

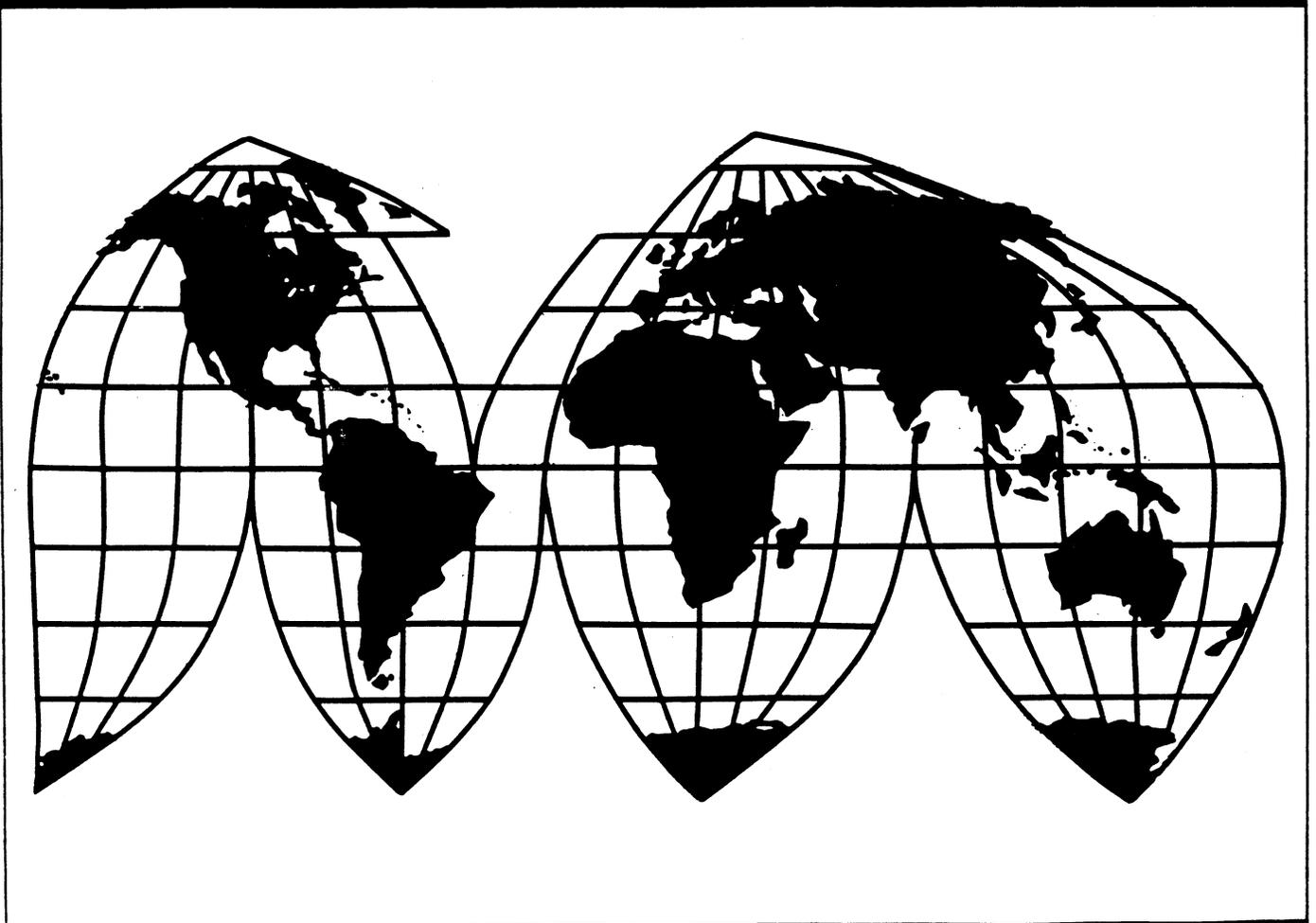
# Shifts in U.S. Merchandise Trade in 1995

Investigation No. 332-345

Publication 2992

September 1996

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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# PREFACE

On August 27, 1993, on its own motion and pursuant to section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)), the U.S. International Trade Commission (USITC) instituted investigation No. 332-345, *Annual Reports on U.S. Trade Shifts in Selected Industries*, for the purpose of preparing annual trade shifts reports for a period of 3 years (covering trade in 1993-95). The current report format was developed by the USITC in response to congressional interest in establishing a systematic means of examining and reporting on the significance of major trade shifts, by product and with leading U.S. trading partners, in the services sector and in all agricultural and manufacturing industries.

On December 20, 1994, the Commission on its own motion expanded the scope of this study to include selected service industries. Under the expanded scope, the Commission will publish two reports annually, one entitled *Shifts in U.S. Merchandise Trade* and the second entitled *U.S. Trade Shifts in Selected Industries: Services*. A separate report covering services trade was instituted in order to provide more comprehensive coverage of U.S. trade performance and overall economic competitiveness.

A significant amount of the work contained in this recurring report is basic research required to maintain a proficient level of trade expertise that the Commission has found essential in its statutory investigations and in apprising its varied customer base of global industry trends, regional developments, and competition issues. The information compiled in this report, such as import, export, trade balance, and industry profile data (domestic consumption, production, employment, and import penetration) for nearly 300 major industry/commodity groups, is not replicated elsewhere in the Government.

The current report briefly summarizes and analyzes the major trade shifts that occurred in 1995 in terms of both industries/commodities and the leading U.S. trading partners. This report also summarizes trade information and profiles basic statistics of industry/commodity groups.

The information and analysis in this report are for the purpose of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under other statutory authority.



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# Glossary of Frequently Used Abbreviations and Acronyms

ACPC	Association of Coffee Producing Countries
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ATC	Uruguay Round Agreement on Textiles and Clothing
Bbl	A barrel of 158.98 liters measured at 15.6° C
BEA	Bureau of Economic Analysis
CBERA	Caribbean Basin Economic Recovery Act
ECU	European Currency Unit
EIU	The Economist Intelligence Unit
ELS	Extra-long staple
EU or EU-15	European Union
FAS	Foreign Agriculture Service
FIE	Foreign-invested enterprises
F.R.	Federal Register
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
GPO	Government Printing Office
HTS	Harmonized Tariff Schedules
IMF	International Monetary Fund
ITA	International Trade Administration
lb./ac.	Pounds per acre
MFA	Multifiber Arrangement
MFN	Most favored nation
NAFTA	North American Free-Trade Agreement
NICs	Newly industrialized countries
NPC	National People's Congress
NTDB	National Trade Data Bank
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
PTA	Terephthalic acid
TPL	Tariff preference level
USDA	U.S. Department of Agriculture
USDOC	U.S. Department of Commerce
USITC	U.S. International Trade Commission
USTR	United States Trade Representative
VCR	Video cassette recorder
WTO	World Trade Organization



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# CHAPTER 1

## Introduction

The trade analysts of the U.S. International Trade Commission (USITC or the Commission) Office of Industries routinely monitor trade developments in all agricultural and manufacturing industries, and in the services sector, as part of the USITC mission. Trade monitoring at the major sector- and industry/commodity-group levels is a facet of the research and analysis undertaken by the Office of Industries in conjunction with its responsibilities to provide advice and technical information on industry and trade issues. Trade monitoring enables the USITC to better anticipate and address the issues of concern in its various roles under U.S. trade statutes.<sup>1</sup> This report, prepared annually, briefly analyzes significant merchandise trade shifts on an aggregate basis at the major industry/commodity-sector level, on a bilateral basis, and at the industry/commodity-group level in greater detail. This series is part of the Commission's recurring reports that facilitate the development of core competencies and expertise, and enable the Commission to provide objective and in-depth analysis to the Congress, the public, and other agencies related to emerging and complex trade and economic issues.

This report does not analyze U.S. trade shifts in services, which as noted in the Preface, is the subject of a complementary USITC annual report.<sup>2</sup> Thus, throughout this report, references to trade balances represent only U.S. balances in merchandise trade. However, in assessing the U.S. merchandise trade deficit in 1995, it is important to note that the United States recorded a \$62.3 billion trade surplus in private services, which, when added to the \$193.2 billion merchandise trade deficit, reduced the total trade deficit to \$130.9 billion for the year.

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<sup>1</sup> These roles include determining whether U.S. industries are materially injured by unfair imports, conducting studies on the international competitiveness of U.S. industries, and advising the President and the Congress on the likely effects of trade-policy changes and proposals.

<sup>2</sup> The report on services, U.S. International Trade Commission, *U.S. Trade Shifts in Selected Industries: Services* (investigation No. 332-345), USITC publication 2969, June 1996, covered 1993-94 data. The report assessing 1994-95 data will be issued in April 1997.

Chapter 2 of the report summarizes U.S. merchandise trade and exchange rate shifts that occurred in 1995, as compared with those in 1994. Coverage of the individual merchandise sectors include data showing import, export, and trade balance shifts by major industry/commodity sectors and shifts in trade with major U.S. trading partners. In addition, a tabular summary details the most significant industry/commodity group shifts that occurred within each of the major industrial and agricultural sectors.<sup>3</sup>

Chapters 3 through 12 take up specific major industrial and agricultural sectors, with each chapter providing both a general sector overview and specific analyses of industry/commodity groups. This report also discusses significant bilateral shifts within each major sector in merchandise trade. A statistical summary table of industry/commodity groups follows each major sector analysis.

The report includes three appendixes. Appendix A lists the specific industrial and agricultural commodity groups that the Commission monitors. Appendix B provides official and estimated data for 1991-95 on domestic consumption, production, employment, trade, and import penetration for the nearly 300 industry/commodity groups covered in this report. USITC international trade analysts have estimated certain of these data, based on primary and secondary government and industry sources. The estimated data are subject to change either from future secondary sources, or from the detailed surveys the USITC often conducts in the course of statutory investigations or other work. Appendix C lists the political entities included in the country groupings shown in many tables of this report.

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<sup>3</sup> See chapter 3 of the 1993 annual report for long-range assessments of common factors affecting trends in selected industry/commodity sectors. U.S. International Trade Commission, *U.S. Trade Shifts in Selected Industries: 1993 Annual Report* (investigation No. 332-345), USITC publication 2805, Sept. 1994.



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# CHAPTER 2

## U.S. Merchandise Trade Performance In 1995

The U.S. merchandise trade deficit climbed by \$17.2 billion (10 percent) in 1995 to \$193.2 billion, moderately above the \$176.0 billion deficit recorded in 1994 (table 2-1 and figure 2-1). However, this increase was notably less than the \$40.4 billion (30-percent) increase in the deficit recorded in 1994. The deficit grew despite a significant expansion in U.S. exports, which rose from \$481.9 billion in 1994 to \$546.5 billion in 1995, or by 13 percent. Nevertheless, U.S. imports increased even more, by 12 percent to \$739.7 billion in 1995, from \$657.9 billion in 1994.<sup>1</sup> The absolute increase of \$81.8 billion in U.S. imports was 27 percent larger than that of U.S. exports, which increased by \$64.6 billion. Nonetheless, the ratio of exports to total trade remained unchanged at 42 percent during 1994-95.

Factors affecting U.S. trade performance in 1995 included increased consumer spending, which spurred both U.S. production and imports; changes in the relative level of interest rates between the United States and its trading partners; investment and financial market developments; diverse economic trends in global economies; and structural impediments in key markets. The expansion in the U.S. trade deficit during 1995 was led by substantial increases in imports of semiconductors, computers and computer peripheral equipment, motor vehicles, crude petroleum, and wood pulp and wastepaper. The trade deficit was further compounded by a large reduction in U.S. exports of aircraft. Increased U.S. exports in certain industry/commodity groups mitigated the widening of the deficit. These groups included computers and computer peripheral equipment, semiconductors, cereals (mostly corn and wheat), wood pulp and wastepaper, certain

machinery, miscellaneous organic chemicals, steel mill products, motor-vehicle parts, various instruments, and telecommunications equipment.

U.S. imports rose in every major industry/commodity sector during 1995 (figure 2-2), with three-quarters of the annual increase accounted for by electronic products (up by \$31.4 billion, or 22 percent); chemicals and related products (up by \$8.8 billion, or 20 percent); machinery (up by \$7.8 billion, or 15 percent); transportation equipment (up by \$7.2 billion, or 6 percent); and minerals and metals (up by \$6.2 billion, or 11 percent). Meanwhile, U.S. exports grew in all major sectors except transportation equipment, which recorded an export decline of \$231 million (0.2 percent) in 1995. Agricultural products, chemicals and related products, and minerals and metals were the only major sectors in which there was improvement in the U.S. balance of trade in 1995 (\$7.3 billion, or 36 percent; \$1.5 billion, or 11 percent; and \$618 million, or 3 percent, respectively). For agriculture and chemicals, the yearend surplus rose to \$27.6 billion and \$15.0 billion, respectively. For minerals and metals, the yearend deficit narrowed to \$23.7 billion; this was a significant turnaround from 1994, when the deficit expanded by \$10.9 billion (82 percent).

The principal factor driving increased import demand for products within the electronic products sector was continued strong consumer spending on personal computers and peripheral equipment. This in turn, stimulated increased imports of semiconductor devices incorporated in this equipment. U.S. imports of semiconductor devices climbed by \$13.1 billion (51 percent) to \$39.2 billion, while imports of computers, computer peripheral equipment, and parts increased by \$10.1 billion (22 percent) to \$56.3 billion in 1995. Similarly, in the transportation equipment sector, strong consumer demand for motor vehicles resulted in a \$5.1 billion rise (7 percent) in imports to \$84.4 billion and an associated increase in imports of internal combustion piston engines of \$965 million (13 percent) to \$8.4 billion.

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<sup>1</sup> Both the amount and rate of the increase in U.S. exports in 1995 exceeded those for 1994, as compared with 1993, when exports increased by \$42.6 billion (10 percent). In contrast, both the amount and rate of increase in U.S. imports in 1994 were larger than those in 1995, as imports rose by \$83.0 billion (14 percent) in 1994.

Table 2-1

**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 1994 and 1995<sup>1</sup>**

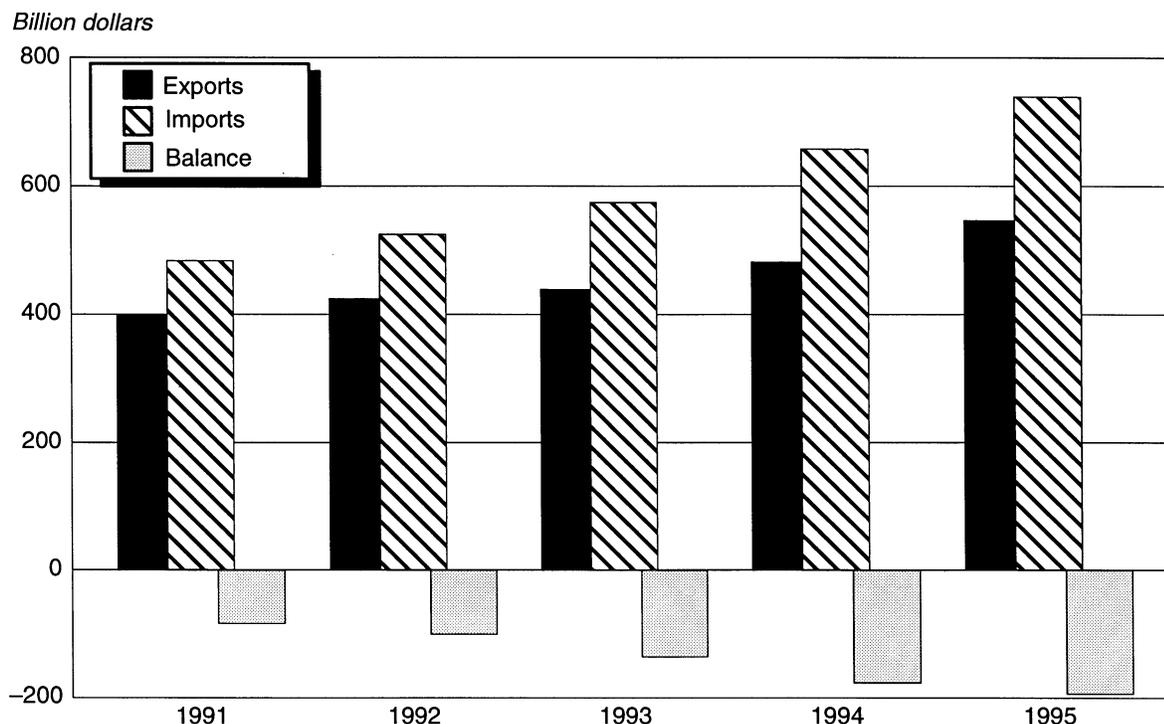
Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Agricultural products .....	55,350	65,431	10,081	18.2
Forest products .....	22,386	27,461	5,075	22.7
Chemicals and related products .....	57,188	67,463	10,275	18.0
Energy-related products .....	11,470	12,842	1,373	12.0
Textiles and apparel .....	13,033	15,123	2,089	16.0
Footwear .....	646	671	25	3.8
Minerals and metals .....	32,487	39,350	6,863	21.1
Machinery .....	49,844	57,049	7,206	14.5
Transportation equipment .....	104,255	104,025	-231	-0.2
Electronic products .....	109,176	129,529	20,352	18.6
Miscellaneous manufactures .....	10,769	11,300	532	4.9
Special provisions .....	15,283	16,221	938	6.1
Total .....	481,887	546,465	64,578	13.4
U.S. imports for consumption:				
Agricultural products .....	35,049	37,807	2,757	7.9
Forest products .....	24,037	29,155	5,117	21.3
Chemicals and related products .....	43,683	52,452	8,769	20.1
Energy-related products .....	57,344	60,336	2,993	5.2
Textiles and apparel .....	46,574	50,201	3,627	7.8
Footwear .....	11,714	12,095	381	3.3
Minerals and metals .....	56,778	63,024	6,245	11.0
Machinery .....	52,440	60,220	7,781	14.8
Transportation equipment .....	128,446	135,608	7,163	5.6
Electronic products .....	145,657	177,060	31,402	21.6
Miscellaneous manufactures .....	35,346	38,583	3,237	9.2
Special provisions .....	20,816	23,120	2,304	11.1
Total .....	657,885	739,660	81,776	12.4
U.S. merchandise trade balance:				
Agricultural products .....	20,301	27,625	7,324	36.1
Forest products .....	-1,652	-1,694	-42	-2.5
Chemicals and related products .....	13,505	15,011	1,506	11.2
Energy-related products .....	-45,874	-47,494	-1,620	-3.5
Textiles and apparel .....	-33,541	-35,078	-1,537	-4.6
Footwear .....	-11,068	-11,424	-357	-3.2
Minerals and metals .....	-24,292	-23,674	618	2.5
Machinery .....	-2,596	-3,171	-575	-22.1
Transportation equipment .....	-24,190	-31,583	-7,393	-30.6
Electronic products .....	-36,481	-47,531	-11,050	-30.3
Miscellaneous manufactures .....	-24,577	-27,283	-2,705	-11.0
Special provisions .....	-5,533	-6,899	-1,366	-24.6
Total .....	-175,997	-193,195	-17,198	-9.8

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

Note.—Because of rounding, figures may not add to the totals shown.

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

**Figure 2-1**  
**U.S. merchandise trade with the world: Exports, imports, and trade balance, 1991-95**



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

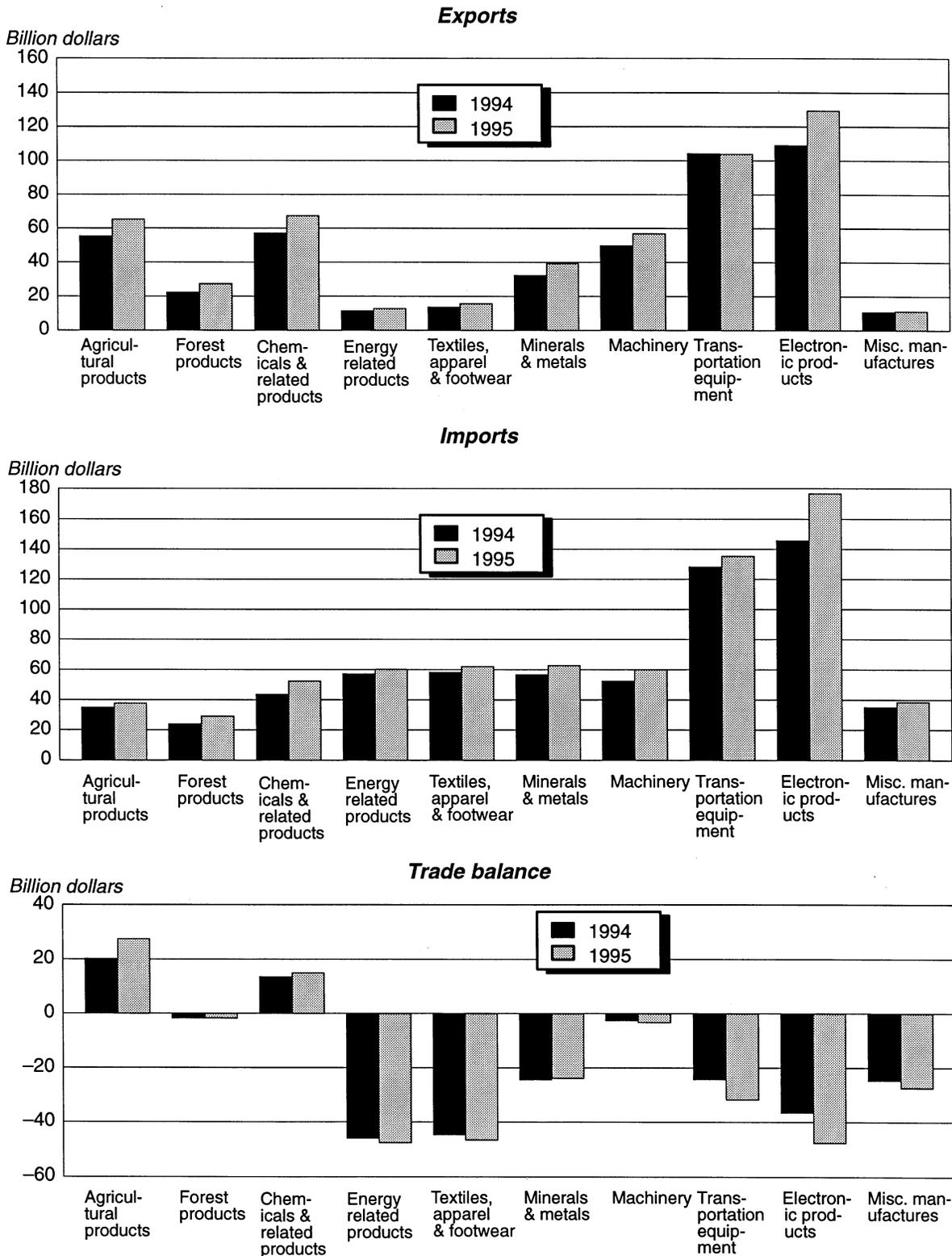
With regard to the chemicals and related products sector, increased economic growth, especially in U.S. manufacturing, led to substantially higher imports of certain organic chemicals and related products, pharmaceuticals, and plastics and rubber. U.S. imports of general organic chemicals grew by \$2.1 billion (26 percent) to \$9.9 billion, pharmaceuticals increased by \$1.7 billion (24 percent) to \$8.7 billion, raw materials for plastics and rubber rose by \$1.6 billion (32 percent) to \$6.4 billion, and finished or semifabricated products of plastics and rubber expanded by \$1.3 billion (11 percent) to \$13.0 billion.

The major factor affecting import demand for machinery-sector products in 1995 was the continued expansion of the U.S. automotive market, which in conjunction with sustained low interest rates bolstered capital equipment purchases and U.S. construction activity. As a result, U.S. imports of certain industrial machinery and parts, especially elevators, cranes, hoists, casting machines, semiconductor manufacturing equipment, and parts for such machinery, expanded by \$1.6 billion (20 percent) to \$9.7 billion; low-voltage lamp ballasts, power supplies, transformers, and inductors increased by \$824

million (30 percent) to \$3.5 billion; electric discharge machines and related metal-cutting machine tools and parts grew by \$777 million (28 percent) to \$3.5 billion; and ignition wiring harnesses for motor vehicles rose by \$588 million (12 percent) to \$ 5.4 billion.

With respect to the minerals and metals sector, higher average unit prices accounted for nearly all the increased U.S. imports of certain base metals and chemical elements (primarily nickel, cobalt, and tin) and copper and related articles. The former increased by \$816 million (47 percent) to \$2.5 billion, and the latter rose by \$746 million (28 percent) to \$3.4 billion. Use of gold and platinum-group metals as industrial and automotive catalysts strengthened demand for certain precious metals and related articles, which rose by \$643 million (16 percent) to \$4.7 billion. Although U.S. imports of aluminum mill products increased from nearly all major country suppliers, the largest increase occurred primarily in certain lower unit-value products from Russia. Imports of aluminum products from all sources increased by \$602 million (42 percent) to \$2.0 billion.

**Figure 2-2**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1994 and 1995**



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

Only one significant decline in U.S. exports of domestic merchandise dampened an otherwise favorable year for domestic shippers and acted to exacerbate the trade balance impact of rising U.S. imports. Overall U.S. exports of aircraft, spacecraft, and related equipment dropped by \$4.7 billion (17 percent) to \$23.8 billion in 1995, which was largely attributable to the financial difficulties of foreign air carriers. This development was led by a \$5.7 billion (38-percent) decrease in U.S. exports of new large civil aircraft to \$10.6 billion.<sup>2</sup>

Structural impediments to the entry of U.S. goods to markets in Japan and China continued to affect the U.S. trade deficit with those partners in 1995.<sup>3</sup> The bilateral U.S. trade deficits with Japan of \$61.4 billion, by far the largest with any country, and China of \$33.8 billion accounted for nearly half of the total U.S. trade deficit in 1995 (table 2-2 and figure 2-3). Although the U.S. trade deficit with Canada (\$31.6 billion) nearly matched the deficit with China, U.S. exports to Canada in 1995 were 78 percent as large as U.S. imports from Canada. The comparable ratios for Japan and China were only 50 percent and 26 percent, respectively.<sup>4</sup>

The U.S. economy grew in 1995 at a less rapid rate than in 1994, while many economies in Europe were in a state of accelerating recovery, causing the growth in U.S. exports to the European Union (EU) to exceed the rise in imports from the EU. This resulted in a \$1.8 billion (11-percent) decrease in the U.S. trade deficit with the EU, to \$14.5 billion in 1995. Further, U.S. exports to the EU were 89 percent as large as U.S. imports from this region.

The United States recorded expanding trade deficits with each of its top 10 trading partners in 1995, except for Japan, Korea, and France. The trade deficit with Japan fell from \$66.5 billion to \$61.4 billion, or by 8 percent (\$5.0 billion) (table 2-2). U.S. exports to Japan increased because of a small increase in the rate of growth in Japan, the strength of the yen, the U.S.-Japan Auto Agreement within the Framework talks,<sup>5</sup> implementation of past mar-

ket-opening agreements, relatively low costs of production in the United States for a variety of goods, and the sales of goods to Japan from the U.S. factories of Japanese companies. The trade deficit with Korea shifted from a deficit of \$2.0 billion to a surplus of \$457 million, a \$2.5 billion change. The trade deficit with France decreased by \$366 million (10 percent) to \$3.2 billion in 1995. At yearend, Korea was the only top-10 trading partner with which the United States registered a trade surplus. The United States also had a trade surplus—\$2.3 billion—with countries eligible for tariff preferences under the Caribbean Basin Economic Recovery Act (CBERA). The trade surplus recorded with Latin America in 1994 (\$2.3 billion) shifted to a deficit in 1995 (\$10.7 billion) primarily because of the \$17.4 billion decline in the bilateral trade balance with Mexico, following the devaluation of the peso in December 1994.<sup>6</sup>

In the second year since implementation of the North American Free-Trade Agreement (NAFTA), Canada and Mexico accounted for 36 percent (\$29.2 billion) of the total rise in U.S. imports, but only 8 percent (\$5.4 billion) of the growth in U.S. exports,<sup>7</sup> mainly attributable to the \$4.3 billion (9 percent) drop to \$44.9 billion in U.S. exports to Mexico in 1995. Total U.S. trade with Canada climbed by \$25.7 billion (11 percent) to \$258.1 billion, while trade with Mexico increased by \$8.9 billion (9 percent) to \$106.6 billion in 1995.

Imports from Japan expanded by \$4.9 billion to \$122.4 billion in 1995, but grew only 4 percent, compared with the rise in imports from all sources that year of 12 percent. Exhibiting much faster growth rates were imports from Malaysia (25 percent), Korea (23 percent), the Philippines (22 percent), Singapore (21 percent), and China (18 percent). The combined \$19.3 billion (21-percent) increase to \$112.3 billion from these five Asian suppliers accounted for 24 percent of the total rise in U.S. imports in 1995. The total value of imports from these countries approached the total from Japan. The growth in imports from all of these countries, except Korea, was concentrated in labor-intensive electronic products, as high relative labor costs in Japan, Taiwan, and Hong Kong encouraged new investment in nearby locations with lower production costs. The high value of the yen has encouraged manufacturers in Japan, which represent the dominant economic force in the region, to invest heavily elsewhere in Asia. Further, the high value of the yen made certain articles from Korea such as

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<sup>2</sup> The next three largest U.S. export declines included a \$261 million (21-percent) decrease in nuclear materials to \$965 million, a \$195 million (4-percent) reduction in cigarettes to \$4.8 billion, and a \$191 million (6-percent) decline in edible preparations to \$2.9 billion in 1995.

<sup>3</sup> See Office of the United States Trade Representative (USTR), *1996 National Trade Estimate Report on Foreign Trade Barriers*, pp. 45-62 and 171-212.

<sup>4</sup> See the writeups below on Japan and China for more details on structural impediments to U.S. exports to those markets. See also USITC, *U.S. Trade Shifts in Selected Industries: Merchandise, 1994 Annual Report* (investigation No. 332-245), USITC publication 2924, Sept. 1995, pp. 2-22ff. and pp. 2-25ff.

<sup>5</sup> See footnote number 48 on p. 2-27.

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<sup>6</sup> For a detailed description of the Mexican peso crisis, see Edwin M. Truman, "The Mexican Peso Crisis: Implications for International Finance," *Federal Reserve Bulletin*, vol. 82:3 (Mar. 1996), pp. 199-209.

<sup>7</sup> For a detailed treatment of NAFTA's second year of operation, see USITC, ch. 3 in *Year in Trade: Operation of the Trade Agreements Program, 1995*, USITC publication 2971, Aug. 1996.

Table 2-2

All merchandise sectors: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	103,643	113,261	9,618	9.3
Japan .....	51,061	60,962	9,900	19.4
Mexico .....	49,136	44,881	-4,255	-8.7
Germany .....	18,181	21,175	2,994	16.5
China .....	9,178	11,613	2,435	26.5
United Kingdom .....	24,755	26,320	1,565	6.3
Korea .....	17,499	24,483	6,984	39.9
Taiwan .....	16,240	18,036	1,795	11.1
Singapore .....	11,714	13,648	1,934	16.5
France .....	12,731	13,296	564	4.4
All other .....	167,749	198,793	31,044	18.5
Total .....	481,887	546,465	64,578	13.4
EU-15 .....	101,313	116,316	15,003	14.8
OPEC .....	17,447	18,948	1,501	8.6
Latin America .....	88,643	92,746	4,103	4.6
CBERA .....	12,822	14,870	2,048	16.0
Asian Pacific Rim .....	145,126	176,566	31,440	21.7
ASEAN .....	29,856	36,471	6,615	22.2
Central and Eastern Europe .....	1,979	2,152	173	8.8
U.S. imports for consumption:				
Canada .....	128,753	144,882	16,129	12.5
Japan .....	117,532	122,402	4,871	4.1
Mexico .....	48,605	61,721	13,116	27.0
Germany .....	31,566	37,126	5,560	17.6
China .....	38,572	45,370	6,797	17.6
United Kingdom .....	24,529	26,594	2,065	8.4
Korea .....	19,547	24,026	4,479	22.9
Taiwan .....	26,586	28,875	2,289	8.6
Singapore .....	15,287	18,493	3,206	21.0
France .....	16,299	16,497	199	1.2
All other .....	190,609	213,676	23,066	12.1
Total .....	657,885	739,660	81,776	12.4
EU-15 .....	117,644	130,835	13,191	11.2
OPEC .....	31,571	34,674	3,103	9.8
Latin America .....	86,323	103,447	17,123	19.8
CBERA .....	11,200	12,550	1,350	12.1
Asian Pacific Rim .....	269,082	298,464	29,382	10.9
ASEAN .....	51,614	61,599	9,985	19.3
Central and Eastern Europe .....	2,424	2,576	152	6.3
U.S. merchandise trade balance:				
Canada .....	-25,110	-31,621	-6,510	-25.9
Japan .....	-66,470	-61,441	5,029	7.6
Mexico .....	531	-16,840	-17,371	( <sup>2</sup> )
Germany .....	-13,385	-15,951	-2,566	-19.2
China .....	-29,395	-33,757	-4,363	-14.8
United Kingdom .....	226	-274	-500	( <sup>2</sup> )
Korea .....	-2,048	457	2,505	( <sup>2</sup> )
Taiwan .....	-10,345	-10,839	-494	-4.8
Singapore .....	-3,573	-4,845	-1,272	-35.6
France .....	-3,567	-3,201	366	10.3
All other .....	-22,860	-14,883	7,977	34.9
Total .....	-175,997	-193,195	-17,198	-9.8
EU-15 .....	-16,331	-14,519	1,812	11.1
OPEC .....	-14,124	-15,726	-1,603	-11.3
Latin America .....	2,320	-10,701	-13,020	( <sup>2</sup> )
CBERA .....	1,622	2,320	698	43.1
Asian Pacific Rim .....	-123,956	-121,898	2,058	1.7
ASEAN .....	-21,758	-25,128	-3,370	-15.5
Central and Eastern Europe .....	-445	-424	21	4.7

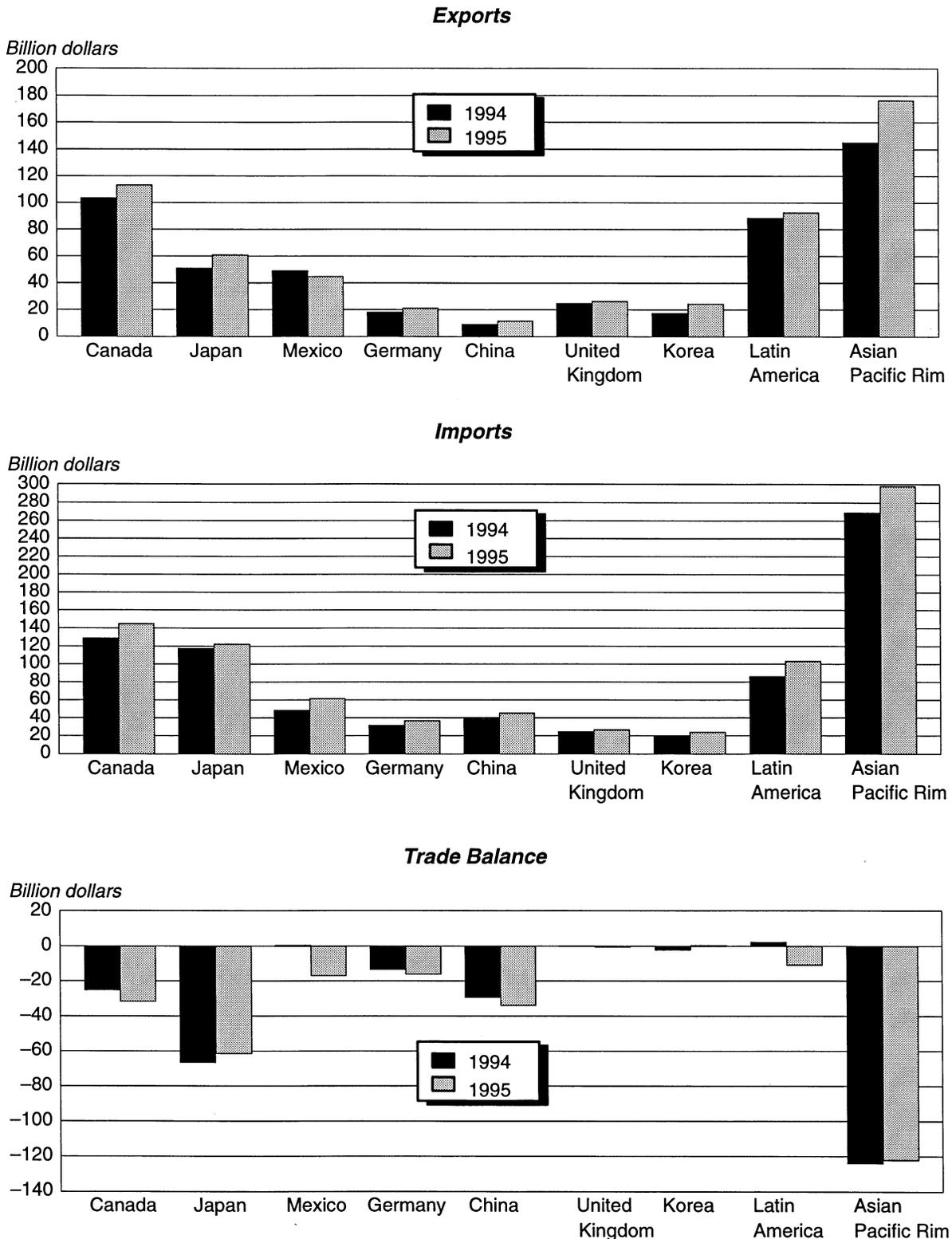
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Not meaningful for purposes of comparison.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 2-3**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major trading partners, 1994 and 1995**



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

semiconductors, steel, and automobiles, which are close substitutes for Japanese products, more competitive in the U.S. market.

In absolute terms, Japan was the fastest growing market for U.S. exports in 1995, as U.S. exports expanded by \$9.9 billion to \$61.0 billion. In percentage terms, the 19-percent increase in exports to Japan was notably higher than the 13-percent rise to all markets. U.S. exports to Brazil expanded by 41 percent (\$3.1 billion) to \$10.8 billion, powered by fiscal policies in Brazil that loosely tied Brazil's new currency to the U.S. dollar, brought inflation under control, and significantly reduced trade barriers. U.S. exports to Korea rose by 40 percent (\$7.0 billion) to \$24.5 billion, fueled mainly by strong demand for machinery, equipment, raw materials, parts, and agricultural products. U.S. exports to China grew by 27 percent (\$2.4 billion) to \$11.6 billion, driven by demand for more food than that country could produce and the need for machinery and equipment to expand and modernize its communications infrastructure and production capacity.

The significant shifts in the merchandise trade balance of the United States with its major trading partners are noted in table 2-3, and discussed at greater length later in this chapter. When viewed in the context of the gross domestic product (GDP) of the United States (table 2-3), the total U.S. merchandise trade deficit was equal to 2.7 percent of the nominal U.S. GDP in 1995, while the bilateral deficit with Japan represented 0.9 percent of nominal U.S. GDP in 1995. Figure 2-4 indicates the leading U.S. exports to major markets in 1995, and figure 2-5 shows the leading U.S. imports from major sources in 1995.

## Exchange Rate Shifts

Exchange rate shifts are an important factor that can affect trade flows. This section describes the interactions between exchange rates and trade flows. It explains how changes in exchange rates may lead to changes in trade flows, how trade changes may in turn affect exchange rates, and how other such factors as interest rates and national income may affect the relationship. Finally, it illustrates various influences of changes in the exchange rate of the U.S. dollar against currencies of certain major trading partners and groups of partners in 1995.

An exchange rate is the price of one currency in terms of another currency. Theoretically the "market" or "nominal" exchange rate between two freely convertible currencies is determined by interaction of supply of and demand for each of the currencies in the foreign exchange market, which reflects supply of and demand for goods, services, and assets.<sup>8</sup> The "real" exchange rate is derived

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<sup>8</sup> The terms market rate and nominal rate are used interchangeably in this section. The term exchange rate generally refers to a nominal exchange rate, unless stated otherwise.

from the nominal rate, with an adjustment for inflation.<sup>9</sup> Movements in exchange rates may affect trade between countries through their effects on prices. In general, if nothing else changes in the marketplace, depreciation of the dollar will reduce the price that foreigners pay for U.S. exports, and increase the price that U.S. consumers pay for imports. As a result, the quantity of U.S. exports demanded throughout the world will increase, and the quantity of imports demanded in the United States will drop, implying an improvement in the trade balance. This generally happens, assuming that nothing else changes in events that affect markets. This effect will follow a time-lag to allow for price and market adjustments, and possibly a short-term deterioration in the trade balance.<sup>10</sup> For any single-year period, the long-run relationship between an exchange rate depreciation and an improved trade balance may be obscured by demands for currencies in financial markets, differences in rates of economic growth between countries, and the time-lag between currency movements and changes in trade patterns. The effectiveness of an exchange-rate adjustment on a country's balance of bilateral trade varies, depending on the composi-

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### <sup>8</sup>—Cont.

Both the nominal exchange rate and the real exchange rate are used to evaluate the price competitiveness of countries in international markets. The supply and demand for currencies might be generated to some extent, by a country's monetary authorities if they are "intervening" to influence the exchange rate. For background material on exchange rates, see USITC, *Floating Exchange Rates and U.S. Competitiveness*, USITC publication 1332, 1982, pp. 1-21.

<sup>9</sup> A real exchange-rate index deflates changes in nominal exchange rates by changes in relative price levels. That is, where the nominal exchange rate is expressed as units of foreign currency per unit of domestic currency, the real exchange rate index is defined mathematically as: real exchange-rate index = nominal exchange-rate index x (domestic price index/foreign price index). The foreign and domestic price indexes have the same base period as the exchange-rate index. This definition was derived from the purchasing power parity theory, which implies that a country with a relatively higher inflation rate than has its trading partner, has to depreciate the value of its currency against the currency of its trading partner in order to maintain the purchasing power parity between the two currencies. For example, if country A has an inflation rate of 5 percent and country B has no inflation, country A has to depreciate the nominal exchange rate between the two currencies by 5 percent in order to maintain a constant real exchange rate. Conceptually, the real exchange rate can be also defined in other ways, for example as the relative price of tradable goods with respect to nontradable goods. Then the real exchange rate = price of tradable goods/price of nontradable goods. For more details on definitions of the real exchange rate, see Sebastian Edwards, "Alternative Definitions of the Real Exchange Rate," appendix in *Exchange Rate Misalignment in Developing Countries*, New Series, No. 2 (World Bank Occasional Papers, 1988), pp. 47-49.

<sup>10</sup> For simplicity, let us assume that exchange-rate changes directly affect the price of goods on the world market. However, producers may choose to change their export prices to absorb part or all of the effect of the price change induced by the exchange-rate change.

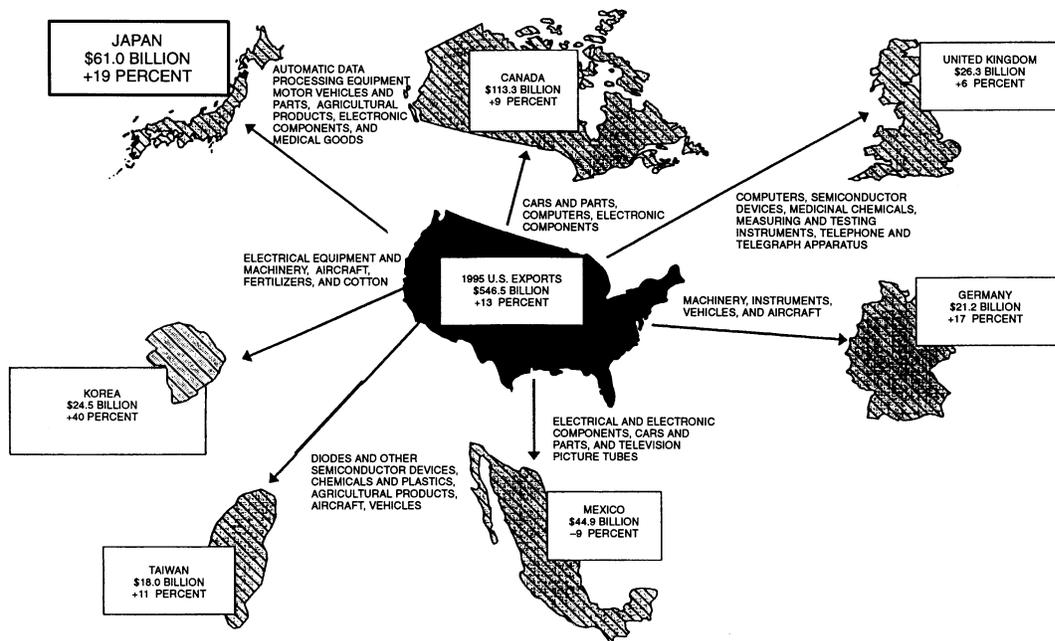
**Table 2-3**  
**U.S. bilateral merchandise trade balances with major partners, in dollars and as a ratio to U.S. gross domestic product (GDP), 1995**

Partner	GDP <i>Billion dollars</i>	U.S. exports	U.S. Imports	U.S. merchandise trade balance	Ratio of the merchandise trade balance to U.S. GDP
					<i>Million dollars</i>
United States .....	7,246	546,465	739,660	-193,195	-2.67
Canada .....	568	113,261	144,882	-31,621	-0.44
Mexico .....	261	44,881	61,721	-16,840	-0.23
Japan .....	5,086	60,962	122,402	-61,441	-0.85
Korea .....	457	24,483	24,026	457	0.01
China .....	600	11,613	45,370	-33,757	-0.47
Germany .....	2,111	21,175	37,126	-15,951	-0.22
Singapore .....	80	13,648	18,493	-4,845	-0.07
Malaysia .....	85	8,191	17,401	-9,210	-0.13
Taiwan .....	262	18,036	28,875	-10,839	-0.15
United Kingdom .....	936	26,320	26,594	-274	( <sup>1</sup> )
Italy .....	1,070	8,450	16,339	-7,889	-0.10
Netherlands .....	350	15,984	6,309	9,675	0.13
Brazil .....	560	10,757	8,989	1,768	0.02
Hong Kong .....	147	12,705	10,232	2,473	0.03
Philippines .....	74	5,072	6,990	-1,919	-0.03

<sup>1</sup> Less than 0.005 percent.

