18.1
	Apparent U.S. consumption (million dollars)-----	3,754	3,699	3,476	4,018	4,182	4.1	3.0
	Trade balance (million dollars)-----	52	24	(13)	15	18	-	-
	Ratio of imports to apparent consumption (percent)-----	0.9	1.3	2.6	1.7	1.5	(9.7)	14.7
	Ratio of exports to shipments (percent)-----	2.2	2.0	2.2	2.0	1.9	(5.1)	(2.3)
GM003	Luggage, handbags, and flat goods							
	Establishments (number)-----	865	845	820	771	775	0.5	(3.1)
	Employees (thousands)-----	34	30	27	27	28	3.7	(4.8)
	Capacity utilization (percent)-----	66	71	70	70	85	21.4	5.0
	U.S. shipments (million dollars)-----	1,606	1,473	1,277	1,698	1,715	1.0	2.8
	U.S. exports (million dollars)-----	79	71	72	97	125	28.9	13.1
	U.S. imports (million dollars)-----	1,272	1,369	1,510	1,864	1,921	3.1	12.0
	Apparent U.S. consumption (million dollars)-----	2,799	2,771	2,715	3,465	3,511	1.3	7.0
	Trade balance (million dollars)-----	(1,193)	(1,298)	(1,438)	(1,767)	(1,796)	-	-
	Ratio of imports to apparent consumption (percent)-----	45.4	49.4	55.6	53.8	54.7	1.7	4.7
	Ratio of exports to shipments (percent)-----	4.9	4.8	5.6	5.7	7.3	27.6	10.0

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM004	Certain other leather goods:							
	Establishments (number)-----	420	420	415	396	395	(0.3)	(1.8)
	Employees (thousands)-----	6	6	6	7	7	0.0	4.7
	Capacity utilization (percent)-----	56	59	61	64	65	1.6	3.9
	U.S. shipments (million dollars)-----	310	329	302	383	385	0.5	6.0
	U.S. exports (million dollars)-----	24	21	21	28	33	17.9	9.7
	U.S. imports (million dollars)-----	60	77	94	116	128	10.3	21.2
	Apparent U.S. consumption (million dollars)-----	346	385	375	471	480	1.9	8.9
	Trade balance (million dollars)-----	(36)	(56)	(73)	(88)	(95)	-	-
	Ratio of imports to apparent consumption (percent)-----	17.3	20.0	25.1	24.6	26.7	8.3	11.3
	Ratio of exports to shipments (percent)-----	7.7	6.4	7.0	7.3	8.6	17.2	3.5
GM005	Musical instruments and accessories:							
	Firms (number)-----	425	425	440	470	485	3.2	3.7
	Employees (thousands)-----	16	15	16	16	16	0.0	0.6
	Capacity utilization (percent)-----	51	45	49	52	50	(3.8)	1.1
	U.S. shipments (million dollars)-----	825	750	800	890	915	2.8	3.9
	U.S. exports (million dollars)-----	120	108	127	187	240	28.3	21.4
	U.S. imports (million dollars)-----	399	523	663	892	947	6.2	25.4
	Apparent U.S. consumption (million dollars)-----	1,104	1,165	1,336	1,595	1,622	1.7	11.4
	Trade balance (million dollars)-----	(279)	(415)	(536)	(705)	(707)	-	-
	Ratio of imports to apparent consumption (percent)-----	36.1	44.9	49.6	55.9	58.4	4.4	12.5
	Ratio of exports to shipments (percent)-----	14.5	14.4	15.9	21.0	26.2	24.8	16.8
GM006	Umbrellas, whips, riding crops, and canes:							
	Establishments (number)-----	21	22	22	22	22	0.0	0.9
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	75	75	80	80	80	0.0	2.0
	U.S. shipments (million dollars)-----	21	23	25	26	27	3.8	6.5
	U.S. exports (million dollars)-----	2	1	1	2	3	50.0	16.2
	U.S. imports (million dollars)-----	97	82	103	127	133	4.7	11.3
	Apparent U.S. consumption (million dollars)-----	116	104	127	151	157	4.0	10.3
	Trade balance (million dollars)-----	(95)	(81)	(102)	(125)	(130)	-	-
	Ratio of imports to apparent consumption (percent)-----	83.6	78.8	81.1	84.1	84.7	0.7	0.9
	Ratio of exports to shipments (percent)-----	9.5	4.3	4.0	7.7	11.1	44.4	9.2



Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM007	Silverware and certain other articles of precious metal:							
	Establishments (number)-----	51	48	47	47	46	(2.1)	(2.2)
	Employees (thousands)-----	2	2	2	2	2	0.0	0.0
	Capacity utilization (percent)-----	70	71	71	71	71	0.0	0.3
	U.S. shipments (million dollars)-----	191	169	168	170	167	(1.8)	(2.6)
	U.S. exports (million dollars)-----	42	29	38	61	71	16.4	19.6
	U.S. imports (million dollars)-----	28	55	49	66	64	(3.0)	20.1
	Apparent U.S. consumption (million dollars)-----	177	195	179	175	160	(8.6)	(3.1)
	Trade balance (million dollars)-----	14	(26)	(11)	(5)	7	-	-
	Ratio of imports to apparent consumption (percent)-----	15.8	28.2	27.4	37.7	40.0	6.1	23.9
	Ratio of exports to shipments (percent)-----	22.0	17.2	22.6	35.9	42.5	18.5	22.8
GM008	Precious jewelry and related articles:							
	Firms (number)-----	1,550	1,780	2,000	2,150	2,200	2.3	9.3
	Employees (thousands)-----	35	36	36	36	36	0.0	0.6
	Capacity utilization (percent)-----	56	51	50	48	48	0.0	(3.6)
	U.S. shipments (million dollars)-----	3,455	3,482	3,476	3,500	3,580	2.3	0.8
	U.S. exports (million dollars)-----	118	137	177	225	323	43.6	28.5
	U.S. imports (million dollars)-----	1,467	1,991	2,218	2,384	2,548	6.9	13.7
	Apparent U.S. consumption (million dollars)-----	4,804	5,336	5,517	5,659	5,805	2.6	4.5
	Trade balance (million dollars)-----	(1,349)	(1,854)	(2,041)	(2,159)	(2,225)	-	-
	Ratio of imports to apparent consumption (percent)-----	30.5	37.3	40.2	42.1	43.9	4.2	8.8
	Ratio of exports to shipments (percent)-----	3.4	3.9	5.1	6.4	9.0	40.3	27.6
GM009	Costume jewelry and related articles:							
	Firms (number)-----	650	800	890	950	940	(1.1)	9.5
	Employees (thousands)-----	19	19	19	19	18	(5.3)	(1.1)
	Capacity utilization (percent)-----	70	60	59	60	58	(3.3)	(3.7)
	U.S. shipments (million dollars)-----	1,183	1,216	1,265	1,320	1,280	(3.0)	2.4
	U.S. exports (million dollars)-----	32	31	42	48	65	35.4	20.4
	U.S. imports (million dollars)-----	298	366	363	369	376	1.9	4.8
	Apparent U.S. consumption (million dollars)-----	1,449	1,551	1,586	1,641	1,591	(3.0)	2.5
	Trade balance (million dollars)-----	(266)	(335)	(321)	(321)	(311)	-	-
	Ratio of imports to apparent consumption (percent)-----	20.6	23.6	22.9	22.5	23.6	5.1	2.3
	Ratio of exports to shipments (percent)-----	2.7	2.5	3.3	3.6	5.1	39.6	17.5