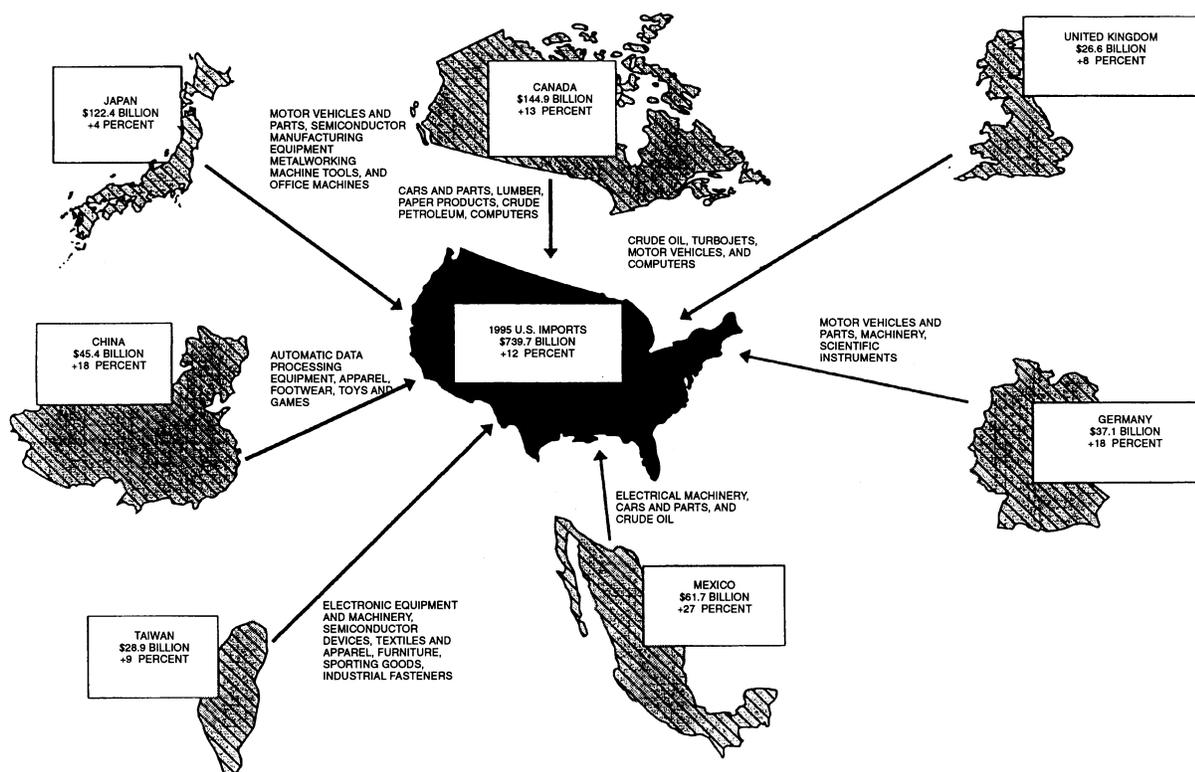
Source: U.S. trade data compiled from official statistics of the U.S. Department of Commerce; estimated GDP data for Mexico, Japan, Korea, China, Germany, Singapore, Malaysia, Taiwan, United Kingdom, Italy, Netherlands, Brazil, Hong Kong, and the Philippines are from U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, 1996), pp. 40, 48, 60, 67, 74, 86, 94, 99, 186, 206, 235, 310, 338, and 401. GDP data for the United States and Canada from International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF Publications Services, June 1996).

**Figure 2-4**  
**Leading U.S. exports, by major markets, and overall percentage change, 1994-95**



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

**Figure 2-5**  
**Leading U.S. imports, by major sources, and overall percentage change, 1994-95**



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

tion of its exports to, and imports from, its trade partners. Different commodities may have different sensitivities to price changes induced by a change in exchange rates. The greater the sensitivity of a commodity's imports and exports to price changes, the more influence the exchange-rate adjustments exert on a country's balance of trade.

Different compositions and price sensitivities of tradable goods can explain, to some degree, the differing effects of exchange-rate adjustments in different geographic areas. The effects of exchange-rate changes on trade can vary widely, but it is also true that the exchange rates themselves are influenced by a variety of such factors as current account and trade balances, government deficits, and national income. The complex relation between exchange rates and trade works in both directions; that is, the exchange rates affect trade flows and balances, which in turn affect exchange rates. Other factors, like national income and changes in income relative to other countries have their primary effect initially on trade flows, and then on exchange rates.

Since 1982, the United States has had sizable deficits in both its overall current account and merchandise trade balances. Nevertheless, the foreign exchange value of the U.S. dollar has depreciated very gradually, relative to foreign currencies since

1984, reversing the sharp appreciation of the early 1980s. This can happen because the willingness of foreigners to purchase and hold U.S. financial assets has supported the dollar at a higher level than it would have been without these capital flows, and because of the market intervention of the U.S. and foreign governments. A change in the interest-rate level in the United States may also have changed foreign demand for U.S. financial assets. In 1995, interest rates in the United States rose slightly, while the interest rates in some major developed countries, including Germany and Japan, dropped moderately. Relatively higher U.S. interest rates contributed to increased foreign demand for U.S. financial assets, limiting the depreciation of the dollar in 1995.

In addition to the trade deficit, U.S. Federal budget deficits have had an adverse effect on the foreign-exchange value of the dollar.<sup>11</sup> The need of the Government to borrow dollars to finance the budget deficit drains savings capital from the economy that could otherwise be used by the private sector to

<sup>11</sup> Federal Reserve Board Chairman Alan Greenspan expressed this view in a statement to Congress. For a more detailed discussion of Chairman Greenspan's statement before the Committee on the Budget, U.S. House of Representatives, Mar. 8, 1995, see USITC, *U.S. Trade Shifts*, USITC publication 2924, pp. 2-7 and 2-8.

finance investment and presumably increase the long-term potential for economic growth. An increasing hesitancy of foreigners to continue to finance U.S. budget deficits may have partly caused (or been caused by) the relatively weakened value of the dollar in 1995.

After the appreciation and subsequent depreciation of the dollar during much of the 1980s, the overall real value of the dollar has fluctuated within a narrow band since 1988. In the long run, with all other factors unchanged, dollar appreciations should be expected to lead to a worsening of the U.S. trade balance, and dollar depreciations should lead to an improvement in the balance of trade. However, the short-run fluctuations in the exchange rate during the past few years are not likely to be reflected in significant changes in the trade balance. As mentioned above, other factors may also affect the trade balance and the exchange rate.

For example, changes in a country's income can affect its import demand. In general, an increase in a country's gross domestic product (GDP) will result in an increase in its import demand. Growth in import demand, in turn, will affect the country's demand for foreign currencies. If domestic growth exceeds foreign growth, there will be downward pressure on the domestic currency. A current study contends that the key factor explaining year-to-year changes in the overall U.S. trade balance in recent years has been the relative rates of growth in real GDP in the United States compared with rates of growth of its major trading partners.<sup>12</sup> But, the dollar's value was kept from falling to the extent suggested by the level of the deficit because foreign investors were willing to continue investing in the United States.

In 1995, the U.S. economy continued its recovery. Although the real U.S. GDP growth rate declined from 3.5 percent in 1994 to 2.0 percent in 1995, the 1995 rate was still higher than those of several major U.S. trading partners.<sup>13</sup> This relatively higher growth rate in the U.S. economy resulted in an increased demand for imports. At the same time, slower economic growth rates for these major trading partners weakened the overall demand in those

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<sup>12</sup> The study shows that this relationship was strongest during the 1970s and the 1990s, when an index of real exchange rates with the U.S. dollar was relatively stable for certain developed and developing countries. The relationship was not nearly so strong during the 1980s, when large swings in the real foreign-exchange value of the dollar occurred, suggesting that the exchange rate played a larger role in explaining annual changes in the overall U.S. trade balance. For more details on this study, see Charles P. Thomas, "U.S. International Transactions in 1994," *Federal Reserve Bulletin*, vol. 81, No. 5 (May 1995), pp. 408-410.

<sup>13</sup> The 1994 and 1995 U.S. real GDP growth rates are from the news release of May 30, 1996, No. BEA 96-14, from the U.S. Department of Commerce. Both are revised rates. An

markets, restraining U.S. export growth to, for example, Japan and Europe.<sup>14</sup> In 1995, the merchandise trade deficit amounted to \$193.2 billion, 9.8 percent higher than the 1994 deficit. The rising U.S. trade deficit increased the supply of dollars in the foreign-exchange market, leading to downward pressure on the U.S. dollar.

The average value of the U.S. dollar showed a small depreciation against world currencies in 1995<sup>15</sup>, in terms of real exchange rates, as expressed by the trade-weighted values of the dollar prepared by the Federal Reserve Bank of Dallas.<sup>16</sup> The average depreciation of the dollar is reflected in the moderate appreciations of currencies of most major trading partners of the U.S. The average real value of the dollar with respect to all foreign

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<sup>13</sup>—*Cont.*

earlier release of the U.S. growth rates for these 2 years from the same source were 4.1 percent and 2.2 percent, respectively. According to the OECD estimates, the 1995 real GDP growth rates of Japan, Germany, and Mexico were 0.9 percent, 1.9 percent, and -6.0 percent, respectively. For the 1995 growth rates of other OECD member countries, see *OECD Economic Outlook*, 58, (Paris: Head of Publication Service, Organization for Economic Cooperation and Development, Dec. 1995) p. A4.

<sup>14</sup> This was the case despite the real depreciation of the dollar against the yen and a basket of European currencies.

<sup>15</sup> Evaluating exchange-rate movements becomes more complex when one considers many exchange-rate shifts simultaneously. This discussion is generally focused on the exchange rate between the U.S. dollar and another foreign currency. Although an exchange rate exists between every pair of currencies traded in the world market, a weighted average of bilateral changes must be used to express the change in the value of a currency against more than one other currency. For example, if the U.S. dollar were to appreciate by 25 percent against the Mexican peso, depreciate by 5 percent against the German mark, and depreciate by 10 percent against the Japanese yen, what would be the change in the overall value of the dollar? An average of bilateral exchange rates is used, in which the exchange rate with each partner is weighted by the share of trade with that partner. The "real" average exchange-rate index is derived from the average nominal exchange rate, adjusting for inflation rates of trade partners. Real average exchange rates can vary in many ways, depending on the number of countries used to compute the averages, on the base year used to determine the weights, on price deflators or indexes, and on the transactions included in the trade definition (merchandise trade only or merchandise and services).

<sup>16</sup> The indexes of trade-weighted values of the dollar used in this section are provided by the Federal Reserve Bank of Dallas. These indexes are readily available, are more comprehensive than many other indexes, and include regional groupings. These trade-weighted indexes may differ from those published by other institutions. The Dallas Federal Reserve Bank's real and nominal exchange-rate indexes are revised and adjusted occasionally. These are average exchange-rate indexes and are trade-weighted value indexes. The bank has used consumer price indexes of the United States and foreign countries to convert a nominal exchange-rate index to a real exchange-rate index. At present, the first quarter of 1985 is used as the base (100) of these nominal and real exchange-rate indexes. In 1995, the real exchange-rate indexes were weighted by U.S. bilateral trade with 103 countries. In addition to average annual exchange rates, the Bank also constructs and publishes average monthly exchange-rate indexes of major U.S. trading partners in both nominal and real terms.

currencies in 1995 decreased by 1.63 percent, as the average real exchange-rate index number decreased from 77.95 in 1994 to 76.68 in 1995 (table 2-4).

The value of the dollar against currencies of individual U.S. major trading partners has shown a mixed pattern, as seen in table 2.4. For example, in 1995 both the average annual nominal and real values of the dollar depreciated against the Japanese yen. On a quarterly basis (not shown in the table), the average nominal rate between the dollar and the yen initially dropped from 96.26 yen per dollar in the first quarter to 84.43 yen per dollar (by 12.29 percent) in the second quarter, and then it rose to 94.09 in the third quarter and to 101.46 in the fourth quarter.<sup>17</sup> During the first 4 months of 1995, the New York market rate of the dollar against the yen and also the German mark depreciated rapidly. According to the Federal Reserve Bank of New York, the lowest daily market value of the dollar against the yen was recorded at 79.75 on April 19, 1995.<sup>18</sup> On the same day, the market value of the dollar against the mark also reached a period low of 1.3472—close to the historic low of 1.3438 reached on March 8, 1995. To prevent the value of the dollar, with respect to these two major currencies, from falling to an undesirable level, U.S. monetary authorities intervened in the foreign exchange market during the first three quarters of 1995. These interventions included purchasing U.S. dollars with marks and yen in the market. In some cases, the German and the Japanese Governments also intervened in their markets in support of U.S. actions. As a consequence, the dollar started to rebound in relation to these two currencies. The daily market rates of the dollar against the yen recovered to 104.12 on November 2, 1995. The exchange rate of the dollar against the mark also reached 1.4550 on December 8, 1995.<sup>19</sup>

In contrast, the value of the dollar appreciated with respect to the currencies of two other major U.S. trade partners, the Canadian dollar and the Mexican peso. The average annual market rate between U.S. and Canadian dollars increased slightly from 1.3656 (Canadian dollars per U.S. dollar) in 1994 to 1.3724 in 1995, representing a one-half of 1 percent appreciation of the U.S. dollar.<sup>20</sup> In 1995, the

<sup>17</sup> All percentage-change figures are calculated using the link relative formula: percentage change =  $\{[(\text{the second period figure}/\text{the first period figure}) - 1] \times 100\}$ . All monthly and quarterly data on nominal exchange rates used in this section are from the International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF Publications Services, May 1996), country tables, except as noted.

<sup>18</sup> Federal Reserve Bank of New York, *Annual Report, 1995* (New York, Apr. 1996), p. 54.

<sup>19</sup> *Ibid.*, p.87.

<sup>20</sup> During the first quarter of 1995, the Canadian dollar reached a 9-year low rate of 1.4272, before recovering late in the quarter to close relatively unchanged at 1.3990. The currency continuously recovered in the second and third quarters and reached a rate of 1.3561 in the fourth quarter of 1995.

average annual real rate showed a 1.12-percent appreciation of the U.S. dollar. However, the changes in the exchange rates between the U.S. and the Canadian dollar were relatively small, compared with those of most other major U.S. trade partners.

The average annual nominal value of the U.S. dollar against the Mexican peso increased substantially from 3.3751 (pesos per dollar) in 1994 to 6.4194 in 1995, representing a 90.20-percent appreciation of the dollar.<sup>21</sup> The average monthly nominal rate changed rapidly from 3.9308 (pesos per dollar) in December 1994 to 5.5133 in January 1995, representing a 40.26-percent appreciation of the dollar according to International Monetary Fund statistics. In 1995, the average annual real value of the dollar against the peso appreciated by 45.61 percent, compared with the 1994 value. The corresponding devaluation of the peso and the subsequent economic restructuring in Mexico have had some adverse short-term effects on Mexico's economic growth and on the U.S. balance of trade with Mexico.<sup>22</sup>

In 1995, the average annual real value of the U.S. dollar depreciated in relation to the basket of currencies of the newly industrialized countries (NICs) of the Pacific by 3.80 percent. The trade weights for these currencies, used by the Federal Reserve Bank of Dallas to calculate its exchange rate indexes, have increased in recent years as a result of the increase in trans-Pacific trade flows.<sup>23</sup> There-

<sup>21</sup> On Dec. 22, 1994, the Mexican Government decided to let the peso float freely, resulting in a large devaluation of the peso and prompting a financial crisis. The market value of the peso declined continuously and reached a low point of 7.65 on Mar. 9, 1995. The value of the peso had rebounded to 5.97 by May 15, 1995. By the end of the year, the exchange rate was 7.70, according to the Federal Reserve Bank of New York. The large initial devaluation of the peso had little effect on the 1994 average exchange rate, because it occurred on Dec. 22.

<sup>22</sup> After the Dec. 1994 devaluation, the United States began importing more Mexican goods, which became cheaper as a result of the devaluation; whereas, Mexico imported fewer American goods, which had become more expensive to Mexican consumers. According to official U.S. trade statistics, U.S. exports to Mexico decreased from \$49.1 billion in 1994 to \$44.9 billion in 1995; whereas, U.S. imports increased from \$48.6 billion to \$61.7 billion. The U.S. trade balance with Mexico changed from a surplus of \$531 million in 1994 to a deficit of \$16.8 billion in 1995. Two of the major factors contributing to the bilateral trade change were the devaluation of the peso and the negative growth rate of the Mexican economy. The 1995 growth rate of the Mexican real GDP was -6.0 percent. For more detailed discussion on the effects of the 1994 Mexican peso devaluation, see USITC, *U.S. Trade Shifts*, USITC publication 2924, pp. 2-10, 2-12.

<sup>23</sup> Four of the NICs (China, Taiwan, Korea, and Singapore) were on the list of the top 10 U.S. trade partners. Two-way trade volume between the United States and the four countries increased rapidly from \$154.6 billion in 1994 to \$184.5 billion in 1995, or by 19 percent; whereas, their share of total U.S. trade rose from 13.6 percent to 14.3 percent. Based on two-way trade, Malaysia was the 11th-largest U.S. trade partner, and Hong Kong was the 13th-largest in 1995. If the currencies in the NICs, relative to other countries, general-



fore, the depreciation of the dollar against these currencies has had an increasing effect on the overall trade-weighted-average exchange rate of the dollar. The market values of the dollar, as well as the real values, with respect to currencies of individual NICs, also depreciated.

As has been noted above, the effect of exchange-rate changes on the balance of trade may take some time to be felt.<sup>24</sup> Also, the factors other than exchange rates mentioned above affect a country's import demand. Although a depreciation of a country's currency may affect the country's balance of trade, it does not mean that the exchange-rate adjustment will always improve the balance of trade. Among all the factors that can affect a country's balance of trade, some may operate in the same direction as the exchange rate, and some may operate in the opposite direction. The net effect on trade balances may or may not be in agreement with the effect expected from the exchange-rate change alone.

Consistent with this, there was no simple, systematic relationship between small year-to-year bilateral currency movements between 1994 and 1995 with major trading partners and changes in U.S. bilateral trade balances during 1994-95.<sup>25</sup> In some cases, as would be expected, the U.S. trade balances with countries against whose currencies the dollar rose, grew worse or stabilized. The U.S. trade deficit with Canada and the real value of the U.S. dollar against the Canadian dollar increased simultaneously during 1992-95. The trade deficit with Japan improved simultaneously with a real depreciation of the U.S. dollar against the yen. In other cases, trade balances grew worse with countries against whose currencies the dollar has depreciated. The U.S. trade deficit with Germany increased as the U.S. dollar depreciated against the mark in 1995, although the amount and rate of an increase in the deficit were smaller than in 1994. Also, the U.S. trade surplus with Mexico diminished during 1992-93, whereas, the real value of the U.S. dollar depreciated. In contrast, however, the U.S. trade

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<sup>23</sup>—*Cont.*

ly appreciated with respect to the dollar, the increased trade-flow weights further accentuated the depreciation of the dollar.

<sup>24</sup> Exchange rate changes, like other price changes, will affect different industries differently. Those industries that require proportionately more imported inputs will probably need to adjust their pricing and production plans more quickly in response to an exchange rate change. Others (like the Mexican tomato industry, which requires few import inputs) may not be so responsive to an exchange rate change.

<sup>25</sup> Economists recognize that short-term trade balances are notoriously variable and difficult to interpret, and therefore should be largely ignored. Therefore, analysts should more appropriately be concerned with long term trends only.

deficit with Mexico increased rapidly in 1995, as would be expected, when the real value of the dollar against the peso also increased substantially.<sup>26</sup>

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## Summaries of Significant Commodity Shifts

Within each of the major industrial sectors that have been previously noted, significant shifts in trade occurred during 1995. These shifts are discussed in greater detail in chapters 3 through 12. In addition, tables 2-5 through 2-10 below summarize the most notable of the shifts that were registered during 1994-95. These latter movements are compiled in rank order according to changes in absolute value and in percentage terms for U.S. export growth and declines, U.S. import growth and declines, and U.S. trade balance improvements and declines between 1994 and 1995.

## Significant Bilateral Shifts

A large percentage of the major shifts in bilateral U.S. trade during 1995 were import increases. Such increases generally reflected the more rapid expansion, though slowing in 1995 compared to 1994, of the U.S. economy vis-a-vis some major U.S. trading partners. The increases also resulted from the continued rationalization of U.S. production operations abroad. On the other hand, some notable major shifts, both increases and decreases, in exports occurred. These were affected by a number of foreign economic growth rates that were faster than the U.S. rate, by an acceleration in the rates of economic expansion of some major trading partners with rates of growth slower than that in the United States, by tariff and nontariff barriers that continued to exist in certain foreign markets, and, to a lesser degree, by changes in the value of the dollar relative to the currencies of several major trading partners. Table 2-11 below lists the 15 U.S. trading partners that accounted for the largest shifts in bilateral U.S. trade during 1995. The countries are ranked according to the absolute value of the total change (positive or negative) in the value of both U.S. imports and exports. The change that occurred in the U.S. trade balance with each of these major U.S. trading partners during 1995 is also provided in the table.

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<sup>26</sup> The U.S. dollar became strong in the first quarter of 1996, with the real value of the dollar against currencies of most major U.S. trade partners appreciating. However, the U.S. dollar depreciated against the Mexican peso in the first quarter of 1996, as shown in table 2-4.

**Table 2-5**  
**Domestic export growth: Ranking of top 20 industry/commodity groups, 1994 and 1995**

USITC code	Industry/commodity group	U.S. exports		Change, 1995 from 1994	
		1994	1995	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value growth:					
ST018	Automatic data processing machines	29,102	34,476	5,374	18.5
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	18,098	23,317	5,219	28.8
AG030	Cereals	10,088	14,870	4,782	47.4
AG054	Wood pulp and wastepaper	3,816	6,241	2,425	63.5
MT023	Semiconductor equipment, robots, and other machinery	9,292	11,512	2,220	23.9
CH012	Miscellaneous organic chemicals	5,890	8,013	2,123	36.0
MM025	Steel mill products, all grades	3,029	4,665	1,636	54.0
MT039	Certain motor-vehicle parts	20,685	22,265	1,580	7.6
ST031	Measuring, testing, controlling, and analyzing instruments	10,060	11,572	1,512	15.0
ST002	Telephone and telegraph apparatus	6,724	8,203	1,479	22.0
ST007	Radio transmission and reception apparatus, and combinations thereof	5,166	6,604	1,438	27.8
AG056	Industrial papers and paperboards	3,827	5,085	1,258	32.9
AG032	Oilseeds	4,537	5,661	1,124	24.8
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	6,471	7,502	1,031	15.9
AG064	Cotton, not carded or combed	2,653	3,681	1,028	38.7
ST024	Medical goods	7,997	8,966	969	12.1
MM036	Copper and related articles	1,813	2,708	895	49.4
CH003	Coal, coke, and related chemicals products	3,464	4,328	864	24.9
MT012	Construction and mining equipment	6,947	7,773	826	11.9
MM038	Aluminum mill products	2,177	2,974	797	36.6
Rank order based on change in percentage growth:					
MM007	Certain ores, concentrates, ash, and residues	301	704	403	133.9
MT022	Non-metalworking machine tools and parts thereof	861	1,456	595	69.1
AG054	Wood pulp and wastepaper	3,816	6,241	2,425	63.5
CH001	Electrical energy	30	47	17	56.7
MM010	Industrial ceramics	411	635	224	54.5
MM025	Steel mill products, all grades	3,029	4,665	1,636	54.0
AG003	Swine and pork	486	748	262	53.9
CH016	Chlor-alkali chemicals	594	899	305	51.3
CH080	Other wearing apparel	603	910	307	50.9
CH009	Primary aromatics	138	208	70	50.7
MM036	Copper and related articles	1,813	2,708	895	49.4
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	427	637	210	49.2
AG030	Cereals	10,088	14,870	4,782	47.4
CH035	Polypropylene resins in primary forms	449	660	211	47.0
CH010	Benzenoid commodity chemicals	1,555	2,258	703	45.2
MM037	Unwrought aluminum	896	1,294	398	44.4
MM002	Certain miscellaneous mineral substances	5	7	2	40.0
AG064	Cotton, not carded or combed	2,653	3,681	1,028	38.7
AG033	Animal or vegetable fats and oils	1,851	2,529	678	36.6
MM038	Aluminum mill products	2,177	2,974	797	36.6

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

**Table 2-6**  
**Domestic export declines: Ranking of top 20 industry/commodity groups, 1994 and 1995**

USITC code	Industry/commodity group	U.S. exports		Change, 1995 from 1994	
		1994	1995	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value decline:					
MT042	Aircraft, spacecraft, and related equipment	28,576	23,839	-4,737	-16.6
CH002	Nuclear materials	1,226	965	-261	-21.3
AG043	Cigarettes	4,965	4,770	-195	-3.9
AG034	Edible preparations	3,062	2,871	-191	-6.2
AG009	Shellfish	904	788	-116	-12.8
MM066	Miscellaneous articles	1,524	1,420	-104	-6.8
MT033	Ignition, starting, lighting, and other electrical equipment	1,409	1,336	-73	-5.2
AG023	Deciduous fruit	774	718	-56	-7.2
MM020	Precious metals and related articles	6,531	6,475	-56	-.9
MT019	Metal rolling mills and parts thereof	287	235	-52	-18.1
ST008	Radio navigational aid, radar, and remote control apparatus	1,242	1,198	-44	-3.5
CH004	Crude petroleum	44	1	-43	-97.7
CH060	Carpets and rugs	713	686	-27	-3.8
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps	811	786	-25	-3.1
ST026	Watches	163	139	-24	-14.7
MM024	Abrasive and ferrous powders	432	410	-22	-5.1
ST015	Special-purpose tubes	171	150	-21	-12.3
AG035	Cocoa, chocolate, and confectionery	545	524	-21	-3.9
AG004	Sheep and meat of sheep	37	19	-18	-48.6
CH020	Synthetic organic pigments	299	283	-16	-5.4
Rank order based on change in percentage decline:					
CH004	Crude petroleum	44	1	-43	-97.7
MM008	Precious metal ores and concentrates	16	8	-8	-50.0
AG004	Sheep and meat of sheep	37	19	-18	-48.6
CH002	Nuclear materials	1,226	965	-261	-21.3
MT019	Metal rolling mills and parts thereof	287	235	-52	-18.1
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal	89	74	-15	-16.9
MT042	Aircraft, spacecraft, and related equipment	28,576	23,839	-4,737	-16.6
ST026	Watches	163	139	-24	-14.7
AG009	Shellfish	904	788	-116	-12.8
ST015	Special-purpose tubes	171	150	-21	-12.3
AG029	Spices	52	46	-6	-11.5
ST020	Exposed photographic plates, film, and paper	110	98	-12	-10.9
CH023	Natural tanning and dyeing materials	19	17	-2	-10.5
CH063	Men's and boys' coats and jackets	136	125	-11	-8.1
CH043	Other tires	79	73	-6	-7.6
AG023	Deciduous fruit	774	718	-56	-7.2
MM066	Miscellaneous articles	1,524	1,420	-104	-6.8
AG034	Edible preparations	3,062	2,871	-191	-6.2
AG045	Furskins	167	157	-10	-6.0
MM013	Ceramic household articles	105	99	-6	-5.7

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

**Table 2-7**  
**Domestic import growth: Ranking of top 20 industry/commodity groups, 1994 and 1995**

USITC code	Industry/commodity group	U.S. exports		Change, 1995 from 1994	
		1994	1995	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value growth:					
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices .....	26,020	39,168	13,148	50.5
ST018	Automatic data processing machines .....	46,161	56,308	10,147	22.0
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing .....	79,240	84,384	5,144	6.5
CH004	Crude petroleum .....	38,530	42,077	3,547	9.2
MT023	Semiconductor equipment, robots, and other machinery .....	8,121	9,711	1,590	19.6
AG054	Wood pulp and wastepaper .....	2,329	3,845	1,516	65.1
CH027	Medicinal chemicals, except antibiotics .....	5,691	7,075	1,384	24.3
AG058	Printing and writing papers .....	2,831	4,192	1,361	48.1
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits .....	7,380	8,528	1,148	15.6
CH066	Shirts and blouses .....	10,840	11,986	1,146	10.6
AG057	Newsprint .....	3,333	4,418	1,085	32.6
MT002	Internal combustion piston engines, other than for aircraft .....	7,424	8,389	965	13.0
ST031	Measuring, testing, controlling, and analyzing instruments .....	5,727	6,665	938	16.4
CH011	Benzenoid specialty chemicals .....	2,281	3,179	898	39.4
MT029	Electrical transformers, static converters, and inductors .....	2,713	3,537	824	30.4
MM041	Certain base metals and chemical elements .....	1,720	2,536	816	47.4
MM055	Furniture and selected furnishings .....	7,638	8,423	785	10.3
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools .....	2,735	3,512	777	28.4
AG028	Coffee and tea .....	2,655	3,427	772	29.1
ST007	Radio transmission and reception apparatus, and combinations thereof .....	7,764	8,528	764	9.8
Rank order based on change in percentage growth:					
CH010	Benzenoid commodity chemicals .....	392	813	421	107.4
MM008	Precious metal ores and concentrates .....	49	87	38	77.6
CH007	Major primary olefins .....	289	496	207	71.6
CH049	Natural rubber .....	965	1,629	664	68.8
AG054	Wood pulp and wastepaper .....	2,329	3,845	1,516	65.1
MM022	Ferroalloys .....	777	1,245	468	60.2
CH009	Primary aromatics .....	158	246	88	55.7
CH034	Polyethylene resins in primary forms .....	783	1,192	409	52.2
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices .....	26,020	39,168	13,148	50.5
ST021	Optical fibers, optical fiber bundles and cables .....	104	154	50	48.1
AG058	Printing and writing papers .....	2,831	4,192	1,361	48.1
MM041	Certain base metals and chemical elements .....	1,720	2,536	816	47.4
CH059	Sacks and bags of textile materials .....	52	76	24	46.2
AG004	Sheep and meat of sheep .....	59	85	26	44.1
AG064	Cotton, not carded or combed .....	7	10	3	42.9
MT013	Mineral processing machinery .....	260	371	111	42.7
MM028	Metal construction components .....	181	258	77	42.5
MM038	Aluminum mill products .....	1,446	2,048	602	41.6
CH016	Chlor-alkali chemicals .....	149	210	61	40.9
MT043	Ships, tugs, pleasure boats, and similar vessels .....	653	919	266	40.7

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

**Table 2-8**  
**Domestic import declines: Ranking of top 20 industry/commodity groups, 1994 and 1995**

USITC code	Industry/commodity group	U.S. imports		Change, 1995 from 1994	
		1994	1995	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value decline:					
CH005	Petroleum products .....	10,450	9,777	-673	-6.4
MM025	Steel mill products, all grades .....	12,435	11,786	-649	-5.2
AG047	Lumber .....	6,059	5,515	-544	-9.0
MT001	Aircraft engines and gas turbines .....	5,825	5,285	-540	-9.3
CH067	Sweaters .....	2,052	1,750	-302	-14.7
MT042	Aircraft, spacecraft, and related equipment .....	6,431	6,135	-296	-4.6
CH076	Leather apparel and accessories .....	1,456	1,199	-257	-17.7
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal .....	317	139	-178	-56.2
AG030	Cereals .....	861	723	-138	-16.0
ST028	Arms and ammunition .....	777	657	-120	-15.4
CH001	Electrical energy .....	960	856	-104	-10.8
AG002	Cattle and beef .....	2,716	2,627	-89	-3.3
MM062	Games and fairground amusements .....	2,575	2,494	-81	-3.1
CH063	Men's and boys' coats and jackets .....	1,773	1,692	-81	-4.6
MT018	Textile machinery and parts .....	1,833	1,752	-81	-4.4
MM053	Costume jewelry and related articles .....	567	493	-74	-13.1
AG041	Unmanufactured tobacco .....	613	550	-63	-10.3
AG032	Oilseeds .....	268	221	-47	-17.5
CH006	Natural gas and components .....	5,201	5,157	-44	-.8
CH077	Fur apparel and other fur articles .....	187	146	-41	-21.9
Rank order based on change in percentage decline:					
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal .....	317	139	-178	-56.2
AG011	Eggs .....	30	20	-10	-33.3
AG043	Cigarettes .....	73	51	-22	-30.1
MM006	Zinc ores and residues .....	18	13	-5	-27.8
CH077	Fur apparel and other fur articles .....	187	146	-41	-21.9
AG045	Furskins .....	109	87	-22	-20.2
CH076	Leather apparel and accessories .....	1,456	1,199	-257	-17.7
AG032	Oilseeds .....	268	221	-47	-17.5
AG030	Cereals .....	861	723	-138	-16.0
ST028	Arms and ammunition .....	777	657	-120	-15.4
CH067	Sweaters .....	2,052	1,750	-302	-14.7
MM053	Costume jewelry and related articles .....	567	493	-74	-13.1
CH001	Electrical energy .....	960	856	-104	-10.8
CH023	Natural tanning and dyeing materials .....	58	52	-6	-10.3
AG041	Unmanufactured tobacco .....	613	550	-63	-10.3
MT001	Aircraft engines and gas turbines .....	5,825	5,285	-540	-9.3
AG047	Lumber .....	6,059	5,515	-544	-9.0
CH005	Petroleum products .....	10,450	9,777	-673	-6.4
ST029	Balances of a sensitivity of 5 cg or better .....	37	35	-2	-5.4
AG013	Animal feeds .....	613	580	-33	-5.4

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

**Table 2-9**  
**U.S. trade position improvements: Ranking of top 30 industry/commodity groups, 1994 and 1995**  
*(Million dollars)*

USITC code	Industry/commodity group	U.S. balance		Absolute change from
		1994	1995	1994 to 1995
AG030	Cereals .....	9,227	14,147	4,920
MM025	Steel mill products, all grades .....	-9,406	-7,121	2,285
CH012	Miscellaneous organic chemicals .....	1,448	3,045	1,597
MT039	Certain motor-vehicle parts .....	4,600	5,967	1,367
CH005	Petroleum products .....	-4,436	-3,194	1,242
ST002	Telephone and telegraph apparatus .....	-724	461	1,185
AG032	Oilseeds .....	4,269	5,440	1,171
AG064	Cotton, not carded or combed .....	2,646	3,671	1,025
AG054	Wood pulp and wastepaper .....	1,487	2,396	909
CH003	Coal, coke, and related chemicals products .....	2,665	3,481	816
AG056	Industrial papers and paperboards .....	2,439	3,201	762
MT001	Aircraft engines and gas turbines .....	2,642	3,356	714
ST007	Radio transmission and reception apparatus, and combinations thereof .....	-2,598	-1,924	674
MT012	Construction and mining equipment .....	3,485	4,138	653
MT023	Semiconductor equipment, robots, and other machinery .....	1,171	1,801	630
ST031	Measuring, testing, controlling, and analyzing instruments .....	4,333	4,907	574
ST028	Arms and ammunition .....	1,435	2,005	570
AG047	Lumber .....	-3,601	-3,068	533
CH039	Other plastics in primary forms .....	2,986	3,461	475
AG033	Animal or vegetable fats and oils .....	805	1,264	459
AG005	Poultry .....	1,668	2,118	450
ST024	Medical goods .....	3,592	4,015	423
MT022	Non-metalworking machine tools and parts thereof ...	43	463	420
CH050	Manmade fibers and filament yarns .....	286	683	397
AG002	Cattle and beef .....	-355	21	376
AG013	Animal feeds .....	2,869	3,242	373
MM023	Iron and steel waste and scrap .....	1,031	1,403	372
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for .....	980	1,351	371
CH067	Sweaters .....	-2,022	-1,718	304
CH080	Other wearing apparel .....	-1,689	-1,387	302

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

**Table 2-10**  
**U.S. trade position declines: Ranking of top 30 industry/commodity groups, 1994 and 1995**  
*(Million dollars)*

USITC code	Industry/commodity group	U.S. balance		Absolute change from
		1994	1995	1994 to 1995
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	-7,922	-15,851	-7,929
ST018	Automatic data processing machines	-17,059	-21,832	-4,773
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	-57,875	-62,485	-4,610
MT042	Aircraft, spacecraft, and related equipment	22,145	17,704	-4,441
CH004	Crude petroleum	-38,486	-42,076	-3,590
AG058	Printing and writing papers	-1,685	-2,771	-1,086
CH027	Medicinal chemicals, except antibiotics	395	-605	-1,000
AG057	Newsprint	-2,852	-3,827	-975
CH066	Shirts and blouses	-9,819	-10,701	-882
MM055	Furniture and selected furnishings	-4,338	-5,121	-783
AG028	Coffee and tea	-2,424	-3,198	-774
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools	-1,082	-1,790	-708
MM020	Precious metals and related articles	2,498	1,799	-699
MM066	Miscellaneous articles	-2,925	-3,617	-692
CH049	Natural rubber	-932	-1,587	-655
CH064	Men's and boy's trousers	-2,095	-2,673	-578
MT029	Electrical transformers, static converters, and inductors	-963	-1,537	-574
MM041	Certain base metals and chemical elements	-793	-1,346	-553
MT002	Internal combustion piston engines, other than for aircraft	864	383	-481
MM061	Toys and models	-3,482	-3,945	-463
MM022	Ferroalloys	-690	-1,131	-441
ST001	Office machines	-4,004	-4,436	-432
CH011	Benzenoid specialty chemicals	1,792	1,372	-420
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	-2,838	-3,244	-406
AG034	Edible preparations	1,501	1,125	-376
CH082	Footwear and footwear parts	-11,068	-11,424	-356
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	-5,643	-5,979	-336
CH070	Robes, nightwear, and underwear	-1,628	-1,961	-333
CH047	Miscellaneous rubber or plastics products	-1,346	-1,661	-315
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators	-1,521	-1,832	-311

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

**Table 2-11**  
**Top absolute bilateral U.S. trade shifts (changes) in imports, exports, and total, and resulting change in U.S. trade balance, by trading partners, during 1994-95**

*(Million dollars)*

Rank	Partner	Exports	Imports	Total	Change in U.S. balance
1	Canada	9,618	16,129	25,747	-6,511
2	Mexico	-4,255	13,116	17,371	-17,371
3	Japan	9,900	4,871	14,771	5,029
4	Korea	6,984	4,479	11,463	2,505
5	China	2,435	6,797	9,232	-4,362
6	Germany	2,994	5,560	8,554	-2,566
7	Singapore	1,934	3,206	5,140	-1,272
8	Malaysia	1,586	3,524	5,110	-1,938
9	Taiwan	1,795	2,289	4,084	-494
10	United Kingdom	1,565	2,065	3,630	-500
11	Italy	1,586	1,767	3,353	-181
12	Netherlands	2,998	339	3,337	2,659
13	Brazil	3,118	141	3,259	2,977
14	Hong Kong	2,578	611	3,189	1,967
15	Philippines	1,321	1,279	2,600	42

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

U.S. trade with only six of these countries, Japan, Brazil, the Netherlands, Korea, Hong Kong, and the Philippines, had a positive affect on the U.S. trade balance in 1995. The positive influence of the trade with Japan is especially notable. The \$5.0 billion decrease in the U.S. trade deficit with Japan in 1995 contrasts sharply with the \$6.4 billion increase recorded in 1994. Trade with the remaining partners, especially Mexico, Canada, and China, was responsible for a \$35.2 billion negative change in the U.S. trade position during 1995. This amount exceeded the overall \$17.2 billion widening of the trade deficit in 1995. Mexico was the standout among these countries. The \$531 million U.S.-Mexico trade surplus in 1994 shifted to a \$16.8 billion deficit in 1995. An analysis of some of the underlying factors that influenced the shifts in bilateral trade with each of these major trading partners is provided below.

## Canada

The U.S. trade deficit with Canada expanded by 26 percent (\$6.5 billion) in 1995 to \$31.6 billion and was the third-largest of all U.S. bilateral trade deficits (one-sixth of the total U.S. trade deficit). The growth in U.S. exports to Canada, which rose by 9 percent (\$9.6 billion) in 1995 to \$113.3 billion, was overshadowed by U.S. imports from Canada, which rose by 13 percent (\$16.1 billion) to \$144.9 billion. The United States was both the leading market for Canadian exports (80 percent) in 1995 and the principal source of imports (67 percent). Canada is also the largest U.S. trading partner, accounting for 20 percent of total U.S. imports and exports in 1995. Such factors as geographical proximity, resource endowment, infrastructure, communication and media linkages, similar cultures and language, and integration of industries promote trade between the two countries.<sup>27</sup>

The increase in U.S. imports from Canada was fueled by the sustained rate of growth of the U.S. economy<sup>28</sup> and a favorable Canadian exchange rate. Canadian demand for U.S. exports was tempered by modest business, government, and consumer spending, and the exchange rate. Private-sector firms in

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<sup>27</sup> According to the U.S. Department of State publication, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, Mar. 1996), p. 147, Canadian subsidiaries of U.S. companies account for a significant portion of Canadian GDP. Roughly 40 percent of the assets of Canadian manufacturing companies are foreign-owned; of this total, about 75 percent belong to U.S. firms. The stock of total foreign direct investment in Canada in 1994 was US\$108 billion, of which US\$ 70 billion, or 65 percent, was U.S. foreign direct investment.

<sup>28</sup> According to the Scotiabank: The Bank of Nova Scotia, *Global Economic Outlook* (Nova Scotia, Canada, May 1996), p. 7, GDP growth for Canada is expected to fall below 2 percent in 1996, while that for the United States is projected to be 2.2 percent.

Canada have cut back their expenditures in an effort to reduce the rate of inventory accumulation and adjust to cutbacks in public spending at both the federal and provincial level. Government spending continues to be constrained by debt service cost. Despite years of budget cutting, government debt will be equivalent to 74 percent of Canada's GDP in FY97/98. Debt service costs will reach more than \$50 billion, roughly 37 cents out of every tax dollar sent to Ottawa. Consumer confidence remains low because of employment uncertainty caused by the ongoing restructuring in the Canadian economy and the stagnation in the growth of disposable income. When adjusted for inflation, Canadian disposable income has shown no growth between 1990-96, well below the 4-percent average annual increase over the previous 30 years.<sup>29</sup> According to the Scotiabank of Canada, Canadian national employment rose by less than 90,000 during 1995,<sup>30</sup> with gains concentrated in part-time positions.<sup>31</sup>

The U.S. trade deficit with Canada in transportation equipment, which totaled \$11.2 billion in 1995, was largely the result of value being added in Canada (parts and labor) to U.S. origin parts during assembly. Reflecting the integration of the motor-vehicle industries in the United States and Canada, transportation equipment accounted for nearly one-third (\$82.5 billion) of the total trade between the two countries in 1995. Canada's trade advantage for forest products totaled \$13.5 billion in 1995, that for energy and related products (mostly petroleum and natural gas) was \$12.6 billion. Canada's trade surplus in minerals and metals reached \$4 billion in 1995. The U.S. trade advantage for electronics technology and machinery and equipment was \$12.5 billion.

U.S. exports of transportation articles to Canada rose by 7 percent (\$2.2 billion) in 1995 to \$35.7 billion, while imports of these products rose by 6 percent (\$2.7 billion) to \$46.8 billion. Motor vehicles and parts<sup>32</sup> accounted for nearly one-half of the trade in the transportation sector (\$46 billion) and almost one-fifth of U.S.-Canada trade overall. For the most part, the U.S. motor-vehicle industry exports parts to Canada and imports finished vehicles. The United States had a \$6.2 billion trade surplus with Canada in motor vehicle parts in 1995 but a trade deficit of \$21.9 billion in finished vehicles.

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<sup>29</sup> Ibid.

<sup>30</sup> Estimates provided by Scotiabank, Ibid., p.1, stated that the severity of Canada's labor market problems is further highlighted by the sharp drop in labor force participation (people looking for jobs) during 1990 and 1995. If the participation rate had stayed relatively stable—as it has in the United States—Canada's unemployment rate would still be above 13 percent.

<sup>31</sup> *Business Week*, "This Turnaround Looks a Mite Tentative," Dec. 18, 1995, p. 32.

<sup>32</sup> Includes cars, buses, trucks, bodies and chassis of the foregoing.

North American motor-vehicle producers achieve increased economies of scale by concentrating the production of specific vehicle models at a single location and limiting the number of sites at which specific parts are manufactured. These locations supply both the U.S. and Canadian markets. Since Canada accounts for 18 percent of North American car assembly capacity but only 7 percent of purchases,<sup>33</sup> the United States is expected to maintain a significant trade deficit with Canada in finished vehicles for many years to come. Principal U.S. exports of transportation products other than motor vehicles and parts were internal combustion engines, and aircraft, spacecraft and related articles (principally large civil aircraft) (table 2-12).

The fastest growth in bilateral trade with Canada among leading sectors in 1995 was accounted for by forest products (principally pulp, paper, and printed matter) as U.S. exports of sector products rose by 19 percent (\$1 billion) to \$6.3 billion and imports rose by 21 percent (\$3.5 billion) to \$19.9 billion. All sectors of the North American pulp and paper industries experienced increasing demand for their products in 1995. The market price for pulp and paper began to rise in 1994 when a hardwood pulp shortage developed in Europe because of the earlier collapse of the former Soviet Union. The disruption occurred at a time when the western European, North American, and Asian economies were beginning their economic recoveries that have lasted through 1995. Products accounting for the bulk of the increase in U.S. exports to Canada in 1995 were wood pulp and wastepaper; industrial papers and paperboard, and printed matter. The increase in U.S. imports of forest products from Canada in 1995 was accounted for by shipments of wood pulp and wastepaper, newsprint, and printing and writing paper (table 2-13).

In contrast to the overall trend for forest products, U.S. imports of lumber from Canada declined by \$606 million (11 percent) to \$5.1 billion in 1995. The decline was the result of a price correction, as the volume of lumber imported actually increased in 1995. Prices were unusually high in 1994 because of strong U.S. demand and some shortages in the Western supply regions. Further, Canadian demand for lumber in 1995 was tempered by a continuing decline in residential construction, as homebuilders concentrated their efforts on working off high inventories of unsold homes.

U.S. exports of chemicals and related products to Canada rose by 11 percent (\$1.3 billion) to \$13.3 billion in 1995; while imports rose almost twice as fast, by 19 percent (\$1.7 billion) to \$10.5 billion. Chemical products are used in a wide variety of

consumer items, including automobiles, building materials, appliances, and clothing. Virtually all U.S.-Canadian trade in chemical products entered duty free under the NAFTA. U.S. exports to Canada of chemicals and related products are largely of specialty chemicals, while U.S. imports from Canada are primarily of commodity chemicals. Canadian commodity chemicals, particularly the ammonia and petrochemicals subsectors, are highly competitive because of the availability of competitively priced oil and gas.<sup>34</sup>

U.S. exports of minerals and metals to Canada rose by 12 percent (\$1.2 billion) to \$11.0 billion in 1995; imports rose at a slightly higher rate of 15 percent (\$2.0 billion) to \$15.0 billion. Canada is the world's leading exporter of minerals and metals because it has both significant domestic sources of metals including iron, copper, lead, zinc, and precious metals; and access to significant sources of low-cost hydroelectric power to smelt alumina and produce steel. Canadian metal producers have invested more than \$1 billion in new technology in order to meet recent environmental regulations and productivity challenges. Products accounting for the bulk of the increase in U.S. exports were steel mill products, aluminum mill products; and copper and related products. On the import side, the same products along with unwrought aluminum, accounted for the bulk of the increase in 1995.

U.S. exports to Canada of electronic articles rose by 14 percent (\$2.1 billion) to \$17.9 billion in 1995; while imports rose by 21 percent (\$1.9 billion) to \$10.9 billion. Canadian subsidiaries of IBM, Digital, Hewlett Packard, and Unisys account for most Canadian shipments of computers, electronic components, and telecommunication equipment. Canadian-owned enterprises generally specialize in computer assembly and the manufacture of computer subsystems and peripheral equipment. Although a modest producer of electronic products compared with the United States, Canada is an internationally competitive manufacturer of high-end electronic components, owing to its highly educated workforce and highly automated methods of production. Canadian manufacturers are at the leading edge of telecommunications technology and are beginning to benefit from the creation of new wireless networks in the United States and Canada. The most prominent growth in U.S. exports of electronic articles in 1995 was for computers, semiconductor devices, and apparatus for electrical circuits. U.S. imports of computers, and semiconductor devices were also strong in 1995.

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<sup>33</sup> Scotiabank, *Global Economic Outlook*, p. 10.

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<sup>34</sup> Industry Canada, *Chemicals, Plastics and Advanced Materials, The International Trade Business Plan 1995/96, Canada's Export Strategy* (Ottawa, Ontario, Canada, Jan. 1996), p. 5.