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM010	Bicycles:							
	Establishments (number)-----	40	40	35	35	30	(14.3)	(6.8)
	Employees (thousands)-----	7	7	6	6	5	(16.7)	(7.9)
	Capacity utilization (percent)-----	65	47	52	55	50	(9.1)	(3.6)
	U.S. shipments (million dollars)-----	640	615	560	560	505	(9.8)	(5.5)
	U.S. exports (million dollars)-----	12	8	19	13	21	61.5	17.4
	U.S. imports (million dollars)-----	431	478	618	734	640	(12.8)	13.0
	Apparent U.S. consumption (million dollars)-----	1,059	1,085	1,159	1,281	1,124	(12.3)	2.9
	Trade balance (million dollars)-----	(419)	(470)	(599)	(721)	(619)	-	-
	Ratio of imports to apparent consumption (percent)-----	40.7	44.1	53.3	57.3	56.9	(0.6)	9.8
	Ratio of exports to shipments (percent)-----	1.9	1.3	3.4	2.3	4.2	79.1	24.3
GM011	Optical fibers, optical fiber bundles and cables:							
	Establishments (number)-----	15	30	35	50	48	(4.0)	32.8
	Employees (thousands)-----	3	3	4	5	5	0.0	16.6
	Capacity utilization (percent)-----	90	90	75	75	85	13.3	(2.9)
	U.S. shipments (million dollars)-----	280	595	658	640	660	3.1	19.6
	U.S. exports (million dollars)-----	26	34	68	65	73	12.3	31.2
	U.S. imports (million dollars)-----	5	97	72	21	33	57.1	25.2
	Apparent U.S. consumption (million dollars)-----	259	658	662	596	620	4.0	17.9
	Trade balance (million dollars)-----	21	(63)	(4)	44	40	-	-
	Ratio of imports to apparent consumption (percent)-----	1.9	14.7	10.9	3.5	5.3	51.1	6.2
	Ratio of exports to shipments (percent)-----	9.3	5.7	10.3	10.2	11.1	8.9	9.7
GM012	Optical goods, including ophthalmic goods:							
	Establishments (number)-----	880	900	900	900	900	0.0	0.5
	Employees (thousands)-----	54	55	55	58	58	0.0	2.0
	Capacity utilization (percent)-----	73	74	74	76	77	1.3	1.3
	U.S. shipments (million dollars)-----	2,820	3,105	3,300	3,600	3,800	5.6	7.7
	U.S. exports (million dollars)-----	386	507	606	630	657	4.3	13.7
	U.S. imports (million dollars)-----	1,206	1,277	1,500	1,609	1,707	6.1	9.7
	Apparent U.S. consumption (million dollars)-----	3,640	3,875	4,194	4,579	4,850	5.9	7.7
	Trade balance (million dollars)-----	(820)	(770)	(894)	(979)	(1,050)	-	-
	Ratio of imports to apparent consumption (percent)-----	33.1	33.0	35.8	35.1	35.2	0.2	1.9
	Ratio of exports to shipments (percent)-----	13.7	16.3	18.4	17.5	17.3	(1.2)	5.5

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM013	Photographic cameras and equipment:							
	Establishments (number)-----	652	670	663	667	667	0.0	0.4
	Employees (thousands)-----	16	15	14	14	14	0.0	(3.3)
	Capacity utilization (percent)-----	77	71	71	73	73	0.0	(0.8)
	U.S. shipments (million dollars)-----	1,816	1,803	1,671	1,704	2,270	33.2	4.0
	U.S. exports (million dollars)-----	826	780	800	803	1,035	28.9	4.9
	U.S. imports (million dollars)-----	1,087	1,134	1,474	1,472	1,463	(0.6)	8.9
	Apparent U.S. consumption (million dollars)-----	2,077	2,157	2,345	2,373	2,698	13.7	6.4
	Trade balance (million dollars)-----	(261)	(354)	(674)	(669)	(428)	-	-
	Ratio of imports to apparent consumption (percent)-----	52.3	52.6	62.9	62.0	54.2	(12.6)	2.4
	Ratio of exports to shipments (percent)-----	45.5	43.3	47.9	47.1	45.6	(3.2)	0.9
GM014	Medical goods:							
	Establishments (number)-----	2,270	2,270	2,280	2,290	2,290	0.0	0.3
	Employees (thousands)-----	165	165	165	160	162	1.3	(0.7)
	Capacity utilization (percent)-----	74	74	75	77	81	5.2	2.2
	U.S. shipments (million dollars)-----	12,245	13,065	13,400	14,000	15,580	11.3	5.7
	U.S. exports (million dollars)-----	2,139	2,258	2,596	3,034	3,895	28.4	16.1
	U.S. imports (million dollars)-----	1,317	1,612	2,053	2,321	2,761	19.0	20.3
	Apparent U.S. consumption (million dollars)-----	11,423	12,419	12,857	13,287	14,446	8.7	5.5
	Trade balance (million dollars)-----	822	646	543	713	1,134	-	-
	Ratio of imports to apparent consumption (percent)-----	11.5	13.0	16.0	17.5	19.1	9.4	14.0
	Ratio of exports to shipments (percent)-----	17.5	17.3	19.4	21.7	25.0	15.4	9.9
GM015	Scientific instruments:							
	Establishments (number)-----	1,830	1,820	1,810	1,770	1,750	(1.1)	(1.2)
	Employees (thousands)-----	330	330	328	325	310	(4.6)	(1.4)
	Capacity utilization (percent)-----	75	75	76	76	77	1.3	0.7
	U.S. shipments (million dollars)-----	23,800	24,500	25,200	25,750	28,000	8.7	3.8
	U.S. exports (million dollars)-----	5,107	5,274	5,294	5,820	7,051	21.2	7.7
	U.S. imports (million dollars)-----	1,926	2,293	2,726	3,181	3,599	13.1	17.1
	Apparent U.S. consumption (million dollars)-----	20,619	21,519	22,632	23,111	24,548	6.2	4.3
	Trade balance (million dollars)-----	3,181	2,981	2,568	2,639	3,452	-	-
	Ratio of imports to apparent consumption (percent)-----	9.3	10.7	12.0	13.8	14.7	6.5	12.3
	Ratio of exports to shipments (percent)-----	21.5	21.5	21.0	22.6	25.2	11.4	3.8

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM016	Watches:							
	Establishments (number)-----	12	10	9	9	9	0.0	(6.6)
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	45	45	46	53	57	7.5	6.6
	U.S. shipments (million dollars)-----	125	120	129	147	151	2.7	6.0
	U.S. exports (million dollars)-----	53	47	49	56	77	37.5	9.7
	U.S. imports (million dollars)-----	996	1,138	1,262	1,470	1,682	14.4	13.9
	Apparent U.S. consumption (million dollars)-----	1,068	1,211	1,342	1,561	1,756	12.5	13.3
	Trade balance (million dollars)-----	(943)	(1,091)	(1,213)	(1,414)	(1,605)	-	-
	Ratio of imports to apparent consumption (percent)-----	93.3	94.0	94.0	94.2	95.8	1.7	0.6
	Ratio of exports to shipments (percent)-----	42.4	39.2	38.0	38.1	51.0	33.9	3.5
GM017	Clocks and timing devices:							
	Establishments (number)-----	60	65	60	60	50	(16.7)	(4.3)
	Employees (thousands)-----	5	5	3	3	2	(33.3)	(20.9)
	Capacity utilization (percent)-----	60	65	65	65	65	0.0	1.6
	U.S. shipments (million dollars)-----	399	479	461	480	475	(1.0)	3.6
	U.S. exports (million dollars)-----	35	41	40	46	58	26.1	11.9
	U.S. imports (million dollars)-----	268	268	318	293	303	3.4	3.4
	Apparent U.S. consumption (million dollars)-----	632	706	739	727	720	(1.0)	2.9
	Trade balance (million dollars)-----	(233)	(227)	(278)	(247)	(245)	-	-
	Ratio of imports to apparent consumption (percent)-----	42.4	38.0	43.0	40.3	42.1	4.4	0.4
	Ratio of exports to shipments (percent)-----	8.8	8.6	8.7	9.6	12.2	27.4	8.1
GM018	Arms and ammunition:							
	Establishments (number)-----	353	362	368	371	375	1.1	1.5
	Employees (thousands)-----	80	82	85	88	90	2.3	3.1
	Capacity utilization (percent)-----	55	54	60	70	75	7.1	9.2
	U.S. shipments (million dollars)-----	4,090	4,000	4,300	4,800	5,200	8.3	6.8
	U.S. exports (million dollars)-----	1,913	1,679	1,434	1,529	1,718	12.4	(3.0)
	U.S. imports (million dollars)-----	205	259	352	382	435	13.9	20.8
	Apparent U.S. consumption (million dollars)-----	2,382	2,580	3,218	3,653	3,917	7.2	14.4
	Trade balance (million dollars)-----	1,708	1,420	1,082	1,147	1,283	-	-
	Ratio of imports to apparent consumption (percent)-----	8.6	10.0	10.9	10.5	11.1	6.2	5.7
	Ratio of exports to shipments (percent)-----	46.8	42.0	33.3	31.9	33.0	3.7	(9.3)