**Table 2-12**  
**Leading increases in U.S. exports to Canada, 1994-95**

Industry/product	1994	1995	Increase in 1995	Change, 1995 from 1994
		<i>Million dollars</i>		<i>Percent</i>
Transportation equipment:				
Motor-vehicle parts .....	11,833	12,619	786	7
Aircraft, spacecraft, and related equipment .....	986	1,303	317	32
Forest products:				
Wood pulp and wastepaper .....	359	599	240	67
Industrial papers and paperboards .....	834	1,060	226	27
Printed matter .....	1,711	1,873	162	9
Minerals and metals:				
Steel mill products .....	1,406	1,691	285	20
Aluminum mill products .....	925	1,169	244	26
Copper and related articles .....	558	797	239	43
Electronic articles:				
Computers .....	4,142	4,771	628	15
Semiconductor devices .....	1,763	2,376	612	35
Apparatus for electrical circuits .....	1,818	2,058	240	13

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

**Table 2-13**  
**Leading increases in U.S. imports from Canada, 1994-95**

Industry/product	1994	1995	Increase in 1995	Change, 1995 from 1994
		<i>Million dollars</i>		<i>Percent</i>
Transportation equipment:				
Automobiles, trucks, buses, and bodies and chassis .....	30,685	33,277	2,592	8
Forest products:				
Wood pulp and wastepaper .....	1,992	3,226	1,234	62
Newsprint .....	3,296	4,371	1,075	33
Printing and writing papers .....	1,582	2,413	831	53
Minerals and metal:				
Unwrought aluminum .....	2,334	2,836	502	22
Copper and related articles .....	979	1,452	473	48
Aluminum mill products .....	734	920	186	25
Steel mill products .....	2,284	2,442	157	7
Electronic articles:				
Computers .....	3,149	4,057	908	29
Semiconductor devices .....	1,344	1,695	351	26
Telephone and telegraph apparatus .....	1,055	1,292	237	22

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

U.S. imports of both crude petroleum and furniture increased significantly in 1995. The value of U.S. imports of crude petroleum from Canada increased from \$4.9 billion in 1994 to \$6.1 billion in 1995, or by 25 percent. However, in terms of quantity, imports increased by only 9 percent, from 348 million barrels in 1994, to 379 million barrels in 1995. The per-barrel price of crude on the world market increased by nearly \$2.00 as non-OPEC producers, which are traditionally higher priced producers, gained a larger share of the world market.

U.S. imports of furniture rose by 21 percent (\$417 million) to \$2.4 billion. Canadian furniture manufacturers have streamlined methods of production and modernized their manufacturing equipment in order to survive increased levels of U.S. competition because of the implementation of the NAFTA. As a result, Canadian furniture manufacturers have been increasingly competitive in U.S. markets. A significant portion of the increase in U.S. imports of furniture from Canada was accounted for by motor vehicle seats and parts.

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## **Mexico**

Devaluation of the Mexican peso led the U.S.-Mexico merchandise trade balance to slip from a \$531 million surplus in 1994 to a \$16.8 billion deficit in 1995. U.S. imports from Mexico rose by \$13 billion (27 percent) to \$62 billion in 1995, while U.S. exports declined by \$4.3 billion (9 percent) to \$45 billion.

On December 20, 1994, the Mexican Government devalued the peso and 2 days later allowed it to float in foreign exchange markets for the first time in 3 years, instead of pegging its value to the U.S. dollar.<sup>35</sup> Adverse political and social developments during the year, combined with a large outflow of capital that was exacerbated by rising U.S. interest rates and the decision by the outgoing Salinas administration to bolster the peso strength by depleting Mexico's foreign reserves, culminated in the Mexican peso crisis. Because the value of the peso fell by nearly one-half, Mexican President Ernesto Zedillo announced an economic austerity package on March 9, 1995, in an attempt to stabilize the Mexican economy and restore investor confidence.<sup>36</sup>

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<sup>35</sup> For a detailed description of the Mexican peso crisis, see Truman, "The Mexican Peso Crisis," pp. 199-209.

<sup>36</sup> U.S. Department of Commerce (USDOC), International Trade Administration (ITA), *U.S. Global Trade Outlook, 1995-2000: Selected Big Emerging Markets, Mexico*, Mar. 1995, p. 90.

The peso crisis precipitated the decline of U.S. exports to, and contributed to the rise of U.S. imports from, Mexico by increasing the price of U.S.-made goods in the Mexican market and lowering the price of Mexican goods in the U.S. market. Real Mexican GDP, which had grown by 3.5 percent in 1994, shrank by 6.0 percent in 1995.<sup>37</sup> President Zedillo's austerity plan called for less government spending, higher taxes, and increased prices on consumer goods, all of which decreased demand for many products in Mexico. As a result, U.S. exports to Mexico declined substantially in most sectors in 1995, especially in nonsubsistence or consumer goods such as automobiles, furniture, computers, telephones, and stereo equipment (table 2-14).

As a result of the implementation of NAFTA in 1994<sup>38</sup> and the continued growth of the maquiladora sector (the assembly of foreign components for re-export<sup>39</sup>), U.S. exports to Mexico did increase in three diverse areas in 1995: electronic components, apparel, and oil and gas. Production in the maquiladora industry grew by an estimated 25 percent in 1995,<sup>40</sup> leading to a 35-percent rise in U.S. exports of electronic parts typically used in maquiladora assembly processes (table 2-15).

Exports of these selected electronic components amounted to \$5.1 billion in 1995, 11 percent of total U.S. exports to Mexico. Devaluation of the peso reduced labor costs in the maquiladora industry by an estimated 25 to 30 percent,<sup>41</sup> which in turn led to increased assembly in Mexico by U.S. companies and a rise in exports of U.S. components to Mexico for assembly into electronic products. Additionally, NAFTA rules of origin encouraged Japanese and Korean companies with television assembly plants in Mexico to make greater use of U.S.-made parts. Consequently, there was a 31-percent (\$209 million) increase in exports of picture tubes to Mexico in 1995 (table 2-15).

NAFTA and the growth of the maquiladora industry were also responsible for increased U.S. exports of apparel and energy-related products. Duty-free treatment under NAFTA of apparel sewn in Mexico entirely from U.S.-cut fabric led to a significant rise in U.S. exports of apparel pieces to the maquilado-

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<sup>37</sup> Estimate made on data available through Oct. 1995, U.S. Department of State, *Key Economic Indicators: Mexico*, 1995, p. 1.

<sup>38</sup> The NAFTA eliminated Mexican quotas on U.S. textiles and apparel and granted zero-duty status for many categories of imported goods, including semiconductors, computers, telecommunications equipment, machine tools, medical devices, and electronic equipment.

<sup>39</sup> For more information on export processing in Mexico see, USITC, *Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations, 1991-94 (U.S. Imports Under Production Sharing Provisions of HTS Heading 9802)*, USITC publication 2996, May 1996.

<sup>40</sup> Estimated by Don Michie, Professor of Marketing, University of Texas at El Paso, telephone interview with USITC staff, May 2, 1996.

<sup>41</sup> Ibid.

**Table 2-14**  
**Leading decreases in U.S. exports to Mexico, 1994-95**

Industry/product	Decrease in 1995		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Million dollars</i>
All agricultural goods .....	1,101	23	3,622
Auto parts .....	1,089	25	3,325
Medical equipment .....	489	27	1,295
Aircraft .....	387	81	93
Motor vehicles .....	312	64	175
Furniture, including vehicle seats .....	238	26	682
Computers .....	197	25	589
Telephone and telegraph apparatus .....	195	33	398
Stereos and other radio equipment; pagers .....	189	27	512
All other .....	907	3	33,340
<b>Total .....</b>	<b>5,104</b>	<b>10</b>	<b>44,031</b>

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

**Table 2-15**  
**Leading increases in U.S. exports of electronic parts to Mexico, 1994-95**

Product	Increase in 1995		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Million dollars</i>
Integrated circuits and other semiconductor devices .....	445	39	1,573
Circuit breakers, printed circuit boards .....	438	29	1,932
Capacitors and resistors .....	217	46	690
Cathode ray tubes for televisions and computer monitors .....	209	31	875
<b>Total .....</b>	<b>1,309</b>	<b>35</b>	<b>5,070</b>

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

ra industry. This expansion was nearly offset by lower exports of finished apparel resulting from reduced consumer purchasing power in Mexico following the peso devaluation. The net result was a 7-percent (\$162 million) increase in U.S. exports of all textile and apparel products to Mexico in 1995 to \$2.4 billion (see table 7-1). U.S. exports of refined petroleum and natural gas rose by 26 percent (\$264 million) to \$1.3 billion in 1995, in large part to supply the maquiladora industry (the bulk of which is located along the U.S.-Mexico border), other export-oriented Mexican producers, and the trucking companies used to transport Mexican exports to the United States. U.S. energy exports to Mexico also benefited from eased access to the Mexican market under NAFTA.

The substantial increase in U.S. imports from Mexico was also caused by the peso devaluation which substantially reduced the cost of Mexican labor (contributing to cheaper Mexican exports overall) and to the continued effects of the implementation of NAFTA. U.S. imports of electronic assemblies increased substantially, commensurate with the aforementioned increase in U.S. exports to Mexico in the electronic component sector. Leading examples included radio and television equipment, computer equipment, and meters (table 2-16). U.S. imports of selected motor vehicles and parts assembled in Mexico (cars, trucks, engines, ignition sets, and wiring harnesses) also rose sharply in 1995, increasing by \$4.4 billion to \$14.7 billion, a rise of 42 percent.

**Table 2-16**  
**Leading increases in U.S. imports from Mexico, 1994-95**

Product/commodity	Increase in 1995		Total value in 1995 Million dollars
	Value Million dollars	Percent	
Motor vehicles .....	2,549	44	8,386
Textiles and apparel .....	1,273	52	3,704
Crude petroleum .....	1,088	24	5,682
Engines .....	726	83	1,605
Radio equipment, including stereo receivers and pagers .....	613	95	1,259
Computer equipment .....	400	26	1,918
Wire harnesses .....	368	12	3,327
Television apparatus .....	278	53	805
Steel mill products .....	275	47	865
Copper and related articles .....	264	120	484
Coffee .....	259	78	592
Meters and other measuring instruments .....	256	25	1,290
Transformers .....	214	30	917
Television receivers and video monitors .....	207	7	3,022
Cattle and beef .....	196	55	551
Vegetables .....	194	20	1,184
All other .....	3,955	18	26,130
Total .....	13,116	27	61,721

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

U.S. imports of Mexican textiles and apparel also benefitted from the NAFTA and peso devaluation, increasing from \$2.4 billion in 1994 to \$3.7 billion in 1995, a climb of 52 percent. Duty-free treatment for Mexican apparel assembled from U.S.-cut material and reduced labor costs in Mexico because of the peso devaluation have made sewing operations in Mexico more competitive with operations in Central America, the Caribbean Basin, and Asia. U.S. imports of apparel from Mexico in 1995 were concentrated in shirts and blouses (an increase of by \$283 million, or 73 percent); men's and boys' trousers (an increase of \$252 million, or 59 percent); and women's and girls' trousers (an increase of \$173 million, or 63 percent).

Agricultural, mining, steel, and petroleum imports from Mexico all increased significantly in 1995, largely because of the major decrease in raw material prices associated with the Mexican peso devaluation. As a whole, U.S. agricultural imports from Mexico were up by 32 percent, an increase of \$1.1 billion, to \$4.4 billion in 1995, with the strongest growth in coffee,<sup>42</sup> cattle and beef, and vegetables. Imports of crude petroleum from Mexico rose by 24 percent (\$1.1 billion) to \$5.7 billion, while imports of steel mill products climbed by 47 percent to \$865 million, and imports of copper and related products more than doubled to \$484 million (table 2-16).

<sup>42</sup> The main reasons that U.S. imports of Mexican-produced coffee increased so substantially were because of decreased Brazilian production, the peso devaluation, and NAFTA benefits, according to the Institute for Agriculture and Trade Policy, *NAFTA & Inter-American Trade Monitor*, vol 3:8, Apr. 19, 1996.

The tight credit and fiscal policies implemented through President Zedillo's austerity plan are expected to limit inflation and correct the current account imbalance, while continuing to restrict domestic demand for imports in the near future. Moreover, industry sources report that Mexico has been able to retain the confidence of investors that are focused on long-term benefits. According to the IMF, a growth rate of 3 percent is expected this year;<sup>43</sup> and the Mexican economy has the strong underpinnings (balanced budget; modern, open economy; low predevaluation inflation base, and enhanced investment environment<sup>44</sup>) necessary to regain stability and continue on its previous path of economic growth. As the Mexican economy gradually recovers over the next 5 years, U.S. exports to Mexico are likely to increase, and the U.S. trade deficit with Mexico is expected to decline.

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## Japan

The U.S. merchandise trade deficit with Japan declined for the first time since 1990, due largely to a \$3.3 billion decrease in the deficit in the motor-vehicle sector. The \$5.0 billion decline to \$61.4 billion, was an 8-percent decrease, nearly matching the 1993 trade deficit of \$60.1 billion

<sup>43</sup> Debra Beachy, "Mexico's Ambassador Says Mexico Rebounding from Economic Crisis," *Houston Chronicle*, Apr. 19, 1996.

<sup>44</sup> USDOC, ITA, *U.S. Global Trade 1995-2000: Mexico*, p. 91.

(see tabulation). Total U.S. trade with Japan increased by 9 percent in 1995; exports increased by \$9.9 billion (19 percent) to \$61 billion and imports by \$4.9 billion (4 percent) to \$122 billion. Japan is the second-largest U.S. merchandise trading partner, behind Canada. The slight narrowing of the U.S.-Japan trade deficit during the period was also in marked contrast to Japan's soaring trade surplus with Asia, which reached \$71 billion in 1995, highlighting the country's strong focus on regional trade.<sup>45</sup>

Year	Change in U.S. trade deficit with Japan	Total trade deficit with Japan
	(Billion dollars)	(Billion dollars)
1991 .....	2.4	45.1
1992 .....	4.6	49.7
1993 .....	10.4	60.1
1994 .....	6.4	66.5
1995 .....	-5.0	61.4

Explanations for the decline in the U.S.-Japan trade deficit include more favorable exchange rates, and a general, albeit small, improvement in the Japanese economy, both of which have encouraged domestic imports.<sup>46</sup> In addition, the strong yen and changing structure of Japanese industry are reducing Japanese exports to the United States. For example, many Japanese companies, especially in the high-technology sectors, have relocated operations offshore to lower production costs, and are exporting from those facilities.

A decline in motor-vehicle imports from Japan was the single largest contributor to the decrease in Japan's trade surplus with the United States. Motor-vehicle imports from Japan fell by \$2.2 billion, which accounted for 46 percent of the total \$5.0 billion decrease in the U.S. trade deficit with Japan (table 2-17). Roughly one-quarter of the total dollar value of imports from Japan in 1995 was attributable to autos and auto parts. One of the most direct contributors to the reversal in U.S.-Japan trade trends were the accords reached under the U.S.-Japan Auto Agreement.<sup>47</sup> Concluded in August 1995 as one of 13 agreements within the Framework

<sup>45</sup> *Economist*, "Japan, The Shrinking Surplus," Feb. 3, 1996, p. 31.

<sup>46</sup> For the third consecutive year Japan experienced less than 1-percent annual economic growth. For discussion of the changing structure of the Japanese economy see *Ibid.*; and U.S. Department of State, *Country Reports*, Mar. 1996, pp. 60-67.

<sup>47</sup> USTR, *Report to President Clinton of the Interagency Enforcement Team Regarding the U.S.-Japan Agreement on Autos and Auto Parts*, Apr. 12, 1996.

talks,<sup>48</sup> provisions for improved market access for U.S. autos and auto parts reportedly played a substantial role in the slightly improved trade balance.<sup>49</sup> Motor vehicles (automobiles, trucks, and buses) represent the largest single element of trade between the United States and Japan, accounting for 17 percent of total trade (\$32 billion) in 1995. Engines and selected other auto parts accounted for 4 percent (\$8.2 billion).

Although no other consumer commodity group approximated the importance of motor vehicles, trade in certain high-tech commodities, the second-most-significant group of declining imports in terms of percentage of dollar value, also contributed to the improved trade balance. For example, the trade deficit in computers, related equipment, and parts declined from \$11.5 billion to \$10.7 billion as U.S. exports to Japan increased by \$756 million, or 22 percent, and imports remained static. The trade deficit in telephone, radio, and stereo equipment (including records, tapes, and compact discs), also contracted in 1995 falling by \$1.2 billion to \$4.0 billion, reflecting a \$581 million (30-percent) increase in U.S. exports to Japan to \$2.5 billion, and a \$624 million (9-percent) decrease in imports from Japan to \$6.5 billion.

Unlike the distribution of imports, rising U.S. exports to Japan were distributed more evenly among commodities. Motor vehicles, computers, medical goods, meters and other measuring instruments, telephone apparatus, semiconductor devices, and electronic parts of computers, office machines and televisions and radio apparatus accounted for \$3.7 billion (37 percent) of the \$9.9 billion total increase in U.S. exports to Japan (table 2-18). Corn, beef, pork, and woodpulp and wastepaper accounted for \$1.4 billion (14 percent) of the increase.

While U.S. exports of motor vehicles may have benefited from the direct intervention of the U.S. Government to open markets and channels of distribution in Japan, U.S. exports of other manufactured goods rose because of the sustained low value of the U.S. dollar relative to the Japanese yen and relatively low costs of production in the United States for a variety of goods. Exports to Japan from U.S. production facilities of Japanese-owned companies also contributed to the overall rise in U.S. exports of manufactured goods to Japan in 1995.

<sup>48</sup> Generally, the Agreement gives U.S. automakers greater access to Japan's dealership networks. It also insures increased purchases of U.S.-made auto parts through pledges from Japan's Big Five automakers to purchase more North American products and from a commitment from the Government of Japan to deregulate the auto parts market and relax certification criteria that effect the auto parts market. USTR as reported in USITC: "Last Minute Trade Agreement Averts U.S. Sanctions Against Japanese Luxury Cars," *International Economic Review*, July 1995, pp. 18-22.

<sup>49</sup> USTR, *Report to President Clinton of the Interagency Enforcement Team*.

**Table 2-17**  
**Leading changes in U.S. imports from Japan, 1994-95**

Industry/product	Change in 1995		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Million dollars</i>
Semiconductor devices .....	3,025	40	10,675
Machine tools .....	421	32	1,734
Certain industrial machinery .....	401	18	2,675
Motor-vehicle engines .....	352	13	2,971
Camcorders and other television apparatus (except receivers) .....	320	16	2,377
Copiers and other office machines .....	282	9	3,418
Meters and other measuring, testing, and controlling instruments .....	247	19	1,546
Printed circuit boards and other circuit controlling apparatus .....	244	14	2,027
Medicinal chemicals, except antibiotics .....	211	37	778
Cars, trucks, and buses .....	-2,246	-7	28,995
Telephone apparatus .....	-442	-21	1,691
Computers .....	-338	-3	10,266
Steel mill products .....	-274	-15	1,540
Video games .....	-257	-19	1,117
Total .....	4,870	4	122,402

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

**Table 2-18**  
**Leading increases in U.S. exports to Japan, 1994-95**

Product/commodity	Increase in 1995		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Million dollars</i>
Automobiles, trucks, and buses .....	1,041	53	3,003
Semiconductor devices .....	666	48	2,058
Corn .....	555	41	1,910
Computers .....	452	22	2,485
Certain industrial machinery .....	420	56	1,168
Woodpulp and wastepaper .....	356	62	930
Parts for computers and other office machines .....	333	24	1,717
Meters and other measuring, testing, and controlling instruments .....	321	26	1,563
Electronic parts for television and radio apparatus .....	320	73	754
Beef .....	307	48	952
Medical goods .....	295	23	1,592
Telephone apparatus .....	243	41	833
Meat (pork) .....	212	61	561
All other .....	4,279	11	44,435
Total .....	9,900	19	60,962

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

U.S. exports of beef, which rose by \$307 million (48 percent) in 1995 to \$952 million, benefited from the market opening efforts of earlier years. The \$555 million increase in U.S. corn exports to Japan (a 41-percent increase) to \$1.9 billion reflects a short supply situation in Asia. U.S. corn producers experienced diminished competition in Japan when China reversed its trading position from being a net corn exporter to a net corn importer in late 1994.<sup>50</sup>

Although the trade balance with Japan improved as a whole, the U. S. trade position with respect to some commodities declined. The U.S. trade balance in semiconductor devices declined by \$2.4 billion (38 percent) to a deficit of \$8.6 billion, as a \$3 billion increase in imports of these commodities outpaced a modest \$666 million export increase. Trade in integrated circuits was affected by the U.S.-Japan Semiconductor Arrangement, which ex-

<sup>50</sup>—Cont.

*Technology Review*, USITC publication 2942, Dec. 1995, pp. 31-41. Also, see the article on cereals later in this report for a discussion of factors affecting demand and supply for this product.

<sup>50</sup> USDA, *Grain: World Markets and Trade*, Oct. 1995 and USITC, "China's Evolving Grain Trade Opens New Marketing Opportunities for U.S. Exporters," *Industry Trade and*

pired in July 1996.<sup>51</sup> The U.S. trade position with respect to machine tools, motor vehicle engines, and camcorders and television apparatus also declined, primarily because of continued growth in manufacturing in the United States that boosted demand for machine tools; shipments of engines to U.S. assembly plants of Japanese automobile producers; and the absence of domestic competitors in the U.S. camcorder market. U.S. aircraft sales to Japan dipped by \$487 million (15 percent) in 1995 to \$2.8 billion because of belt-tightening measures by Japanese airlines and the slow recovery of the travel industry in Japan following a series of shocks to consumer confidence.

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## Korea

In 1995, Korea's economy returned to a more typical level of performance after 3 years of subaverage growth.<sup>52</sup> For the year, GDP grew by an estimated 9.3 percent,<sup>53</sup> fueled mainly by exports and domestic investment in plant and equipment. Rejuvenated purchasing power in Korea spurred the U.S. bilateral trade balance with Korea to shift from a \$2.0 billion deficit in 1994 to a \$457 million surplus in 1995, with imports and exports from the U.S. rising by 23 percent (\$4.5 billion) and 40 percent (\$7.0 billion), respectively, to \$24.0 billion and \$24.5 billion. The surplus was the largest registered among Asian major trading partners, and reflected the significance of the United States as a source of investment and technology. Korea ranked seventh in total bilateral U.S. trade, with imports and exports ranking eighth and fifth, respectively,

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<sup>51</sup> The U.S.-Japan Semiconductor Arrangement, concluded in 1986 and renewed in 1991, was negotiated to address the difficulty that foreign semiconductor producers faced in gaining access to Japan's domestic market. The arrangement targeted a 20-percent market share as a goal for foreign producers; a 29.6-percent market share was reported in March 1996. A new set of bilateral agreements, one inter-governmental and one inter-industry, was signed on Aug. 2, 1996. The agreements call for market access and openness but have eliminated provisions from the previous arrangements which had set numerical targets for foreign market share of the Japanese market. *Joint Statement of the Government of Japan and the Government of the United States Concerning Semiconductors* (Vancouver, Canada, Aug. 2, 1996) and *Agreement Between the Electronics Industries Association of Japan and the Semiconductor Industry Association* (Vancouver, Canada, Aug. 2, 1996), both of which are reprinted in *Inside U.S. Trade*, special report, Aug. 5, 1996, pp. S-1 through S-6.

<sup>52</sup> According to the OECD, the Korean economy averaged an 8.7-percent per year GDP growth during 1963-90.

<sup>53</sup> L. Gordon Flake, "Korean Economy in 1995," *Korea's Economy 1996*, Korea Economic Institute of America, vol. 12, p. 6.

in 1995.<sup>54</sup> According to Asia analysts, Korea's increasing merchandise trade with the United States reflects the implementation of policy changes announced by the government of president Kim Young-Sam in 1993 to liberalize and deregulate the domestic economy.<sup>55</sup> Growth in U.S.-Korea trade in 1995 was also fueled by strong GDP growth in Asia and the United States, the high value of the Japanese yen,<sup>56</sup> and by continued government policies to limit inflation in Korea. At the same time, Korean GDP growth is largely attributable to heavy investment in plant and equipment by producers in the export sector, which in turn resulted in high import levels of capital equipment and provided a larger export foundation.

Total Korean exports rose by 30 percent to \$125 billion, compared with \$96 billion in 1994. Semiconductors led the surge by rising \$13 billion (70 percent) to \$22.1 billion, followed by textiles, automobiles, and ships. Not all sectors fared as well as semiconductors, which offset declines in traditional export sectors such as footwear, which fell \$264 million (15 percent) to \$1.5 billion in 1995. The United States and Japan continue as the main export markets for Korean goods, accounting for more than 40 percent of all Korean exports, although their share relative to total exports declined in 1995. At the same time, Korean exports to developing countries continued to increase, accounting for more than 50 percent of all exports.<sup>57</sup>

Leading Korean exports to the United States were semiconductor devices, computers, automobiles, and telephone apparatus which accounted for nearly 60 percent of the total in 1995. For automobiles, in particular, the \$182 million increase (12 percent) to \$1.7 billion in exports is mostly attributed to increases in Korean production capacity and the presence of a new Korean automaker in the U.S. automobile market in 1995. The increases in U.S. imports from Korea of semiconductors, \$3.1 billion (79 percent) to \$7 billion, of computers, \$1.4 billion (56 percent) to \$3.8 billion, and of telephone apparatus, \$97 million (23 percent) to \$512 million, were attributable to increased production capacity and levels in Korea and to the continued aggressive penetration of the U.S. market by Korean companies.

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<sup>54</sup> According to data compiled from official statistics of the U.S. Department of Commerce, the six leading countries were Canada, Japan, Mexico, Germany, China, and the United Kingdom. In 1994, Korea ranked eighth in total U.S. bilateral trade, sixth in exports, and eighth in imports.

<sup>55</sup> Ann M. Kambane, "U.S.-Korean Economic Relations: An American Perspective," *Korea's Economy 1996*, Korea Economic Institute of America, vol. 12, pp. 45-49.

<sup>56</sup> Because Korea produces many items such as semiconductors, steel, and automobiles that are close substitutes to some Japanese items, a stronger yen makes Korean products more appealing.

<sup>57</sup> U.S. Department of State telegram, "Korea's 1995 Balance of Payments Results," message reference No. 001291, Mar. 6, 1996.

On the other hand, such traditional Korean exports to the United States as footwear and apparel continued to decline, reflecting Korea's continued shift from labor-intensive to capital-intensive industries. In addition, Korean companies have relocated their manufacturing facilities to gain access to countries with lower labor costs and/or to be closer to expanding and traditional markets. In 1995, Korean exports to the United States of radio equipment fell by \$180 million (37 percent) to \$301 million, while footwear and apparel fell by \$173 million (25 percent) to \$515 million, and \$269 million (40 percent) to \$415 million, respectively, in 1995.

As a result of steady export opportunities, Korean imports of capital equipment and materials for use in bolstering the export sector contributed to the 32-percent rise (\$135.1 billion) in imports in 1995. Imports of capital equipment, transportation equipment, and electronic goods rose by more than 32 percent, while raw materials, which accounted for more than 50 percent of imports, also rose at a similar rate.<sup>58</sup> The geographic distribution of imports remained relatively unchanged in 1995, divided between capital equipment from developed economies and input materials from developing economies. Developed economies accounted for more than 60 percent of all imports, with the United States and Japan accounting for approximately 40 percent; oil-rich countries in the Middle East and Southeast Asia accounted for much of the remainder.

Cereals (corn and wheat) accounted for the most significant increase in U.S. exports to Korea in 1995, rising by \$895 million (186 percent) to \$1.4 billion, nearly twice the 1994 level (table 2-19). China has been Korea's traditional supplier of feed grain. However, domestic demand in China has forced a cutback in exports, allowing the United States, the world's largest grower, to fill the void.<sup>59</sup>

Infrastructure development to support the demands of the Korean industrial sector led to increases in U.S. exports of industrial machinery, steel, chemicals, motors, air-conditioning equipment, and power-generating equipment (gas turbines). At the same time, strong investment in manufacturing technology led to growth in U.S. exports of semiconductors and nonmetalworking machine tools used in the production of semiconductors. Other significant U.S. export increases were registered in copper, gold, and platinum, all input materials used in the manufacturing of electronic articles.<sup>60</sup> Increased

commercial activity and business travel also created more demand for U.S. exports of wood pulp (to make paper) and aircraft.

The country's traditional economic policy of emphasizing trade, particularly exports, remains the main engine for economic growth. In recent years, however, the combination of strong international competition, rising labor costs, and currency appreciation has led Korea to shift its export industrial base from labor-intensive to capital-intensive production and to compete on product quality rather than price. This has resulted in significant increases in import and export levels, while leading to a decline in traditional exports (labor-intensive products such as footwear, textiles, garments, etc.) from 30 percent in 1993 to 23 percent in 1995. The decline has, thus far, been attributed to the shift in import and export shares of large industrial concerns (*chaebols*) and small/medium sized businesses. As a result of these developments, the government is considering structural adjustment assistance for small and medium, labor-intensive industries through several programs including a separate administrative office, increased credit availability, and funds for automation.<sup>61</sup>

Korea has made significant progress towards trade liberalization under current President Kim Young-Sam; however, in light of the country's strong economic performance, these reforms fall short compared to similar economies. Liberalization plans for key sectors such as finance and trade have been announced, yet, the sectors remain mostly government controlled.<sup>62</sup> Further, *chaebols* have thrived under the existing financial and trade system, and opening of the economy to imports of automobiles, electronics, and other consumer goods would have a deleterious effect on these concerns.<sup>63</sup> It thus appears that the economic success that has led to the call for increased economic liberalization is also making the government hesitate in implementing further changes.

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## China

For the ninth consecutive year, the United States registered a deficit in its merchandise trade with China. The U.S. trade deficit with China, second only to that of Japan, grew from \$29.4 billion in

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<sup>58</sup> Ibid.

<sup>59</sup> See article on cereals later in this report for a discussion of factors affecting demand and supply for these products. See also USDA, *Grain*, Oct. 1995 and USITC, "China's Evolving Grain Trade," pp. 31-41.

<sup>60</sup> See article on precious metals later in this report for a discussion of factors affecting demand and supply for these products.

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<sup>61</sup> U.S. Department of State telegram, "1995 Trade Summary - Korea's Spectacular Trade Growth Masks Long-Term Problems," message reference No. 001362, Mar. 7, 1996.

<sup>62</sup> Joan Henry, "South Korea," *Country Briefing*, Bank of Ireland Group Treasury, Autumn 1995.

<sup>63</sup> U.S. Department of State telegram, "Daily Seoul Press Translations," message reference No. 002977, May 22, 1996.

**Table 2-19**  
**Leading increases in U.S. exports to Korea, 1994-95**

Product/commodity	Increase in 1995		Total value in 1995 Million dollars
	Value	Percent	
	Million dollars		
Cereals (corn and wheat) . . . . .	895	186	1,376
Certain industrial machinery . . . . .	556	77	1,282
Aircraft . . . . .	502	30	2,188
Semiconductor devices . . . . .	378	30	1,658
Miscellaneous organic chemicals . . . . .	339	84	741
Computers . . . . .	248	35	951
Wood pulp and wastepaper . . . . .	227	53	657
Aircraft engines (turbojets and turbopropellers) . . . . .	222	105	434
Steel mill products . . . . .	208	505	249
Non-metalworking machine tools . . . . .	188	167	301
Iron and steel waste and scrap . . . . .	167	47	524
Metering, measuring, testing, and controlling instruments . . . . .	131	24	667
Air-conditioning equipment and parts . . . . .	119	63	307
Oilseeds (soybeans) . . . . .	109	47	340
Certain motor-vehicle parts . . . . .	105	35	403
Gold (non-monetary) . . . . .	79	282	107
Copper and related articles . . . . .	94	118	174
Beef (frozen) . . . . .	92	41	319
Hides, skins, and leather . . . . .	89	14	729
Steam turbines and other vapor turbines . . . . .	74	44	242
All other . . . . .	2,932	37	10,780
<b>Total . . . . .</b>	<b>6,984</b>	<b>40</b>	<b>24,483</b>

Note.—Because of rounding, figures may not add to the totals shown.

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

1994 to \$33.8 billion in 1995, or by 15 percent.<sup>64</sup> During 1995, China continued to be one of the world's fastest growing major economies, with a real growth rate of 9 percent, compared with an average growth rate of 13 percent during 1992-94. Despite China's efforts to slow its overheated economy and reduce its high rate of price inflation, retail sales grew by 10 percent and the rate of growth in private consumption averaged from 6 to 7 percent in 1995.<sup>65</sup>

The U.S. trade deficit with China can be attributed to a variety of factors, including the relative health of the U.S. economy, strict credit controls by the

Chinese Government, and selective Chinese import controls. One of the more important factors, however, has been the ongoing shift of production from Hong Kong, Taiwan, Korea, Japan, and Singapore to China. These East Asian nations have relocated export processing plants (in which imported inputs are processed for export) to China's special economic zones in its eastern coastal regions to increase their profits. Foreign-invested firms use China as a base for assembly, processing, and manufacturing for export. In many cases, Chinese exports to the United States have taken the place of exports that would have come from other East Asian countries.<sup>66</sup> Consequently, as China's trade surplus with the United States expands, there is a corresponding decline in the surpluses enjoyed by other East Asian nations. Complete industries such as footwear, clothing, and toys have been transplanted to China. East Asian manufacturers, as well as a number of U.S. and European firms, are essentially shipping the low-tech and low-wage jobs to China, while retaining the higher skilled positions at home. In 1995, Taiwan and Hong Kong accounted for approximately 70 percent (\$26.6 billion) of China's direct foreign investment, which

<sup>64</sup> According to China's official trade statistics, its 1995 trade surplus with the United States is much smaller at only \$7.4 billion. China maintains that the United States should not count goods from U.S.- and other foreign-owned processing and compensation ventures in China that are shipped to the United States via Hong Kong as Chinese exports. China considers these transshipments to be Hong Kong's exports to the United States. The Economist Intelligence Unit (EIU), "Political Scene: Tensions Continue With the USA," *Country Report: China*, Mar. 1, 1996.

<sup>65</sup> In the third session of the Eighth National People's Congress (NPC) held during March 5-18, 1994, Premier Li Peng pledged to hold national economic growth (GNP) below double digits and to control inflation, which reached approximately 22 percent during 1994. Chinese leaders promised to hold economic growth below 10 percent and pledged to keep inflation below 15 percent. To accomplish this, the Chinese Government initiated an austerity program of tight controls on investment and credit, rigid price controls on essential goods, and higher interest rates. Anne Stevenson-Yang, "NPC Ses-

<sup>65</sup>—Cont.  
 sion Highlights Economic Growth," *China Business Review*, May-June 1995, p. 4.

<sup>66</sup> William Mann, "Imports Tip the Balance," *China Trade Report*, Apr. 1995, p. 6.

totalled \$38 billion.<sup>67</sup> China's eastern coastal area, its fastest growing region, accounted for a disproportionate share of China's imports and exports. Nearly 67 percent of China's exports and 75 percent of its imports are accounted for by five provinces (especially Guangdong) and municipalities that rely on foreign investment.

Foreign-invested firms were responsible for 39 percent, or \$110 billion, of China's total trade of \$280.9 billion in 1995. These firms accounted for \$63 billion (32 percent) of China's total exports and \$47 billion (48 percent) of China's total imports.<sup>68</sup> These companies specialized in the production of toys, clothing, and inexpensive electrical goods.<sup>69</sup> China exempts from import duties all imported materials used by foreign-invested firms to produce machinery and electrical appliances for export.

China was the 13th-largest U.S. export market in 1995. U.S. exports to China increased by \$2.4 billion (27 percent) to \$11.6 billion in 1995. Sustained Chinese economic expansion and a reduction in trade barriers to U.S. exports acted as a stimulant to U.S. export growth. However, U.S. trade with China continues to be restricted by an elaborate system of import controls such as quotas, licensing and registration requirements, restrictive product standards and testing requirements, quarantine rules, and import substitution policies.<sup>70</sup> China persists in denying access to certain U.S. goods, particularly low-technology capital goods that have a comparative advantage over domestic Chinese products. These actions have effectively created a monopoly environment for certain Chinese producers. As shown in the tabulation in the next column, leading U.S. export items to China, in terms of value, during 1995 were agricultural products (especially cotton, corn, wheat, and soybean oil); electronic products such as telephone equipment, computers, radio and television transmission equipment, and parts for radio and television equipment; machinery (especially industrial machinery); fertilizers; and aircraft.

China reported that its imports during 1995 consisted principally of electric and nonelectric machinery, chemicals (especially fertilizers), food products (mostly cereals), textiles, and base metals (iron and steel). According to Chinese statistics, China's imports grew by 12 percent in 1995 to \$132.1 billion, equal to 20 percent of China's GNP. China's imports consisted mainly of goods needed for its modernization and development, infrastructure projects, and for its foreign-investment sector.

<sup>67</sup> *Business China*, "Trade's Importance for China: A Stake in the World," Jan. 8, 1996, pp. 8-9.

<sup>68</sup> EIU, *Country Report: China*, "Foreign Trade, Investment & Debt: FIE's Share of Trade Continues to Rise," Mar. 11, 1996.

<sup>69</sup> In general, these products have a large import content, which can run as high as 50 percent of the product's value.

<sup>70</sup> USDOC, ITA, *Selected Big Emerging Markets-China*, IT USGO China, Mar. 2, 1996.

Sector/commodity	Value of U.S. exports to China	Percent of total U.S. exports
	(Million dollars)	
Agricultural products .....	2,716	23
Electronic machinery .....	1,880	16
Machinery .....	1,798	15
Fertilizers .....	1,204	10
Aircraft .....	1,024	9
Total .....	8,622	74

The United States, according to Chinese trade statistics, was China's second-leading source of imports, behind Japan. Chinese trade statistics valued U.S. exports to China at \$16 billion, or 12 percent of total 1995 imports.<sup>71</sup> According to the Chinese, the U.S. exports consisted principally of electrical and nonelectrical machinery (32 percent), chemicals (18 percent), food products (11 percent), textiles (8 percent), and transportation equipment (7 percent). China removed import quotas and licenses on 367 products in July of 1995 and announced in November that it would further reduce tariffs on an additional 4,000 items during 1996.<sup>72</sup>

Growth in U.S. exports to China was driven by demand for more food than that country could produce and the need for foreign machinery and equipment to expand and modernize communications and production in China. U.S. exports of agricultural products to China more than doubled in 1995, rising by \$1.6 billion to \$2.7 billion, and accounted for more than half of the total growth in U.S. exports to China in 1995 (table 2-20). Cereals led the growth in agricultural exports, as exports of corn jumped by \$4 million in 1994 to \$629 million in 1995; exports of wheat and soybean oil each more than tripled, to \$506 million and \$341 million, respectively. Significant growth was also reported in exports of fertilizers, cotton, computers, plastics, radio transmission and reception apparatus, and a variety of equipment and materials used for industrial purposes. Transportation equipment was the only sector to experience large decreases in U.S. exports to China in 1995, as exports of aircraft and engines fell by \$861 million (43 percent) to \$1.1 billion and exports of motor vehicles dropped by \$152 million (76 percent) to \$49 million.

<sup>71</sup> Various issues of the Economist Intelligence Unit.

<sup>72</sup> Goods freed from both licenses and quotas during 1995 included: crude oil, timber, ABS resins, veneer board (plywood) and wood pulp, chemical (man-made) fiber fabrics, cigarette filters, fault imaging devices, and computers. Goods receiving partial removal of license and quota restrictions included: synthetic rubber; household freezers; vegetable oil; liquor (wines); pesticides; and various tobacco products, air conditioners, compressors, and automatic washing machines. Goods freed from import quotas but still needing licenses included: grains, copiers, and soft drinks. P.T. Bangsberg, "China Plans New Wave of Easing on Import Rules," *Journal of Commerce*, June 9, 1995, p. 9A.

**Table 2-20**  
**Leading increases in U.S. exports to China, 1994-95**

Product/commodity	1994	1995	Increase in 1995 over 1994	
			Value	Percent
		<i>Million dollars</i>		
Corn .....	4	629	626	17,387
Wheat .....	166	506	340	204
Fertilizers .....	944	1,204	260	28
Soybean oil .....	104	341	237	228
Radio transmission and reception apparatus .....	310	541	231	75
Cotton .....	648	833	185	28
Plastics and articles thereof .....	173	334	161	93
Boilers, turbines, and related equipment .....	53	185	134	247
Steel mill products .....	40	136	97	246
Wood pulp and wastepaper .....	107	191	84	79
Manmade fibers and yarns .....	107	187	81	76
Computers .....	218	290	73	33
Semiconductor devices .....	27	94	67	245
All other .....	6,277	6,142	-135	-2
<b>Total .....</b>	<b>9,178</b>	<b>11,613</b>	<b>2,435</b>	<b>27</b>

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

China made the transition from being a net exporter of agricultural products to a net importer in 1995. Rising incomes and expanding population, combined with an agricultural sector beset by serious flooding and long-lasting droughts, forced China to depend on imports to supplement its grain and edible oil production. Also, the loss of arable land to industrial development and housing, price controls, transportation bottlenecks, and rising per-capita consumption have all combined to put tremendous pressures on China's agricultural sector.

In 1995, China imported approximately 10 percent of the world's grain exports and emerged as the world's second-largest grain importer behind Japan. During January-October 1995, agricultural imports rose abruptly and China imported 14.4 million tons of grain.<sup>73</sup> Imports of corn, wheat, rice, and sugar all increased greatly during 1995. Of the 32.2 million tons of grain exported by the United States during 1995, China accounted for approximately 11 percent of the total. China also purchased 3.5 million tons of corn, including 7 percent of total U.S. exports.<sup>74</sup> To limit price rises and increase the availability of grains, price controls were placed on the sale of grain and other important agricultural products. China also became a net importer of cotton for the first time in 1995. Imports rose during 1995 because demand for cotton by China's textile and apparel producers exceeded local production, which had declined.<sup>75</sup>

The recent emergence of a strong middle class in China has created an apparent demand for a wide variety of consumer goods not previously accessible

or affordable. Since the government partially opened the retail sector to foreign investment in 1992, many foreign companies have rushed to enter China's underdeveloped consumer market.<sup>76</sup> Joint-venture, Chinese-operated department stores have been established in almost every large Chinese city. U.S. exports of electrical machinery, including consumer electrical goods and appliances, increased by 38 percent in 1995 compared with 1994. Private consumption is expected to increase by 6 to 7 percent annually over the next few years. During 1995, sales of consumer goods grew by 11 percent to \$240 billion.<sup>77</sup> Rising urban wages and one of the highest private savings rates in Asia will also drive demand for more expensive higher quality consumer goods.

Several Chinese industries, particularly plastics and power generation equipment, however, did experience problems and a resultant decline in import demand during 1995. Plastics imports slumped in 1995 when the Chinese Government initiated an antifraud campaign that froze imports of bulk plastics in order to crack down on tax-evading importers. Infractions such as underinvoicing, false invoicing, as well as value-added tax (17 percent) and import duty (15 percent) evasion, were pursued. These actions precipitated a dramatic decline in world plastics prices of almost 50 percent. Plastics are used by China's foreign-investment sector to produce such export items as video and audio cassettes, toys, and electronic devices.<sup>78</sup> U.S. exports of plastics to China declined by 37 percent in 1995 compared with 1994.

<sup>73</sup> *Far Eastern Economic Review*, "Grain Pains," Dec. 14, 1995, p. 13.

<sup>74</sup> Steve Mufson, "China's Global Grain of Difference," *Washington Post*, Feb. 2, 1996, p. A1.

<sup>75</sup> *Journal of Commerce*, "China Reviewing Textile Strategy as Going Gets Tough," Feb. 29, 1996, p. 21.

<sup>76</sup> China recently partially opened its retail sector to foreign participation but still requires, by law, joint-venture arrangements with Chinese firms.

<sup>77</sup> *Washington Post*, "China Says Growth and Inflation Eased in 1995," Jan. 6, 1996, p. A34.

<sup>78</sup> EIU, "Foreign Trade & Payments: China's Role on Key World Markets," *Country Report: China*, Feb. 27, 1995.

China set strict limits on the rate of return allowable on foreign-invested power stations in 1994. Since then, foreign firms have been reluctant to invest in Chinese power stations. U.S. and other foreign companies, however, are competing to sell power-generation equipment in China because it represents one of the world's last unexploited markets for major international electric power equipment producers. Such exports may decrease in the near future as joint-venture companies are formed in China to produce such equipment. Westinghouse Electric has entered into four joint ventures valued at \$377 million to produce electric power generation equipment. The joint ventures will manufacture turbogenerators, electric generators, and auxiliary generator sets.<sup>79</sup>

China was the fourth-largest source for U.S. imports in 1995. U.S. imports from China grew by \$6.8 billion (18 percent) to \$45.4 billion during 1995. U.S. Government sources estimated that the U.S. market absorbed as much as 40 percent of China's total exports during 1995.<sup>80</sup> Chinese exporters were able to take advantage of falling U.S. tariff rates during 1995. As shown in the following tabulation, leading U.S. imports from China, by value, included electronic products (such as computers and radio and telephone receivers); apparel; toys, games, and sporting goods; and luggage and handbags.

Sector/commodity	Value of U.S. imports from China	Percent of total U.S. exports
	<i>(Million dollars)</i>	
Electric products . . . .	9,678	21
Apparel . . . . .	7,048	16
Toys, games, sporting goods . . . .	6,212	13
Footwear . . . . .	5,254	12
Luggage and handbags . . . . .	1,596	4
Total . . . . .	29,788	66

China reported that its overall exports consisted primarily of textile products (24 percent), electrical and nonelectrical machinery (19 percent), food products (8 percent), chemicals (8 percent), and base metals and manufactures (8 percent). Exports of capital and high-technology goods have become more important as China attempts to move away from traditional labor-intensive products such as textiles for the first time in 1995. Exports of non-traditional goods exceeded exports of textile prod-

<sup>79</sup> *Business China*, "Power in China," Oct. 30, 1995.

<sup>80</sup> USTR, *Trade in a New Era: Opportunities and Obstacles*, Statement of Ambassador Charlene Barshefsky, November 13, 1995, Hong Kong, Internet, [http://www.ustr.gov/speeches/barshefsky\\_1.html](http://www.ustr.gov/speeches/barshefsky_1.html).

ucts. According to Chinese trade statistics, China's exports increased by \$27.8 billion (23 percent) to \$148.8 billion in 1995. China continues to rely on exports as the main source of foreign exchange to finance its imports and its \$100 billion foreign debt. Hong Kong (24 percent of total exports) was China's leading export market in 1995, followed by Japan (19 percent of total exports) and the United States (17 percent of total exports). Hong Kong, in turn, re-exports the majority of these goods to either the United States or the European Union. Chinese trade statistics show that exports to the United States increased to \$24.7 billion, or by \$3.2 billion (15 percent) in 1995. China reported that its exports to the United States consisted mainly of electrical and nonelectrical machinery (22 percent), footwear (14 percent), textile products (13 percent), toys (9 percent), and chemicals (7 percent).

The largest growth in U.S. imports from China in 1995 was in computer equipment, most of which was assembled in China from components purchased from suppliers located in other Asian countries. U.S. imports of computers from China nearly doubled in 1995, expanding from \$1.2 billion in 1994 to \$2.2 billion in 1995 (table 2-21). Other electronic products from China exhibiting substantial growth in 1995 were copiers and other office machines; turntables, tape recorders, VCRs, and compact disc players; electric household appliances; cameras; transformers; microphones, speakers, and amplifiers; printed circuit boards; and semiconductor devices. Lower technology, labor-intensive articles continued to show growth in imports from China in 1995, including footwear, toys, dolls, lamps, sporting goods, ceramic household articles, and furniture. The only significant decrease in U.S. imports from China in 1995 was a \$302 million (4-percent) contraction in imports of apparel and other textile products to \$7.0 billion. The leveling off of apparel imports reflects both the effects of import quotas on many categories of apparel and China's push toward relatively higher technology products.

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## **Germany**

The German economy is the largest in Europe and the third-largest in the world, with an estimated GDP of \$2.1 trillion in 1995, accounting for approximately 30 percent of total EU production of goods and services. Germany is the fourth-largest trading partner of the United States behind Canada, Japan, and Mexico, with total trade of \$58 billion in 1995. The United States has recorded trade deficits with Germany during each of the past 10 years. The increase in U.S. imports from Germany in

**Table 2-21**  
**Leading increases in U.S. imports from China, 1994-95**

Product	1994	1995	Increase in 1995 over 1994	
			Value	Percent
		<i>Million dollars</i>		
Computers .....	1,245	2,233	988	79
Footwear .....	5,254	5,817	563	11
Toys and models .....	2,760	3,825	525	19
Office machines .....	337	646	308	91
Dolls .....	655	868	212	32
Christmas decorations, festive articles .....	625	832	206	33
Turntables, VCRs, tape and compact discs players .....	672	875	202	30
Electric household appliances .....	727	901	174	24
Sporting goods .....	623	790	168	27
Cameras and equipment .....	226	367	141	62
Transformers, converters, and inductors .....	235	375	140	60
Ceramic household articles .....	392	523	131	33
Furniture .....	747	878	130	17
Microphones, loudspeakers, and amplifiers .....	271	383	111	41
Semiconductor devices .....	45	150	105	233
Printed circuit boards and other circuit controllers .....	296	401	105	36
All other .....	23,502	25,506	2,004	9
<b>Total .....</b>	<b>38,572</b>	<b>45,370</b>	<b>6,797</b>	<b>18</b>

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

1995 was led by motor vehicles (\$1.5 billion, or 25 percent), certain industrial and printing machinery (\$538 million, or 31 percent), certain medicinal chemicals and/or heterocyclic compounds (\$371 million, or 54 percent), semiconductor devices (\$204 million, or 48 percent), and antibiotics (\$146 million, or 436 percent) (table 2-22).

Although U.S. imports and exports with Germany expanded at nearly identical rates in 1995 (18 percent for imports and 17 percent for exports), imports from Germany remained 75 percent larger than exports to Germany. The \$5.6 billion increase in U.S. imports from Germany in 1995 to \$37 billion was nearly twice as large as the \$3.0 billion expansion in U.S. exports to \$21 billion, resulting in a \$2.6 billion (19-percent) increase in the U.S. bilateral trade deficit with Germany in 1995 to \$16 billion. Motor vehicles and certain medicinal chemicals topped U.S. imports from Germany, while U.S. exports were spearheaded by computers and certain industrial machinery.

Factors which fueled a resurgence in U.S. demand for German-made passenger automobiles in 1995 included the continued growth of the U.S. economy and the decision by German automakers to introduce more competitively-priced automobile models in foreign markets. This strategy by German automakers was largely responsible for the \$1.6 billion (29-percent) rise in the U.S. automotive trade deficit with Germany in 1995 to \$7.0 billion, accounting for 44 percent of the total U.S. trade deficit with Germany that year.

The rise in U.S. imports was partly the result of newly established investments made by German companies that were attracted by lower U.S. labor

costs<sup>81</sup> to the southeastern section of the United States (e.g., BMW in South Carolina). These green-field sites have begun sourcing German parts and accessories in 1995 to prestock and supply these newly opened subsidiaries. In addition, German automakers (particularly Mercedes and Audi) introduced new model lines in 1995 that appealed to both traditional and new U.S. consumers.

In the top 10 product categories of imports from Germany, antibiotics and certain medicinal chemicals rose most steeply, by 436 percent and 54 percent, respectively. These increases can be partially attributed to the pharmaceuticals and the intermediate chemicals for dyes concessions that were negotiated under the General Agreement on Tariffs and Trade in 1994. The agreements require duty-free treatment for intermediate chemicals destined for pharmaceutical use and for those chemicals made into dyes and other coloring materials. According to industry sources, another factor aiding stronger German exports of pharmaceutical and chemical products included a sudden appreciation of the U.S. dollar against the German mark during the Summer of 1995 (from about 1.40 DM to 1.48 DM). According to U.S. industry officials, all three major chemical producers (BASF, Bayer, and Hoechst) benefitted from the stronger dollar, which allowed them to be more price competitive.<sup>82</sup>

<sup>81</sup> Average hourly compensation cost for German production workers in 1994 was \$27.31, compared with \$17.10 in the United States. U.S. Bureau of Labor Statistics, Office of Productivity and Technology, *International Comparisons of Hourly Compensation Costs for Production Workers in Manufacturing*, 1994, p. 5.

<sup>82</sup> *Chemical Marketing Reporter*, "Stronger Dollar Helps German Chemicals," Sept. 4, 1995, p. 10.

**Table 2-22**  
**Leading increases in U.S. imports from Germany, 1994-95**

Industry/product	Increase in 1995		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Million dollars</i>
Motor vehicles .....	1,510	25	7,662
Certain industrial and printing machinery .....	538	31	2,299
Medicinal chemicals (except antibiotics) .....	371	54	1,060
Semiconductor devices .....	204	48	632
Antibiotics .....	146	436	180
Medical equipment .....	129	14	1,062
Computers .....	126	19	787
Air-conditioning equipment .....	121	53	349
Electrical circuitry equipment .....	120	19	740
Certain motor-vehicle parts .....	118	18	787
Measuring and controlling instruments .....	111	16	812
Misc. organic chemicals .....	101	20	602
Printing and writing papers .....	100	62	262
Machine tools .....	93	25	469
All other .....	1,770	10	19,424
<b>Total .....</b>	<b>5,560</b>	<b>18</b>	<b>37,126</b>

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

U.S. imports of other products such as printing and other industrial machinery rose, in part, because of pent-up U.S. demand for these products and because capital equipment from Germany was used to expand U.S. manufacturing capacity in response to continued growth of the U.S. economy. Expanded two-way trade in computer and electronic products reflected globalization in these industries and was further stimulated by reduced trade barriers. For example, while U.S. imports of computers from Germany rose by \$126 million (19 percent) in 1995 to \$787 million, U.S. exports of computers to Germany also increased, advancing by \$670 million (28 percent) to \$3.0 billion, by far the largest increase of any U.S. export product category (tables 2-22 and 2-23).

Germany's GDP grew for the second consecutive year in 1995, at a rate of 2.5 percent, following the end of a 3-year recession (1990-93). The economic recovery in Germany was largely responsible for the expansion in U.S. exports to Germany in 1995. Economic dislocations and other costs associated with the reunification of Germany<sup>83</sup> beginning in 1990 had inhibited U.S. exports to Germany in recent years. Moreover, certain structural weaknesses remain in the German economy that are likely to serve as impediments to the future expansion of U.S. exports. These include relatively high unemployment (9.3 percent) fueled by comparatively high wages and restrictive labor practices; a governmental regulatory system that discourages new

<sup>83</sup> According to German Embassy sources, *Treuhandanstalt*, the institution primarily responsible for privatizing state-owned assets of the East German economy, largely implemented its goals and ceased its activities at the end of 1994. USITC staff telephone interview with an official of the German Embassy in Washington, DC, Apr. 30, 1996.

entrants, particularly in the social-services sector; relatively high taxes and social costs of production; and a shortage of venture capital for startup firms.<sup>84</sup>

U.S. export growth to Germany was assisted by pent-up German demand for jet aircraft and parts and electronic products, such as computers, duplicating machines, and other office machines (table 2-23). Many German firms had restricted such purchases during Germany's recent recession. U.S. exports of motor-vehicle parts also increased by \$97 million (16 percent) in 1995 to \$691 million, primarily due to increased shipments of parts to the Germany-based subsidiaries of General Motors and Ford.

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## **Singapore**

A substantial growth in U.S. imports and a moderate increase in U.S. exports during 1995 combined to increase the U.S. bilateral trade deficit with Singapore to \$4.8 billion, its highest level in recent years. U.S. imports from Singapore also reached a record level of \$18.5 billion in 1995, thereby surpassing the previous record level of \$15.3 billion reached in 1994. Compared with 1994 levels, imports increased by 21 percent, while exports advanced by 17 percent. Although Singapore is a small country, with only 3.2 million people and a

<sup>84</sup> U.S. Department of State, *Country Reports*, Mar. 1996, p. 187.

**Table 2-23**  
**Leading increases in U.S. exports to Germany, 1994-95**

Industry/product	Increase in 1995		Total value in 1995
	Value	Percent	
	Million dollars		Million dollars
Computers .....	670	28	3,043
Certain industrial machinery .....	205	64	528
Microelectronic components .....	154	34	604
Medical equipment .....	136	16	1,004
Measuring and controlling instruments .....	128	20	766
Aircraft engines .....	100	19	627
Certain motor-vehicle parts .....	97	16	691
Wood pulp and wastepaper .....	93	43	309
Non-metalworking machine tools .....	84	163	135
Aircraft, spacecraft, and related equipment .....	75	8	1,007
Farm and garden machinery .....	68	37	249
Oilseeds .....	59	26	282
Office machines .....	57	73	134
Industrial papers and boards .....	55	45	176
Coal, coke, and related chemicals .....	54	350	69
All other .....	961	8	11,549
<b>Total .....</b>	<b>2,994</b>	<b>16</b>	<b>21,175</b>

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

land area of 225 square miles, it was the United States' ninth-leading trading partner in 1995.

The U.S. trade deficit with Singapore continued to increase despite the depreciation of the U.S. dollar against the Singapore dollar and Singapore's continued strong economic growth. Part of this continued trade deficit can be explained by Singapore's trade dynamics and the small size of its population. Singapore is an export-oriented economy that depends heavily on foreign trade. Overall, Singapore has a very open trade regime, where tariffs are imposed on only four categories of products (99 percent of imports enter duty free) and other merchandise nontariff trade barriers remain minimal.<sup>85</sup> Singapore's trade is characterized by imports of raw materials and components and exports of finished or further processed goods, of which the value added is greater than that of the imported inputs. Foreign investment has played and continues to play a significant role in Singapore's economic development and direction of foreign trade. Major multinational firms have significant investment in Singapore's economy, especially in major manufacturing industries—electronics (contributing to 12 percent of GDP) and petroleum/chemicals. The production of these industries greatly exceeds the amount that can be used by Singapore's small population. U.S. investment in these industries in Singapore is substantial at \$2.1 billion in electronics and \$2.2 billion in petroleum/chemicals, according to the latest (1994) figures.<sup>86</sup>

<sup>85</sup> USTR, *1996 National Trade Estimate*, p. 301.

<sup>86</sup> U.S. Department of State, *Country Reports*, Mar. 1996, p. 98.

U.S. imports from Singapore climbed steadily during the last 5-year period, reaching \$18.5 billion in 1995, an increase of \$3.2 billion (21 percent). The majority of U.S. imports from Singapore are concentrated in the electronics and chemicals sectors. The largest category of imports in 1995 was computers and related equipment, which accounted for 45 percent of total imports. This was followed by parts and accessories for computers (15 percent of imports), integrated circuits (15 percent), and heterocyclic chemical compounds (2 percent). The growth of the top three import categories (\$3.4 billion), accounted for more than the total rise (\$3.2 billion) for all commodities in 1995. The specific products contributing to the large increase in imports were hard disk drives for computers with a \$1.7 billion increase, and ink jet printers with a \$546 million increase.

The electronics industry was also responsible for the majority of shifts in the export trade with Singapore in 1995; exports rose 17 percent to \$13.6 billion. U.S. exports of parts and accessories for computers rose \$484 million (106 percent) to \$941 million, integrated circuits increased by \$354 million (19 percent) to \$2.2 billion, and unrecorded magnetic discs increased by \$240 million (74 percent) to \$563 million. In addition to these three categories, the other major export category in 1995 was computers and related equipment with \$827 million in exports. These four product categories accounted for one-third of total U.S. exports to Singapore in 1995.

As demonstrated by U.S. bilateral trade with Singapore, the driving forces behind these shifts were mainly decisions by multinational (mainly U.S. based) corporations to source components or further

process goods in Singapore, either through subsidiary firms, joint ventures, or from unrelated firms. Given the large amount of investment from U.S. sources in these sectors, many U.S. firms are trading with related firms in Singapore. Because of trends and developments in the global electronics industry, many unfinished or unmounted articles are exported to Singapore for final assembly and then either returned to the United States, or exported to other world markets.

These trends in trade with Singapore are likely to continue along the same path as many multinational (mainly U.S.) firms have announced additional investments in manufacturing facilities in Singapore in the near future. For example, in the electronics sector, Singapore currently has four semiconductor wafer manufacturing facilities, two more under construction, and nine others in various stages of development. According to a Singapore government agency, the country could have as many as 25 wafer fabrication plants in the next few years.<sup>87</sup> In the chemicals sectors, a second petrochemical complex is currently being constructed (a \$2.4 billion investment), while a third facility, valued at \$1 billion, is being considered.

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## **Malaysia**

The U.S. merchandise trade deficit with Malaysia rose by 27 percent (\$1.9 billion) in 1995 to \$9.2 billion, as the growth in U.S. imports (up by \$3.5 billion) outpaced the expansion of U.S. exports (up by \$1.6 billion). The value added to U.S. electronic components during assembly in Malaysia accounted for much of the increase in the U.S. bilateral trade deficit with Malaysia in 1995. Electronic products accounted for almost two-thirds of U.S. exports to Malaysia in 1995, and more than three-quarters of U.S. imports. The trade deficit in electronic products, which rose by 22 percent to \$8.2 billion, accounted for 89 percent of the total U.S. trade deficit with Malaysia in 1995.

Multinational high-technology companies are attracted to Malaysia as a location for relatively low-cost assembly for several reasons: (1) Malaysia has a stable government that has encouraged foreign investment; (2) the labor force exhibits a good balance between education and low-wage rates; (3) the local economy is sound, with low inflation (3.4 percent in 1995), a stable currency,<sup>88</sup> and strong

GDP growth (gains of 9.2 percent in 1994 and 9.5 percent in 1995<sup>89</sup>); and (4) foreign investors are supplying the rapidly expanding Southeast Asian market from factories in Malaysia, as well as returning assembled products to industrialized countries from export processing zones.<sup>90</sup>

U.S. imports from Malaysia increased by 25 percent in 1995 to \$17.4 billion, largely reflecting growth in Malaysian exports of semiconductor devices and consumer electronic products. A large share of these imports is intracompany trade from U.S. firms with assembly facilities in Malaysia. U.S. imports from Malaysia of electronic products rose by \$2.9 billion (28 percent) in 1995 to \$13.4 billion (see table 11-1). Within this sector, the major increases in imports were in semiconductor devices, up 45 percent (\$1.6 billion) to \$5.1 billion; computers, up 38 percent (\$906 million) to \$3.3 billion; radio and telephone equipment (including cellular phones, pagers, and stereo receivers), up 11 percent (\$232 million) to \$2.4 billion; and VCRs, tape players, turntables, and compact disc players, up 12 percent (\$161 million) to \$1.5 billion. The strong U.S. market for computers in 1995 was responsible for the rapid growth in U.S. imports from Malaysia of both semiconductors (used in the U.S. production of computers) and assembled computer equipment, such as disk drives, digital processing units, keyboards, and monitors. Significant growth in U.S. imports from Malaysia in 1995 was not restricted to "high-tech" products. Imports of apparel climbed by \$110 million (27 percent) to \$513 million; imports of gloves rose by \$108 million (26 percent) to \$523 million; and imports of natural rubber increased by \$67 million (48 percent) to \$205 million.

U.S. exports to Malaysia rose by 24 percent, or \$1.6 billion to \$8.2 billion in 1995. The electronics sector accounted for 64 percent of the value increase in U.S. exports to Malaysia in 1995. A large percentage of the U.S. electronic exports to Malaysia are destined for final or intermediate assembly operations of U.S. multinational corporations, where value is added, and devices are subsequently re-exported, often back to the United States. U.S. exports of electronic products to Malaysia increased by \$1.5 billion (39 percent) in 1995 to \$5.2 billion. Among these, exports of semiconductor devices<sup>91</sup> climbed by \$913 million (32 percent) to \$3.8 billion. U.S. exports to Malaysia of computers continued to show strong growth in 1995, increasing by \$234 million (76 percent) to \$540 million. Exports

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<sup>87</sup> USDOC, ITA, *Singapore-Semiconductor Wafer Production Plan*, by Chia Swee Hoon, Market Research Report, Dec. 1995, p. 1.

<sup>88</sup> The ringgit has remained relatively stable at around 2.5 to the dollar.

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<sup>89</sup> S. Jayasankaran, "Strength in Numbers," Economic Monitor-Malaysia, *Far Eastern Economic Review*, Apr. 4, 1996, p. 997.

<sup>90</sup> Malaysia is a member of ASEAN and APEC.

<sup>91</sup> Malaysia is the world's third-largest producer of integrated circuits.

of industrial ceramics (used primarily to make printed circuit boards) jumped from \$12 million in 1994 to \$143 million in 1995 (a \$131 million increase). Exports of semiconductor manufacturing equipment rose by \$114 million (74 percent) to \$268 million; exports of measuring and controlling instruments (also used in processes to produce semiconductors and other high-tech articles) climbed by \$103 million (75 percent) to \$241 million; and exports of unrecorded media (used to make recorded tapes and discs) rose by \$85 million (77 percent) to \$195 million. Exports of certain agricultural products also experienced strong growth in 1995: corn rose by \$186 million, up to \$188 million from just \$2 million in 1994; and exports of soybeans more than doubled in 1995, climbing by \$70 million to \$123 million.

The success of U.S. exports in the Malaysian market in 1995 was tempered somewhat by a continued reduction in exports of aircraft. U.S. exports of aircraft, mainly large civilian aircraft, fell by \$709 million (75 percent) to \$231 million. This decline was accompanied by a \$97 million (59-percent) drop in exports of aircraft engines to \$66 million. U.S. exports to Malaysia of new passenger transport planes (nonmilitary) reached a high in 1993 of \$1.4 billion, and decreased to \$799 million in 1994. Malaysian airlines experienced similar drops in passenger traffic over the last few years, due to economic conditions of the early 1990s, which have negatively impacted their demand for additional aircraft. U.S. exports of electric motors and generators also fell in 1995, dropping by \$99 million (77 percent) to \$30 million. At the same time, imports of motors and generators from Malaysia more than tripled, rising by \$50 million to \$72 million. The net result was a shift from a \$106 million U.S. bilateral surplus with Malaysia in motors and generators to a \$42 million deficit.

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## **Taiwan**

The U.S. merchandise trade deficit with Taiwan grew for the second consecutive year in 1995, expanding by nearly 5 percent, from \$10.3 billion in 1994 to \$10.8 billion in 1995. This followed a 10-percent (\$950 million) increase in 1994. However, there had been 9-percent (\$601 million) and 3-percent (\$226 million) decreases, respectively, in 1993 and 1992. In 1995, U.S. imports from Taiwan rose by almost 9 percent (\$2.3 billion), and U.S. exports increased by 11 percent (\$1.8 billion). Also for the second consecutive year, Taiwan was the sixth-largest supplier of foreign goods to the United States and the seventh-largest export market for U.S. goods.

Historically, U.S. imports from Taiwan have consisted of relatively low-technology goods such as footwear, toys, and apparel. However, as the economy of Taiwan has developed, much of its focus has shifted to the high-tech sector. Taiwan now exports a preponderance of information and telecommunications products and electronics, particularly to the United States. This development also reflects growing U.S. demand for electronic components for use in personal computers and other electronic equipment. Computers, parts of computers and other office machines, and integrated circuits and microassemblies accounted for 34 percent (\$9.9 billion) of total U.S. imports from Taiwan in 1995, a 24-percent increase over 1994, when these products accounted for 29 percent (\$7.6 billion) of U.S. imports from Taiwan. This trend is consistent with the direction and makeup of the total exports of Taiwan, which maintained strong annual growth in 1995, and were primarily composed of information and telecommunications products and electronics.<sup>92</sup>

Total imports of machinery and electrical and electronic equipment<sup>93</sup> equaled 54 percent (\$15.7 billion) of U.S. imports from Taiwan in 1995. Imports of selected major product categories from this group as a percentage of total U.S. imports from Taiwan, include: computers, parts of computers, and other office machines, 25 percent (\$7.1 billion); integrated circuits and microassemblies, 9 percent (\$2.8 billion); and printed circuits boards, nearly 2 percent (\$442 million). Other important product sectors,<sup>94</sup> as a percentage of total U.S. imports from Taiwan in 1995, include: textiles and apparel, 10 percent (\$2.8 billion); furniture and lamps, 5 percent (\$1.4 billion); toys, games, and sporting equipment, 4 percent (\$1.2 billion); articles of iron or steel, particularly industrial fasteners, 4 percent (\$1.2 billion); and motor vehicles, bicycles, and parts, 4 percent (\$1.1 billion).

In terms of the change in the value of U.S. imports from Taiwan in 1995, electronics and associated products rose significantly (table 2-24). As U.S. demand for electronic products fuels these increases, Taiwan continues to shift more manufacturing to higher-value-added products. Correspondingly, U.S. imports from Taiwan of lower-value-added products, such as furniture, sporting goods, and apparel are declining. Imports of furniture declined by 11 percent to \$1.1 billion; imports of textiles and apparel declined by 4 percent to \$2.8 billion; imports of footwear fell by 23 percent to \$350 million; and imports of sporting goods retreated by 8 percent to \$685 million.

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<sup>92</sup> Deborah Shen, "Vigorous Activity in Major Markets Keeps Export Orders on Growth Track," *Free China Journal*, vol. 3, No. 9, Mar. 8, 1996, p. 3.

<sup>93</sup> Total for ch. 84 and 85, *Harmonized Tariff Schedule of the United States (HTS)*.

<sup>94</sup> Also based on 2-digit *HTS* chs.

**Table 2-24**  
**Leading increases in U.S. imports from Taiwan, 1994-95**

Product	1994	1995	Increase in 1995 over 1994	
			Value	Percent
		Million dollars		
Parts of typewriters, computers, and other office machines .....	2,459	3,557	1,098	45
Integrated circuits, micro-assemblies, and semiconductor devices .....	1,975	3,038	1,063	54
Computers .....	3,325	3,575	250	8
Electronic circuit control devices .....	619	779	100	26
Bicycles and certain parts .....	452	529	77	17

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

In 1995, exports of major product categories, as a percentage of total U.S. exports to Taiwan, included: organic chemicals, 10 percent (\$1.8 billion); integrated circuits and other semiconductor devices (often used for assembly in products later exported to the United States), 9 percent (\$1.7 billion); aircraft and parts, 9 percent (\$1.7 billion); corn and soybeans, 8 percent (\$1.4 billion); and motor vehicles, 5 percent (\$888 million).

U.S. and world exports to Taiwan have continued to grow, due in large part to increasing economic prosperity, the strength of the New Taiwan Dollar, and resulting increases in domestic consumption.<sup>95</sup> On June 23, 1995, the Taiwan Legislature passed the tariff reduction bill, lowering import duties on 758 products, including manufactured goods and agricultural commodities. Taiwan also removed controls on a number of import categories on July 1, 1994.<sup>96</sup> As a result, in 1995, U.S. exports to Taiwan of machinery, chemicals, and agricultural products increased significantly (table 2-25).<sup>97</sup>

Only one major U.S. export category (with more than \$500 million in customs value) experienced a decline in the value of exports to Taiwan during 1995. Exports of motor vehicles fell by 16 percent in 1995, from \$1.1 billion in 1994 to just over \$888 million in 1995. During the early part of 1995, the Taiwan economy maintained stable growth; however, from August through October, the island experienced a general slowdown in business activity. During the last 3 months of 1995, Taiwan entered a recessionary state, characterized by mark-

edly lower exports to the United States, Japan, Hong Kong, and other ASEAN nations.<sup>98</sup> This also affected U.S. exports of motor vehicles to Taiwan, as consumers deferred purchases of consumer durables.

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## United Kingdom

Trade between the United States and the United Kingdom, the sixth largest U.S. trading partner, remained roughly in balance in 1995, with comparable gains in both U.S. exports and imports resulting in a shift in the balance from a \$226 million U.S. surplus in 1994 to a \$274 million deficit in 1995. The \$1.6 billion (6-percent) increase in U.S. exports to the United Kingdom in 1995 to \$26.3 billion was outpaced by the \$2.1 billion (8-percent) rise in U.S. imports to \$26.6 billion.

U.S. imports of parts of computers and other office machines from the United Kingdom advanced by \$187 million (46 percent) to \$590 million in 1995, while U.S. exports of such products to the United Kingdom grew by \$174 million (13 percent) to \$1.5 billion. Meanwhile, the United Kingdom cut into the substantial U.S. bilateral trade surplus in computers in 1995 as U.S. imports from the United Kingdom climbed by \$391 million (48 percent) to \$1.2 billion and U.S. exports edged upward by just \$41 million (2 percent) to \$2.0 billion. The total U.S. trade surplus in computers and parts with the United Kingdom in 1995 contracted by \$363 million (18 percent) to \$1.7 billion. The magnitude of the U.S. trade surplus in computer products reflects the lead that U.S. producers have over most other manufacturers in terms of increasing the speed and capacity of these products as well as reducing the size of computer components and peripherals. U.S. exports of the latter to the United Kingdom in 1995

<sup>95</sup> U.S. Department of State, *Country Reports*, "Economic Policy and Trade Practices: Taiwan," reprinted in the NTDB, ID: ST ECOPOL TAIWAN, Apr. 20, 1995.

<sup>96</sup> USDOC, ITA, *Country Commercial Guides*, "Taiwan: Commercial Overview," reprinted in the NTDB, ID: IT CCG TAIWAN, Aug. 23, 1995.

<sup>97</sup> U.S. exports of machinery to Taiwan grew by 31 percent in 1995 to \$1.9 billion; exports of chemicals and related products rose by 23 percent to \$2.9 billion; and exports of agricultural products climbed by 18 percent to \$2.8 billion. Electronic products, the largest category of U.S. exports to Taiwan at \$4.2 billion, grew by only 6 percent.

<sup>98</sup> Deborah Shen, "Economy Officially Slips Into Recession Territory," *Free China Journal*, vol. 12, No. 50, Dec. 29, 1995, p. 3.

**Table 2-25**  
**Leading increases in U.S. exports to Taiwan, 1994-95**

Product/commodity	1994	1995	Increase in 1995 over 1994	
			Value	Percent
		<i>Million dollars</i>		
Organic chemicals .....	1,343	1,751	408	30
Aircraft .....	932	1,215	283	30
Certain industrial machinery .....	358	616	259	72
Corn .....	566	771	205	36
Soybeans .....	442	600	159	36
Steel .....	25	181	156	624

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

were led by printer units, hard disk drives, and control and adapter units. The United States is considered among the world leaders in the design of such products and getting the product from concept to market quickly.

The United States was able to maintain its trade surplus with the United Kingdom in semiconductor devices in 1995 at \$671 million. Two-way trade between the United States and the United Kingdom in semiconductor devices grew by comparable values in 1995, with U.S. exports advancing by \$182 million (16 percent) to \$1.3 billion and imports rising by \$168 million (37 percent) to \$622 million. Significant growth in U.S. exports to the United Kingdom in 1995 was also recorded in telephone equipment, which rose by \$151 million (51 percent) to \$446 million, reflecting the strong global position that U.S. producers have in that market.

U.S.-British trade in precious metals is often volatile. In 1995, U.S. exports of gold to the United Kingdom dropped by \$561 million (41 percent) to \$820 million, while exports of silver jumped by \$397 million, from \$29 million in 1994, to \$426 million in 1995. Much of the trade in gold reflects transfers of gold bullion from Commodity Exchange warehouses in the United States to the London gold market. Such gold bullion provides security behind futures trading in gold in case delivery must be made under the contracts.

The \$1.1 billion (39-percent) drop in U.S. exports of aircraft to the United Kingdom in 1995 is attributable to the 2- to 3-year lagged effect of a worldwide recession in air travel in 1991-93, which caused new aircraft purchases for delivery in 1995 to be cut back sharply for financial reasons. For example, British Airways, by far the largest British air carrier, showed large losses during the travel recession. The cutback in orders for finished aircraft also resulted in a drop in U.S. imports of aircraft engines from the United Kingdom in 1995, by \$274 million (18 percent) to \$1.3 billion.

The \$406 million (35-percent) rise in U.S. imports of motor vehicles from the United Kingdom in

1995 to \$1.6 billion was principally accounted for by expensive vehicles, such as Jaguar and Range Rover, which have found favor in the U.S. market. Exports of motor vehicles from the United States to the United Kingdom, on the other hand, fell by \$167 million (37 percent) to \$285 million. The relative affluence of consumers in the United States was also reflected in the \$162 million (45-percent) increase in U.S. imports of paintings from the United Kingdom in 1995 to \$521 million.

The largest decrease in U.S. imports from the United Kingdom in 1995 was in crude petroleum, which shrank by \$529 million (19 percent) to \$2.2 billion. This decline was due largely to the higher price of North Sea crude oil (\$17.05/bbl) versus lower costs from the major crude petroleum import suppliers to the United States (\$15.53/bbl).

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## Italy

The U.S. merchandise trade deficit with Italy grew for the fourth consecutive year in 1995, expanding by \$180 million (2 percent) to \$7.9 billion. This followed a \$786 million (11-percent) increase in the deficit in 1994 and a \$3.1 billion (82-percent) increase in 1993. The slowing rate of increase in the U.S.-Italy deficit reflects a continuation of the economic recovery in Italy, which improved the ability of Italian industries to purchase U.S. raw materials, capital goods, and communications equipment. Italy experienced moderate economic growth in 1995, with real GDP expanding at a rate of 3.3 percent, following a growth rate of 2.2 percent in 1994 and a decline of 0.7 percent in 1993. Initially, growth in the Italian economy was largely stimulated by increasing exports; however in recent years, growth has become more broadly based and has spread to the capital goods and consumer sectors of the economy, leading to an increase in imports.<sup>99</sup>

<sup>99</sup> *OECD Economic Outlook*, "Italy," Dec. 1995, p. 62.

The Bank of Italy tightened monetary conditions in May 1995 by raising its discount rate in an effort to halt mounting inflationary pressures and weakness in the lira. This development contributed to slower economic growth in the fourth quarter of 1995, which was expected to reduce import growth in the near future. The move not only strengthened the lira,<sup>100</sup> but also reduced inflation from 5.8 percent during 1995 to nearly 4.5 percent during the first quarter of 1996.<sup>101</sup> As a result of this change in policy, analysts have lowered projected growth in real GDP to 2.3 percent for 1996.<sup>102</sup>

U.S. imports from Italy increased by \$1.8 billion (12 percent) in 1995 to \$16.3 billion, with significant growth occurring in a number of products. The largest dollar volume increases occurred among imports of parts and accessories for computers and other office machines, which grew by \$185 million (71 percent) to \$447 million; antibiotics, which more than doubled in 1995, rising by \$173 million to \$291 million, as merger activity in recent years has strengthened the position of the Italian pharmaceutical industry in foreign markets;<sup>103</sup> integrated circuits and other semiconductor devices, which also more than doubled, climbing by \$149 million to \$277 million; footwear, which increased by \$130 million (15 percent) to \$1.0 billion; and construction and mining equipment, which rose by \$85 million (71 percent) to \$206 million. Partially offsetting the increase in U.S. imports in these products were declines in imports of steel, down \$184 million (37 percent) to \$290 million; petroleum products, down \$144 million (69 percent) to \$65 million; and medical products, except antibiotics, down \$77 million (30 percent) to \$178 million.

U.S. exports to Italy increased by \$1.6 billion (23 percent) in 1995 to \$8.4 billion. The increase in U.S. exports was distributed among a number of industries including exports of wood pulp and wastepaper and paperboard, which rose by \$217 million (85 percent) to \$472 million; steel, which climbed from \$28 million in 1994 to \$142 million in 1995; telephone and telegraph apparatus, which grew by \$83 million (94 percent) to \$171 million; and petroleum products, which increased by \$73 million (80 percent) to \$163 million.

The most significant decline in U.S. exports to Italy occurred in exports of aircraft, which fell by \$57

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<sup>100</sup> The Italian lira appreciated by an average of nearly 7 percent against the average of ECU currencies between Mar. 1995 and Dec. 1995.

<sup>101</sup> U.S. Department of State telegram, "Italy: Economic Forecast," message reference No. 003885, prepared by U.S. Embassy, Rome, Apr. 1996.

<sup>102</sup> Ibid.

<sup>103</sup> *Chemical Marketing Reporter*, "Procordia to Purchase Montedison Drug Holdings," Mar. 29, 1993, p. 8.

million (7 percent) to \$814 million.<sup>104</sup> The Italian civilian and military aerospace industries are currently experiencing significant downsizing in their operations, with declines in production and employment of 20 to 30 percent from levels reached in the early 1990s, due largely to reduced funding by the Italian Government for defense and space-related initiatives and to protracted weakness in the civilian aerospace market.<sup>105</sup>

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## ***Netherlands***

The U.S. merchandise trade surplus with the Netherlands continued to grow in 1995, to a record \$9.7 billion, expanding by \$2.7 billion (38 percent) from the \$7.0 billion surplus in 1994. The increase in the value of U.S. exports to the Netherlands exceeded the increase in the value of U.S. imports from the Netherlands, largely reflecting favorable exchange rates and the European economic recovery, which stimulated European demand for U.S. goods. The Netherlands, especially its chief port of Rotterdam, is a major channel through which U.S. exports are distributed to many European countries.

U.S. exports to the Netherlands grew by nearly \$3 billion, or 23 percent, in 1995, reaching almost \$16 billion from \$13.0 billion in 1994. Several groups of commodities contributed to this export performance, including aircraft and parts, which grew by \$359 million (27 percent) to \$1.7 billion in 1995, and organic chemicals, which rose by \$313 million (35 percent) to \$1.2 billion. Also, exports of computer equipment grew significantly in 1995, by \$148 million (14 percent) to \$1.2 billion. In the agriculture sector, soybean exports grew by more than a fifth, or \$153 million, to \$845 million in 1995. Reflecting expanded steel manufacturing in Europe, U.S. exports of molybdenum ores and concentrates to the Netherlands more than quadrupled in 1995, rising by \$118 million to \$153 million. Global shortages drove up the unit price of molybdenum in 1995 and contributed to the rise in the value of U.S. exports.

On the import side, overall U.S. imports from the Netherlands rose by 6 percent, from \$6.0 billion in 1994 to \$6.3 billion in 1995, an increase of \$339 million. Big ticket items on the import side included organic chemicals, imports of which grew by \$156 million (44 percent) to \$510 million; paintings, which more than doubled in 1995, rising

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<sup>104</sup> This was in contrast with the situation in 1994, when exports of aircraft increased by 140 percent and accounted for the largest dollar increase among U.S. exports to Italy.

<sup>105</sup> Pierre Sparaco, "Crisis Deepens, Threatening Italy's Aerospace Future," *Aviation Week & Space Technology*, Sept. 18, 1995, pp. 24-25.

by \$75 million to \$132 million; and apparatus for photo labs and equipment used to imprint printed circuits onto semiconductor material, up \$69 million (63 percent) to \$179 million. These increases in imports were partially offset by a sharp drop in imports of aircraft from the Netherlands, which fell by \$273 million (64 percent) in 1995 to \$153 million.

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## **Brazil**

U.S. trade with Brazil shifted from a deficit of \$1.2 billion in 1994, to a \$1.8 billion surplus in 1995. A broad array of U.S. exports benefitted from fiscal policies in Brazil that loosely tied Brazil's new currency to the U.S. dollar, brought inflation under control, and significantly reduced trade barriers. While U.S. exports to Brazil grew by \$3.1 billion (41 percent) in 1995 to \$10.8 billion, U.S. imports from Brazil edged upward by only \$141 million (2 percent) to \$9.0 billion.

The top gainers among U.S. exports to the Brazilian market in 1995 were electronic products such as computers, cathode ray tubes for televisions and computer monitors, and telephone apparatus; transportation equipment, including motor vehicles, aircraft, and parts for each; chemicals; medical goods; and construction and mining equipment (table 2-26). Increased exports of wheat (from none in 1994 to \$68 million in 1995) and a variety of other agricultural products were offset by reductions in exports of soybeans (by \$114 million to \$19 million), rice (by \$53 million to \$11 million), and corn (by \$28 million to \$10 million). The net result was a \$50 million (8-percent) increase in U.S. exports of agricultural products to Brazil in 1995 to \$692 million.<sup>106</sup> Other significant decreases in U.S. exports in 1995 were limited to parts for engines, down \$89 million (57 percent) to \$66 million; and fertilizers, down \$65 million (38 percent) to \$106 million.

U.S. imports from Brazil involve a much narrower range of goods than corresponding U.S. exports. Imports are concentrated in footwear (13 percent of total U.S. imports from Brazil in 1995), iron and steel (11 percent), certain auto parts and engines (8 percent), wood pulp (5 percent), and coffee (5 percent). Wood pulp topped the growth in imports from Brazil in 1995, advancing by \$212 million (89 percent) to \$451 million. Imports of iron and

steel products grew by \$123 million (14 percent) to \$1.0 billion; while imports of gold more than tripled, rising from \$42 million in 1994 to \$142 million in 1995. Growth in imports of these products was nearly offset by a drop in U.S. imports from Brazil in 1995 of refined petroleum, by \$212 million (64 percent) to \$118 million; fruit juice, by \$140 million (60 percent) to \$92 million; footwear, by \$139 million (11 percent) to \$1.13 billion; and unmanufactured tobacco, by \$70 million (48 percent) to \$76 million. Brazil is the world's largest producer and exporter of coffee and orange juice, and is second only to the United States in exports of soybeans. A large domestic cattle industry supplies hide to leather footwear producers; a natural endowment of tropical forests, iron, and coal support the wood pulp and iron and steel industries.

The Brazilian economy, with large agrarian, mining, and manufacturing sectors, entered the 1990s with declining real growth, runaway inflation, and an un-serviceable foreign debt of \$122 billion. Brazil had one of the most highly regulated economies in the world, with government/private joint ownership of many industries and substantial trade and investment barriers.<sup>107</sup> In 1990,<sup>108</sup> the new government launched an ambitious reform program that sought to modernize and reinvigorate the economy by stabilizing prices, deregulating the economy, increasing foreign competition (by encouraging greater private sector, including foreign, investment), and by instituting agrarian reform.

Since the introduction of a new currency, the "real," in July 1994, Brazil reduced its inflation rate from a monthly average of 50 percent in June 1994, to a current average monthly rate of less than 2 percent. The factors instrumental in reducing inflation sharply have been a strongly valued currency and high real interest rates designed to attract foreign capital. Real GDP growth in 1995 was 4.9 percent.

Reduced market barriers and a possibly overvalued currency prompted an import surge in 1995 (up by 90 percent from 1994 levels), while exports increased by just 6 percent. In response to the import surge and resulting large monthly trade deficits in late 1994 and early 1995, the government raised import tariffs significantly in March 1995 on a range of consumer durable goods, including automobiles and footwear. Initially, some of the higher tariffs violated tariff rates that Brazil had agreed to bind under the World Trade Organization (WTO). After the U.S. Government expressed concerns, Brazil brought all of its tariffs within the limits of

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<sup>107</sup> Central Intelligence Agency, *The World Factbook 1994*, 1994, p. 55.

<sup>108</sup> The Collor Government, which assumed office in March 1990, immediately sought to privatize Brazil's economy and liberalize trade. U.S. Department of State, *Country Reports*, Mar. 1996, pp. 338-345.

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<sup>106</sup> Although imports of agricultural products from Brazil were almost twice as large as U.S. exports in 1995, imports in this sector contracted by \$197 million (14 percent) in 1995 to \$1.24 billion.

**Table 2-26**  
**Leading increases in U.S. exports to Brazil, 1994-95**

Product	1994	1995	Increase in 1995 over 1994	
			Value	Percent
		<i>Million dollars</i>		
Computers and parts .....	762	1,042	280	37
Organic chemicals .....	562	822	260	46
Motor vehicles .....	274	413	140	51
Aircraft .....	313	413	100	32
Certain motor-vehicle parts .....	102	202	100	98
Cathode ray tubes for televisions and computers .....	49	125	76	156
Medical goods .....	127	203	76	60
Construction and mining equipment .....	210	282	71	34
Aircraft engines .....	105	167	61	58
Telephone apparatus .....	143	204	61	42
Manmade fibers and yarns .....	38	98	60	159
Aluminum mill products .....	38	98	60	160
Radio transmission and reception equipment .....	324	383	60	18
All other .....	4,591	6,305	1,714	37
<b>Total .....</b>	<b>7,638</b>	<b>10,757</b>	<b>3,118</b>	<b>41</b>

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

its previously agreed tariff binding levels. The new tariff levels, which were as high as 70 percent on some products, were in effect until April 1996. The tariff increases did not affect capital goods, which constitute a significant portion of U.S. exports to Brazil. In June 1995, the government imposed quotas on the importation of automobiles, and announced a new program of investment incentives for domestic auto production. The quota regime was eliminated in October after the WTO Balance of Payments Committee rejected Brazil's justification for the tariffs.

Significant barriers to U.S. exports to Brazil include import licenses, agricultural barriers, services barriers, and investment barriers. Import licenses are required for virtually all products, but generally do not pose a barrier to U.S. exports except for occasional delays in the case of a few products. Barriers to U.S. agricultural exports are mainly sanitary and phytosanitary. Brazil prohibits the entry of poultry and poultry products from the United States and beef treated with anabolics. In October 1995, Brazil prohibited the importation of live sheep from the United States due to scrapie disease. In November 1995, the U.S. Government reached an interim agreement that enables most U.S. fruit, grain, and seed exports to meet the new phytosanitary requirements. Service barriers include restrictive investment laws, lack of administrative transparency, and arbitrary application of regulations and laws.<sup>109</sup> Brazil recently has begun to address deficiencies in its protection of intellectual property.<sup>110</sup>

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<sup>109</sup> Ibid., pp. 339-345.

<sup>110</sup> The U.S. pharmaceutical industry has estimated cumulative losses of approximately \$600 million due to inade-

## Hong Kong<sup>111</sup>

The 1995 U.S. merchandise trade surplus with Hong Kong widened markedly, rising by nearly \$2.0 billion (389 percent) from \$506 million in 1994 to \$2.5 billion.<sup>112</sup> The U.S. trade balance

<sup>110</sup>—Cont.

quate intellectual property protection. The U.S. software industry claims losses of \$268 million, and estimates that less than 50 percent of the software in use in Brazil was legally obtained. The Motion Picture Export Association of America estimates its annual losses due to motion picture piracy in Brazil at about \$39 million. Ibid., p. 344. Brazil has recently taken the admirable step of enacting a modern patent law that comes into effect one year after its publication. Among other things, the new law will improve pharmaceutical patent protection and pipeline protection. As a result, the (Clinton) Administration is moving Brazil from the priority watch list to the watch list. Beyond the above-mentioned patent legislation, the U.S. Administration looks to Brazil to fulfill its longstanding commitments to enact outstanding legislation on computer software and semi-conductor layout designs, and to introduce much needed amendments to its copyright law. USTR, Press release of Tuesday, Apr. 30, 1996, "Special 301 on Intellectual Property Rights" fact sheet, p. 2.

<sup>111</sup> On July 1, 1997, the United Kingdom will return political control of Hong Kong to China.

<sup>112</sup> USDOC, ITA, *Country Commercial Guidelines Hong Kong: Economic Trends and Outlook*, Jan. 2, 1996. Hong Kong's merchandise trade is, however, a small part of its total international trade. Reexports, which account for as much as 80 percent of the territory's total trade, are goods made in foreign countries, principally China, which officially enter Hong Kong's customs territory for transshipment to other countries. Since Hong Kong has one of the best deep-water ports on the Chinese coast, it is ideally suited as a point of transit for foreign imports into China, as well as Chinese exports to the rest of the world. Hong Kong's container port is reported to be the world's busiest and its Port Development Board projects container transshipments to grow at double digits through the year 2011.

with Hong Kong has improved steadily, from a \$1.8 billion deficit in 1991, to its current trade surplus, with the decade's first U.S. trade surplus occurring in 1994.<sup>113</sup> While both U.S. exports to and imports from Hong Kong have generally increased since 1991 (with a minor decline in imports in 1993), U.S. exports have increased at a substantially faster rate. In 1995, U.S. exports to Hong Kong grew by \$2.6 billion (25 percent) to \$12.7 billion; while U.S. imports from Hong Kong increased by \$611 million (6 percent) to \$10.2 billion. In 1994, the United States was Hong Kong's fourth-largest source of imports (following China, Japan, and Taiwan), accounting for 7 percent of the annual total; its second-largest source of investment; and its largest market for exports (tied with China), accounting for 28 percent of total Hong Kong exports.<sup>114</sup> However, Hong Kong accounted for just 2 percent of U.S. foreign trade in 1995.

Although Hong Kong has among the highest per capita incomes in the world, it has no natural resources and is less than 20 percent self-sufficient in agriculture. In response to this situation, Hong Kong has pursued economic policies of noninterference in commercial and economic activities and has promoted free markets. Hong Kong has also consistently supported an open multilateral trade system. Consequently, there are virtually no tariffs and few government-imposed obstacles hindering U.S.-Hong Kong trade. Manufacturing, accounting for approximately 15 percent of GDP, is not a major sector in the Hong Kong economy.<sup>115</sup> Rather, construction and services dominate the economy.<sup>116</sup> Service industries account for approximately 80 percent of its GDP, employ more than 70 percent of its work force, and represent some 50 percent of total exports, with important service sectors including banking, insurance, and travel and tourism. Textiles and apparel, watches and clocks, toys, and the assembly of electronic equipment and computers are Hong Kong's major manufacturing industries. Hong Kong's chief global imports include foodstuffs, petroleum, transportation equipment, raw materials, and semimanufactured materials.<sup>117</sup>

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<sup>113</sup> Throughout the decade, the United States has also maintained a trade surplus in services with Hong Kong. USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Sept. 1995, p. 75.

<sup>114</sup> U.S. Department of State, *Background Notes — Hong Kong*, Jan. 29, 1996.

<sup>115</sup> *Ibid.*

<sup>116</sup> USDOC, ITA, *Country Commercial Guidelines*. Hong Kong's construction industry in 1994 was reported to be \$11.5 billion and a potential future purchaser of U.S. construction materials. In addition to private commercial construction, the Hong Kong Government has started a \$21 billion airport renovation program and plans to begin a \$15 billion railway expansion program in 1996.

<sup>117</sup> U.S. Department of State, *Background Notes*.

The growing U.S. trade surplus with Hong Kong has been influenced, in part, by a shift of labor-intensive manufacturing to China. It has been reported that about 80 percent of Hong Kong manufacturers have set up production facilities across the border. At the end of 1994, there were some 118,000 Hong Kong-invested enterprises in China, accounting for two-thirds of all foreign-funded enterprises in the country.<sup>118</sup> A significant portion of U.S. exports of components and materials to Hong Kong is used in export-oriented manufacturing in China. This contributes to the U.S. trade surplus with Hong Kong and the deficit with China.

Export growth to Hong Kong in 1995 was led by communications equipment, computers, and electronic components. U.S. exports of telephone apparatus nearly tripled in 1995, rising by \$402 million to \$628 million; exports of computers climbed by \$285 million (41 percent) to \$980 million; and exports of semiconductor devices rose by \$254 million (24 percent) to \$1.3 billion. Strong growth was also exhibited in raw materials and capital goods. U.S. exports of copper and copper products to Hong Kong more than tripled in 1995, rising from \$52 million to \$185 million; unwrought aluminum exports jumped from \$26 million to \$120 million; exports of construction and mining equipment climbed from \$35 million to \$119 million; and exports of plastics in primary forms expanded by \$83 million (45 percent) to \$267 million. U.S. poultry exports to Hong Kong grew by \$128 million (47 percent) in 1995 to \$403 million. The only significant decrease in U.S. exports to Hong Kong in 1995 was in gold, which dropped by \$346 million (43 percent) to \$459 million. This decrease reflected, in part, a shift in jewelry manufacturing from Hong Kong to China.