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM019	Furniture and selected furnishings:							
	Establishments (number)-----	11,100	11,000	11,000	11,000	10,900	(0.9)	(0.4)
	Employees (thousands)-----	480	485	485	485	475	(2.1)	(0.2)
	Capacity utilization (percent)-----	75	78	78	78	75	(3.8)	0.0
	U.S. shipments (million dollars)-----	27,000	31,000	33,000	33,000	33,000	0.0	4.7
	U.S. exports (million dollars)-----	628	568	543	633	847	33.8	7.3
	U.S. imports (million dollars)-----	2,536	3,316	4,056	4,535	4,741	4.5	16.9
	Apparent U.S. consumption (million dollars)-----	28,908	33,748	36,513	36,902	36,894	(0.0)	5.9
	Trade balance (million dollars)-----	(1,908)	(2,748)	(3,513)	(3,902)	(3,894)	-	-
	Ratio of imports to apparent consumption (percent)-----	8.8	9.8	11.1	12.3	12.9	4.6	10.4
	Ratio of exports to shipments (percent)-----	2.3	1.8	1.6	1.9	2.6	33.8	2.5
GM020	Writing instruments and related articles:							
	Establishments (number)-----	255	254	254	254	254	0.0	(0.1)
	Employees (thousands)-----	14	15	15	15	15	0.0	1.4
	Capacity utilization (percent)-----	76	70	82	82	82	0.0	3.2
	U.S. shipments (million dollars)-----	1,071	1,105	1,212	1,260	1,300	3.2	5.3
	U.S. exports (million dollars)-----	111	97	106	131	167	27.5	11.8
	U.S. imports (million dollars)-----	171	191	246	279	345	23.7	19.5
	Apparent U.S. consumption (million dollars)-----	1,131	1,199	1,352	1,408	1,478	5.0	7.2
	Trade balance (million dollars)-----	(60)	(94)	(140)	(148)	(178)	-	-
	Ratio of imports to apparent consumption (percent)-----	15.1	15.9	18.2	19.8	23.3	17.8	11.5
	Ratio of exports to shipments (percent)-----	10.4	8.8	8.7	10.4	12.8	23.6	6.2
GM021	Certain office and cosmetic supplies:							
	Establishments (number)-----	740	740	740	740	740	0.0	0.0
	Employees (thousands)-----	13	13	12	14	14	0.0	2.2
	Capacity utilization (percent)-----	72	72	67	70	71	1.4	(0.6)
	U.S. shipments (million dollars)-----	940	870	860	1,010	1,030	2.0	3.4
	U.S. exports (million dollars)-----	61	60	69	78	102	30.8	13.8
	U.S. imports (million dollars)-----	166	193	216	107	125	16.8	(10.9)
	Apparent U.S. consumption (million dollars)-----	1,045	1,003	1,007	1,039	1,053	1.3	0.5
	Trade balance (million dollars)-----	(105)	(133)	(147)	(29)	(23)	-	-
	Ratio of imports to apparent consumption (percent)-----	15.9	19.2	21.4	10.3	11.9	15.3	(11.4)
	Ratio of exports to shipments (percent)-----	6.5	6.9	8.0	7.7	9.9	28.2	10.1