U.S. imports of integrated circuits and other semiconductor devices from Hong Kong grew by \$481 million (72 percent) in 1995 to \$1.2 billion. These electronic components and subassemblies, which made up 9 percent of total U.S. imports from Hong Kong in 1995, accounted for more than three-quarters of the total growth in U.S. imports from Hong Kong that year. Textiles and apparel, which made up 45 percent of total imports from Hong Kong in 1995, fell by \$50 million (1 percent) to \$4.5 billion. The most significant decline in imports from Hong Kong was in computers and related equipment, which fell by \$114 million (18 percent) to \$526 million. This reflected the continuing shift of production from Hong Kong to mainland China.

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<sup>118</sup> EIU, *Investing, Licensing & Trading Conditions Abroad (Country: Hong Kong)*, Jan. 1, 1995.

## Philippines

The Philippines has consistently had trade surpluses with the United States; in 1995, the U.S. merchandise trade deficit with the Philippines totaled \$1.9 billion, a slight (\$43 million) decrease from 1994. The 1995 total trade turnover between the two countries reached \$12.1 billion, making the United States one of the Philippines' largest trading partners. Although U.S. exports to the Philippines rose at a faster pace (up 35 percent) to \$5 billion, U.S. imports totaled \$7 billion (up 22 percent). Electronic products account for the bulk of trade between the two countries. The trade deficit in electronic products, which rose by 29 percent to \$812 million, accounted for 42 percent of the total U.S. trade deficit with the Philippines in 1995.

Restored political and macroeconomic stability and economic reforms in the Philippines in the last few years have stimulated foreign investment and renewed confidence domestically. Foreign investment has grown at impressive rates as multinational high-tech companies have established operations in the Philippines. To a large extent, these plants assemble imported components and export the finished product. Export processing plants contribute to the Philippine trade surplus because exported products have a higher value than the imported components used to assemble them. In addition to relatively low wages, the Philippines also offer the advantage of a large pool of English-speaking engineers and technicians. As a result of increases in industrial production, exports, and investment, the Philippine Government forecasts economic growth to reach 6.5 percent in 1996, after rising by 4.7 percent in 1995, and 4.3 percent in 1994.<sup>119</sup> This will likely result in the continued expansion of trade between the United States and the Philippines.

U.S. imports from the Philippines increased by \$1.3 billion in 1995 to \$7 billion, attributed in large part to the country's continued growth in exports of semiconductor devices and consumer electronic products. A major portion of these imports is intra-company trade from U.S. firms with assembly facilities in the Philippines. U.S. imports from the Philippines of electronic products rose by \$681 million (up 30 percent) in 1995 to \$3 billion. Within this sector, semiconductors were by far the leading U.S. import commodity. In 1995, the Philippines exported approximately \$3 billion of semiconductors, 17 percent of the country's total exports.<sup>120</sup> U.S. imports of semiconductors from the Philippines totaled \$2 billion in 1995, an increase of 44 percent (\$617 million) over 1994. Computers were the

second-largest category as imports more than doubled to \$340 million. The brisk growth in U.S. imports of semiconductors and assembled computer equipment (e.g., disk drives, digital processing units, keyboards, and monitors) was due to the continued strong U.S. demand for computers in 1995. Imports of telephone equipment (including cellular phones and pagers) grew by 47 percent (\$50 million) in 1995 to \$156 million.

Notable growth in U.S. imports from the Philippines in 1995 was not limited to "high-tech" products. Imports of apparel climbed by \$169 million (13 percent) to \$1.5 billion; imports of fats and oils advanced by \$117 million (60 percent) to \$311 million; and imports of luggage and handbags rose by \$50 million (70 percent) to \$123 million.

U.S. exports to the Philippines rose by \$1.3 billion in 1995 to \$5.1 billion, with the growth in exports of electronic products accounting for 43 percent of the total increase. U.S. exports of electronic products to the Philippines climbed by \$496 million (30 percent) in 1995 to \$2.2 billion. A substantial share of the U.S. electronic exports to the Philippines was destined for U.S.-affiliated production sharing operations<sup>121</sup> where value is added and then reexported, often back to the United States. Such operations are focused almost exclusively on the assembly of semiconductors. U.S. exports of semiconductor devices climbed by \$398 million (33 percent) to \$1.6 billion; exports of miscellaneous industrial machinery, including semiconductor manufacturing equipment (e.g., robots) grew by \$72 million (88 percent) to \$154 million. Exports of radio equipment to the Philippines reached \$136 million in 1995, representing a gain of \$95 million (232 percent) over 1994. Exports of measuring and controlling instruments (used in processes to produce semiconductor and other high-tech products) increased by \$33 million (62 percent) to \$87 million. Certain agricultural products also posted notable export gains in 1995. U.S. exports of cereals (especially soybeans and wheat) rose by \$60 million (22 percent) to \$331 million, while exports of animal feeds more than doubled, growing by \$78 million to \$141 million. Finally, the strong performance in the Philippine economy in recent years set the stage for a sharp (\$138 million) rise in U.S. exports of aircraft, from \$28 million in 1994 to \$167 million in 1995.

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<sup>119</sup> Rigoberto Tiglao, "Field of Dreams," *Far Eastern Economic Review*, Apr. 4, 1996, p. 51.

<sup>120</sup> *Ibid.*

<sup>121</sup> U.S. production sharing firms are attracted to the Philippines by its relatively low wages, large semiskilled workforce, developed infrastructure, new industrial parks, improved political stability, liberalization of trade and investment regulations, and shorter flying time to California than competing export-processing countries in Asia.

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## CHAPTER 3

# Agricultural Products

The U.S. trade surplus in agricultural products increased by \$7.3 billion (36 percent) in 1995 to \$27.6 billion (table 3-1). Among major U.S. industrial/commodity sectors, agriculture had the largest trade surplus (the only other U.S. sector with a trade surplus in 1995 was chemicals). Agricultural exports, driven by bumper U.S. grain crops, a 34-percent jump in the quantity of foreign grain sales, and rising grain prices towards the end of 1995, rose sharply in 1995, up by \$10.1 billion (18 percent), to \$65.4 billion. Imports, on the other hand, propelled by higher prices for coffee, cocoa, fruits, and vegetables, rose by \$2.7 billion (8 percent) to \$37.8 billion. Agricultural sector trade (imports and exports) increased by 14 percent to \$103 billion. Agricultural products accounted for 12 percent of total U.S. exports in 1995, but just 5 percent of total imports.

The largest agricultural sector export in 1995 was cereals, up by \$4.8 billion (47 percent) to \$14.9 billion. Tobacco product exports were second, amounting to \$6.6 billion, down \$48 million (0.7 percent). Exports of oilseeds totaled \$5.7 billion, up by \$1.1 billion (25 percent); animal feeds, \$3.8 billion, up by \$340 million (10 percent); and cotton, \$3.7 billion, up by \$1.0 billion (39 percent). U.S. exports of poultry have grown steadily, from \$930 million in 1991 to \$2.1 billion in 1995. Much of the growth in poultry exports occurred because of surging demand combined with a lagging domestic supply in Russia, whose purchases from the U.S. have grown from zero to over \$600 million in the past 3 years.

Important agricultural sector imports in 1995 included alcoholic beverages, which increased by \$305 million (8 percent) to \$3.9 billion; shellfish, mostly shrimp, \$3.9 billion, down by \$12 million (0.3 percent); coffee and tea, \$3.4 billion, up by \$772 million (29 percent); and cattle and beef, \$2.6 billion, down \$89 million (3 percent). Coffee and tea imports grew significantly as average coffee prices continued a multi-year upward trend in 1995.

## U.S. Bilateral Trade

More than one-half of all U.S. agricultural exports in 1995 were to Asia. Japan was the most impor-

tant U.S. trading partner in 1995, with \$14.6 billion of purchases of U.S. agricultural products, an increase of 14 percent from that of the year before. Leading U.S. exports to Japan included cigarettes, cereals, beef, citrus products, and frozen fish (figure 3-1). U.S. agricultural imports from Japan amounted to only \$390 million. U.S. exports to China and Korea rose sharply in 1995, growing by 139 and 56 percent, respectively. U.S. agricultural trade surpluses with these two countries rose to \$1.9 billion and \$3.9 billion, respectively. A key factor in the export growth was China's booming economy, which increased demand in China for grains, especially feed grains,<sup>1</sup> and led China to shift from being a net grain exporter to a net importer. This contributed to a shift in Korea's grain purchases from China to the United States. China and Korea were also principal purchasers of U.S. cotton, oilseeds, and cattle hides.

After Japan, Canada and Mexico were the largest U.S. agricultural trading partners in 1995, with U.S.-Canada trade amounting to \$13.4 billion, and U.S.-Mexico trade reaching \$8.1 billion. The most important agricultural imports from Canada in 1995 were cattle and beef, edible preparations,<sup>2</sup> lobster, cereals, ham, animal feed, and fish (figure 3-2); while the most significant U.S. agricultural exports to Canada included edible preparations, vegetables, animal feeds, and cattle and beef. A significant U.S. agricultural trade shift occurred with Mexico in 1995, as the 1994 U.S. trade surplus of \$1.4 billion shifted to a trade deficit of \$813 million because of the peso devaluation and decreased income levels in Mexico. These developments combined to drive U.S. exports to Mexico down by

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<sup>1</sup> Rising incomes in developing countries have increased demand for feed grains because, as incomes rise, food preferences shift from direct human consumption of grain to consumption of such foods as poultry, beef, pork, and fish, for which grains are an input, and for which more grain is needed (i.e. it takes 4 pounds of grain to produce 1 pound of pork). Also, growing human populations, urban encroachment on crop growing areas, and flattening increases in world grain yields have also contributed to increased demand for U.S. grain exports.

<sup>2</sup> Examples of edible preparations include breakfast cereals, snack foods, baked goods, and pasta.

Table 3-1

**Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>**

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Japan .....	12,819	14,619	1,801	14.0
Canada .....	5,929	6,228	298	5.0
Mexico .....	4,724	3,622	-1,101	-23.3
Korea .....	2,612	4,077	1,465	56.1
China .....	1,139	2,716	1,577	138.5
Netherlands .....	1,854	2,276	422	22.7
Taiwan .....	2,331	2,746	415	17.8
Thailand .....	457	666	209	45.8
Belgium .....	2,182	2,187	5	0.2
United Kingdom .....	1,034	1,148	114	11.0
All other .....	20,270	25,146	4,876	24.1
Total .....	55,350	65,431	10,081	18.2
EU-15 .....	9,469	10,797	1,328	14.0
OPEC .....	2,675	3,082	407	15.2
Latin America .....	8,741	8,575	-166	-1.9
CBERA .....	1,912	2,284	372	19.4
Asian Pacific Rim .....	23,237	29,790	6,553	28.2
ASEAN .....	2,207	3,277	1,070	48.5
Central and Eastern Europe .....	315	316	1	0.4
U.S. imports for consumption:				
Japan .....	408	390	-18	-4.4
Canada .....	6,908	7,212	304	4.4
Mexico .....	3,366	4,436	1,070	31.8
Korea .....	173	181	8	4.6
China .....	691	782	91	13.2
Netherlands .....	991	1,115	124	12.5
Taiwan .....	339	358	19	5.5
Thailand .....	1,853	1,794	-59	-3.2
Belgium .....	120	136	16	13.4
United Kingdom .....	875	958	83	9.5
All other .....	19,324	20,444	1,119	5.8
Total .....	35,049	37,807	2,757	7.9
EU-15 .....	6,738	7,410	672	10.0
OPEC .....	868	800	-68	-7.9
Latin America .....	11,261	12,841	1,580	14.0
CBERA .....	2,523	2,841	318	12.6
Asian Pacific Rim .....	7,160	7,284	124	1.7
ASEAN .....	3,328	3,389	62	1.9
Central and Eastern Europe .....	218	230	13	5.9
U.S. merchandise trade balance:				
Japan .....	12,411	14,229	1,819	14.7
Canada .....	-978	-984	-6	-0.6
Mexico .....	1,357	-813	-2,171	( <sup>2</sup> )
Korea .....	2,438	3,896	1,458	59.8
China .....	448	1,934	1,486	331.9
Netherlands .....	863	1,161	298	34.5
Taiwan .....	1,992	2,388	396	19.9
Thailand .....	-1,397	-1,129	268	19.2
Belgium .....	2,063	2,051	-11	-0.6
United Kingdom .....	159	189	31	19.3
All other .....	945	4,702	3,757	397.3
Total .....	20,301	27,625	7,324	36.1
EU-15 .....	2,732	3,387	656	24.0
OPEC .....	1,807	2,282	475	26.3
Latin America .....	-2,521	-4,267	-1,746	-69.3
CBERA .....	-611	-557	54	8.8
Asian Pacific Rim .....	16,077	22,506	6,430	40.0
ASEAN .....	-1,121	-112	1,009	90.0
Central and Eastern Europe .....	97	86	-12	-11.9

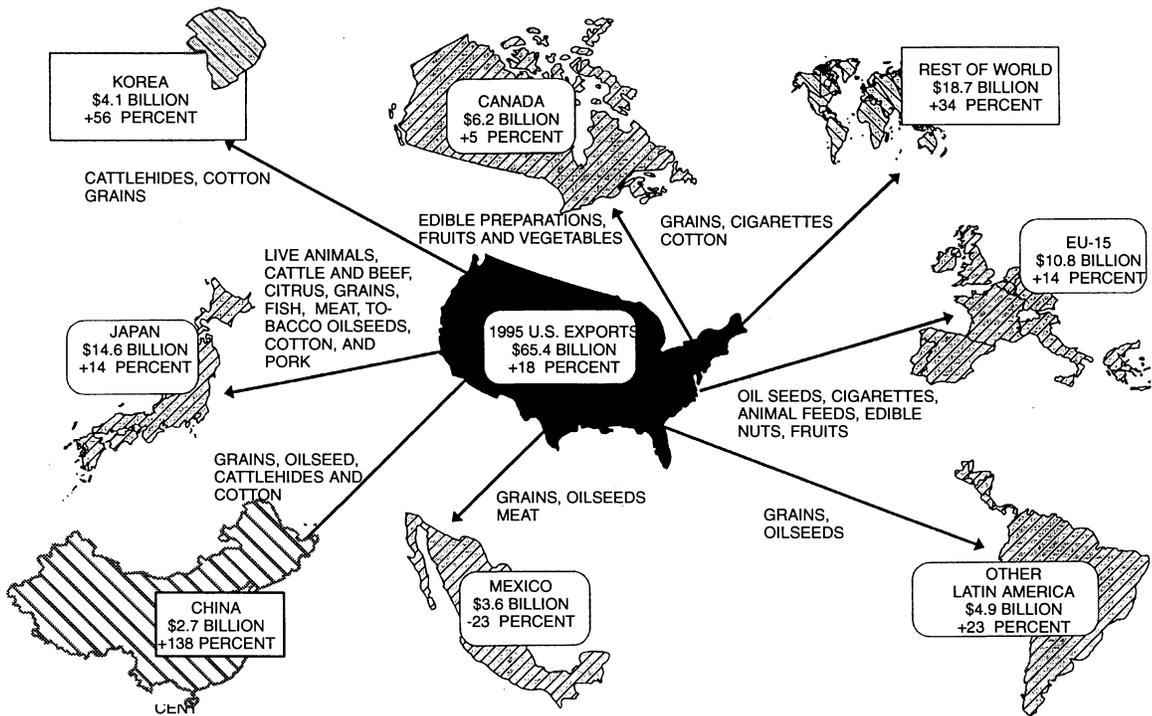
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Not meaningful for purposes of comparison.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 3-1**  
**U.S. agricultural sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

23 percent and stimulate a 32-percent increase in imports from Mexico. U.S. exports to Mexico of cereals and oilseeds both fell, but remained the highest volume of exports in 1995, and cattle and beef exports fell sharply. Principal U.S. imports from Mexico included frozen vegetables, which rose from \$1.0 billion to \$1.2 billion (an increase of 20 percent); cattle and beef, which remained at \$1.2 billion; coffee, which rose from \$333 million to \$592 million (an increase of 78 percent); and shrimp, which grew from \$302 million to \$399 million (an increase of 32 percent).

U.S. agricultural exports to the EU increased by \$1.3 billion (14 percent) to \$10.8 billion, while imports grew by \$672 million (10 percent) to \$7.4 billion. Leading U.S. exports to the EU in 1995 included oil seeds, cigarettes, animal feeds, edible nuts, and fruits. Principal U.S. imports from the EU in 1995 included alcoholic beverages and cheese.

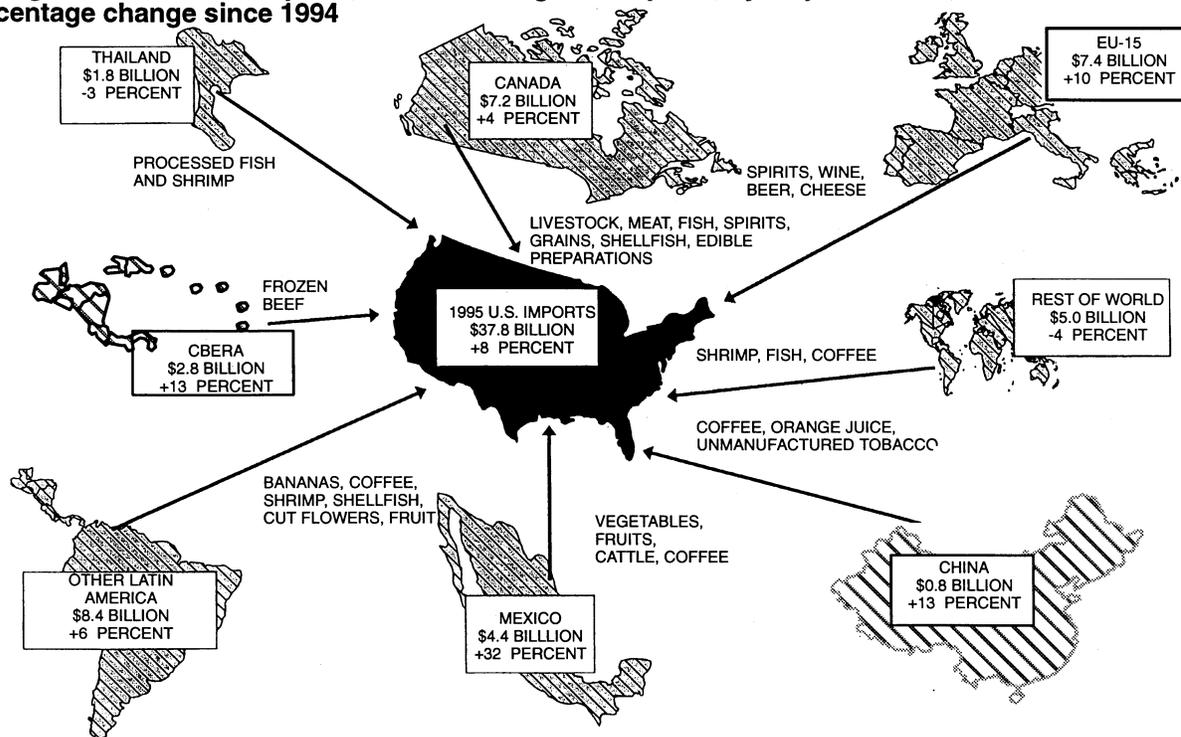
## Commodity Analysis

### *Cereals (Food and Feed Grains)*

The positive U.S. trade balance in food and feed grain improved by \$5 billion, reaching \$14 billion in 1995. This sector experienced the fourth-largest improvement in U.S. exports among all commodity groups in 1995. The rapid growth in world grain markets, perhaps signaling a return to the world grain boom era of the 1970s and early 1980s, led surging U.S. grain exports in 1995 to their best showing in 11 years.

U.S. food and feed grain exports rose by 47 percent (\$4.8 billion) to \$14.9 billion in 1995, the highest level since 1984, leading some grain analysts to

**Figure 3-2**  
**U.S. agricultural sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

forecast a worldwide "grain boom."<sup>3</sup> In each of the past 5 years, foreign world grain consumption has exceeded total world production, and by 1995/96, the steadily reduced world grain stocks fell to their lowest level in over 50 years, thus triggering widespread concerns about a supply shortage.<sup>4</sup> On a volume basis, U.S. food and feed grain exports rose by 34 percent to 134 million metric tons in 1995. Meanwhile, U.S. imports of grain declined by 16 percent to \$0.7 billion in 1995 as less Canadian wheat entered the U.S. market.<sup>5</sup>

<sup>3</sup> See for example, Gene Koretz, "Grain Prices Head Higher," *Business Week*, Nov. 20, 1995, p. 38; or Bill Lapp, ConAgra, Inc., "The Outlook for U.S. and World Grain Markets beyond 95/96," USDA Agricultural Outlook Forum, Washington, DC, Feb. 22, 1996, p. 1.

<sup>4</sup> The so-called "grain boom" is thus a longer term (at least the past 5 years) rather than a short-term (single-year) situation; lower world grain production and rising demand (supported by increased animal feed needs and population increases) were largely buffered by abundant grain stocks. However, by crop year 1995/96, stocks were inadequate to supply the gap between production and demand, and prices began a steep rise. USDA, *Grain: World Markets and Trade*, Dec. 1995.

<sup>5</sup> From Sept. 12, 1994, until Sept. 11, 1995, U.S. imports of wheat were restricted under tariff rate quotas established under section 22 of the Agricultural Adjustment Act (see description below).

Sharply higher U.S. grain exports in 1995 to Asian markets, particularly China and Korea, in addition to Japan, the traditional leading U.S. grain market, paced the higher sales abroad. Grain sales to China rose by about \$1 billion (up by 574 percent) to \$1.1 billion, and to Korea by \$0.9 billion (up by 189 percent) to \$1.4 billion in 1995. Near-record-high U.S. corn production in crop year 1994/95 raised U.S. availability of feed grain, which was able to supply the rising demand in Asia, particularly in China.<sup>6</sup> By the last quarter of 1995, much lower U.S. grain production in crop year 1995/96, coupled with the lowest U.S. grain inventories in nearly 20 years, and the lowest levels of world grain inventories since World War II, drove up prices, further boosting the value of grain sales abroad.

Wheat, corn, rice, and sorghum accounted for nearly all of the \$15 billion of U.S. grain exports in 1995: corn accounted for 51 percent; wheat, 37 percent; rice, 7 percent; and sorghum, 5 percent. U.S.

<sup>6</sup> For elaboration on China's role in world grain markets, see USITC, "China's Evolving Grain Trade Opens New Marketing Opportunities for U.S. Exporters," prepared by John Reeder, *Industry Trade and Technology Review*, Dec. 1995, pp. 30-40.

wheat exports rose by 34 percent in value to \$5.5 billion, and in volume by 6 percent to 32.4 million metric tons, paced by a 26-percent rise in the export unit value to \$168 per metric ton. Higher U.S. wheat sales occurred in Egypt, China, and Pakistan.

U.S. corn exports, fueled by rising foreign animal feed requirements in Asia, rose in 1995 by 68 percent in volume to 60 million metric tons, and by 80 percent in value to a record \$7.5 billion. A decline of nearly 9 million metric tons in Chinese corn exports to world markets propelled U.S. corn sales both directly to China and to other third-country Asian markets.<sup>7</sup> Prices (export unit value) of U.S. corn exports gained about 7 percent to \$125 per metric ton (\$3.40 a bushel).

Offsetting this positive export trend for U.S. wheat and corn, U.S. rice and sorghum exports remained relatively flat in 1995. U.S. rice exports declined by 2 percent to \$1.0 billion in 1995 from 1994 (a record-high year that was driven by an extraordinary \$224 million increase in Japanese purchases to counter a major crop failure). Sorghum exports experienced a slight 3-percent rise to \$682 million in 1995.

Among the principal foreign markets in 1995, Japan maintained its leading position with nearly 18 percent (a total of \$2.7 billion) of U.S. exports by purchasing nearly \$363 million more U.S. grain, nearly all of which was corn. Korea vaulted from the fifth- to the second-leading U.S. export market with \$1.4 billion in purchases in 1995, an increase of \$900 million, mainly in food grain and corn. Korea, which had previously imported most of its corn from China, relied on U.S. corn imports following China's near withdrawal as a grain exporter in 1994/95. China, as the third-leading market for U.S. grain, was the fastest growing market, with its purchases (about equal amounts of corn and wheat) rising in 1995 by nearly \$1 billion. Egypt, a traditionally important U.S. market for wheat, purchased \$350 million more U.S. grain in 1995.

Mexico was the only leading U.S. market to register lower grain purchases in 1995, with a decline of \$54 million from its record purchases set in 1994. A deep recession in Mexico and the sharp peso devaluation sharply cut Mexican purchases of U.S. sorghum used as a feedgrain, although Mexican purchases of U.S. corn and wheat both registered modest increases.

Also contributing to the higher U.S. trade surplus in grain in 1995 were lower wheat imports from Canada, which has supplied well over one-half of U.S. grain imports in recent years. U.S. imports of wheat, the leading grain imported from Canada, fell

by 12 percent to \$557 million in 1995. During September 1994 to September 1995, the United States imposed, under section 22 of the Agricultural Adjustment Act, tariff-rate quotas restricting U.S. imports of wheat from Canada and other foreign sources owing to their effects on U.S. farm programs.<sup>8</sup>

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## ***Oilseeds***

The United States enjoyed a \$5.4 billion trade surplus (an increase of \$1.2 billion) in oilseeds in 1995, the largest trade surplus in this commodity group since 1984, a year marking the end of the world grain and oilseed boom of the 1970s and early 1980s. The oilseed product grouping, like the food and feed grains grouping, is one of the larger U.S. agricultural export sectors (imports being minor when compared to exports). An improvement in U.S. oilseed exports in 1995 was responsible for most of the rising trade surplus although imports did decline slightly.

In crop year 1994/95,<sup>9</sup> U.S. farmers harvested the largest U.S. soybean crop on record, thereby boosting U.S. oilseed exports in 1995. The excellent 1994/95 soybean crop was 35 percent above the crop in the prior crop year. The higher volume of U.S. oilseed exports in 1995 offset slightly lower prices, and U.S. exports of oilseeds rose by \$1.1 billion (25 percent) to a near record \$5.7 billion. U.S. exports of soybeans accounted for 96 percent of total exports of oilseeds in 1995. The volume of U.S. soybean exports rose by 26 percent to 23 million metric tons in 1995, and the average export price (export unit value) fell by 1 percent to \$238 per metric ton (\$6.48 per bushel).

About three-quarters of the \$5.4 billion of U.S. exports of soybeans in 1995 went to 5 leading markets, the EU, Japan, Taiwan, Mexico, and South Korea. EU member countries, notably the Netherlands, Spain, Germany, Belgium, and Italy, together purchased about 47 percent more U.S. soybeans in 1995. Japan, Taiwan, and South Korea all sharply increased their purchases as well; among these top five markets only Mexico registered fewer purchases of U.S. soybeans in 1995.

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<sup>8</sup> See USITC, *Wheat, Wheat Flour, and Semolina*, investigation No. 22-54, USITC publication 2794, July 1994. On Sept. 12, 1995, the United States announced the expiration of the tariff rate quotas on wheat, although import monitoring will continue. "Joint Statement from Agriculture Secretary Dan Glickman and Ambassador Michael Kantor Regarding U.S. - Canada Grains Issue," *News Release*, U.S. Department of Agriculture press release No. 0658.95, Sept. 12, 1995.

<sup>9</sup> The U.S. crop year begins Sept. 1.

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<sup>7</sup> Ibid.

Worldwide imports of soybeans rose by 15 percent during 1994/95, stimulating U.S. soybean exports. The EU, the leading U.S. market, purchased about 38 percent of U.S. oilseed exports in 1995. A lower U.S. price (magnified by a stronger ECU currency vis-a-vis the U.S. dollar<sup>10</sup>), and rising demand for animal feed within the EU boosted U.S. soybean sales. U.S. soybean exports to the EU also increased because relative price ratios of soybean meal to feedgrain favored the use of more soybean meal (and less feedgrain) in animal feed rations,<sup>11</sup> thereby supporting the EU soybean crushers' demand for U.S. soybeans to be processed into soybean meal.

Japan, Taiwan, and South Korea also registered increased demand for animal feed (and soybean meal) during 1995. Mexico, buffeted by a recession and the peso collapse, purchased in 1995 about 2 percent fewer U.S. soybeans (a total 2.0 million metric tons), a level second only to the record set in 1994.

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## Cotton

Exports of U.S. cotton, not carded or combed (raw cotton), increased by nearly 39 percent, from \$2.7 billion in calendar year 1994 to \$3.7 billion in 1995. This was the third increase in as many years. Cotton exports have increased by 141 percent since 1993. According to the National Cotton Council, the gains in the overseas fiber markets achieved by U.S. cotton may be attributed to globally competitive cotton prices and continued industry efforts to establish a "differentiated and respected" reputation for U.S. cotton products.<sup>12</sup>

U.S. exports of all types<sup>13</sup> of cotton, in terms of quantity, during crop year 1995/96<sup>14</sup> were estimated by the U.S. Department of Agriculture (USDA)<sup>15</sup> to be 7.4 million bales, down from the 9.4 million bales exported in 1994/95. The difference between

export trends in quantity exported and in value of exports stems from a sharp increase in the price of cotton.<sup>16</sup> In 1993/94, the price was 66.1 cents per pound (¢/lb); in 1994/95, it was 88.1 ¢/lb; and in June 1995, it reached a high of 106.9¢/lb, almost 62 percent higher than the 1993/94 average price.<sup>17</sup>

Major markets for raw U.S. cotton in 1995 were China (\$829 million), Japan (\$409 million), Indonesia (\$377 million), Korea (\$362 million), Mexico (\$191 million), Thailand (\$179 million), Taiwan (\$142 million), Hong Kong (\$141 million), and Pakistan (\$127 million). The sales to China were particularly notable, given that 1993 U.S. exports of cotton to that nation amounted to only \$179,000.

The 1995/96 U.S. cotton crop is estimated at 18 million bales (upland cotton, 17.6 million bales; extra long staple, 361,000 bales), compared with the record 19.7 million bales in 1994/95.<sup>18</sup> Cotton yield, on the other hand, dropped by 22 percent, from 708 pounds/acre (lb./ac.) in 1994/95 to 551 lb./ac., the lowest yield in at least 6 years.

According to the USDA,<sup>19</sup> the relatively high U.S. cotton prices are discouraging domestic use and exports, leading to a projected rise of 28-percent in 1995/96 ending stocks. The robust prices stem from strong global demand and reduced foreign exportable supplies. Although U.S. producers responded with greatly expanded cotton acreage in 1995/96—the largest since 1956—the U.S. cotton crop is forecast to be lower, owing to insect and weather problems that are combining to lower yield and production across the Cotton Belt. High cotton prices are also contributing to lowered domestic mill use and reduced consumer demand.

In response to the high prices of 1994/95, foreign producers expanded output, leading to fierce competition. World cotton output is expected to climb by 4 percent in 1995/96, to the second-highest level ever. Larger crops in Pakistan, Turkey, West Africa, and a host of smaller producing countries, are expected to more than offset the smaller U.S. crop.

According to the U.S. Department of Commerce, cotton mill consumption during the first half of the 1995/96 season totaled 5.2 million bales, down from 5.7 million bales the previous season. However, cotton's share of fiber use on what is referred to as the *cotton system* remained at 78.3 percent. Increased cotton textile export demand has continued to support U.S. cotton mill consumption.<sup>20</sup>

<sup>10</sup> The dollar depreciated relative to the ECU by approximately 9 percent during 1995, as compared to 1994. Foreign Agriculture Service (FAS), USDA, *Oilseeds: World Markets and Trade*, December 1995, p. 48.

<sup>11</sup> The EU price ratio of soybean meal to feed wheat declined by about 11 percent during 1995, thereby encouraging feed companies to use a higher composition of soybean meal. *Ibid.*, p. 48.

<sup>12</sup> *National Cotton Council Forecasts Increased U.S. Cotton Production, Mill Use and Exports*, press release, Feb. 12, 1996.

<sup>13</sup> By "all types" reference is made to both extra-long staples (ELS) and upland cotton.

<sup>14</sup> The crop year for cotton runs from Aug. 1 to July 31.

<sup>15</sup> USDA-Economic Research Service (ERS), *Cotton and Wool Outlook* (CWS-0296; Mar 12, 1996; <http://www.usda.gov/usda.html>).

<sup>16</sup> Average spot market price for the marketing year, for cotton grade SLM, with staple 1-1/16 in.

<sup>17</sup> *Ibid.*

<sup>18</sup> *Ibid.* A bale of cotton weighs 480 pounds.

<sup>19</sup> USDA-ERS, *Agricultural Outlook*, Jan.-Feb. 1996.

<sup>20</sup> USDOC data as quoted by the USDA-ERS, *Cotton and Wool Outlook*.

Between 1994 and 1995, U.S. imports of cotton rose in value from \$7 to \$10 million, which, despite the increase, still represented only 0.3 percent of the value of 1995 U.S. cotton exports. Imports of cotton from Mexico rose from negligible in 1994 to \$2 million in 1995; during the same period, imports from Egypt (primarily ELS) rose from \$403,000 to slightly over \$1 million. In terms of quantity, imports for 1995/96 were estimated by the USDA at 200,000 bales, which if realized, would be the highest since 1949/50 when over 250,000 bales were imported.<sup>21</sup>

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## **Coffee and Tea**

The U.S. trade deficit in coffee and tea grew to \$3.2 billion in 1995, up from \$2.4 billion in 1994. Increased average unit prices led to a significant trade shift as the value of U.S. imports of coffee and tea increased by 29 percent in 1995, from \$2.7 billion to \$3.4 billion. Prices overall of U.S. coffee and tea imports rose by 22 percent from \$2.50 per kilogram in 1994 to \$3.05 in 1995. The quantity of U.S. imports increased by 6 percent in 1995 compared with 1994. Tea imports comprised a small percentage of the total, only about \$120 million in 1995, down from about \$130 million in 1994. Compared with 1993, import values for coffee and tea in 1995 were more than twice as high, even though import quantity fell.

The coffee market is one of the most volatile agricultural markets in the world. Coffee prices were as low as 75 cents a pound early in 1994 before peaking at nearly \$2.50 a pound in September 1994. During 1995, prices fell steadily from more than \$1.75 a pound to about \$0.95 by the end of the year.<sup>22</sup> World coffee production is forecast at 88.2 million bags for 1995/96, a decline of 8 percent from the 1994/95 level of 96 million bags. The 1995/96 estimate is the lowest since 1986/87. Most of the decline was the result of a tumble in Brazil's coffee production to 16.8 million bags in 1995/96, from 26 million the year before. Coffee production in Colombia also declined from 18 million bags in 1991/92, to 13.5 million in 1995/96, an increase of 500,000 bags from the 1994/95 level. The decline in Colombian production in recent years has been the result of reduced producer prices and an infestation of borer worms. Production is expected to increase in line with the recent increases in producer prices.

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<sup>21</sup> Ibid.

<sup>22</sup> *Tea and Coffee Trade Journal*, "Wild Ride, A Final Look Back at the Volatile Coffee Market of 1995," Feb. 1996, p. 30.

Less than 1 percent of the coffee and tea consumed in the United States is grown domestically. Small quantities of coffee are grown in Hawaii and Puerto Rico, and one tea plantation in South Carolina accounts for such indigenous supplies. U.S. exports of coffee and tea, mainly in the form of instant coffee exported to Canada, showed little change in 1995, remaining at about \$229 million. Principal supplying countries in 1995, in order of value and percentage of total U.S. imports, were Mexico, \$592 million (17 percent), Colombia, \$536 million (16 percent), Brazil, \$492 million (14 percent), and Guatemala, \$319 million (9 percent). Average prices for coffee have increased since 1992, and consequently, import quantities have fallen, except in 1995, indicating that imports are price sensitive. Coffee import quantities from Brazil have fallen steadily since 1991.

In July 1995, the Association of Coffee Producing Countries (ACPC), agreed to limit world coffee exports to 60.4 million bags for July 1995-June 1996. Under this agreement, Brazil is limiting green coffee exports to 1 million bags per month over a 12-month period ending June 1996, under a system of exporter quotas.<sup>23</sup> Colombia has also agreed to limit exports to 9.8 million bags for the 1995/96 season. A new source of coffee is Vietnam, which began exporting to the United States in 1994 and is now the fifth-largest supplier. Coffee is Vietnam's largest agricultural export and production there has risen by 600 percent in the past 6 years.

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## **Animal or Vegetable Fats and Oils**

Record high levels of U.S. exports in 1995 boosted the U.S. trade balance in animal and vegetable oils, fats, and greases ("fats and oils") to a \$1.3 billion trade surplus, an increase of \$459 million from 1994. The record high U.S. fats and oils exports in 1995 offset rising imports, and led to the improved trade surplus in the commodity group.

U.S. exports of fats and oils rose by 37 percent in 1995 to a record \$2.5 billion, as the volume sold abroad rose by 27 percent to 4.2 million metric tons. The availability of U.S. fats and oils increased in 1995 as U.S. production of vegetable oil rose by 15 percent to a record 8.6 million metric tons in 1994/95.<sup>24</sup>

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<sup>23</sup> *Tea and Coffee Trade Journal*, "Assessing the Fall Out of Febec's Brazil Coffee Program," Mar. 1996, p. 38.

<sup>24</sup> Domestic production data are given on a crop year basis, beginning Sept. 1.

World markets for fats and oils were extremely favorable to U.S. exporters in 1995 as world consumption of the major vegetable oils registered a nearly 9-percent rise, while world inventories of these oils fell to their lowest ending stocks-to-use level in over 20 years. The \$2.5 billion of U.S. exports of fats and oils were composed in 1995 principally of soybean oil (28 percent), tallow (26 percent), sunflowerseed oil (14 percent), and corn oil (10 percent). U.S. sunflowerseed oil exports doubled to \$351 million in 1995; sales were particularly good in the key markets of Mexico and Algeria. Tallow exports rose by 39 percent to \$644 million, while soybean oil exports followed with a 33-percent rise to \$688 million.

U.S. exports of fats and oils to most of the leading markets rose, with the largest increases going to China, Mexico, and South Korea. China's surge into the leading market position for U.S. fats and oils was phenomenal; Chinese purchases have grown from less than \$1 million in 1993 to \$395 million in 1995. Mexico, the second-leading U.S. market, registered a strong 49-percent gain (\$360 million total), most of which consisted of tallow and sunflowerseed oil.

U.S. imports of fats and oils (about two-thirds of which are olive, coconut, and canola oils) increased by 21 percent to \$1.3 billion, as import prices (unit values) increased by 26 percent. The volume of imported fats and oils declined by 3 percent to 1.4 million metric tons in 1995, which rising prices, particularly that of olive oil, more than offset.

Olive oil prices have been rising sharply in world markets, associated with a 10-percent drop in output in the leading EU producing countries over the past year. The unit value of imported olive oil rose in 1995 by 45 percent to \$2.85 per kilogram. Imports supplied virtually all U.S. demand for olive oil, which tends to be rather price inelastic. U.S. imports of canola oil from Canada, which have been increasing since the 1980s, rose by 3 percent to \$240 million in 1995, although the volume imported dropped by 3 percent as the U.S. demand for this less saturated vegetable oil leveled off.

About 80 percent of the \$1.3 billion of U.S. imports of fats and oils in 1995 came from the four leading suppliers: Canada, the Philippines, Italy, and Malaysia. Canada, the leading supplier, has steadily increased shipments of canola (rapeseed) oil and linseed oil to the United States over the past 5 years, with its 1995 exports rising by 10 percent over 1994. The Philippines, the world's leading coconut oil exporter, increased its exports of coconut oil to the United States by 60 percent in 1995. Italy, the leading exporter of olive oil to the United States, benefited from rising olive oil prices with a 32-percent rise in its exports in 1995. Malaysia, the leading world exporter of palm oil, registered a 10-percent drop in exports of fats and oils to the United States as the volume shipped dropped nearly in half from 1994 to 1995.

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**Table 3-2**  
**Agricultural products sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
<i>Million dollars</i>					
AG001	Certain miscellaneous live animals, meat, offals, and animal products:				
	Exports .....	1,521	1,783	262	17.2
	Imports .....	1,010	1,071	61	6.0
	Trade balance .....	511	712	201	39.3
AG002	Cattle and beef:				
	Exports .....	2,361	2,648	287	12.2
	Imports .....	2,716	2,627	-89	-3.3
	Trade balance .....	-355	21	376	( <sup>3</sup> )
AG003	Swine and pork:				
	Exports .....	486	748	262	53.9
	Imports .....	503	566	63	12.5
	Trade balance .....	-17	182	199	( <sup>3</sup> )
AG004	Sheep and meat of sheep:				
	Exports .....	37	19	-18	-48.6
	Imports .....	59	85	26	44.1
	Trade balance .....	-22	-66	-44	-200.0
AG005	Poultry:				
	Exports .....	1,691	2,149	458	27.1
	Imports .....	23	31	8	34.8
	Trade balance .....	1,668	2,118	450	27.0
AG006	Fresh or chilled fish:				
	Exports .....	217	244	27	12.4
	Imports .....	744	808	64	8.6
	Trade balance .....	-527	-564	-37	-7.0
AG007	Frozen fish:				
	Exports .....	1,556	1,754	198	12.7
	Imports .....	1,267	1,384	117	9.2
	Trade balance .....	289	370	81	28.0
AG008	Fish canned, cured, or otherwise prepared, and live fish:				
	Exports .....	373	429	56	15.0
	Imports .....	685	671	-14	-2.0
	Trade balance .....	-312	-242	70	22.4
AG009	Shellfish:				
	Exports .....	904	788	-116	-12.8
	Imports .....	3,896	3,884	-12	-0.3
	Trade balance .....	-2,992	-3,096	-104	-3.5
AG010	Dairy produce:				
	Exports .....	572	636	64	11.2
	Imports .....	922	1,052	130	14.1
	Trade balance .....	-350	-416	-66	-18.9
AG011	Eggs:				
	Exports .....	158	164	6	3.8
	Imports .....	30	20	-10	-33.3
	Trade balance .....	128	144	16	12.5
AG012	Sugar and other sweeteners:				
	Exports .....	303	354	51	16.8
	Imports .....	844	885	41	4.9
	Trade balance .....	-541	-531	10	1.8
AG013	Animal feeds:				
	Exports .....	3,482	3,822	340	9.8
	Imports .....	613	580	-33	-5.4
	Trade balance .....	2,869	3,242	373	13.0
AG014	Live plants:				
	Exports .....	99	96	-3	-3.0
	Imports .....	238	283	45	18.9
	Trade balance .....	-139	-187	-48	-34.5
AG015	Seeds:				
	Exports .....	340	348	8	2.4
	Imports .....	155	175	20	12.9
	Trade balance .....	185	173	-12	-6.5
AG016	Cut flowers:				
	Exports .....	38	40	2	5.3
	Imports .....	420	512	92	21.9
	Trade balance .....	-382	-472	-90	-23.6
AG017	Miscellaneous vegetable substances:				
	Exports .....	433	458	25	5.8
	Imports .....	623	762	139	22.3
	Trade balance .....	-190	-304	-114	-60.0

See footnotes at end of table.

Table 3-2—Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
AG018	Fresh, chilled, or frozen vegetables:				
	Exports .....	1,122	1,148	26	2.3
	Imports .....	1,364	1,586	222	16.3
	Trade balance .....	-242	-438	-196	-81.0
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports .....	1,290	1,360	70	5.4
	Imports .....	909	1,005	96	10.6
	Trade balance .....	381	355	-26	-6.8
AG020	Edible nuts:				
	Exports .....	1,318	1,462	144	10.9
	Imports .....	497	509	12	2.4
	Trade balance .....	821	953	132	16.1
AG021	Tropical fruit:				
	Exports .....	70	76	6	8.6
	Imports .....	1,253	1,337	84	6.7
	Trade balance .....	-1,183	-1,261	-78	-6.6
AG022	Citrus fruit:				
	Exports .....	674	740	66	9.8
	Imports .....	129	132	3	2.3
	Trade balance .....	545	608	63	11.6
AG023	Deciduous fruit:				
	Exports .....	774	718	-56	-7.2
	Imports .....	157	181	24	15.3
	Trade balance .....	617	537	-80	-13.0
AG024	Other fresh fruit:				
	Exports .....	482	488	6	1.2
	Imports .....	528	615	87	16.5
	Trade balance .....	-46	-127	-81	-176.1
AG025	Dried fruit other than tropical:				
	Exports .....	369	382	13	3.5
	Imports .....	46	47	1	2.2
	Trade balance .....	323	335	12	3.7
AG026	Frozen fruit:				
	Exports .....	71	77	6	8.5
	Imports .....	64	68	4	6.3
	Trade balance .....	7	9	2	28.6
AG027	Prepared or preserved fruit:				
	Exports .....	157	179	22	14.0
	Imports .....	414	415	1	0.2
	Trade balance .....	-257	-236	21	8.2
AG028	Coffee and tea:				
	Exports .....	231	229	-2	-0.9
	Imports .....	2,655	3,427	772	29.1
	Trade balance .....	-2,424	-3,198	-774	-31.9
AG029	Spices:				
	Exports .....	52	46	-6	-11.5
	Imports .....	272	290	18	6.6
	Trade balance .....	-220	-244	-24	-10.9
AG030	Cereals:				
	Exports .....	10,088	14,870	4,782	47.4
	Imports .....	861	723	-138	-16.0
	Trade balance .....	9,227	14,147	4,920	53.3
AG031	Milled grains, malts, and starches:				
	Exports .....	464	491	27	5.8
	Imports .....	132	151	19	14.4
	Trade balance .....	332	340	8	2.4
AG032	Oilseeds:				
	Exports .....	4,537	5,661	1,124	24.8
	Imports .....	268	221	-47	-17.5
	Trade balance .....	4,269	5,440	1,171	27.4
AG033	Animal or vegetable fats and oils:				
	Exports .....	1,851	2,529	678	36.6
	Imports .....	1,046	1,265	219	20.9
	Trade balance .....	805	1,264	459	57.0
AG034	Edible preparations:				
	Exports .....	3,062	2,871	-191	-6.2
	Imports .....	1,561	1,746	185	11.9
	Trade balance .....	1,501	1,125	-376	-25.1

See footnotes at end of table.

**Table 3-2—Continued**  
**Agricultural products sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
AG035	Cocoa, chocolate, and confectionery:				
	Exports .....	545	524	-21	-3.9
	Imports .....	1,299	1,478	179	13.8
	Trade balance .....	-754	-954	-200	-26.5
AG036	Fruit and vegetable juices:				
	Exports .....	539	652	113	21.0
	Imports .....	663	635	-28	-4.2
	Trade balance .....	-124	17	141	( <sup>3</sup> )
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports .....	344	332	-12	-3.5
	Imports .....	349	353	4	1.1
	Trade balance .....	-5	-21	-16	-320.0
AG038	Malt beverages:				
	Exports .....	341	413	72	21.1
	Imports .....	1,038	1,151	113	10.9
	Trade balance .....	-697	-738	-41	-5.9
AG039	Wine and certain other fermented beverages:				
	Exports .....	192	236	44	22.9
	Imports .....	1,044	1,159	115	11.0
	Trade balance .....	-852	-923	-71	-8.3
AG040	Distilled spirits:				
	Exports .....	356	390	34	9.6
	Imports .....	1,552	1,629	77	5.0
	Trade balance .....	-1,196	-1,239	-43	-3.6
AG041	Unmanufactured tobacco:				
	Exports .....	1,303	1,400	97	7.4
	Imports .....	613	550	-63	-10.3
	Trade balance .....	690	850	160	23.2
AG042	Cigars, and certain other manufactured tobacco:				
	Exports .....	402	452	50	12.4
	Imports .....	90	117	27	30.0
	Trade balance .....	312	335	23	7.4
AG043	Cigarettes:				
	Exports .....	4,965	4,770	-195	-3.9
	Imports .....	73	51	-22	-30.1
	Trade balance .....	4,892	4,719	-173	-3.5
AG044	Hides, skins, and leather:				
	Exports .....	2,108	2,319	211	10.0
	Imports .....	995	1,095	100	10.1
	Trade balance .....	1,113	1,224	111	10.0
AG045	Furskins:				
	Exports .....	167	157	-10	-6.0
	Imports .....	109	87	-22	-20.2
	Trade balance .....	58	70	12	20.7
AG062	Ethyl alcohol for nonbeverage purposes:				
	Exports .....	215	265	50	23.3
	Imports .....	146	164	18	12.3
	Trade balance .....	69	101	32	46.4
AG063	Wool and other animal hair:				
	Exports .....	36	35	-1	-2.8
	Imports .....	173	214	41	23.7
	Trade balance .....	-137	-179	-42	-30.7
AG064	Cotton, not carded or combed:				
	Exports .....	2,653	3,681	1,028	38.7
	Imports .....	7	10	3	42.9
	Trade balance .....	2,646	3,671	1,025	38.7

<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

<sup>3</sup> Not meaningful for purposes of comparison.

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



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# CHAPTER 4

## Forest Products

The U.S. trade deficit in forest products was little changed in 1995, up \$42 million (3 percent) to \$1.7 billion (table 4-1).<sup>1</sup> Total trade in these products rose by 22 percent to \$56.6 billion, as both imports and exports expanded by approximately equal amounts. The value of U.S. imports of forest products grew by 21 percent, rising from \$24.0 billion to \$29.2 billion. U.S. exports of forest products rose by 23 percent, from \$22.4 billion in 1994 to \$27.5 billion in 1995 (figure 4-1). With somewhat less construction taking place worldwide in 1995, lumber prices were generally lower, whereas increased demand drove paper and pulp prices higher and resulted in a 63-percent increase in U.S. exports to \$6.2 billion. Industrial paper exports increased 33 percent to \$5.1 billion (table 4-2). U.S. lumber imports fell by about 9 percent, to \$5.5 billion; at the same time, imports of wood pulp and wastepaper rose by about 65 percent to \$3.8 billion, imports of printing and writing papers rose by about 48 percent to \$4.2 billion, and imports of newsprint increased by about 33 percent to \$4.4 billion (table 4-3).

### U.S. Bilateral Trade

The United States maintained a positive balance of trade in forest products with most countries except Canada, Brazil, and China.<sup>2</sup> Imports from Canada grew by \$3.5 billion (21 percent) in 1995 to \$20 billion and accounted for more than two-thirds of all U.S. imports of forest products in 1995. Leading products from Canada included lumber, \$5.1 billion; newsprint, \$4.4 billion; wood pulp and wastepaper, \$3.2 billion; and printing and writing papers, \$2.4 billion. Canada was also the largest importer of U.S. forest products at \$6.3 billion, an

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<sup>1</sup> This includes products classified in sections IX and X of the *Harmonized Tariff Schedules of the United States (HTS)*. This group encompasses logs, lumber, wood products, and cork; wood pulp, waste paper, paper and paperboard; articles made from paper and paperboard; newsprint and printed material.

<sup>2</sup> The trade deficit with China was only \$373 million in 1995; U.S. imports from China consisted of bamboo, paper, and manufactured wood.

increase of \$1.0 billion (19 percent) in 1995 (figure 4-2).

After Canada, Japan was the most important U.S. trading partner, purchasing \$5.3 billion in U.S. forest products in 1995, an increase of \$777 million (17 percent) from year-earlier levels, while U.S. purchases from Japan amounted to \$465 million. Japan accounted for about 72 percent of all U.S. exports of raw logs; raw logs accounted for 42 percent of Japan's purchases of forest products from the United States. Japan was also the principal buyer of U.S. lumber, as well as wood pulp and wastepaper.

Mexico was the third-largest U.S. trading partner in forest products in 1995, with purchases of \$2.3 billion, a decline of \$115 million (5 percent); and sales to the United States of \$786 million, an increase of \$221 million (39 percent). Sales of forest products to the EU increased by \$1.4 billion (34 percent) in 1995 to \$5.4 billion, while imports from the EU increased by \$647 million (23 percent) to \$3.4 billion.

The U.S. and Canadian industries are among the world's most competitive as they are both endowed with accessible natural resources, efficient management, mature industries, and good transportation systems. The United States and Canada are each other's largest trading partners in the sector with Canada primarily exporting lumber, newsprint, wood pulp, and writing papers to the United States, and the United States exporting printed matter to Canada. While Canada's industry is primarily geared towards exports, the U.S. industry primarily serves the domestic market.

### Commodity Analysis

#### *Wood Pulp and Certain Papers*

The U.S. trade deficit in wood pulp and certain papers increased by nearly two-thirds in 1995, rising by \$390 million in 1995 to \$1 billion. The

Table 4-1

**Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>**

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	5,306	6,318	1,012	19.1
Japan .....	4,542	5,319	777	17.1
Mexico .....	2,452	2,337	-115	-4.7
United Kingdom .....	995	1,300	305	30.7
Germany .....	823	987	164	20.0
Korea .....	932	1,276	345	37.0
Brazil .....	169	330	161	95.1
Italy .....	570	853	283	49.6
China .....	313	372	60	19.1
Taiwan .....	646	745	98	15.2
All other .....	5,639	7,624	1,985	35.2
Total .....	22,386	27,461	5,075	22.7
EU-15 .....	4,052	5,440	1,388	34.3
OPEC .....	519	665	146	28.0
Latin America .....	3,977	4,583	606	15.2
CBERA .....	754	1,000	246	32.6
Asian Pacific Rim .....	8,152	9,843	1,691	20.7
ASEAN .....	785	980	195	24.8
Central and Eastern Europe .....	32	54	22	70.3
U.S. imports for consumption:				
Canada .....	16,373	19,860	3,488	21.3
Japan .....	427	465	38	8.9
Mexico .....	565	786	221	39.1
United Kingdom .....	635	690	55	8.6
Germany .....	480	614	135	28.1
Korea .....	137	155	19	13.6
Brazil .....	625	921	296	47.3
Italy .....	242	300	59	24.2
China .....	621	746	124	20.0
Taiwan .....	293	260	-33	-11.3
All other .....	3,640	4,357	717	19.7
Total .....	24,037	29,155	5,117	21.3
EU-15 .....	2,797	3,444	647	23.1
OPEC .....	528	551	23	4.3
Latin America .....	1,563	2,168	605	38.7
CBERA .....	80	97	17	21.6
Asian Pacific Rim .....	2,978	3,217	239	8.0
ASEAN .....	1,116	1,134	18	1.6
Central and Eastern Europe .....	19	17	-2	-10.7
U.S. merchandise trade balance:				
Canada .....	-11,067	-13,542	-2,475	-22.4
Japan .....	4,116	4,854	739	17.9
Mexico .....	1,887	1,551	-336	-17.8
United Kingdom .....	359	609	250	69.6
Germany .....	343	373	30	8.7
Korea .....	795	1,121	326	41.0
Brazil .....	-456	-591	-135	-29.6
Italy .....	328	552	224	68.4
China .....	-309	-373	-64	-20.9
Taiwan .....	353	484	131	37.2
All other .....	1,999	3,267	1,268	63.5
Total .....	-1,652	-1,694	-42	-2.5
EU-15 .....	1,255	1,996	741	59.1
OPEC .....	-8	114	123	( <sup>2</sup> )
Latin America .....	2,414	2,415	1	( <sup>3</sup> )
CBERA .....	674	903	229	33.9
Asian Pacific Rim .....	5,173	6,625	1,452	28.1
ASEAN .....	-330	-154	176	53.4
Central and Eastern Europe .....	12	37	24	195.2

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

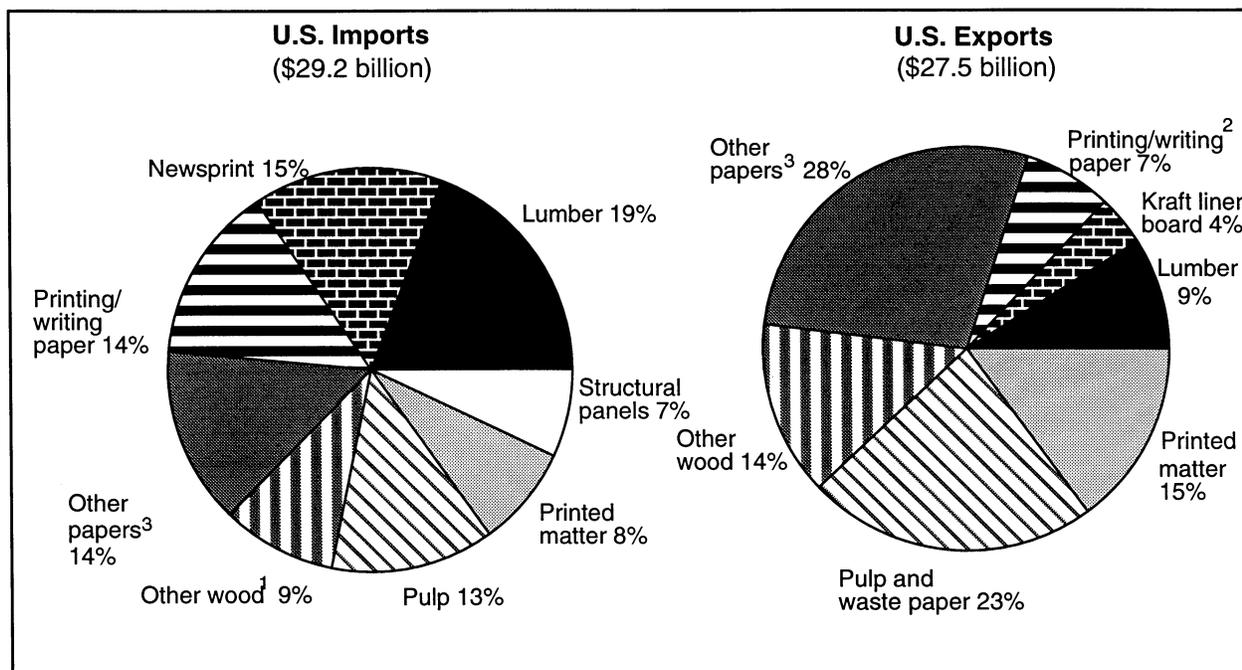
<sup>2</sup> Not meaningful for purposes of comparison.

<sup>3</sup> Less than 0.05 percent.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 4-1**  
**U.S. forest products trade, by major groupings, 1995**



<sup>1</sup> Includes cork and rattan.  
<sup>2</sup> Includes newsprint.  
<sup>3</sup> Includes industrial papers (excluding linerboard), specialty papers, and other converted papers.

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

**Table 4-2**  
**Changes in U.S. exports of forest products, 1994-95**

Industry/commodity	Change, 1995 from 1994		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Billion dollars</i>
Pulp and wastepaper .....	2,425	63	6.2
Printed matter .....	325	9	4.1
Industrial papers .....	1,258	33	5.1
Logs and rough wood products .....	100	3	3.0
Lumber .....	-11	( <sup>1</sup> )	2.4
Other .....	980	18	6.5
<b>Total .....</b>	<b>5,075</b>	<b>23</b>	<b>27.5</b>

<sup>1</sup> Less than -0.5 percent.

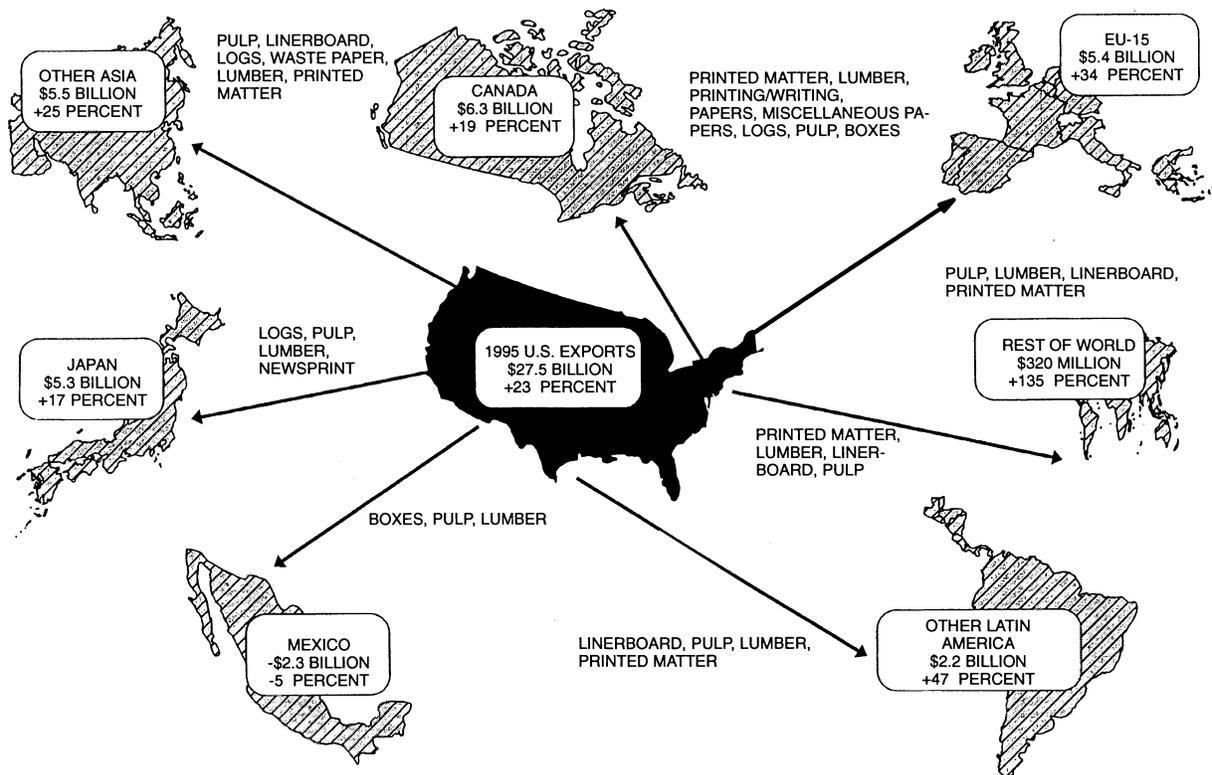
Source: Compiled from official statistics of the U.S. Department of Commerce.

**Table 4-3**  
**Changes in U.S. imports of forest products, 1994-95**

Industry/commodity	Change, 1995 from 1994		Total value in 1995
	Value	Percent	
	<i>Million dollars</i>		<i>Billion dollars</i>
Lumber .....	-544	-9	5.5
Printing and writing paper .....	1,361	48	4.2
Printed matter .....	322	15	2.5
Pulp and wastepaper .....	1,516	65	3.8
Structural panel products .....	166	9	2.0
Newsprint .....	1,085	33	4.4
Other .....	1,209	22	6.7
<b>Total .....</b>	<b>5,118</b>	<b>21</b>	<b>29.1</b>

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

**Figure 4-2**  
**U.S. forest products sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

value of U.S. trade in wood pulp and wastepaper, printing and writing papers, industrial papers, and newsprint increased significantly between 1994 and 1995. Global prices continued to strengthen continuing a trend that started in 1994 which reflected slight imbalances between global supply and demand. Wood pulp and wastepaper prices experienced significant increases in 1995 that led to the sharp rise in the value of trade. Paper products that consume pulp and wastepaper in their production processes, i.e., printing and writing papers, industrial papers, and newsprint also experienced price increases. In 1995, operating rates for domestic mills producing wood pulp, printing and writing papers, newsprint, and industrial papers, while high, did not satiate demand.

Total U.S. imports of pulp and wastepaper increased by 65 percent to \$3.8 billion in 1995 with Canada providing \$3.2 billion in 1995, up by \$1.2 billion from 1994. Canada, traditionally the largest supplier of paper products to the United States, further increased its market share, especially in the pulp and wastepaper and newsprint sectors. Canada supplied 98 percent of the \$4.4 billion in U.S. newsprint imports in 1995. Starting in 1993, U.S. newspapers, the primary consumer of newsprint, increased their consumption by printing more pages, mostly advertisements, reflecting the relative strength of the economy. With this increased consumption, prices for newsprint spiraled upward, reaching a 1995 average of \$620 per metric ton. Faced with this high raw material cost, publishers reduced their consumption by eliminating some weekly supplements and reducing the size of individual pages by trimming the margins. U.S. imports of Canadian newsprint actually fell, in volume terms, by 1 percent to 7.1 billion metric tons, reflecting the small reduction in consumption.

During 1995, U.S. imports of printing and writing papers increased by 48 percent to \$4.2 billion. High product prices, tight global supply, and strong consumer demand for paper used in laser printers and copy machines led to this increase, with Canada providing 58 percent, or \$2.4 billion of the value of 1995 imports. In addition, U.S. imports of industrial papers and paperboards increased by 36 percent to \$1.9 billion, with Canada being the largest supplier, accounting for 66 percent, or \$1.2 billion of U.S. imports.

Exports to the European Union, Japan, and Canada, the traditional U.S. export markets, also showed strong growth in 1995. Most of the growth was in the wood pulp and wastepaper sector, with exports

valued at \$6.2 billion, up 64 percent from 1994 levels. The European Union is the largest market for U.S. wood pulp and wastepaper with 1995 exports valued at almost \$2 billion. Environmental directives in the EU that mandate the use of recycled paper, together with higher product prices, were the main reasons for the rise in exports. Exports to Japan also grew strongly in 1995, increasing by 62 percent to \$930 million. Higher product prices, increased Japanese demand, and favorable transportation rates all led to this increase.

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## **Lumber**

The U.S. trade deficit in lumber narrowed slightly during 1994-95, from \$3.6 billion to \$3.1 billion. U.S. exports declined somewhat for the second straight year, while lumber imports fell by \$545 million. Lower prices for lumber accounted for the change. Imports from Canada, the principal supplier, declined from \$5.7 billion in 1994 to \$5.1 billion in 1995. Imports from other countries increased by \$11 million from 1994 to 1995, but accounted for only 8 percent of the total. Price declines accounted for the shift as the quantity imported continued to rise. Prices for softwood lumber, the principal imported lumber product, fell from consecutive record highs in 1993 and 1994. The composite framing lumber price peaked at \$490 per thousand board feet in December 1993, and averaged \$394 for the year.<sup>3</sup> In 1994, the composite fluctuated downward but recorded an all-time high yearly average of \$419 per thousand board feet. The composite price continued to decrease in 1995, hitting a low of \$317 in May, and averaging \$337 for the year.

U.S. exports of lumber declined by \$11 million (less than 1 percent) in 1995 to \$2.4 billion, slightly less than the decrease between 1993 and 1994. Exports to Japan, and Canada, the leading markets for U.S. lumber exports, increased by \$10 million, and \$6 million, respectively. Exports to Mexico, affected principally by the devaluation of the peso, fell by \$72 million, more than offsetting export gains to other markets.

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<sup>3</sup> Random Lengths, 1995 Yearbook (Eugene, OR: Random Lengths Publications, Inc., 1996), p. 203.

**Table 4-4**  
**Forest products sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
AG046	Logs and rough wood products:				
	Exports .....	2,963	3,063	100	3.4
	Imports .....	366	404	38	10.4
	Trade balance .....	2,597	2,659	62	2.4
AG047	Lumber:				
	Exports .....	2,458	2,447	-11	-0.4
	Imports .....	6,059	5,515	-544	-9.0
	Trade balance .....	-3,601	-3,068	533	14.8
AG048	Moldings, millwork, and joinery:				
	Exports .....	443	456	13	2.9
	Imports .....	959	969	10	1.0
	Trade balance .....	-516	-513	3	0.6
AG049	Structural panel products:				
	Exports .....	962	1,018	56	5.8
	Imports .....	1,820	1,986	166	9.1
	Trade balance .....	-858	-968	-110	-12.8
AG050	Wooden containers:				
	Exports .....	76	77	1	1.3
	Imports .....	197	224	27	13.7
	Trade balance .....	-121	-147	-26	-21.5
AG051	Tools and tool handles of wood:				
	Exports .....	16	18	2	12.5
	Imports .....	109	130	21	19.3
	Trade balance .....	-93	-112	-19	-20.4
AG052	Miscellaneous articles of wood:				
	Exports .....	177	178	1	0.6
	Imports .....	540	615	75	13.9
	Trade balance .....	-363	-437	-74	-20.4
AG053	Cork and rattan:				
	Exports .....	50	65	15	30.0
	Imports .....	360	408	48	13.3
	Trade balance .....	-310	-343	-33	-10.6
AG054	Wood pulp and wastepaper:				
	Exports .....	3,816	6,241	2,425	63.5
	Imports .....	2,329	3,845	1,516	65.1
	Trade balance .....	1,487	2,396	909	61.1
AG055	Paper boxes and bags:				
	Exports .....	871	1,083	212	24.3
	Imports .....	451	596	145	32.2
	Trade balance .....	420	487	67	16.0
AG056	Industrial papers and paperboards:				
	Exports .....	3,827	5,085	1,258	32.9
	Imports .....	1,388	1,884	496	35.7
	Trade balance .....	2,439	3,201	762	31.2
AG057	Newsprint:				
	Exports .....	481	591	110	22.9
	Imports .....	3,333	4,418	1,085	32.6
	Trade balance .....	-2,852	-3,827	-975	-34.2
AG058	Printing and writing papers:				
	Exports .....	1,146	1,421	275	24.0
	Imports .....	2,831	4,192	1,361	48.1
	Trade balance .....	-1,685	-2,771	-1,086	-64.5
AG059	Certain specialty papers:				
	Exports .....	530	718	188	35.5
	Imports .....	568	742	174	30.6
	Trade balance .....	-38	-24	14	36.8
AG060	Miscellaneous paper products:				
	Exports .....	781	888	107	13.7
	Imports .....	583	758	175	30.0
	Trade balance .....	198	130	-68	-34.3
AG061	Printed matter:				
	Exports .....	3,788	4,113	325	8.6
	Imports .....	2,146	2,468	322	15.0
	Trade balance .....	1,642	1,645	3	0.2

<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.

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

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# CHAPTER 5

## Chemicals And Related Products

During 1994-95, the U.S. trade surplus for chemicals and related products increased by \$1.5 billion (11 percent) to \$15.0 billion (table 5-1). Both U.S. exports and U.S. imports of chemicals and related products increased substantially in 1995, by \$10.3 billion (18 percent) to \$67.5 billion and \$8.8 billion (20 percent) to \$52.5 billion, respectively, buoyed by economic growth in the United States and among its major trading partners. Chemicals and related products are principally used as producers' goods in manufacturing other products, for example, synthetic fibers, dyes, pipes, and detergents. Contributing to the increased value of U.S. exports of chemicals and related products, as shown in table 5-2, were substantially higher exports of certain organic and inorganic chemicals, plastics and rubber (including raw materials and finished articles), fertilizers, and pharmaceuticals. Contributing to the increased value of U.S. imports of chemicals and related products were substantially higher imports of certain organic chemicals, pharmaceuticals, and plastics and rubber. The U.S. trade surpluses for certain organic chemicals and plastics rose significantly in 1995, by \$1.5 billion (30 percent) and \$967 million (17 percent), respectively. In contrast, the U.S. trade balance for pharmaceuticals declined significantly, by \$1.2 billion. Although traditionally a net exporter of pharmaceuticals, the United States became a net importer of pharmaceuticals in 1995 as a result of a steep rise in pharmaceutical purchases primarily from Germany, the United Kingdom, Japan, and Switzerland.

### U.S. Bilateral Trade

Country and regional trade in chemicals and related products is shown in table 5-1 and figures 5-1 and 5-2. In 1995, Canada remained the largest trading partner with the United States for both U.S. exports and U.S. imports of chemicals and related products. The U.S. bilateral trade surplus with Canada for these products declined in 1995 by \$368 million (11 percent), falling to \$2.8 billion. This occurred because U.S. imports of these products from Canada rose more rapidly than U.S. exports of these products (imports increased by \$1.7 billion (19 per-

cent) to \$10.5 billion, whereas exports increased by \$1.3 billion (11 percent) to \$13.3 billion). U.S. imports from Canada may have risen more rapidly than U.S. exports to Canada in 1995 because the U.S. economy grew more rapidly than the Canadian economy.<sup>1</sup> The U.S. trade surplus with Mexico for chemicals and related products also declined significantly in 1995, falling by \$572 million (13 percent) to \$3.9 billion, primarily as a result of a \$420 million (29-percent) rise in U.S. imports and a decrease of U.S. exports of \$151 million (3 percent). U.S. imports of chemicals and related products from Mexico in 1995 were probably stimulated by the decline in the value of the peso. The peso devaluation and subsequent float resulted in a slump in the Mexican economy and depressed domestic demand, such that Mexican chemical producers likely diverted products to export markets.<sup>2</sup> The slump in the Mexican economy also resulted in a decline in U.S. exports.

U.S. trade in chemicals and related products with Japan increased significantly in 1995. U.S. exports to Japan rose by \$934 million (19 percent) to \$5.9 billion whereas U.S. imports of these products from Japan also increased by \$1.05 billion (17 percent) to \$7.4 billion. Because U.S. imports grew slightly more rapidly than exports, the U.S. trade deficit with Japan for chemicals and related products grew slightly in 1995, by \$116 million (8 percent) to \$1.5 billion.

Reflecting growth in the economies of the United States and China, U.S. trade with China in chemicals and related products also increased in 1995. U.S. exports to China and U.S. imports from China of chemicals and related products climbed by roughly the same amount (\$514 million versus \$523 million, respectively); consequently, the U.S. trade deficit with China in 1995 (\$524 million) remained essentially unchanged compared with its value in 1994. Reflecting the increased chemical requirements in Taiwan that were spurred by the growth of technology-intensive industries, the U.S.

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<sup>1</sup> Conversation with a representative from the NAFTA desk, U.S. Department of Commerce, Apr. 1996.

<sup>2</sup> Ibid.

**Table 5-1**  
**Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>**

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	12,022	13,338	1,315	10.9
Japan .....	4,954	5,888	934	18.9
Mexico .....	5,979	5,828	-151	-2.5
Germany .....	2,215	2,332	117	5.3
United Kingdom .....	2,204	2,648	444	20.2
China .....	1,524	2,038	514	33.7
Belgium .....	2,698	3,419	721	26.7
Taiwan .....	2,399	2,942	543	22.6
Netherlands .....	2,530	3,135	605	23.9
France .....	1,463	1,631	167	11.4
All other .....	19,200	24,264	5,065	26.4
Total .....	57,188	67,463	10,275	18.0
EU-15 .....	13,569	15,963	2,395	17.6
OPEC .....	1,606	1,982	377	23.5
Latin America .....	12,039	13,459	1,420	11.8
CBERA .....	1,363	1,604	240	17.6
Asian Pacific Rim .....	16,117	20,509	4,392	27.3
ASEAN .....	2,647	3,426	779	29.4
Central and Eastern Europe .....	141	191	50	35.1
U.S. imports for consumption:				
Canada .....	8,812	10,496	1,684	19.1
Japan .....	6,324	7,374	1,050	16.6
Mexico .....	1,461	1,881	420	28.8
Germany .....	4,111	5,039	928	22.6
United Kingdom .....	3,216	3,616	401	12.5
China .....	2,039	2,562	523	25.6
Belgium .....	785	989	205	26.1
Taiwan .....	1,269	1,219	-50	-4.0
Netherlands .....	797	999	201	25.3
France .....	2,180	2,453	273	12.5
All other .....	12,690	15,824	3,133	24.7
Total .....	43,683	52,452	8,769	20.1
EU-15 .....	14,572	17,347	2,774	19.0
OPEC .....	1,223	1,908	685	56.0
Latin America .....	3,256	3,949	693	21.3
CBERA .....	604	769	165	27.4
Asian Pacific Rim .....	13,168	15,777	2,609	19.8
ASEAN .....	2,129	2,892	763	35.8
Central and Eastern Europe .....	307	368	60	19.7
U.S. merchandise trade balance:				
Canada .....	3,210	2,842	-368	-11.5
Japan .....	-1,370	-1,487	-116	-8.5
Mexico .....	4,518	3,947	-572	-12.7
Germany .....	-1,896	-2,707	-811	-42.8
United Kingdom .....	-1,012	-968	44	4.3
China .....	-515	-524	-9	-1.7
Belgium .....	1,913	2,430	516	27.0
Taiwan .....	1,129	1,723	593	52.5
Netherlands .....	1,733	2,137	403	23.3
France .....	-716	-822	-106	-14.8
All other .....	6,509	8,441	1,931	29.7
Total .....	13,505	15,011	1,506	11.2
EU-15 .....	-1,003	-1,383	-380	-37.9
OPEC .....	383	75	-308	-80.5
Latin America .....	8,783	9,511	728	8.3
CBERA .....	760	835	75	9.9
Asian Pacific Rim .....	2,948	4,732	1,783	60.5
ASEAN .....	518	534	16	3.1
Central and Eastern Europe .....	-166	-177	-11	-6.6

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

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

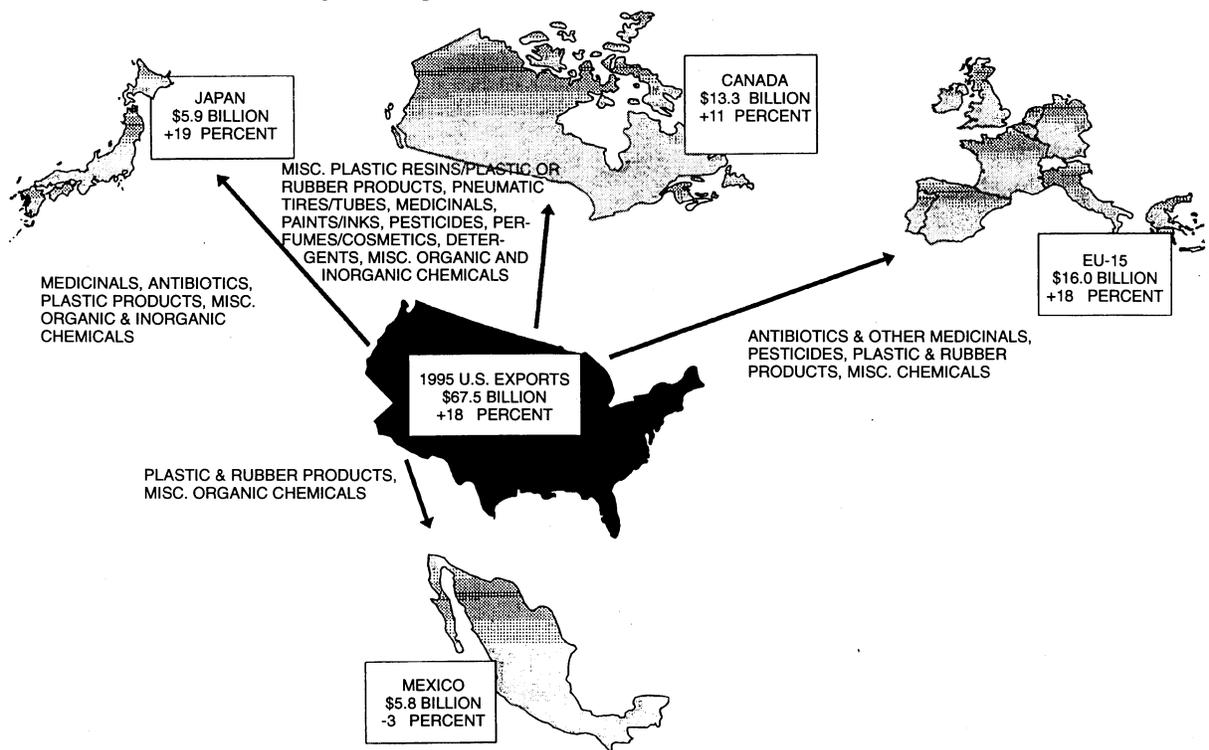
**Table 5-2**  
**U.S. trade in chemicals and related products, by major types, 1994 and 1995**

Product	1994	1995	Increase	Change
	<i>Million dollars</i>			<i>Percent</i>
U.S. exports:				
Plastics and rubber:				
Raw materials .....	9,606	11,738	2,132	22.2
Finished or semifabricated products .....	10,485	11,712	1,227	11.7
General organic chemicals .....	12,762	16,320	3,558	27.9
General inorganic chemicals .....	4,137	5,295	1,158	28.0
Pharmaceuticals .....	7,615	8,090	476	6.3
Consumer and industrial products .....	5,454	6,099	646	11.8
Fertilizers and pesticides .....	4,516	5,288	771	17.1
Dyes, pigments, paints, and inks .....	2,614	2,921	307	11.7
Total .....	57,188	67,463	10,275	18.0
U.S. imports:				
Plastics and rubber:				
Raw materials .....	4,896	6,450	1,554	31.7
Finished or semifabricated products .....	11,639	12,955	1,316	11.3
General organic chemicals .....	7,799	9,859	2,060	26.4
General inorganic chemicals .....	3,791	4,660	869	22.9
Pharmaceuticals .....	6,971	8,654	1,683	24.1
Consumer and industrial products .....	3,550	4,107	558	15.7
Fertilizers and pesticides .....	2,892	3,374	482	16.7
Dyes, pigments, paints, and inks .....	2,146	2,392	246	11.5
Total .....	43,683	52,452	8,769	20.1
U.S. balance of trade:				
Plastics and rubber:				
Raw materials .....	4,710	5,288	578	12.3
Finished or semifabricated products .....	-1,154	-1,244	-89	-7.7
General organic chemicals .....	4,963	6,460	1,497	30.2
General inorganic chemicals .....	346	635	289	83.5
Pharmaceuticals .....	644	-564	-1,207	( <sup>1</sup> )
Consumer and industrial products .....	1,904	1,992	88	4.6
Fertilizers and pesticides .....	1,625	1,913	289	17.8
Dyes, pigments, paints, and inks .....	468	529	61	13.0
Total .....	13,505	15,011	1,506	11.2

<sup>1</sup> Not meaningful for purposes of comparison.

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

**Figure 5-1**  
**U.S. chemical and related products sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

trade surplus with Taiwan rose by \$593 million (53 percent) to \$1.7 billion, stimulated by a rise in U.S. exports to that country of \$543 million (23 percent) to \$2.9 billion.

The U.S. trade deficit with the EU grew by \$380 million (38 percent) in 1995 to \$1.4 billion, as U.S. imports from the EU rose by \$2.8 billion (19 percent), and U.S. exports to the EU rose by \$2.4 billion (18 percent). Contributing to the decline of the U.S. trade balance with the EU was a sharp rise in U.S. imports of chemicals and related products from Germany, which increased by \$928 million (23 percent). Pharmaceutical shipments from Germany accounted for a large share of the increase in imports.

## Commodity Analysis

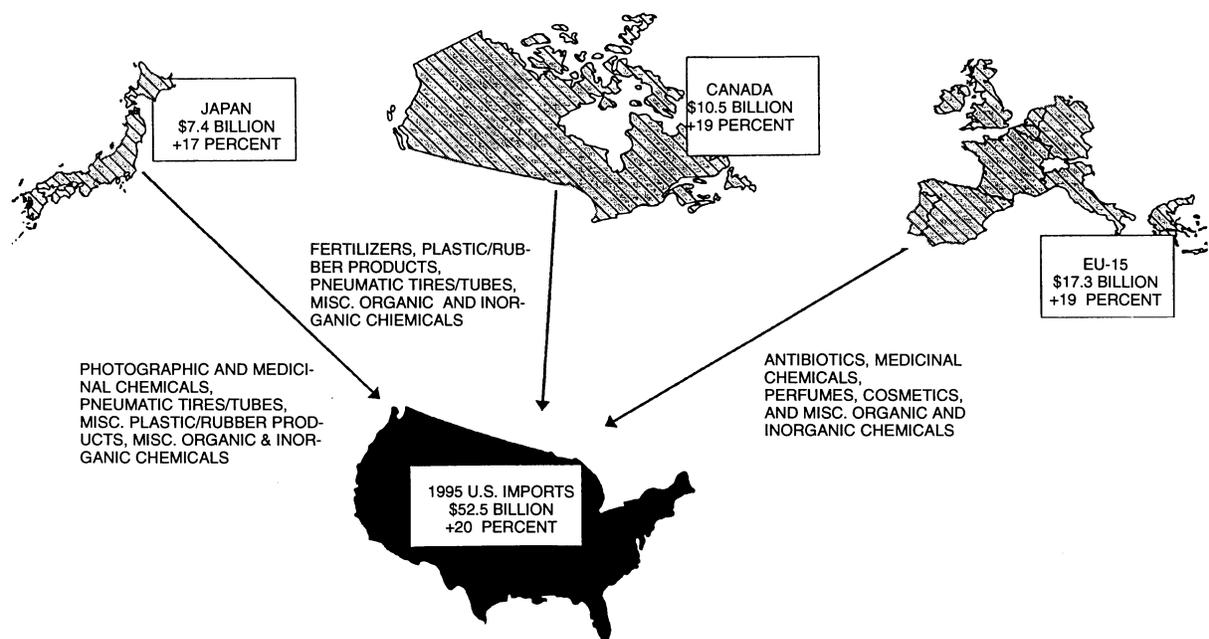
### *Medicinal Chemicals, Except Antibiotics*

The United States has traditionally maintained a fluctuating trade surplus in medicinal goods (not including antibiotics). However, in 1995, for the first

time in 5 years, the U.S. trade balance in these goods shifted from a surplus of \$395 million to a deficit of \$605 million. Although U.S. exports of these products increased by 6 percent (\$400 million) to \$6.5 billion in 1995, U.S. imports rose by 24 percent (\$1.4 billion) to \$7.1 billion. The three largest sources of such imports in 1995, by value, were the United Kingdom (20 percent of total imports, \$1.4 billion), Germany (15 percent, \$1.1 billion), and Japan (11 percent, \$778 million). The largest increases in imports in value terms during 1994-95 occurred with Germany (54-percent increase) and Switzerland (45-percent increase). Canada was the largest export destination (\$955 million), followed by Japan (\$824 million).

There are several reasons for the increase in imports of medicinal chemicals. Most of the increases in imports was probably due to the implementation of the Uruguay Round Agreement on Pharmaceuticals (Agreement), which provided duty-free status for thousands of pharmaceuticals and chemical intermediates used to produce pharmaceuticals covered in chapters 28, 29, and 30 of the *HTS*. Higher import levels can be attributed both to actual growth in imports resulting from the elimination of tariffs under the Agreement and from changes in statistical collection capabilities resulting from the Agreement. In 1995, duty-free U.S. imports of

**Figure 5-2**  
**U.S. chemical and related products sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

products under the Agreement were valued at \$9.4 billion. Another reason for the rise in U.S. imports was increased related party trade, in which the importer is often either the patent holder or the U.S. licensee. The increase can also be attributed to the expiration of U.S. patents on approximately 200 products during 1990-95. As a result, more companies are likely to be importing bulk product to manufacture generic formulations to supply the market or, for newer products, to obtain marketing approval from the U.S. Food and Drug Administration.

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## **Plastics and Rubber**

### **Other plastics in primary forms**

The United States maintained a large and growing trade surplus of \$3.5 billion in other plastics in primary forms during 1995. The trade surplus was propelled by export growth of \$728 million

(16 percent) to \$5.4 billion, with only modest import growth of \$253 million (15 percent) to \$1.9 billion. The increase in U.S. exports of these plastics was due to increased demand for downstream products manufactured from these plastic raw materials in the major export markets. Canada, Mexico, and Belgium remained the major export markets in 1995, accounting for 20 percent (\$1.1 billion), 8 percent (\$428 million), and 8 percent (\$426 million) of the total U.S. export market, respectively.<sup>3</sup> U.S. imports of other plastics in primary forms increased from \$1.7 billion in 1994 to \$1.9 billion in 1995. The principal sources of U.S. imports of these products in 1995 were Japan, which accounted for 23 percent of total U.S. imports (\$450 million); Canada, 18 percent (\$341 million); and Germany, 17 percent (\$337 million).<sup>4</sup>

<sup>3</sup> The most significant growth in U.S. exports of plastics in primary forms in 1995 was to Canada, up by \$100 million (11 percent) to \$1.1 billion; Hong Kong, up by \$83 million (45 percent) to \$267 million; Belgium, up by \$83 million (24 percent) to \$426 million; and Korea, up by \$68 million (31 percent) to \$291 million.

<sup>4</sup> The largest growth in imports was from Japan, up by \$76 million (21 percent) to \$450 million; and Canada, up by \$61 million (22 percent) to \$341 million.

Other plastics in primary forms comprises a wide category of raw material plastics that are specialized in their application, and generally are produced in low volumes and at relatively higher prices compared with high-volume commodity plastics. The plastics are both thermoplastic and thermosetting in type and include the following: polyisobutylene, vinylidene chloride polymers, fluoropolymers, vinyl acetate polymers, acrylic polymers, epoxide resins, polycarbonates, unsaturated polyesters, nylon, melamine resins, urea resins, phenolics, petroleum resins, cellulose plastics, and natural polymers. As raw materials, these plastics are processed or formed into intermediate goods such as film and sheet, or into a variety of finished goods.

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## Natural rubber

A 69-percent increase (\$664 million) in the value of natural rubber imports in 1995 propelled imports to \$1.6 billion, and caused the trade deficit for natural rubber to increase 70 percent (\$655 million) to \$1.6 billion. The amount of natural rubber (1,044,000 mt) imported into the United States was only 5 percent greater in 1995, but substantial price increases caused the large increase in the value of imports. These price increases were mainly attributable to heavy demand resulting from strong economic growth and recovery in the industrialized countries, the major consumers of natural rubber. Substantial growth in the automobile and manufacturing sectors in China also was a significant factor as China accounts for approximately 10 percent of global net imports of natural rubber.

As an internationally traded commodity, natural rubber is subject to international obligations imposed under the International Natural Rubber Agreement (INRA) on signatory nations. The emphasis of the INRA is to stabilize fluctuations in natural rubber prices (through a buffer stock arrangement) without distorting long-term market trends.

Natural rubber is not produced in the United States, and therefore, reported U.S. exports of natural rubber are re-exports of imported material. Because specific climatic conditions are necessary for the growth of rubber trees, natural rubber is produced by only about 10 countries worldwide. The concentration of rubber producers is even more significant in that Indonesia, Malaysia, and Thailand accounted for 74 percent of world natural rubber production in 1995. These three countries also were the principal suppliers of natural rubber to the United States, accounting for 94 percent of total imports in 1995. U.S. imports from Indonesia grew

by \$408 million (71 percent) in 1995 to \$981 million; Thailand, by \$156 million (78 percent) to \$357 million; and Malaysia, by \$67 million (48 percent) to \$205 million.

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## Polyethylene resins in primary forms

The trade surplus in polyethylene resins widened by \$119 million (18 percent) to \$796 million in 1995 as exports climbed to \$2 billion and imports reached \$1.2 billion. Although the growth of imports (52 percent), in terms of value, outpaced the growth of exports (36 percent), exports still grew by a greater amount (\$529 million), thus contributing to the widening of the trade surplus. Part of the substantial growth in the export and import values of polyethylene can be attributed to world price increases<sup>5</sup> for this commodity in 1995. Measured by quantity, the amount of polyethylene exports increased by 7 percent and imports increased by 13 percent. Export growth was propelled by strong demand in major consuming markets such as Hong Kong and China, which do not have enough domestic capacity to meet their growing needs. During 1994-95, exports to Hong Kong increased by 119 percent (from \$52 million to \$114 million), while those to China increased by 297 percent (from \$29 million to \$115 million). As a basic plastic raw material, polyethylene resins are processed into a variety of products and intermediate goods such as containers, bags, bottles, novelty items, and sheet and film. After processing, the polyethylene product is often exported and returned to the United States as packaging, an intermediate good, or a finished product.

U.S. imports of polyethylene in primary forms, and the overall increase of these imports in 1995, were almost solely attributable to imports from Canada (\$1.1 billion), which accounted for 92 percent of total imports in 1995. The major producers in the United States and Canada are leading multinational petroleum and chemical companies that produce in numerous countries throughout the world. Thus, trade of this commodity between the United States and Canada generally is attributable to these major firms serving their customers from either their U.S. or Canadian production facilities. Major Canadian producers include Dow, Novacor, Union Carbide, and Imperial (Exxon subsidiary). In addition to being the major import source of polyethylene resins, Canada is also the largest export market for U.S. polyethylene, with 1995 exports amounting to \$319

<sup>5</sup> Price increases were attributed to increased feedstock prices and strong worldwide demand driven by growing economies of major consuming nations.

million. The composition of U.S. imports is about equally split between high-density polyethylene and low-density polyethylene; while the export trade is dominated by low-density polyethylene.

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## **Plastic or rubber in semifabricated form**

A substantial growth in exports of semifabricated rubber and plastic articles combined with a slight increase in imports resulted in an increase in the trade surplus of \$159 million (12 percent) to \$1.5 billion in 1995. U.S. exports (\$4.1 billion) of these products rose by 14 percent (\$520 million), while imports (\$2.6 billion) rose by 16 percent (\$361 million). Leading U.S. export markets in 1995 were Canada (\$1.1 billion), Mexico (\$556 million), and the Netherlands (\$244 million). These countries also accounted for 52 percent of 1995 imports. Large export markets for these products exist with Canada and Mexico because of close proximity and interrelated markets with the United States (many of these products require additional manufacture before final consumption). Increased exports are attributable to the growth in world demand for packaging materials. Major import sources of semifabricated rubber or plastic goods, by value, were Canada and Japan, which accounted for 29 percent and 19 percent, respectively, of total imports in 1995. Canada also accounted for the major growth in U.S. imports in 1995, with imports advancing by \$107 million (16 percent) to \$764 million.

This category of products includes a variety of products such as waste, scrap, monofilaments, profiles, shapes, thread, cord, sheets, and film of plastic or rubber. The dominant category of traded goods, however, is plastic film and sheet. In 1995, film and sheet constituted 87 percent, by value, of U.S. imports and 92 percent of U.S. exports of these products. The majority of film and sheet is further processed into bags and other packaging materials, some of which is imported into the United States in association with manufactured products or as finished packaging. The United States maintained a trade deficit in plastic sacks and bags in 1994, which further deteriorated by 47 percent to \$180 million in 1995.

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## **Benzenoid Commodity Chemicals**

The U.S. trade surplus in benzenoid commodity chemicals increased by \$281 million (24 percent) to \$1.4 billion in 1995 primarily because of the growth in U.S. exports of monomers used to make plastics resins. A monomer is one of the repeating molecular units comprising the long chain of a polymeric substance. For example, styrene is the monomer for polystyrene, a common plastic resin.

Total exports of benzenoid commodity chemicals rose by \$702 million (45 percent) to \$2.3 billion in 1995. Combined exports of  $\epsilon$ -caprolactam, styrene, terephthalic acid (PTA), and p-xylene, valued at a total of \$1.9 billion in 1995, accounted for 85 percent of the total increase in U.S. exports of benzenoid commodity chemicals. The principal 1995 export market for this latter group of chemicals was Taiwan (\$729 million). Production problems occurring in the Asia/Pacific region in 1994 at plants producing these chemicals were not fully resolved in 1995, thus necessitating an increase in imports of intermediate chemicals from other world producers, principally the United States.

Exports of styrene, an intermediate chemical used in the production of polystyrene resins, increased by \$275 million (38 percent) to \$1.0 billion in 1995. Styrene exports represented 19 percent of the value of U.S. styrene production in 1995. Taiwan (\$440 million) and Japan (\$131 million), combined, accounted for 57 percent by value of all U.S. exports of this chemical. According to trade journal sources, demand for styrene and its derivatives is growing faster in Asia than in any other part of the world.<sup>6</sup> However, styrene production plants in the Asia/Pacific region are expected to come fully on stream over the next 3 years, reducing the area's need for imports of this product from the United States and Europe.<sup>7</sup> Like styrene, PTA and  $\epsilon$ -caprolactam are utilized as monomers in the manufacture of plastics resins. The principal markets for PTA in 1995 were Taiwan (\$126 million), Malaysia (\$97 million), and China (\$81 million). The principal markets for  $\epsilon$ -caprolactam, a monomer used to produce nylon 6 and nylon 6/6, were Taiwan (\$84 million) and Canada (\$34 million). p-Xylene, another feedstock, is used in the manufacture of PTA. Mexico was the principal market for U.S. exports of this chemical in 1995, accounting for \$182 million

<sup>6</sup> *Chemical Marketing Reporter*, "Styrene is Finally Reaching the Bottom," Dec. 25, 1995, pp. 3, 12. See also, *Chemical Marketing Reporter*, "Aromatics Makers Face Dilemma," Apr. 1, 1996, pp. 4, 13.