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM022	Lamps and lighting fittings:							
	Establishments (number)-----	1,670	1,665	1,660	1,655	1,650	(0.3)	(0.3)
	Employees (thousands)-----	80	84	84	84	84	0.0	1.0
	Capacity utilization (percent)-----	68	69	63	65	67	3.1	(0.9)
	U.S. shipments (million dollars)-----	6,700	7,400	7,800	7,900	8,100	2.5	4.5
	U.S. exports (million dollars)-----	175	136	139	157	203	29.3	4.5
	U.S. imports (million dollars)-----	448	554	674	838	1,020	21.7	22.9
	Apparent U.S. consumption (million dollars)-----	6,973	7,818	8,335	8,581	8,917	3.9	6.0
	Trade balance (million dollars)-----	(273)	(418)	(535)	(681)	(817)	-	-
	Ratio of imports to apparent consumption (percent)-----	6.4	7.1	8.1	9.8	11.4	17.1	15.9
	Ratio of exports to shipments (percent)-----	2.6	1.8	1.8	2.0	2.5	26.1	(0.0)
GM023	Prefabricated buildings:							
	Establishments (number)-----	1,597	1,545	1,533	1,517	1,501	(1.1)	(1.4)
	Employees (thousands)-----	87	83	82	88	89	1.1	1.0
	Capacity utilization (percent)-----	65	65	66	67	68	1.5	1.2
	U.S. shipments (million dollars)-----	8,117	8,195	8,465	9,352	9,922	6.1	5.5
	U.S. exports (million dollars)-----	98	102	81	92	114	23.9	2.0
	U.S. imports (million dollars)-----	11	22	37	43	32	(25.6)	32.4
	Apparent U.S. consumption (million dollars)-----	8,030	8,115	8,421	9,303	9,840	5.8	5.6
	Trade balance (million dollars)-----	87	80	44	49	82	-	-
	Ratio of imports to apparent consumption (percent)-----	0.1	0.3	0.4	0.5	0.3	(29.6)	25.4
	Ratio of exports to shipments (percent)-----	1.2	1.2	1.0	1.0	1.1	16.8	(3.3)
GM024	Children's vehicles:							
	Establishments (number)-----	50	50	45	45	45	0.0	(3.1)
	Employees (thousands)-----	4	3	3	3	3	0.0	(5.6)
	Capacity utilization (percent)-----	73	76	68	70	70	0.0	(1.6)
	U.S. shipments (million dollars)-----	327	331	254	260	255	(1.9)	(7.1)
	U.S. exports (million dollars)-----	3	3	3	10	14	40.0	53.5
	U.S. imports (million dollars)-----	63	86	120	257	190	(26.1)	39.1
	Apparent U.S. consumption (million dollars)-----	387	414	371	507	431	(15.0)	4.3
	Trade balance (million dollars)-----	(60)	(83)	(117)	(247)	(176)	-	-
	Ratio of imports to apparent consumption (percent)-----	16.3	20.8	32.3	50.7	44.1	(13.0)	33.4
	Ratio of exports to shipments (percent)-----	0.9	0.9	1.2	3.8	5.5	42.7	65.3