<sup>7</sup> *Chemical Week*, "New Asia Plants Will Hurt Profits," Jan. 24, 1996, p. 44. Also, *Chemical Week*, "Pending Surpluses Spoil Upbeat Mood," Apr. 10, 1996, p. 44.

or 53 percent of all exports of this chemical. Because of limited production capacity, Mexico must source p-xylene externally as a raw material for the production of PTA and dimethyl terephthalate.

Imports of benzenoid commodity chemicals grew by \$421 million (107 percent) to \$813 million in 1995. Such imports represented only about 6 percent of apparent U.S. consumption of these chemicals in 1995. Canada was the largest foreign source, and accounted for the greatest increase in imports of these chemicals during 1995, representing 51 percent of the value of total imports. The principal product imported from Canada in 1995 was styrene, valued at \$209 million. U.S. styrene production could not meet both the increased U.S. and foreign demand for this chemical, hence imports were needed to supplement domestic supply. Virtually all styrene imported from Canada entered duty free under the provisions of the North American Free Trade Agreement (NAFTA). Total NAFTA imports of this group of chemicals was \$223 million in 1995, with Canada and Mexico accounting for 82 percent and 18 percent, respectively, of the total value of these products.

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## **Salts and Certain Other Inorganic Chemicals**

During 1994-95, the U.S. trade surplus for chemical salts and certain other inorganic chemicals rose by \$262 million (81 percent) to \$583 million. The value of U.S. exports of these products, including catalysts and certain doped electronic chemicals, rose by \$632 million (25 percent) to \$3.1 billion. Increased U.S. exports to the EU, Japan, Canada, and Korea accounted for most (63 percent) of the change. Buoyed by a relatively strong economy, imports also rose in 1995, but less sharply, climbing by \$370 million (17 percent) to \$2.5 billion. Increased U.S. imports from Japan, the EU, China, and Canada accounted for almost all (93 percent) of the 17-percent increase. About one-half of the total increase was accounted for by a sharp rise of imports of certain doped chemicals to be used in electronics. According to industry observers, the U.S. semiconductor industry experienced sharp growth in 1995, thereby accounting for most of the rise in these imports.<sup>8</sup>

About one-half of the increase in U.S. exports for these products during 1994-95 was accounted for by a rise of U.S. exports of catalytic preparations, including reaction initiators and accelerators, (up by \$200 million (28 percent) to \$925 million and by

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<sup>8</sup> U.S. industry representative, telephone interview by USITC staff, Aug. 15, 1996.

increased U.S. exports of certain doped chemicals to be used in electronics, (up by \$116 million (33 percent) to \$467 million. Industry sources attribute the increased value of U.S. exports of catalysts and reaction initiators and accelerators during 1994-95 to new chemical capacity overseas, which increased the demand for catalysts, and to higher prices for precious metals during that period (some catalysts include a precious metal component, usually palladium or platinum). Catalysts are used in catalytic converters for automobiles, in petroleum refining, in environmental retrofitting of industrial plants, and in chemical manufacture. Reaction initiators and accelerators, which are closely related to catalysts, are used in chemical processing, especially in the polymerization of olefins to form plastics.

The United States exported these catalysts to 74 countries in 1995. The top five markets for these exports in 1995 were Canada (\$153 million), Japan (\$110 million), the Netherlands (\$67 million), South Korea (\$62 million), and Mexico (\$55 million). The broadly distributed nature of these exports is demonstrated by the fact that exports to these top five countries accounted for less than one-half (48 percent) the total value of catalyst exports in 1995. About one-half of the increase in catalyst exports in 1995 (\$200 million) was attributed to a rise in exports to Canada (up by \$39 million), South Korea (up by \$33 million), and China (up by \$31 million).

U.S. exports of doped chemicals in the form of discs or wafers rose in value by \$116 million (33 percent) to \$467 million in 1995. Most of the increase was accounted for by a growth of exports to Japan, which rose in value by \$69 million (69 percent) to \$169 million. Industry sources attribute the rise in exports to Japan to increased Japanese investments in U.S. plants producing electronic materials. The investment was reportedly stimulated by a relatively cheap U.S. dollar compared with the Japanese yen. The average unit value of U.S. exports of these doped chemicals to other markets rose steeply, by 37 percent. According to an industry source, the rise in the average unit value of these exports was likely related to an increase in the average diameter of doped discs or wafers that were exported, thereby allowing more electronic chips to be made per disc or wafer.

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## **Fertilizers**

A significant export increase yielded a \$222 million (30-percent) expansion in the U.S. trade surplus in fertilizers to \$962 million in 1995. U.S. fertilizer exports grew by \$539 million (19 percent) to \$3.3 billion owing to significant increases in exports to China and India.

China and India are traditionally the major export markets for U.S. nitrogenous and phosphatic fertilizers. The \$260 million increase (28 percent) to \$1.2 billion in U.S. exports to China of fertilizers is characteristic of Chinese purchasing patterns, which frequently exhibit significant annual changes. Although China tends to purchase fertilizers from foreign suppliers primarily during periods when the country has ample hard currency to pay for these products and when prices are as low as they were during 1995, other nonfiscal factors may take precedence in procurement decisions. For example, significant lag times in fertilizer distribution to end users in the Chinese market, caused by lack of a modern infrastructure, often disrupts procurement and can result in major shifts in U.S. fertilizer exports to China. The increase in fertilizer exports to India of \$150 million (113 percent) to \$284 million was largely attributed to increased purchases of diammonium phosphate during July-December of 1995 to ensure adequate supplies for set-in crops and to build inventory for the spring. Indian fertilizer procurement traditionally defies market norms in order to keep suppliers off-guard and ensure favorable prices.

U.S. imports of fertilizers increased by \$317 million (16 percent) in 1995 to \$2.4 billion. This growth was due primarily to nitrogenous fertilizer

imports, particularly ammonia. The United States has sustained import reliance in nitrogenous fertilizers for many years. Reported increases in purchases of ammonia from Trinidad and Tobago of \$92 million (39 percent) to a \$330 million total and ammonia and ammonium nitrate from Russia of \$110 million (112 percent) to a \$208 million total were the major contributors to the rise in the total value of fertilizer imports in 1995. Ammonia is the building block of all nitrogenous fertilizer production and U.S. ammonia production is currently inadequate to satisfy domestic demand. U.S. direct investment joint ventures in Trinidad and Tobago increased export-oriented ammonia production capacity during 1995. U.S. production of nitric acid,<sup>9</sup> a key input for ammonium nitrate production, is also inadequate to satisfy domestic demand. Available U.S. nitric acid production was primarily used as an intermediate input for use in the production of urea ammonium nitrate solution fertilizers and ammonium nitrate. U.S.-produced ammonium nitrate was primarily consumed in explosives used by the U.S. coal industry. Fertilizer grade ammonium nitrate was imported primarily from Russia.

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<sup>9</sup> From ammonia as primary input.

**Table 5-3**  
**Chemical and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
CH008	Other olefins:				
	Exports .....	190	242	52	27.4
	Imports .....	38	53	15	39.5
	Trade balance .....	152	189	37	24.3
CH009	Primary aromatics:				
	Exports .....	138	208	70	50.7
	Imports .....	158	246	88	55.7
	Trade balance .....	-20	-38	-18	-90.0
CH010	Benzenoid commodity chemicals:				
	Exports .....	1,555	2,258	703	45.2
	Imports .....	392	813	421	107.4
	Trade balance .....	1,163	1,445	282	24.2
CH011	Benzenoid specialty chemicals:				
	Exports .....	4,073	4,551	478	11.7
	Imports .....	2,281	3,179	898	39.4
	Trade balance .....	1,792	1,372	-420	-23.4
CH012	Miscellaneous organic chemicals:				
	Exports .....	5,890	8,013	2,123	36.0
	Imports .....	4,442	4,968	526	11.8
	Trade balance .....	1,448	3,045	1,597	110.3
CH013	Selected inorganic chemicals and elements:				
	Exports .....	790	997	207	26.2
	Imports .....	1,235	1,658	423	34.3
	Trade balance .....	-445	-661	-216	-48.5
CH014	Inorganic acids:				
	Exports .....	160	166	6	3.8
	Imports .....	199	209	10	5.0
	Trade balance .....	-39	-43	-4	-10.3
CH015	Salts and other inorganic chemicals:				
	Exports .....	2,487	3,119	632	25.4
	Imports .....	2,166	2,536	370	17.1
	Trade balance .....	321	583	262	81.6
CH016	Chlor-alkali chemicals:				
	Exports .....	594	899	305	51.3
	Imports .....	149	210	61	40.9
	Trade balance .....	445	689	244	54.8
CH017	Industrial gases:				
	Exports .....	105	114	9	8.6
	Imports .....	42	47	5	11.9
	Trade balance .....	63	67	4	6.3
CH018	Fertilizers:				
	Exports .....	2,780	3,319	539	19.4
	Imports .....	2,040	2,357	317	15.5
	Trade balance .....	740	962	222	30.0
CH019	Paints, inks, and related item, and certain components thereof:				
	Exports .....	2,057	2,340	283	13.8
	Imports .....	1,148	1,425	277	24.1
	Trade balance .....	909	915	6	0.7
CH020	Synthetic organic pigments:				
	Exports .....	299	283	-16	-5.4
	Imports .....	339	341	2	0.6
	Trade balance .....	-40	-58	-18	-45.0
CH021	Synthetic dyes and azoic couplers:				
	Exports .....	227	267	40	17.6
	Imports .....	595	569	-26	-4.4
	Trade balance .....	-368	-302	66	17.9
CH022	Synthetics tanning agents:				
	Exports .....	11	14	3	27.3
	Imports .....	6	6	( <sup>3</sup> )	4.4
	Trade balance .....	5	8	3	60.0
CH023	Natural tanning and dyeing materials:				
	Exports .....	19	17	-2	-10.5
	Imports .....	58	52	-6	-10.3
	Trade balance .....	-39	-35	4	10.3
CH024	Photographic chemicals and preparations:				
	Exports .....	383	506	123	32.1
	Imports .....	650	749	99	15.2
	Trade balance .....	-267	-243	24	9.0

See footnotes at end of table.

Table 5-3—Continued

Chemical and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
<i>Million dollars</i>					
CH025	Pesticide products and formulations:				
	Exports .....	1,736	1,969	233	13.4
	Imports .....	852	1,017	165	19.4
	Trade balance .....	884	952	68	7.7
CH026	Adhesives and glues:				
	Exports .....	308	348	40	13.0
	Imports .....	134	138	4	3.0
	Trade balance .....	174	210	36	20.7
CH027	Medicinal chemicals, except antibiotics:				
	Exports .....	6,086	6,470	384	6.3
	Imports .....	5,691	7,075	1,384	24.3
	Trade balance .....	395	-605	-1,000	( <sup>4</sup> )
CH028	Antibiotics:				
	Exports .....	1,528	1,621	93	6.1
	Imports .....	1,280	1,580	300	23.4
	Trade balance .....	248	41	-207	-83.5
CH029	Essential oils and other flavoring materials:				
	Exports .....	848	910	62	7.3
	Imports .....	624	810	186	29.8
	Trade balance .....	224	100	-124	-55.4
CH030	Perfumes, cosmetics, and toiletries:				
	Exports .....	1,715	1,875	160	9.3
	Imports .....	1,055	1,168	113	10.7
	Trade balance .....	660	707	47	7.1
CH031	Soaps, detergents, and surface-active agents:				
	Exports .....	1,454	1,644	190	13.1
	Imports .....	556	653	97	17.4
	Trade balance .....	898	991	93	10.4
CH032	Miscellaneous chemicals and specialties:				
	Exports .....	1,371	1,572	201	14.7
	Imports .....	733	901	168	22.9
	Trade balance .....	638	671	33	5.2
CH033	Explosives, propellant powders and related items:				
	Exports .....	252	250	-2	-0.8
	Imports .....	196	187	-9	-4.6
	Trade balance .....	56	63	7	12.5
CH034	Polyethylene resins in primary forms:				
	Exports .....	1,459	1,988	529	36.3
	Imports .....	783	1,192	409	52.2
	Trade balance .....	676	796	120	17.8
CH035	Polypropylene resins in primary forms:				
	Exports .....	449	660	211	47.0
	Imports .....	155	190	35	22.6
	Trade balance .....	294	470	176	59.9
CH036	Polyvinyl chloride resins in primary forms:				
	Exports .....	671	856	185	27.6
	Imports .....	182	192	10	5.5
	Trade balance .....	489	664	175	35.8
CH037	Styrene polymers in primary forms:				
	Exports .....	662	790	128	19.3
	Imports .....	300	351	51	17.0
	Trade balance .....	362	439	77	21.3
CH038	Saturated polyester resins:				
	Exports .....	491	640	149	30.3
	Imports .....	197	242	45	22.8
	Trade balance .....	294	398	104	35.4
CH039	Other plastics in primary forms:				
	Exports .....	4,670	5,398	728	15.6
	Imports .....	1,684	1,937	253	15.0
	Trade balance .....	2,986	3,461	475	15.9
CH040	Styrene-butadiene rubber in primary forms:				
	Exports .....	298	353	55	18.5
	Imports .....	137	159	22	16.1
	Trade balance .....	161	194	33	20.5
CH041	Other synthetic rubber:				
	Exports .....	874	1,011	137	15.7
	Imports .....	491	557	66	13.4
	Trade balance .....	383	454	71	18.5

See footnotes at end of table.

Table 5-3—Continued

Chemical and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
CH042	Pneumatic tires and tubes (new):				
	Exports .....	1,614	1,869	255	15.8
	Imports .....	2,960	3,073	113	3.8
	Trade balance .....	-1,346	-1,204	142	10.6
CH043	Other tires:				
	Exports .....	79	73	-6	-7.6
	Imports .....	114	121	7	6.1
	Trade balance .....	-35	-48	-13	-37.1
CH044	Plastic or rubber semifabricated forms:				
	Exports .....	3,596	4,116	520	14.5
	Imports .....	2,286	2,647	361	15.8
	Trade balance .....	1,310	1,469	159	12.1
CH045	Plastic containers and closures:				
	Exports .....	1,060	1,264	204	19.2
	Imports .....	968	1,210	242	25.0
	Trade balance .....	92	54	-38	-41.3
CH046	Hose, belting and plastic pipe:				
	Exports .....	1,027	1,137	110	10.7
	Imports .....	855	991	136	15.9
	Trade balance .....	172	146	-26	-15.1
CH047	Miscellaneous rubber or plastics products:				
	Exports .....	3,110	3,253	143	4.6
	Imports .....	4,456	4,914	458	10.3
	Trade balance .....	-1,346	-1,661	-315	-23.4
CH048	Gelatin:				
	Exports .....	36	42	6	16.7
	Imports .....	90	102	12	13.3
	Trade balance .....	-54	-60	-6	-11.1
CH049	Natural rubber:				
	Exports .....	33	42	9	27.3
	Imports .....	965	1,629	664	68.8
	Trade balance .....	-932	-1,587	-655	-70.3

<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> Not meaningful for purposes of comparison.

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

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# CHAPTER 6

## Energy-Related Products

The overall U.S. trade deficit in terms of energy-related products increased by \$1.6 billion (4 percent) to \$47.5 billion in 1995, compared to the previous year (table 6-1). Historically, the United States has maintained a trade deficit in the energy-related products sector primarily because of an increased reliance on imported crude petroleum. The primary sources of U.S. imports of energy-related products are Canada, Venezuela, Saudi Arabia, and Mexico (figure 6-1). U.S. imports of energy-related products increased by \$3 billion (5 percent) in 1995 to \$60.3 billion. Crude petroleum accounted for 70 percent of these imports in 1995. The primary markets for U.S. exports of energy-related products are Canada, Japan, and Mexico. U.S. exports of energy-related products increased by \$1.4 billion (12 percent) in 1995 to \$12.8 billion. Petroleum products accounted for 52 percent of these exports and coal, coke, and related products accounted for 35 percent in 1995.

The United States and Canada are connected by a sophisticated and intricate system of pipelines that carry natural gas, crude petroleum, and refined petroleum products between the two countries. Also, an intricate system of interconnection grids shares electricity across the border. The U.S. trade deficit with Canada rose by \$1.1 billion (10 percent) in 1995 to \$12.6 billion, primarily as a result of increased imports of electricity that fluctuate regularly depending upon usage, and a nearly \$2.00 per barrel increase in the price of crude petroleum imports.

Venezuela and Saudi Arabia are also major sources of both crude petroleum and refined petroleum products for the U.S. market. The U.S. bilateral trade deficits with Saudi Arabia and Venezuela, both of which are members of OPEC, as well as with all of the OPEC nations combined, increased in 1995. Overall, the U.S. trade deficit with OPEC increased by \$1.7 billion. Venezuela, historically a major supplier of petroleum products to U.S. markets, accounted for \$1.2 billion of this deficit.

The U.S. trade deficit with the EU in energy-related products declined by \$1.9 billion in 1995 to \$1 billion because of increased U.S. exports of coal to these markets. U.S. exports of coal to the EU increased because production in the EU-coal-producing countries was unable to keep pace with de-

mand in Europe, where several states were emerging from recession. The U.S. energy-related products trade deficit with Latin America increased by \$2.1 billion in 1995 to \$14.6 billion, primarily as a result of increased U.S. imports of petroleum products, mainly motor fuels from Mexico.

### Commodity Analysis

#### *Crude Petroleum*

U.S. imports of crude petroleum, which accounted for \$42.1 billion (22 percent) of the total U.S. trade deficit in 1995, accounted for 55 percent of domestic consumption (in terms of both quantity and value) in 1995. U.S. imports began to increase in late 1985 when crude petroleum prices declined because of an oversupply on the world market. This development resulted in the reduced profitability of certain high-cost U.S. stripper wells, many of which were then shut down.<sup>1</sup> Consequently, annual U.S. production has declined steadily from 3.3 billion barrels in 1985 to 2.4 billion barrels in 1995.

The quantity of U.S. imports of crude petroleum actually decreased slightly in 1995, falling by 2 percent to 2.7 billion barrels; however, the price per barrel of crude increased by an average of \$2.00 per barrel, resulting in the value of imports increasing from \$38.5 billion in 1994 to \$42.1 billion in 1995, or by 9 percent. World crude prices rose in 1995 in response to increased production by non-OPEC producers, which tend to be the high-price producers, and decreased production by some OPEC producers, which tend to be the low-priced producers. Saudi Arabia, Canada, Venezuela, and Mexico continued to be the principal sources of U.S. imports. OPEC nations together accounted for more than 50 percent of total U.S. imports of crude petroleum in 1995. Industry sources forecast that U.S. imports of crude petroleum could account for over 60 percent of domestic consumption by the year 2000, as demand increases and domestic production continues to decrease.

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<sup>1</sup> A stripper well is one in which the average per well production rate in a given field is 10 barrels per day or less during the year under consideration.

Table 6-1

Energy-related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	1,527	1,663	136	8.9
Venezuela .....	137	160	23	16.9
Saudi Arabia .....	30	37	7	21.8
Mexico .....	1,089	1,357	269	24.7
Nigeria .....	3	19	17	608.4
United Kingdom .....	295	370	75	25.6
Angola .....	1	1	(2)	-10.2
Japan .....	1,695	1,744	49	2.9
Norway .....	20	38	18	93.1
Algeria .....	16	11	-5	-33.3
All other .....	6,657	7,441	784	11.8
Total .....	11,470	12,842	1,373	12.0
EU-15 .....	2,549	3,140	590	23.2
OPEC .....	287	329	42	14.5
Latin America .....	2,773	3,283	510	18.4
CBERA .....	716	819	103	14.4
Asian Pacific Rim .....	3,890	3,706	-184	-4.7
ASEAN .....	769	662	-108	-14.0
Central and Eastern Europe .....	118	160	43	36.3
U.S. imports for consumption:				
Canada .....	12,975	14,213	1,238	9.5
Venezuela .....	6,541	7,804	1,263	19.3
Saudi Arabia .....	7,420	7,596	176	2.4
Mexico .....	5,027	6,083	1,056	21.0
Nigeria .....	4,530	4,784	254	5.6
United Kingdom .....	3,399	2,784	-615	-18.1
Angola .....	2,067	2,287	220	10.6
Japan .....	212	235	23	10.7
Norway .....	1,257	1,699	442	35.2
Algeria .....	1,539	1,676	137	8.9
All other .....	12,376	11,176	-1,200	-9.7
Total .....	57,344	60,336	2,993	5.2
EU-15 .....	5,491	4,206	-1,285	-23.4
OPEC .....	23,562	25,305	1,743	7.4
Latin America .....	15,186	17,835	2,649	17.4
CBERA .....	1,242	974	-267	-21.5
Asian Pacific Rim .....	2,084	1,796	-288	-13.8
ASEAN .....	971	802	-169	-17.4
Central and Eastern Europe .....	76	5	-72	-93.9
U.S. merchandise trade balance:				
Canada .....	-11,448	-12,550	-1,102	-9.6
Venezuela .....	-6,404	-7,644	-1,240	-19.4
Saudi Arabia .....	-7,389	-7,559	-170	-2.3
Mexico .....	-3,939	-4,726	-787	-20.2
Nigeria .....	-4,527	-4,764	-237	-5.2
United Kingdom .....	-3,104	-2,414	690	22.2
Angola .....	-2,066	-2,286	-220	-10.7
Japan .....	1,483	1,509	27	1.8
Norway .....	-1,238	-1,661	-424	-34.2
Algeria .....	-1,523	-1,665	-142	-9.3
All other .....	-5,720	-3,735	1,985	34.7
Total .....	-45,874	-47,494	-1,620	-3.5
EU-15 .....	-2,942	-1,066	1,876	63.8
OPEC .....	-23,275	-24,976	-1,701	-7.3
Latin America .....	-12,413	-14,552	-2,139	-17.2
CBERA .....	-526	-155	371	70.5
Asian Pacific Rim .....	1,806	1,910	104	5.8
ASEAN .....	-202	-140	62	30.7
Central and Eastern Europe .....	41	156	114	276.5

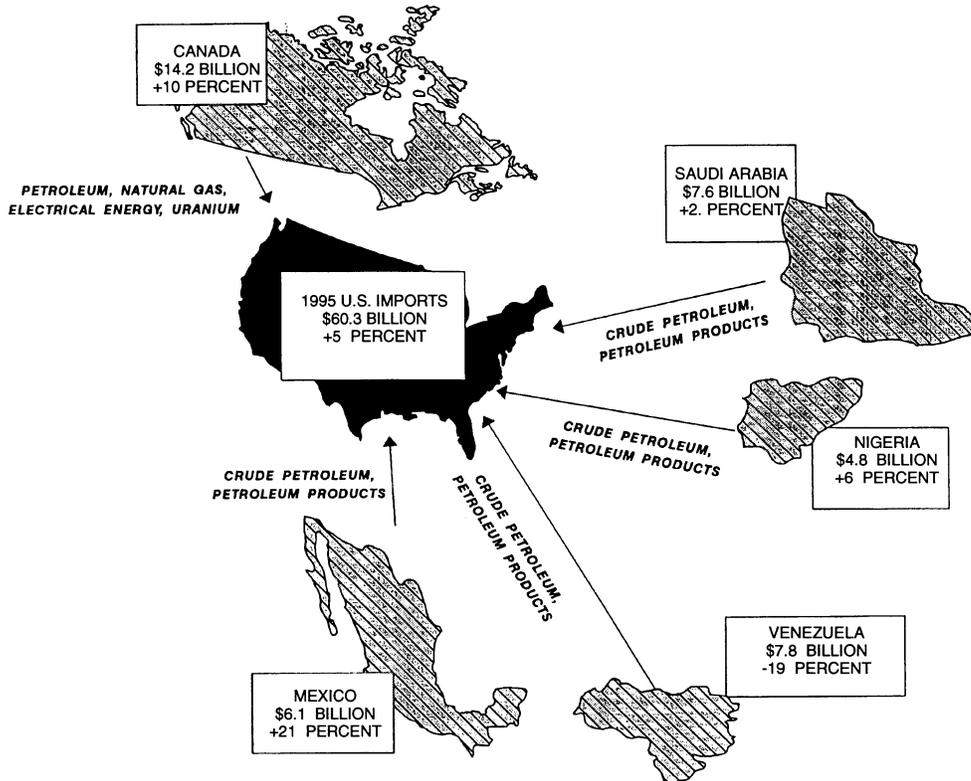
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Less than \$500,000.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 6-1**  
**U.S. energy-related products sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

U.S. exports of crude petroleum do little to ease the total U.S. trade deficit. Since 1973, U.S. exports of crude petroleum have been prohibited, except as approved by the U.S. Government. Canada has been the only consistent market for these exports as part of a commercial exchange agreement between U.S. and Canadian refiners, and approved by the Secretary of the Department of Energy. In 1987, small shipments of Alaskan North Slope crude petroleum were approved for export to Korea, Taiwan, and Australia. U.S. exports decreased from 2.2 million barrels (valued at \$44 million) in 1994 to 73,000 barrels (valued at \$1.4 million) in 1995. Canada accounted for 99 percent of these exports. The decrease was primarily attributed to the rupture in the Colonial Pipeline that carries crude petroleum between the United States and Canada.

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## **Petroleum Products**

The U.S. trade deficit in petroleum products decreased by \$1.2 billion (28 percent) in 1995 to \$3.2 billion. The value of U.S. imports of petroleum

products decreased from \$10.5 billion in 1994 to \$9.8 billion in 1995, or by 6 percent. Canada, Venezuela, and Algeria were the leading import sources of petroleum products, primarily gasoline and fuel oils. U.S. imports decreased primarily as a result of the inability of some nations to meet the environmental baselines for toxic air pollutants (TAPs) established as a performance measure for gasoline, under the provisions of the Clean Air Act Amendments.

The United States is not a major world exporter of petroleum products. The value of U.S. exports of petroleum products increased slightly in 1995, advancing by \$569 million (9 percent) to \$6.6 billion in 1995. Canada and Mexico were the major U.S. markets for these exports.

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## **Coal, Coke, and Related Chemical Products**

The United States is one of the world's largest suppliers of coal and remains a net exporter. The U.S. trade surplus in these products increased by \$816

million (31 percent) in 1995 to \$3.5 billion. U.S. exports of coal, coke, and related products increased by \$864 million (25 percent) to \$4.3 billion in 1995. The major markets for U.S. exports of these products continued to be Canada at \$543 million (13 percent); Japan, \$487 million (11 percent); and Italy, \$425 million (10 percent). Canada and Japan increased their imports of cleaner burning U.S. bituminous coals in order to meet environmental standards established in these nations. U.S. exports of coal to the EU and Eastern Europe increased by \$470 million to satisfy rising demand for cleaner coals and to offset production declines in Poland. U.S. exports of bituminous and lignite coals accounted for about 90 percent of total exports. These are high-quality, low-sulfur coals used

primarily for the generation of electricity. The United States, which leads the world in total reserves and production of coal, is viewed as a secure source of coal on the world market.

U.S. imports of coal, coke, and related chemical products increased by 48 million (6 percent) in 1995 to \$847 million. Canada was the leading source of U.S. imports of coal and related chemical products, while Japan was the top source of U.S. imports of coke. Historically, Japan has imported metallurgical coal from several nations, including the United States, to produce and export coke, which is used in the production of steel.

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**Table 6-2**  
**Energy and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, from 1994 to 1995	
				Amount	Percent
		<i>Million dollars</i>			
CH001	Electrical energy:				
	Exports .....	30	47	17	56.7
	Imports .....	960	856	-104	-10.8
	Trade balance .....	-930	-809	121	13.0
CH002	Nuclear materials:				
	Exports .....	1,226	965	-261	-21.3
	Imports .....	1,114	1,127	13	1.2
	Trade balance .....	112	-162	-274	( <sup>3</sup> )
CH003	Coal, coke, and related chemicals products:				
	Exports .....	3,464	4,328	864	24.9
	Imports .....	799	847	48	6.0
	Trade balance .....	2,665	3,481	816	30.6
CH004	Crude petroleum:				
	Exports .....	44	1	-43	-97.7
	Imports .....	38,530	42,077	3,547	9.2
	Trade balance .....	-38,486	-42,076	-3,590	-9.3
CH005	Petroleum products:				
	Exports .....	6,014	6,583	569	9.5
	Imports .....	10,450	9,777	-673	-6.4
	Trade balance .....	-4,436	-3,194	1,242	28.0
CH006	Natural gas and components:				
	Exports .....	568	775	207	36.4
	Imports .....	5,201	5,157	-44	-0.8
	Trade balance .....	-4,633	-4,382	251	5.4
CH007	Major primary olefins:				
	Exports .....	123	145	22	17.9
	Imports .....	289	496	207	71.6
	Trade balance .....	-166	-351	-185	-111.4

<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.

<sup>3</sup> Not meaningful for purposes of comparison.

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

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# CHAPTER 7

## Textiles, Apparel, and Footwear<sup>1</sup>

The U.S. trade deficit in textiles and apparel continued to widen in 1995, but by much less than in 1994, owing to a sharp pickup in exports and slower growth of imports. The deficit rose by \$1.5 billion (5 percent) to a record \$35.1 billion in 1995, compared with an increase of \$2.5 billion (8 percent) in 1994 (table 7-1). Exports grew by \$2.1 billion, or 16 percent, to a high of \$15.1 billion in 1995, up from a gain of \$1.3 billion, or 12 percent, in 1994. Imports advanced by \$3.6 billion, or 8 percent, to \$50.2 billion, down from an increase of \$3.8 billion, or 9 percent, in 1994. The decelerated rate of growth in imports mirrored the slowdown in consumer spending on apparel, which accounted for almost 80 percent of sector imports in 1995. Real personal consumption expenditures on apparel grew by 4.4 percent in 1995, after rising by 6.3 percent in 1994. The pickup in U.S. sector exports partly reflected larger shipments to Latin America, a major portion of which consisted of garment parts to be assembled and returned to the United States.

The structure of U.S. textile and apparel trade will become less restrictive as a result of the implementation of the Uruguay Round Agreement on Textiles and Clothing (ATC), which entered into force on January 1, 1995, as part of the World Trade Organization (WTO) agreements. The ATC replaced the Multifiber Arrangement (MFA), which had governed world trade in these goods since 1974, when it was established under the General Agreement on Tariffs and Trade (GATT). The MFA permitted the use of quotas without compensation, which is contrary to the general prohibition against their use under the GATT. Under the ATC, textiles and apparel will be gradually “integrated” into the GATT regime; that is, brought under GATT discipline and subject to the same rules as goods of other sectors. As WTO countries integrate their textile and apparel trade into the GATT regime, they are obligated to eliminate quotas on imports of such items from WTO countries and they cannot establish new quotas on the integrated items other than as provided under normal GATT rules.<sup>2</sup>

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<sup>1</sup> The analysis for footwear appears at the end of this chapter.

<sup>2</sup> The United States has textile and apparel quotas with 45 countries, 36 of which are WTO members. Non-WTO members, such as China and Taiwan, are not entitled to the benefits

The GATT integration process will occur over a 10-year transition period in three stages. The first stage began on January 1, 1995, when WTO countries were obligated to integrate into the GATT regime at least 16 percent of their sector trade, based on 1990 import volume, and to increase the annual growth rates for quotas still in place with major suppliers by 16 percent.<sup>3</sup> The second stage begins in 1998, when at least another 17 percent of the trade is to be integrated, followed by at least an additional 18 percent in 2002. The rest of the trade is to be integrated at the end of the 10-year period. None of the products integrated by the United States in the first stage was under quota, and most of the goods scheduled for integration in the second and third stages either were not under quota or had underutilized quotas.<sup>4</sup>

For sector goods that have yet to be integrated into the GATT regime during the 10-year period, the ATC allows WTO countries to apply a “transitional safeguard” when imports of an item cause or threaten serious damage to a domestic industry making a like or directly competitive item. In 1995,

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<sup>2</sup>—*Cont.*

of quota liberalization under the ATC. U.S. imports of textiles and apparel that had been covered by the MFA (i.e., goods of cotton, other vegetable fibers, wool, manmade fibers, and silk blends) totaled \$44 billion in 1995.

<sup>3</sup> The acceleration of quota growth rates is based on the rates specified in the bilateral MFA agreements and in place on Dec. 31, 1994. The annual quota growth rates with the traditional Big Three Asian suppliers (Hong Kong, Korea, and Taiwan) and China are less than 3 percent, and those with most other suppliers are less than 7 percent. In the second and third stages of GATT integration, quota growth for major suppliers is to be increased by another 25 and 27 percent, respectively. For small suppliers (those accounting for 1.2 percent or less of an importing country’s total quotas as of December 31, 1991), quota growth is to be advanced by one stage, that is, growth rates were to be increased by 25 percent in the first stage and are to be raised by another 27 percent in both the second and third stages.

<sup>4</sup> In the Statement of Administrative Action that accompanied the Uruguay Round Agreements Act, Public Law 103-465, the Clinton administration committed to defer the integration of the most sensitive goods until the end of the 10-year period. See Committee for the Implementation of Textile Agreements, “Final List of Products for Second, Third and Final Phase Integration of Textile and Apparel Products into GATT 1994,” 60 *Federal Register* 21075, May 1, 1995.

Table 7-1

Textiles and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	152	260	108	70.9
Mexico	2,237	2,399	162	7.2
Hong Kong	356	421	65	18.3
Canada	2,348	2,684	336	14.3
Taiwan	126	118	-8	-6.2
Korea	200	235	35	17.5
Dominican Rep	902	994	92	10.2
Japan	1,076	1,315	238	22.2
Italy	134	151	17	12.4
India	36	44	8	23.9
All other	5,467	6,502	1,035	18.9
Total	13,033	15,123	2,089	16.0
EU-15	1,798	2,059	261	14.5
OPEC	440	433	-8	-1.8
Latin America	5,550	6,458	908	16.4
CBERA	2,588	3,159	570	22.0
Asian Pacific Rim	2,445	2,925	480	19.6
ASEAN	314	357	43	13.6
Central and Eastern Europe	36	55	19	53.4
U.S. imports for consumption:				
China	7,349	7,048	-302	-4.1
Mexico	2,431	3,704	1,273	52.4
Hong Kong	4,606	4,556	-50	-1.1
Canada	1,689	2,012	323	19.1
Taiwan	2,924	2,818	-105	-3.6
Korea	2,934	2,588	-346	-11.8
Dominican Rep	1,623	1,781	158	9.7
Japan	809	688	-121	-14.9
Italy	1,634	1,820	186	11.4
India	1,798	1,861	62	3.5
All other	18,778	21,326	2,548	13.6
Total	46,574	50,201	3,627	7.8
EU-15	4,072	4,308	236	5.8
OPEC	1,597	1,804	207	12.9
Latin America	8,134	10,289	2,155	26.5
CBERA	4,639	5,586	947	20.4
Asian Pacific Rim	25,006	24,907	-98	-0.4
ASEAN	5,654	6,299	646	11.4
Central and Eastern Europe	350	382	33	9.3
U.S. merchandise trade balance:				
China	-7,197	-6,787	410	5.7
Mexico	-194	-1,305	-1,111	-573.0
Hong Kong	-4,250	-4,135	115	2.7
Canada	659	673	13	2.0
Taiwan	-2,798	-2,701	98	3.5
Korea	-2,734	-2,354	381	13.9
Dominican Rep	-721	-787	-66	-9.1
Japan	267	627	359	134.3
Italy	-1,500	-1,669	-169	-11.3
India	-1,763	-1,817	-54	-3.1
All other	-13,311	-14,824	-1,513	-11.4
Total	-33,541	-35,078	-1,537	-4.6
EU-15	-2,275	-2,249	25	1.1
OPEC	-1,157	-1,371	-215	-18.6
Latin America	-2,584	-3,830	-1,247	-48.3
CBERA	-2,051	-2,427	-376	-18.3
Asian Pacific Rim	-22,560	-21,982	579	2.6
ASEAN	-5,339	-5,943	-603	-11.3
Central and Eastern Europe	-314	-327	-13	-4.3

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

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

the United States issued 21 “calls” to WTO countries for the purpose of setting quotas. Eight of the calls led to the negotiation of quotas, 11 were rescinded, and 2 led to the imposition of unilateral quotas. For the unilateral quotas set on cotton and manmade-fiber underwear from Costa Rica and woven wool shirts and blouses from India, the WTO Dispute Settlement Body agreed to requests from these countries to establish a dispute settlement panel to examine the United States’ application of transitional safeguards on their respective goods.<sup>5</sup>

developing countries that year totaled \$29.9 billion, while U.S. sector exports to these markets amounted to just \$1.8 billion. However, the potential exists for Asian developing countries to become significant growth markets for U.S. sector exports, particularly for industrial and specialty textiles, brand-name apparel, and home furnishings. In connection with the Uruguay Round, a number of the Asian developing countries that are significant exporters of textiles and apparel to the U.S. domestic market agreed to reduce tariffs and otherwise open their markets to U.S. sector exports.

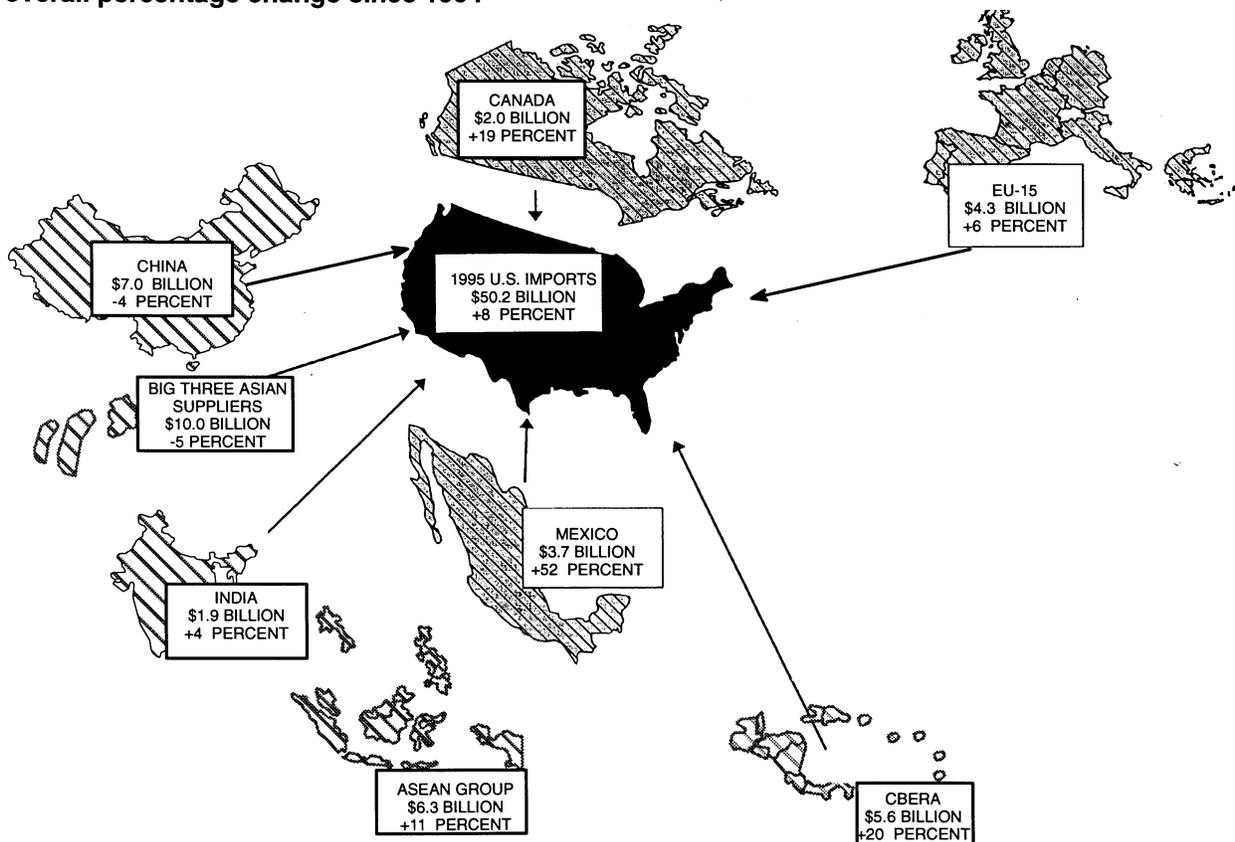
## U.S. Bilateral Trade

The U.S. trade deficit in textiles and apparel is driven mainly by trade with developing countries in Asia, which accounted for about 80 percent of the trade gap in 1995. U.S. sector imports from Asian

The largest bilateral trade deficit in textiles and apparel in 1995 was \$6.8 billion with China, the largest source of sector imports to the United States. The U.S. sector trade deficit with China narrowed by \$410 million (6 percent), as imports fell by \$302 million (4 percent), but remained at a historically high level of \$7.0 billion, while exports rose by \$108 million (71 percent) to just \$260 million (figure 7-1). The decline in sector imports from China was the first such drop in many years and was concentrated in silk apparel, which had accounted for a major portion of the sector import growth from China during the late 1980s and early

<sup>5</sup> US-TR, “WTO Dispute Settlement Proceedings Concerning U.S. Restrictions on Cotton and Manmade Fiber Underwear from Costa Rica,” 61 *Federal Register* 12129, Mar. 25, 1996, and “WTO Dispute Settlement Proceedings Concerning U.S. Restrictions on Woven Wool Shirts and Blouses from India,” 61 *F.R.* 24516, May 15, 1996.

**Figure 7-1**  
**U.S. textile and apparel sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

1990s. In 1994, the United States signed a silk agreement with China that brought the silk goods under quota for the first time (see "apparel" below for further discussion).<sup>6</sup> In addition, a separate 3-year textile agreement that is currently in force with China, covering goods that had been subject to the MFA, provided for no quota growth in 1994 and for just 1-percent annual growth in 1995 and 1996.

After China, the largest bilateral deficits in the sector were with the traditional Big Three Asian suppliers of textiles and apparel to the United States—Hong Kong (\$4.1 billion), Taiwan (\$2.7 billion), and Korea (\$2.4 billion). Sector deficits with all 3 countries narrowed in 1995, by a total of \$592 million, largely reflecting a drop in imports. U.S. sector imports from the Big Three fell by \$502 million (5 percent) to just under \$10 billion in 1995. The Big Three supplied 20 percent of U.S. sector imports that year, down from 37 percent in 1989. Faced with rising operating costs, labor shortages, and growing competition from lower cost countries, the Big Three have moved production of basic sector goods for export to lower cost areas, such as the Association of South East Asian Nations (ASEAN) countries, which include Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and, most recently, Vietnam. The U.S. sector trade deficit with the ASEAN countries widened by \$603 million to \$5.9 billion in 1995, largely reflecting an increase in U.S. imports of \$646 million (11 percent) to \$6.3 billion.

Other major beneficiaries of the ongoing shift in U.S. sector trade from the major Asian suppliers are countries that benefit from preferential access to the U.S. market, especially Mexico and Caribbean Basin Economic Recovery Act (CBERA) countries.<sup>7</sup> Following the implementation of the North American Free-Trade Agreement (NAFTA) on January 1, 1994, U.S. sector imports from Mexico rose by 31 percent in 1994 and by 52 percent (\$1.3 billion) in 1995, to \$3.7 billion. Two-thirds, or almost \$2.5 billion, of U.S. sector imports from Mexico in 1995 consisted of garments and other

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<sup>6</sup> The silk garments covered by the 1994 agreement with China are those containing 70 percent or more by weight of silk, which were not covered by the MFA. China is the only country with which the United States has quotas on such silk apparel.

<sup>7</sup> The CBERA, enacted in 1984, grants duty-free entry to most goods from 24 beneficiary countries. Most textile and apparel goods are among the items statutorily excluded from the CBERA. For further information on the CBERA, see USITC, *Caribbean Basin Economic Recovery Act: Impact on U.S. Industries and Consumers - Tenth Report 1994* (investigation No. 332-227), USITC publication 2927, Sept. 1995.

textile products that were assembled from fabric "formed and cut" in the United States and that entered free of duties under NAFTA. U.S. sector exports to Mexico rose by 27 percent in 1994, but by just 7 percent (\$162 million) in 1995 to \$2.4 billion. The 50-percent devaluation of the Mexican peso during December 1994-January 1995 effectively raised prices of U.S. goods in Mexico's domestic market, while lowering them for Mexican goods in the U.S. market. Weak economic conditions in Mexico in 1995 also reduced demand for U.S. goods. Since U.S. sector trade with Mexico and CBERA countries consisted mostly of apparel, a detailed discussion of U.S. sector trade with these countries appears in "apparel" below.

The largest bilateral trade surpluses in textiles and apparel in 1995 were with Canada and Japan, which, along with Mexico, were the largest markets for U.S. sector exports. U.S. sector trade with Canada has grown rapidly since the adoption of the United States-Canada Free-Trade Agreement (CFTA) in 1989.<sup>8</sup> The trade surplus with Canada remained fairly stable at \$673 million in 1995, as exports to Canada rose by \$336 million (14 percent) to \$2.7 billion and imports from Canada grew by \$323 million (19 percent) to \$2.0 billion. Textiles continued to dominate U.S. sector trade with Canada, accounting for 81 percent (\$2.2 billion) of the exports and 56 percent (\$1.1 billion) of the imports in 1995. The U.S. sector trade surplus with Japan rose by \$359 million (135 percent) to \$627 million in 1995, following an increase in the exchange value of the yen in 1994 and in early 1995. U.S. sector exports to Japan rose by \$238 million (22 percent) to \$1.3 billion in 1995, whereas U.S. sector imports from Japan fell by \$121 million (15 percent) to \$688 million.

## Commodity Analysis

### Textiles<sup>9</sup>

The U.S. trade deficit in textiles declined by \$239 million (11 percent) to slightly less than \$1.9 billion in 1995. Both exports and imports reached new highs that year, with the former rising by 14 percent (\$1.1 billion) to \$8.5 billion and the latter rising by 9 percent (\$0.8 billion) to \$10.4 billion. The

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<sup>8</sup> The duty phaseout schedule for the CFTA was incorporated and continued under NAFTA.

<sup>9</sup> Textiles include manmade fibers, yarns, fabrics, home furnishings, carpets, and industrial goods such as cordage. These products are covered in USITC industry/commodity groupings CH050 to CH061 and CH079 (nonwoven fabric).

share of the U.S. textile market supplied by imports remained at just under 10 percent in 1995, as U.S. producers' shipments of textile mill products rose by less than 1 percent to \$74.9 billion.

The improvement in the U.S. textile trade balance in 1995 largely reflected decreased bilateral deficits with the European Union (EU) and Japan and an increased bilateral surplus with Canada. The textile deficit with the EU, the major U.S. trading partner in textiles, narrowed by \$189 million to \$856 million. The improvement resulted mainly from an increase in exports of \$216 million (16 percent), to \$1.5 billion, while imports from the EU remained fairly stable at just under \$2.4 billion. The improvement with Japan stemmed from both a decline in imports of \$105 million (15 percent), to \$579 million, and an increase in exports of \$65 million (22 percent), to \$365 million. Favorable exchange rates contributed to the improvement in the U.S. sector trade balances with the EU and Japan.