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM025	Dolls:							
	Establishments (number)-----	230	230	215	195	180	(7.7)	(6.3)
	Employees (thousands)-----	7	7	6	5	4	(20.0)	(13.5)
	Capacity utilization (percent)-----	75	75	70	70	70	0.0	(2.0)
	U.S. shipments (million dollars)-----	211	225	179	160	140	(12.5)	(11.0)
	U.S. exports (million dollars)-----	8	6	5	5	8	60.0	(1.8)
	U.S. imports (million dollars)-----	515	626	543	513	559	9.0	(0.4)
	Apparent U.S. consumption (million dollars)-----	718	845	717	668	691	3.4	(3.1)
	Trade balance (million dollars)-----	(507)	(620)	(538)	(508)	(551)	-	-
	Ratio of imports to apparent consumption (percent)-----	71.7	74.1	75.7	76.8	80.9	5.3	2.8
	Ratio of exports to shipments (percent)-----	3.8	2.7	2.8	3.1	5.7	82.9	10.3
GM026	Toys and models:							
	Establishments (number)-----	480	420	400	380	350	(7.9)	(7.1)
	Employees (thousands)-----	22	22	20	19	17	(10.5)	(6.4)
	Capacity utilization (percent)-----	68	67	63	69	71	2.9	1.2
	U.S. shipments (million dollars)-----	1654	1755	1710	1695	1510	(10.9)	(2.1)
	U.S. exports (million dollars)-----	187	170	165	216	307	42.1	13.1
	U.S. imports (million dollars)-----	1301	1842	2077	2533	2389	(5.7)	16.6
	Apparent U.S. consumption (million dollars)-----	2,768	3,427	3,622	4,012	3,592	(10.5)	7.0
	Trade balance (million dollars)-----	(1,114)	(1,672)	(1,912)	(2,317)	(2,082)	-	-
	Ratio of imports to apparent consumption (percent)-----	47.0	53.7	57.3	63.1	66.5	5.3	8.9
	Ratio of exports to shipments (percent)-----	11.3	9.7	9.6	12.7	20.3	59.5	15.6
GM027	Games and fairground amusements:							
	Establishments (number)-----	200	225	240	315	325	3.2	14.0
	Employees (thousands)-----	40	45	60	65	68	4.6	15.4
	Capacity utilization (percent)-----	40	50	55	60	65	8.3	12.2
	U.S. shipments (million dollars)-----	1367	991	865	925	960	3.8	(7.5)
	U.S. exports (million dollars)-----	165	132	159	232	316	36.2	20.5
	U.S. imports (million dollars)-----	370	279	435	889	1706	91.9	52.4
	Apparent U.S. consumption (million dollars)-----	1,572	1,138	1,141	1,582	2,350	48.5	12.0
	Trade balance (million dollars)-----	(205)	(147)	(276)	(657)	(1,390)	-	-
	Ratio of imports to apparent consumption (percent)-----	23.5	24.5	38.1	56.2	72.6	29.2	36.1
	Ratio of exports to shipments (percent)-----	12.1	13.3	18.4	25.1	32.9	31.2	30.2

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM028	Sporting goods:							
	Establishments (number)-----	1506	1569	1595	1645	1675	1.8	2.6
	Employees (thousands)-----	44	40	43	46	50	8.7	4.0
	Capacity utilization (percent)-----	65	65	70	70	75	7.1	3.7
	U.S. shipments (million dollars)-----	3063	3035	3212	3500	4000	14.3	7.0
	U.S. exports (million dollars)-----	263	237	261	366	558	52.5	21.4
	U.S. imports (million dollars)-----	834	920	1173	1366	1494	9.4	16.9
	Apparent U.S. consumption (million dollars)-----	3,634	3,718	4,124	4,500	4,936	9.7	8.4
	Trade balance (million dollars)-----	(571)	(683)	(912)	(1,000)	(936)	-	-
	Ratio of imports to apparent consumption (percent)-----	22.9	24.7	28.4	30.4	30.3	(0.3)	7.9
	Ratio of exports to shipments (percent)-----	8.6	7.8	8.1	10.5	14.0	33.4	13.5
GM029	Smokers' articles:							
	Establishments (number)-----	20	20	22	18	18	0.0	(3.1)
	Employees (thousands)-----	1	1	1	1	1	0.0	0.0
	Capacity utilization (percent)-----	76	68	65	65	64	(1.5)	(3.8)
	U.S. shipments (million dollars)-----	135	145	150	155	160	3.2	4.1
	U.S. exports (million dollars)-----	15	11	14	20	27	35.0	19.4
	U.S. imports (million dollars)-----	84	111	117	111	109	(1.8)	5.3
	Apparent U.S. consumption (million dollars)-----	204	245	253	246	242	(1.6)	3.5
	Trade balance (million dollars)-----	(69)	(100)	(103)	(91)	(82)	-	-
	Ratio of imports to apparent consumption (percent)-----	41.2	45.3	46.2	45.1	45.0	(0.2)	1.8
	Ratio of exports to shipments (percent)-----	11.1	7.6	9.3	12.9	16.9	30.8	14.6
GM030	Works of art, collectors' pieces, and antiques:							
	Establishments (number)-----	464	487	579	695	750	7.9	14.1
	Employees (thousands)-----	5	5	6	7	8	14.3	13.6
	Capacity utilization (percent)-----	45	45	45	45	45	0.0	0.0
	U.S. shipments (million dollars)-----	4242	4471	5503	11048	15000	35.8	40.9
	U.S. exports (million dollars)-----	370	390	480	671	911	35.8	26.4
	U.S. imports (million dollars)-----	2241	2050	1988	1806	1929	6.8	(4.2)
	Apparent U.S. consumption (million dollars)-----	6,113	6,131	7,011	12,183	16,018	31.5	29.9
	Trade balance (million dollars)-----	(1,871)	(1,660)	(1,508)	(1,135)	(1,018)	-	-
	Ratio of imports to apparent consumption (percent)-----	36.7	33.4	28.4	14.8	12.0	(18.8)	(26.2)
	Ratio of exports to shipments (percent)-----	8.7	8.7	8.7	6.1	6.1	(0.0)	(10.3)



Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM031	Brooms, brushes, and hair grooming articles:							
	Establishments (number)-----	365	370	370	370	370	0.0	0.3
	Employees (thousands)-----	17	17	17	17	17	0.0	0.0
	Capacity utilization (percent)-----	69	61	64	65	65	0.0	(0.6)
	U.S. shipments (million dollars)-----	890	774	805	837	850	1.6	(0.1)
	U.S. exports (million dollars)-----	60	53	50	64	90	40.6	10.5
	U.S. imports (million dollars)-----	163	177	216	299	337	12.7	21.9
	Apparent U.S. consumption (million dollars)-----	993	898	971	1,072	1,097	2.3	3.8
	Trade balance (million dollars)-----	(103)	(124)	(166)	(235)	(247)	-	-
	Ratio of imports to apparent consumption (percent)-----	16.4	19.7	22.2	27.9	30.7	10.1	17.4
	Ratio of exports to shipments (percent)-----	6.7	6.8	6.2	7.6	10.6	38.5	10.7
GM032	Apparel fasteners:							
	Establishments (number)-----	305	300	280	230	225	(2.2)	(8.4)
	Employees (thousands)-----	15	14	12	9	9	0.0	(13.6)
	Capacity utilization (percent)-----	58	60	60	61	64	4.9	2.2
	U.S. shipments (million dollars)-----	920	960	870	650	680	4.6	(9.5)
	U.S. exports (million dollars)-----	25	21	22	22	26	18.2	1.3
	U.S. imports (million dollars)-----	49	40	48	57	57	0.0	6.8
	Apparent U.S. consumption (million dollars)-----	944	979	896	685	711	3.8	(8.8)
	Trade balance (million dollars)-----	(24)	(19)	(26)	(35)	(31)	-	-
	Ratio of imports to apparent consumption (percent)-----	5.2	4.1	5.4	8.3	8.0	(3.7)	17.1
	Ratio of exports to shipments (percent)-----	2.7	2.2	2.5	3.4	3.8	13.0	11.8

Table B-6

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1984-88--Continued

USITC code	Commodity group	1984	1985	1986	1987	1988	Percentage point change, 1988 over 1987	Annual rate of change 1/ 1984-1988
GM033	Miscellaneous articles:							
	Establishments (number)-----	1,040	999	989	970	961	(0.9)	(1.9)
	Employees (thousands)-----	14	14	14	14	14	0.0	0.0
	Capacity utilization (percent)-----	68	68	70	70	70	0.0	0.9
	U.S. shipments (million dollars)-----	981	958	992	1,056	1,098	4.0	3.3
	U.S. exports (million dollars)-----	284	283	330	449	617	37.4	22.3
	U.S. imports (million dollars)-----	447	478	530	679	779	14.7	15.7
	Apparent U.S. consumption (million dollars)-----	1,144	1,153	1,192	1,286	1,260	(2.0)	3.1
	Trade balance (million dollars)-----	(163)	(195)	(200)	(230)	(162)	-	-
	Ratio of imports to apparent consumption (percent)-----	39.1	41.5	44.5	52.8	61.8	17.1	12.3
	Ratio of exports to shipments (percent)-----	29.0	29.5	33.3	42.5	56.2	32.2	18.4

1/ The figure shown represents the compound rate of change of a trend line plotted through 1984-1988 data using linear regression.

2/ Not available.