The U.S. textile trade surplus with Canada rose by \$119 million (13 percent) to \$1.0 billion in 1995, as exports to Canada grew by \$266 million (14 percent) to \$2.2 billion, and imports increased by \$147 million (15 percent) to \$1.1 billion. Canada trailed only China as the largest single-country supplier of textiles in 1995, supplying almost 11 percent of U.S. imports. A major portion of U.S. textile trade with Canada is intracompany trade (i.e., cross-border trade between separate operations of individual firms).

The largest U.S. bilateral trade deficit in textiles continued to be posted with China, although the deficit widened by just \$7 million in 1994 and by \$32 million (4 percent) to \$893 million in 1995. The deficit had widened by \$223 million in 1992. Imports from China rose by \$138 million (14 percent) to \$1.1 billion in 1995, while exports to China, which totaled just \$251 million, grew by \$107 million (74 percent). The growth in U.S. textile imports from China in 1995 was concentrated in carpets, which were up by \$59 million (41 percent) to \$203 million, and miscellaneous made-up textiles, up by \$61 million (18 percent) to \$389 million.<sup>10</sup> The vast majority of U.S. textile exports to China consisted of raw materials such as manmade fibers and yarns.

The U.S. textile trade surplus with Mexico declined by \$335 million (64 percent) to \$185 million in 1995, following the peso crisis and reduced economic activity there. U.S. textile exports to Mexico

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<sup>10</sup> U.S. imports of miscellaneous textiles from China in 1995 were concentrated in subheading 6307.90.9989 of the *HTS*, a "catch-all" provision for other made-up textile articles. Imports of such goods from China totaled \$221 million in 1995; these imports are not subject to quota.

fell by \$48 million (5 percent) to \$1 billion in 1995, whereas U.S. textile imports from Mexico grew by \$287 million (53 percent) to \$827 million.

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## Apparel<sup>11</sup>

The U.S. trade deficit in apparel rose by \$1.8 billion (6 percent) to \$33.3 billion in 1995, compared with an increase of \$2.3 billion in 1994. Both imports and exports reached record highs in 1995, with the former rising by \$2.8 billion (8 percent) to \$36.9 billion and the latter growing by \$1 billion (18 percent) to \$6.4 billion. In comparison, U.S. producers' shipments of apparel are estimated to have increased by just 2 percent to \$56.7 billion in 1995.<sup>12</sup> As a result, imports supplied roughly one-half of the U.S. apparel market in 1995.<sup>13</sup>

Most of the 1995 gain in apparel imports came from CBERA countries and Mexico, which mainly compete with one another for assembly work from U.S. apparel firms.<sup>14</sup> The pattern of apparel competition in the region, however, has changed since NAFTA came into force in 1994. In the 4 years before NAFTA, U.S. apparel imports from CBERA countries and Mexico rose at similar rates of 23 to 24 percent a year. The growth in CBERA shipments since 1994, though still quite rapid, has lagged behind that of Mexico. In 1994, the growth rate slowed to 13 percent for CBERA countries but accelerated to 33 percent for Mexico. In 1995, CBERA shipments grew by 21 percent (\$943 million), but Mexico's shipments rose by 52 percent (\$987 million). While CBERA countries have nearly doubled their share of U.S. apparel imports since 1989, to 14 percent in 1995, Mexico has tripled its share to 7 percent. Mexico is now the third-largest, single-country source of U.S. apparel imports, with 1995 shipments of \$2.9 billion, trailing only China (\$5.9 billion) and Hong Kong (\$4.3 billion). The

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<sup>11</sup> Apparel is covered in USITC industry/commodity groupings CH062 to CH080, excluding the nonwoven fabrics in CH079. It includes garments of textile and nontextile (e.g., leather) materials.

<sup>12</sup> U.S. shipments for 1995 were estimated by USITC staff based on data for 1993, the last year for which official data are available on a four-digit SIC basis. The 1993 data were adjusted to eliminate double counting of contract receipts reported as shipments by both the contractor and the firm for which the work was done.

<sup>13</sup> Import penetration is calculated on the basis of the landed, duty-paid value of imports, which totaled \$46.8 billion in 1995.

<sup>14</sup> CBERA countries and Mexico in 1995 supplied 88 percent of the \$8 billion in U.S. apparel imports under the 9802 tariff provision, which provides a duty exemption for U.S.-made components that are returned to the United States as parts of articles assembled abroad. For a discussion of 9802 apparel trade, see USITC, *Production Sharing, 1991-1994*, USITC publication 2966, ch. 5.

CBERA countries as a group, however, are the second-largest supplier, with 1995 shipments of \$5.5 billion.

Part of the growth in U.S. apparel imports from Mexico since NAFTA entered into force may have come at the expense of CBERA, as well as Asian, shipments. Whereas garments assembled in Mexico from U.S. formed and cut fabric enter free of duty under NAFTA, such goods from CBERA countries are still subject to duty on the value added offshore.<sup>15</sup> Continued uncertainty over the passage of legislation introduced in 1995 to extend NAFTA parity to CBERA goods may reduce incentives for apparel investment in the CBERA region.<sup>16</sup> Moreover, the 50-percent devaluation of the Mexican peso during December 1994 through January 1995 further affected the competitive balance between Mexico and CBERA countries by effectively reducing dollar prices of Mexican goods in the U.S. market.

U.S. apparel imports from China fell for the first time in many years in 1995, by \$443 million (7 percent) to \$5.9 billion. China is still the largest source of U.S. apparel imports, although its share of the total fell to 15 percent in 1995 from a high of 18 percent in 1993. The 1995 decline in U.S. apparel imports from China resulted mainly from much smaller shipments of silk apparel brought under quota for the first time in 1994. Imports of such silk garments from China fell by \$369 million (25 percent) to just under \$1.1 billion in 1995, largely owing to a saturated market for these goods. For MFA-covered apparel, U.S. imports from China fell by \$71 million (2 percent) to \$3.5 billion in 1995, partly owing to a shift in trade from China to other low-cost countries subject to fewer U.S. quota restrictions.

U.S. apparel imports from the traditional Big Three Asian sources (Hong Kong, Korea, and Taiwan) fell by \$568 million (6 percent) to \$8.3 billion in 1995, reflecting their declining competitive position in the global apparel market. The share of U.S. apparel imports supplied by the Big Three in 1995 was 21 percent, down 10 percentage points since 1992, when their shipments peaked at \$9.5 billion. U.S.

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<sup>15</sup> For every \$10 in f.o.b. value, a typical CBERA garment entered under the 9802 provision contains \$6.40 in duty-free U.S. components and \$3.60 in dutiable, foreign value-added. Applying the 1995 trade-weighted tariff for apparel of 16.1 percent to the foreign value-added, yields a duty of \$0.58, or an ad valorem equivalent of 5.8 percent.

<sup>16</sup> Legislation introduced in both houses of the 104th Congress in 1995, the Caribbean Basin Trade Security Act (H.R. 553 and S. 529), would make available NAFTA-like treatment to qualifying apparel and all other goods now exempted from duty-free entry under the CBERA. The 1997 budget proposal submitted by the President to Congress in Mar. 1996 provided for funds for NAFTA parity for CBERA apparel and textiles, as well as footwear and petroleum.

apparel imports from Hong Kong fell by 1 percent in 1995, although they remained at a near record level of \$4.3 billion, second only to China. U.S. imports of apparel from Korea and Taiwan, which have declined annually since at least 1991, declined by \$403 million (18 percent) to \$1.8 billion and by \$113 million (5 percent) to \$2.2 billion, respectively, in 1995.

U.S. apparel imports from all other developing countries in Asia rose by \$1.2 billion (12 percent) to \$11.5 billion in 1995. One-half of the increase came from the ASEAN countries, whose shipments rose by \$641 million (12 percent) to \$5.8 billion. Significant growth also occurred in shipments from Bangladesh, Macao, and Pakistan, which all rose by 21 to 25 percent to \$1.1 billion, \$757 million, and \$620 million, respectively. In contrast, apparel imports from India fell by 4 percent to \$1.3 billion in 1995, compared with a gain of 21 percent in 1994. A trade source attributed the drop in apparel imports from India to changing buying patterns in the U.S. market, more competition from low-cost countries like Bangladesh, and the technological obsolescence of India's apparel industry, among other factors.<sup>17</sup>

U.S. apparel trade with industrial countries was marked by a deficit of \$1.1 billion in 1995. The trade gap was more than accounted for by the EU. The deficit with the EU widened by \$168 million (14 percent) to \$1.4 billion. This deficit had widened by \$216 million in 1994, after remaining flat at about \$1.0 billion a year during 1991-93. The widening of the U.S. apparel trade deficit with the EU in 1995 mainly reflected an increase in U.S. imports of \$208 million (12 percent) to \$1.9 billion. U.S. apparel exports to the EU rebounded by \$41 million (9 percent) to \$495 million in 1995, after declining for 2 consecutive years from \$541 million in 1992.

The U.S. apparel trade deficit with Canada widened by \$105 million (37 percent) to \$388 million in 1995, as imports rose by \$174 million (24 percent) to \$890 million, and exports grew by \$69 million (16 percent) to \$501 million. The import growth was a continuation of the gains in shipments from Canada since the inception of the CFTA in 1989. The ongoing growth in U.S. imports of men's and boys' tailored clothing from Canada has raised concern among U.S. producers of tailored clothing and of wool fabrics. Imports of such Canadian clothing grew by \$37 million (30 percent) to \$161 million in 1995, and they were up by \$143 million (782 percent) since 1988, the year before the CFTA entered into force. The Canadian tailored clothing that

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<sup>17</sup> Remarks attributed to the Apparel Export Promotion Council in India in an article by N. Vasuki Rao, "Stagnant Textile Exports Alarm Indian Industry," *Journal of Commerce* (New Delhi: Knight-Ridder/Tribune Business News), NewsEDGE/LAN, May 1, 1996.

is made of non-North American wool fabric is eligible for NAFTA preferential tariff treatment under a "tariff preference level" (TPL) for wool apparel. The TPL is an annual tariff-rate quota that permits limited quantities of Canadian wool apparel that do not meet specified rules of origin (e.g., suits of Asian fabric) to enter at the preferential tariff rates. Men's and boys' tailored clothing accounted for almost all of the imports from Canada entered under the TPL for wool apparel in 1995.<sup>18</sup>

The U.S. apparel trade surplus with Japan rose by \$179 million (28 percent) in 1995 to \$821 million, the largest bilateral trade surplus in apparel. The 1995 improvement reflected a pickup in exports and an ongoing drop in imports. Exports rose by \$164 million (22 percent) to a record \$914 million, making Japan the largest market for U.S. exports of apparel for consumption abroad. Imports fell by \$16 million (14 percent) to \$93 million in 1995. Favorable exchange rates and the popularity of U.S. goods among Japanese consumers contributed to the increase in demand for U.S. apparel exports.

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## **Footwear**

The U.S. footwear trade deficit widened by \$357 million (3 percent) to \$11.4 billion in 1995, mainly because of increased imports from China (table 7-2). The growth in imports of \$381 million (3 percent) to \$12.1 billion far exceeded the gain in exports of \$25 million (4 percent) to \$671 million. The share of the U.S. footwear market supplied by imports in 1995 remained unchanged at 87 percent by quantity. The growth in real U.S. consumer spending on footwear slowed to 2 percent in 1995, down from just over 3 percent in 1994.

Nonrubber footwear accounted for 82 percent of the value of U.S. footwear imports in 1995. Another 14 percent consisted of rubber footwear, which includes protective footwear and fabric-upper footwear with rubber or plastic soles, such as sneakers. The volume of nonrubber footwear imports in 1995 fell by 2 percent to 1.1 billion pairs, the first such decline since 1989. In value terms, however, nonrubber footwear imports rose by 3 percent (\$300 million) to nearly \$10 billion, as the average cost

of these imports rose by 5 percent to \$9.22 a pair. The share of the domestic nonrubber footwear market supplied by imports in 1995 remained unchanged at 89 percent by volume. U.S. imports of fabric-upper footwear rose by 3 percent in quantity and by 11 percent in value to 309 million pairs valued at almost \$1.6 billion in 1995. Imports supplied 86 percent of the domestic market for fabric-upper footwear. Imports of protective footwear fell by 10 percent in quantity and by 8 percent in value to just under 11 million pairs valued at \$68 million. However, the share of the U.S. protective footwear market supplied by imports reached a high of 43 percent in 1995, as U.S. production of such footwear fell by 23 percent to slightly less than 16 million pairs.

The rise in the footwear trade deficit was more than accounted for by China, by far the largest U.S. supplier. The footwear trade deficit with China rose by \$562 million (11 percent) to \$5.8 billion in 1995, as two-way trade consisted almost entirely of imports from China (figure 7-2). China supplied 59 percent of the U.S. domestic market for nonrubber footwear and 62 percent of the market for fabric-upper footwear (by volume). China competes mainly in the low- to medium-priced segments of the U.S. footwear market. For footwear valued at less than \$16 a pair (f.o.b. value), China supplied 924 million pairs, or 73 percent, of total footwear imports in 1995. By contrast, China supplied just 17 percent of footwear imports valued at over \$16 a pair, down from 20 percent a year earlier. China's dominance in the world footwear market is attributable to its extremely low input factor production costs for labor, materials, and energy.

The footwear trade deficit with Brazil, the second-leading U.S. supplier, decreased by \$141 million (11 percent) to \$1.1 billion in 1995. The decline resulted almost entirely from a decrease in imports, which accounted for nearly all of the two-way trade in footwear between the United States and Brazil. This import decline partly reflected the reduced price competitiveness of Brazilian goods in global markets as a result of the appreciation of the Brazilian currency. The vast majority of the footwear imports from Brazil consisted of women's leather footwear with an f.o.b. value of between \$8.01 and \$12.00 a pair.

The footwear trade deficits with Indonesia and Thailand, the fourth- and the sixth-leading U.S. suppliers, respectively, widened by a total of \$92 million in 1995. The value of imports from Indonesia and Thailand both rose by 8 percent to \$956 million and \$406 million, respectively. However, the quantity of these imports fell by 4 percent to 93 million pairs and by 11 percent to 31 million pairs, respectively. Two-thirds of the imports from Indonesia and Thailand in 1995 consisted of athletic footwear, mostly with an f.o.b. value of between \$8.01 and \$16.00 a pair. The slowdown in the

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<sup>18</sup> On July 23, 1996, Senator Ernest F. Hollings (D-SC) introduced S. 1982, the Emergency Safeguard Act of 1996, "to provide a remedy to damaging imports of men's and boys' tailored wool apparel assembled in Canada from third country fabric and imported at preferential tariff rates." Under the bill, not more than 50 percent of the TPL provided in NAFTA for wool apparel from Canada can be tailored wool apparel and not more than 50 percent of such sublimit can be either men's and boy's wool suits (quota category 443), men's and boys' wool sport coats (433), or men's and boy's wool slacks (447).

Table 7-2

Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China .....	8	9	1	13.9
Brazil .....	6	8	2	35.4
Italy .....	16	15	-1	-4.0
Indonesia .....	6	14	7	116.0
Korea .....	18	29	10	57.1
Thailand .....	3	4	( <sup>2</sup> )	7.8
Spain .....	6	5	-1	-16.7
Taiwan .....	12	11	-1	-11.0
Mexico .....	96	71	-24	-25.6
Dominican Rep .....	35	44	9	24.9
All other .....	440	462	22	5.0
Total .....	646	671	25	3.8
EU-15 .....	139	130	-10	-6.9
OPEC .....	20	28	8	40.9
Latin America .....	198	193	-4	-2.2
CBERA .....	65	81	16	24.2
Asian Pacific Rim .....	171	210	40	23.3
ASEAN .....	18	26	8	47.4
Central and Eastern Europe .....	4	4	( <sup>2</sup> )	-3.2
U.S. imports for consumption:				
China .....	5,254	5,817	563	10.7
Brazil .....	1,266	1,127	-139	-11.0
Italy .....	887	1,017	130	14.6
Indonesia .....	885	956	71	8.0
Korea .....	689	515	-173	-25.1
Thailand .....	377	406	29	7.8
Spain .....	359	372	13	3.6
Taiwan .....	456	350	-106	-23.2
Mexico .....	206	237	30	14.8
Dominican Rep .....	285	247	-38	-13.3
All other .....	1,050	1,051	1	0.1
Total .....	11,714	12,095	381	3.3
EU-15 .....	1,563	1,751	187	12.0
OPEC .....	889	957	69	7.7
Latin America .....	1,869	1,696	-174	-9.3
CBERA .....	321	283	-38	-11.8
Asian Pacific Rim .....	7,895	8,279	384	4.9
ASEAN .....	1,350	1,456	106	7.8
Central and Eastern Europe .....	133	125	-8	-6.1
U.S. merchandise trade balance:				
China .....	-5,247	-5,808	-562	-10.7
Brazil .....	-1,260	-1,119	141	11.2
Italy .....	-872	-1,002	-130	-14.9
Indonesia .....	-879	-942	-63	-7.2
Korea .....	-670	-487	183	27.4
Thailand .....	-373	-402	-29	-7.8
Spain .....	-353	-367	-14	-3.9
Taiwan .....	-443	-339	104	23.5
Mexico .....	-110	-165	-55	-49.7
Dominican Rep .....	-250	-203	47	18.7
All other .....	-610	-589	21	3.4
Total .....	-11,068	-11,424	-357	-3.2
EU-15 .....	-1,424	-1,621	-197	-13.8
OPEC .....	-869	-929	-60	-7.0
Latin America .....	-1,671	-1,502	169	10.1
CBERA .....	-256	-202	54	21.0
Asian Pacific Rim .....	-7,724	-8,069	-344	-4.5
ASEAN .....	-1,333	-1,430	-98	-7.3
Central and Eastern Europe .....	-129	-121	8	6.2

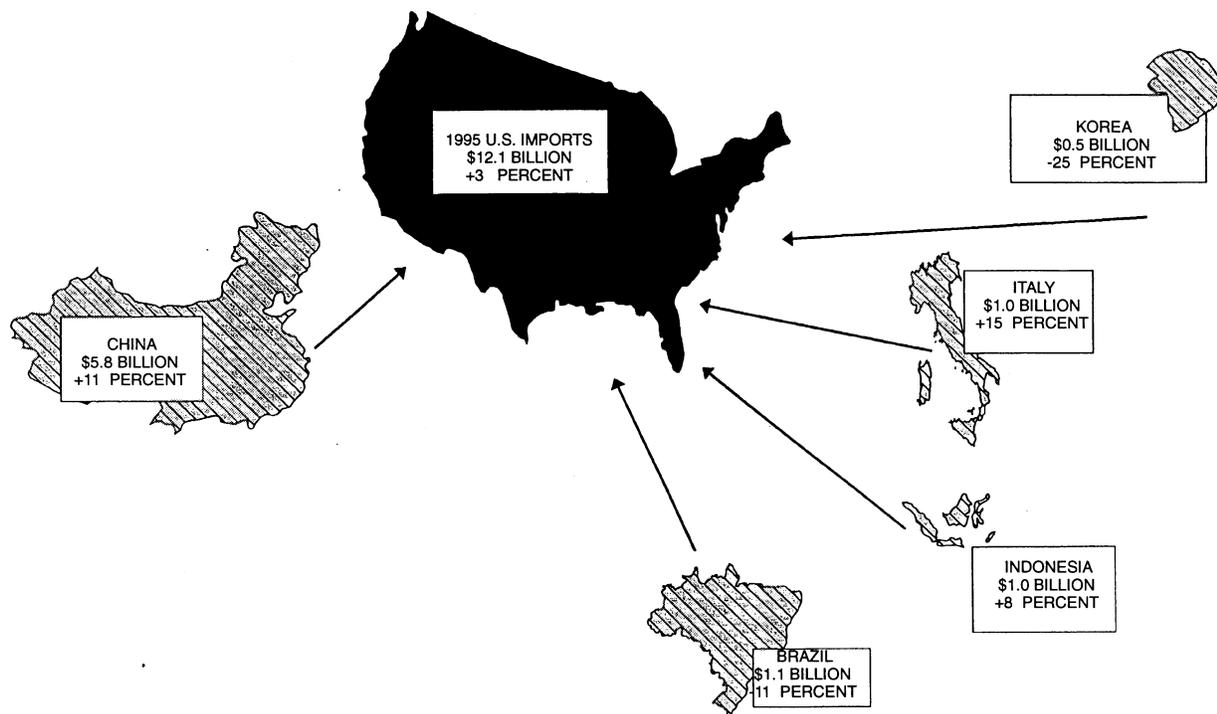
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Less than \$500,000.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 7-2**  
**U.S. footwear sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

growth of these shipments, compared with that in the early 1990s, was partly attributable to soft U.S. demand for athletic footwear.

The U.S. footwear deficit with the EU widened by \$197 million (14 percent) to \$1.6 billion in 1995, as imports rose by \$187 million (12 percent) to almost \$1.8 billion and exports fell by \$10 million (7 percent) to \$130 million. Italy was the only major EU footwear supplier that showed significant growth in shipments to the United States, in part reflecting favorable exchange rates. Footwear imports from Italy, which accounted for slightly more than one-half of the EU total, grew by \$130 million (15 percent) to \$1 billion in 1995.

The footwear trade deficit with Korea and Taiwan, once the dominant suppliers, declined by a combined \$287 million (26 percent) in 1995 to \$826 million. The decrease in the trade deficit with these suppliers stemmed almost entirely from a decline in

imports of \$279 million (24 percent) to \$865 million. Footwear production continued to move from Korea and Taiwan to lower cost countries such as China.

U.S. footwear imports from Mexico in 1995 increased by \$30 million (15 percent) to \$237 million. Shipments of nonrubber footwear from Mexico rose by 63 percent in quantity but by just 25 percent in value, to almost 9.8 million pairs valued at \$123 million, and imports of fabric-upper footwear grew by 12 percent in quantity and by 20 percent in value, to 22.8 million pairs valued at \$46 million. The growth in imports from Mexico was partly attributable to the peso devaluation, which effectively reduced dollar prices of Mexican footwear in the U.S. market.

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Table 7-3

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
CH050	Manmade fibers and filament yarns:				
	Exports .....	1,585	2,064	479	30.2
	Imports .....	1,299	1,381	82	6.3
	Trade balance .....	286	683	397	138.8
CH051	Spun yarns and miscellaneous yarns:				
	Exports .....	458	574	116	25.3
	Imports .....	594	613	19	3.2
	Trade balance .....	-136	-39	97	71.3
CH052	Boardwoven fabrics:				
	Exports .....	1,747	1,888	141	8.1
	Imports .....	3,362	3,462	100	3.0
	Trade balance .....	-1,615	-1,574	41	2.5
CH053	Knit fabrics:				
	Exports .....	344	437	93	27.0
	Imports .....	336	334	-2	-0.6
	Trade balance .....	8	103	95	1,187.5
CH054	Miscellaneous fabrics:				
	Exports .....	234	268	34	14.5
	Imports .....	130	151	21	16.2
	Trade balance .....	104	117	13	12.5
CH055	Coated, covered, impregnated, or laminated textile fabrics:				
	Exports .....	450	492	42	9.3
	Imports .....	227	243	16	7.0
	Trade balance .....	223	249	26	11.7
CH056	Cordage, nets, and netting:				
	Exports .....	43	48	5	11.6
	Imports .....	147	162	15	10.2
	Trade balance .....	-104	-114	-10	-9.6
CH057	Certain textile articles and fabrics suitable for industrial use:				
	Exports .....	282	277	-5	-1.8
	Imports .....	202	235	33	16.3
	Trade balance .....	80	42	-38	-47.5
CH058	Miscellaneous textiles and articles:				
	Exports .....	848	976	128	15.1
	Imports .....	1,179	1,417	238	20.2
	Trade balance .....	-331	-441	-110	-33.2
CH059	Sacks and bags of textile materials:				
	Exports .....	22	26	4	18.2
	Imports .....	52	76	24	46.2
	Trade balance .....	-30	-50	-20	-66.7
CH060	Carpets and rugs:				
	Exports .....	713	686	-27	-3.8
	Imports .....	748	858	110	14.7
	Trade balance .....	-35	-172	-137	-391.4
CH061	Home furnishings:				
	Exports .....	261	266	5	1.9
	Imports .....	1,075	1,258	183	17.0
	Trade balance .....	-814	-992	-178	-21.9
CH062	Men's and boys' suits and sports coats:				
	Exports .....	148	149	1	0.7
	Imports .....	748	850	102	13.6
	Trade balance .....	-600	-701	-101	-16.8
CH063	Men's and boys' coats and jackets:				
	Exports .....	136	125	-11	-8.1
	Imports .....	1,773	1,692	-81	-4.6
	Trade balance .....	-1,637	-1,567	70	4.3
CH064	Men's and boys' trousers:				
	Exports .....	1,050	1,082	32	3.0
	Imports .....	3,145	3,755	610	19.4
	Trade balance .....	-2,095	-2,673	-578	-27.6
CH065	Women's and girls' trousers:				
	Exports .....	409	486	77	18.8
	Imports .....	3,583	3,670	87	2.4
	Trade balance .....	-3,174	-3,184	-10	-0.3
CH066	Shirts and blouses:				
	Exports .....	1,021	1,285	264	25.9
	Imports .....	10,840	11,986	1,146	10.6
	Trade balance .....	-9,819	-10,701	-882	-9.0

See footnotes at end of table.

**Table 7-3—Continued**

**Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
CH067	Sweaters:				
	Exports .....	30	32	2	6.7
	Imports .....	2,052	1,750	-302	-14.7
	Trade balance .....	-2,022	-1,718	304	15.0
CH068	Women's and girls' suits, skirts, and coats:				
	Exports .....	255	274	19	7.5
	Imports .....	3,261	3,548	287	8.8
	Trade balance .....	-3,006	-3,274	-268	-8.9
CH069	Women's and girls' dresses:				
	Exports .....	103	112	9	8.7
	Imports .....	1,260	1,443	183	14.5
	Trade balance .....	-1,157	-1,331	-174	-15.0
CH070	Robes, nightwear, and underwear:				
	Exports .....	569	712	143	25.1
	Imports .....	2,197	2,673	476	21.7
	Trade balance .....	-1,628	-1,961	-333	-20.5
CH071	Hosiery:				
	Exports .....	220	257	37	16.8
	Imports .....	291	363	72	24.7
	Trade balance .....	-71	-106	-35	-49.3
CH072	Body-supporting garments:				
	Exports .....	344	431	87	25.3
	Imports .....	751	927	176	23.4
	Trade balance .....	-407	-496	-89	-21.9
CH073	Neckwear, handkerchiefs, and scarves:				
	Exports .....	26	29	3	11.5
	Imports .....	336	339	3	0.9
	Trade balance .....	-310	-310	( <sup>3</sup> )	-0.2
CH074	Gloves, including gloves for sports:				
	Exports .....	168	175	7	4.2
	Imports .....	1,499	1,733	234	15.6
	Trade balance .....	-1,331	-1,558	-227	-17.1
CH075	Headwear:				
	Exports .....	112	115	3	2.7
	Imports .....	821	842	21	2.6
	Trade balance .....	-709	-727	-18	-2.5
CH076	Leather apparel and accessories:				
	Exports .....	93	122	29	31.2
	Imports .....	1,456	1,199	-257	-17.7
	Trade balance .....	-1,363	-1,077	286	21.0
CH077	Fur apparel and other fur articles:				
	Exports .....	58	72	14	24.1
	Imports .....	187	146	-41	-21.9
	Trade balance .....	-129	-74	55	42.6
CH078	Rubber, plastic, and coated-fabric apparel:				
	Exports .....	87	91	4	4.6
	Imports .....	172	192	20	11.6
	Trade balance .....	-85	-101	-16	-18.8
CH079	Nonwoven and related products:				
	Exports .....	526	577	51	9.7
	Imports .....	437	476	39	8.9
	Trade balance .....	89	101	12	13.5
CH080	Other wearing apparel:				
	Exports .....	603	910	307	50.9
	Imports .....	2,292	2,297	5	0.2
	Trade balance .....	-1,689	-1,387	302	17.9
CH081	Apparel fasteners:				
	Exports .....	88	84	-4	-4.5
	Imports .....	122	127	5	4.1
	Trade balance .....	-34	-43	-9	-26.5
CH082	Footwear and footwear parts:				
	Exports .....	646	671	25	3.9
	Imports .....	11,714	12,095	381	3.3
	Trade balance .....	-11,068	-11,424	-356	-3.2

<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.

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



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## CHAPTER 8

# Minerals and Metals

Led by strong growth in U.S. exports of both steel and aluminum mill products, and copper and related products, the U.S. trade deficit in the minerals and metals sector narrowed by \$618 million (3 percent) in 1995 to \$23.7 billion—a significant turnaround from 1994, when the trade deficit for this sector had expanded by \$10.9 billion (table 8-1). U.S. exports of minerals and metals rose by \$6.9 billion (21 percent) in 1995, to \$39.4 billion; while imports rose by \$6.2 billion (11 percent) to \$63 billion.

The U.S. trade deficit in steel mill products improved by \$2.3 billion in 1995, because U.S. exports rose by \$1.6 billion (54 percent) in 1995 to \$4.7 billion, and U.S. imports fell by \$649 million (5 percent) to \$11.8 billion. The weak U.S. dollar made U.S. exports of steel mill products (hot-rolled sheet, coiled plates, and semifinished steel) more price-competitive in foreign markets in 1995. U.S. imports of steel mill products in 1995 declined because of a combination of (1) lower U.S. demand, owing to a slowing in the growth of the U.S. economy in the second half of 1995, (2) increased supply of U.S.-made steel as a result of the industry's exceptionally high capacity utilization rates, and (3) inventory liquidations by steel purchasers.

U.S. exports of aluminum mill products rose by more than one-third (\$797 million) in 1995 to \$3 billion, while imports climbed by 42 percent (\$602 million) to \$2 billion. As a result, the U.S. trade surplus in aluminum mill products in 1995 increased by \$195 million. Strong demand for aluminum mill products by the transportation, construction, packaging, and consumer-durables industries in nearly all global regions spurred growth in U.S. exports of flat-rolled products (sheets, strips, and plates), the predominant stock inputs for these manufacturing sectors. U.S. imports of aluminum mill products increased from nearly all major market sources in 1995, but the largest increase occurred primarily in imports of lower unit-value unalloyed bars and rods, and unalloyed and unclad sheet, strips, and plates from Russia.

A 27-percent increase in the average unit price of copper and related articles caused the dollar value

of U.S. imports and exports to increase substantially in 1995. U.S. exports of copper and related articles rose by \$895 million (49 percent) to \$2.7 billion; while imports rose by \$746 million (28 percent) in 1995 to \$3.4 billion. The faster growth in exports resulted in a \$149 million improvement in the trade deficit in 1995. The price change accounted for virtually all the increase in the value of U.S. imports, while U.S. copper exports increased in both dollar and quantity terms. U.S. exports of these products were mostly of refined copper and waste/scrap.

In contrast, the U.S. trade surplus in precious metals and related articles contracted in 1995 by \$699 million to \$1.8 billion, as U.S. exports fell by \$56 million (1 percent) to \$6.5 billion, and imports rose by \$643 million (16 percent) to \$4.7 billion. Switzerland and the United Kingdom, as major banking and precious metals trading and fabrication centers, continued to be the most important market destination for U.S. exports in 1995. Gold-bullion holdings at the U.S. Federal Reserve Bank of New York earmarked for foreign and international accounts dropped as certain Latin American and European central banks continued to transfer gold to accounts in Switzerland and the United Kingdom. Gold and platinum-group metals (PGMs) in all forms accounted for most U.S. imports in this commodity group. There are few substitutes for PGMs as industrial and automotive catalysts; with few domestic resources, the United States is highly dependent upon foreign sources.

Higher unit prices for unwrought nickel, cobalt, and tin drove U.S. imports of certain base metals and chemical elements to increase by \$816 million (47 percent) in 1995 to \$2.5 billion. The growth in imports was offset partially by a \$263 million (28-percent) increase in exports (also the result of price increases) resulting in a \$553 million expansion in the U.S. trade deficit. U.S. exports were principally of wrought nickel and nickel alloys, wrought tin, wrought molybdenum, unwrought and wrought titanium, and wrought zirconium. The United States is almost completely dependent on imports of nickel, cobalt, and tin.

**Table 8-1**  
**Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>**

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	9,795	11,012	1,217	12.4
Japan .....	2,337	3,191	853	36.5
Mexico .....	4,111	3,989	-122	-3.0
United Kingdom .....	2,609	2,699	90	3.5
Germany .....	1,031	1,216	185	17.9
Taiwan .....	1,118	1,285	167	15.0
China .....	385	708	324	84.1
Korea .....	1,094	1,937	843	77.1
Switzerland .....	1,560	2,107	548	35.1
Russia .....	51	84	32	63.4
All other .....	8,396	11,121	2,725	32.5
Total .....	32,487	39,350	6,863	21.1
EU-15 .....	6,259	7,438	1,179	18.8
OPEC .....	807	1,058	250	31.0
Latin America .....	5,824	6,322	497	8.5
CBERA .....	565	646	81	14.4
Asian Pacific Rim .....	7,625	10,555	2,930	38.4
ASEAN .....	1,092	1,808	716	65.5
Central and Eastern Europe .....	44	51	7	16.8
U.S. imports for consumption:				
Canada .....	13,061	15,028	1,966	15.1
Japan .....	4,916	4,968	52	1.1
Mexico .....	3,067	4,157	1,090	35.5
United Kingdom .....	1,868	2,002	134	7.2
Germany .....	2,898	3,008	110	3.8
Taiwan .....	2,697	2,769	72	2.7
China .....	1,986	2,705	719	36.2
Korea .....	1,217	1,246	29	2.3
Switzerland .....	586	772	186	31.8
Russia .....	2,170	2,703	533	24.5
All other .....	22,309	23,665	1,355	6.1
Total .....	56,778	63,024	6,245	11.0
EU-15 .....	13,323	13,499	176	1.3
OPEC .....	1,028	1,083	55	5.3
Latin America .....	7,353	8,963	1,610	21.9
CBERA .....	423	497	73	17.3
Asian Pacific Rim .....	12,779	13,762	983	7.7
ASEAN .....	1,077	1,129	52	4.8
Central and Eastern Europe .....	563	516	-48	-8.4
U.S. merchandise trade balance:				
Canada .....	-3,266	-4,016	-749	-22.9
Japan .....	-2,579	-1,778	801	31.1
Mexico .....	1,043	-168	-1,212	( <sup>2</sup> )
United Kingdom .....	740	697	-44	-5.9
Germany .....	-1,867	-1,792	75	4.0
Taiwan .....	-1,580	-1,485	95	6.0
China .....	-1,602	-1,997	-395	-24.7
Korea .....	-123	691	815	( <sup>2</sup> )
Switzerland .....	974	1,336	362	37.1
Russia .....	-2,119	-2,619	-500	-23.6
All other .....	-13,913	-12,543	1,370	9.8
Total .....	-24,292	-23,674	618	2.5
EU-15 .....	-7,064	-6,061	1,003	14.2
OPEC .....	-221	-25	196	88.7
Latin America .....	-1,528	-2,642	-1,113	-72.8
CBERA .....	142	150	8	5.5
Asian Pacific Rim .....	-5,154	-3,207	1,947	37.8
ASEAN .....	15	679	664	4,338.4
Central and Eastern Europe .....	-520	-465	55	10.6

<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> Not meaningful for purposes of comparison.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

# U.S. Bilateral Trade

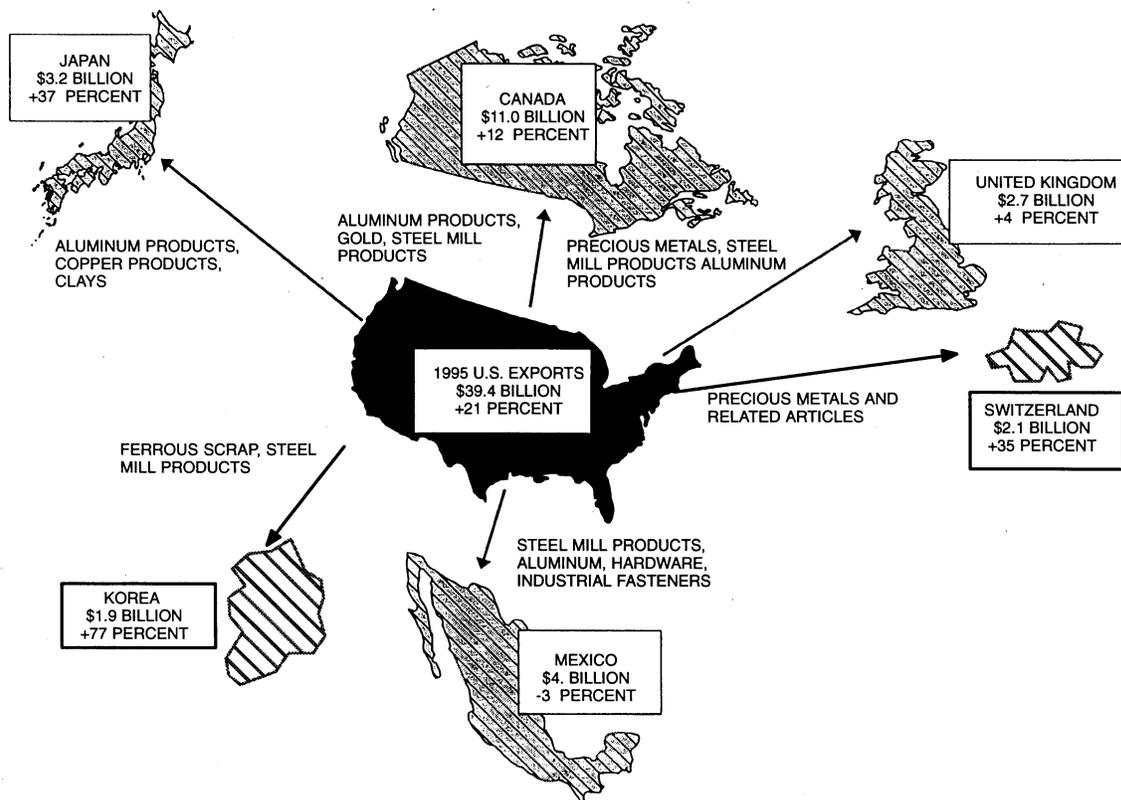
All major markets for U.S. exports of minerals and metals—with the exception of Mexico—registered a pronounced increase in trade in 1995 (figure 8-1). Canada, the predominant market for U.S. exports of minerals and metal, also accounted for the largest increase in dollar value in 1995, as U.S. exports to Canada rose by \$1.2 billion (12 percent) to \$11 billion. The most prominent climbs in exports to Canada in 1995 were for steel mill products, which rose by \$285 million (20 percent) to \$1.7 billion; and for aluminum mill products which rose by \$244 million (26 percent) to \$1.2 billion. Because the automotive and machinery industries in the United States and Canada are largely integrated, U.S. exports benefited from increased use of metals by these industries in Canada.

Mexico, the second-largest market for U.S. exports of minerals and metals registered a \$122 million

(3-percent) decline in U.S. exports in 1995 to \$4 billion. The devaluation of the peso in December of 1994 made U.S.-sourced minerals and metals significantly more expensive in the Mexican market. Further, newly privatized Mexican steelmakers have restructured their operations and increased production in an effort to serve markets that have been traditionally supplied by U.S. exporters.

U.S. exports to Japan, the third-largest market, rose by more than one-third (\$853 million) to \$3.2 billion in 1995. To a certain extent, exports to Japan were propelled by the January 1995 earthquake in the Kobe area of Japan that damaged a number of steel mills, including Kobe Steel Ltd., Kobe Works, Kawasaki Steel Corp., and Sumitomo Metals. U.S. exports of steel mill products to Japan more than tripled in 1995, growing from \$37 million to \$127 million. Export growth to Japan was also strong for precious metals and related articles, which rose by two-thirds (\$151 million) to \$372 million in 1995.

**Figure 8-1**  
**U.S. minerals and metals sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

Switzerland accounted for the most significant growth in U.S. exports of minerals and metals to Europe in 1995, as such trade rose by \$548 million (35 percent) to \$2.1 billion. The increase in U.S. exports to Switzerland was accounted for by transfers in gold-bullion holdings from the U.S. Federal Reserve Bank of New York.

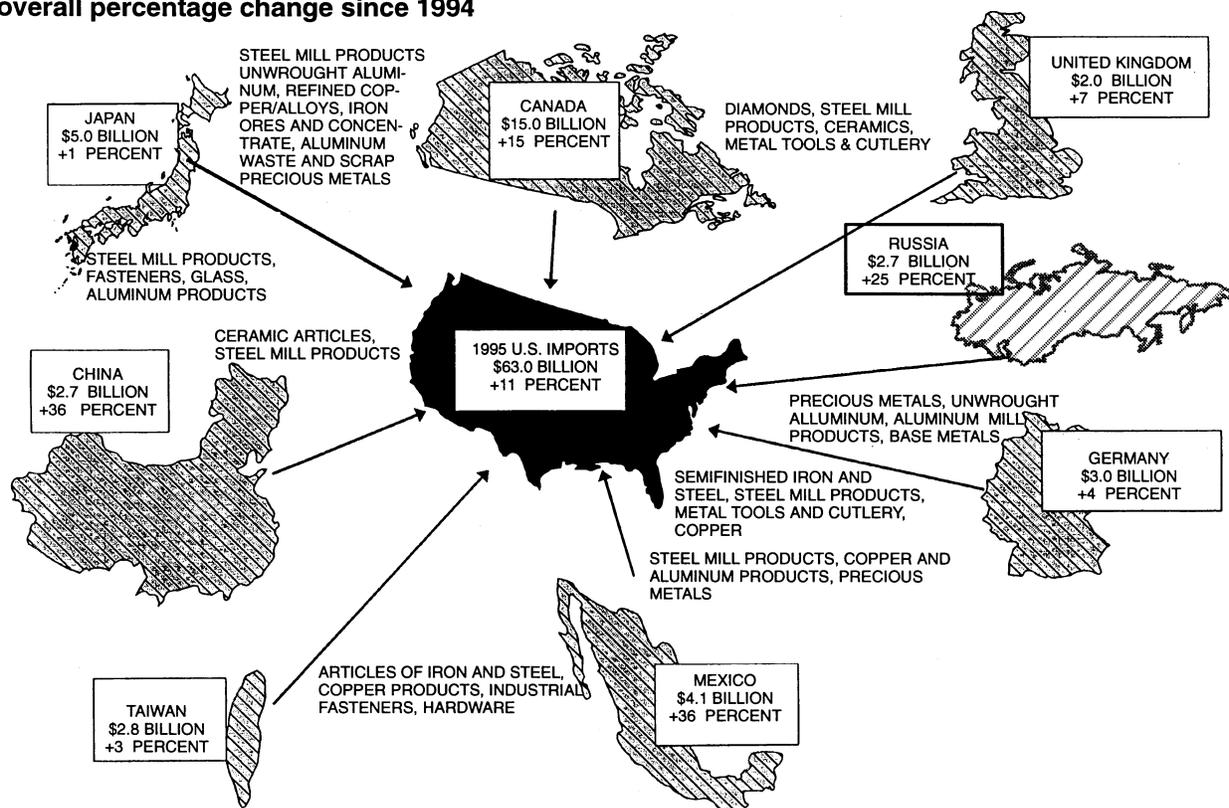
U.S. exports to Korea (up \$843 million, or 77 percent, to \$1.9 billion) and China (up \$324 million, or 84 percent, to \$708 million) accounted for the most pronounced growth in U.S. exports of minerals and metals in 1995. Strong demand for mineral and metal products is expected to continue because of the infrastructural requirements caused by the rapid expansion in the manufacturing sectors of China and Korea. U.S. exports of steel mill products to China in 1995 more than tripled, rising from \$40 million to \$137 million; while those to Korea rose by at an even faster rate, from \$41 million to \$249 million.

NAFTA partners Canada and Mexico, combined, represented one-half (\$3.1 billion) of the total increase in U.S. imports of minerals and metals in 1995 (figure 8-2). Copper and related products accounted for a substantial portion of the increase in

U.S. imports from both Canada and Mexico in this year, as such imports from Canada rose by one-half in 1995 (\$473 million) to \$1.5 billion, while those from Mexico more than doubled (by \$264 million) to \$484 million. U.S. imports of steel mill products were also significant from Canada (up by \$157 million, or 7 percent, to \$2.4 billion) and Mexico (up by \$275 million, or 47 percent, to \$865 million). Proximity, infrastructure, and extensive ties to U.S. operations promote trade between these regions. A significant portion of trade in minerals and metals between the United States and NAFTA partners enters either duty free or at reduced duties under the NAFTA.

U.S. imports from the EU-15 rose by just 1 percent (\$176 million) to \$13.5 billion in 1995. Such imports from the Asian Pacific Rim rose by 8 percent (\$983 million) to \$14 billion. U.S. imports from China and Russia, respectively, rose by 36 percent to \$2.7 billion and 25 percent to \$2.7 billion in 1995. U.S. imports from China were primarily of copper and related products, and aluminum mill products; while those from Russia were of certain base metals and chemical elements, and aluminum mill products.

**Figure 8-2**  
**U.S. minerals and metals sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

The most prominent bilateral expansions in the U.S. trade deficits in 1995 occurred with Mexico, Canada, and Russia. The U.S. bilateral trade balance with Mexico shifted from a surplus of \$1.0 billion in 1994 to a deficit of \$168 million in 1995. The sharply reduced purchasing power of the peso resulted in a decline in U.S. exports as imports rose by more than one-third in 1995. The U.S. trade deficit with Canada widened by \$749 million to \$4 billion in 1995 as growth in U.S. exports to Canada in 1995 was tempered by modest business, government, and consumer spending.<sup>1</sup> The widening of the U.S. trade deficit with Russia was principally the result of an increase in U.S. imports of precious metals and related articles, aluminum products, and certain base metals and chemical elements. The U.S. bilateral trade balance with Japan and Korea improved by over \$800 million dollars each in 1995, as exports of minerals and metals rose significantly and U.S. imports from these countries remained stable.

## Commodity Analysis

### *Steel Mill Products<sup>2</sup>*

The trade deficit in steel mill products decreased by 24 percent (\$2.3 billion) in 1995 to \$7.1 billion, and the level of import penetration declined from 17.9 percent in 1994 to 17.3 percent in 1995, in value terms. U.S. imports of steel mill products totaled \$11.8 billion in 1995, representing a decrease of 5 percent (\$649 million) from the record high in 1994 of \$12.4 billion. Total U.S. exports continued to increase significantly in 1995, but from a lower level than imports, rising by 54 percent (\$1.6 billion) to \$4.7 billion, the highest export level since 1940.

Continued overall strong domestic demand was supplied by U.S. production through high capacity utilization of existing facilities, increased overall on-line steel mill capacity, and inventory liquidations by steel purchasers. At the same time, import levels generally declined. The increased strength of the Japanese yen during part of the year, in addition to a decline in U.S. production of motor vehicles (for which some Japanese flat-rolled steels are destined), may have contributed to the 15-percent (\$274 million) decrease (to \$1.5 billion) in U.S. imports from Japan. Nevertheless, Japan remained the second-leading foreign supplier to the United States in 1995. Imports from the EU-15, which represented

31 percent of total imports in value terms, declined by 18 percent to \$3.7 billion in 1995. In contrast, imports from Mexico increased substantially, rising by 47 percent (\$275 million) to \$865 million in 1995, as the peso continued to weaken. Imports from Canada, the leading foreign steel supplier with 20 percent of the total, increased by 7 percent (\$157 million) to \$2.4 billion in 1995.

Imports in most product categories decreased during 1995, with the greatest decreases occurring in flat-rolled products and semifinished steel products (primarily slabs, which are rolled into flat products). Imports of flat-rolled sheet and strip declined by 20 percent to \$3.9 billion in 1995, while imports of semifinished steel products (chiefly slab and billet) declined by 18 percent to \$1.6 billion from the high levels of 1994. Most of the imports in flat-rolled and semifinished products were purchased by U.S. steel producers and converters for domestic rolling and processing.

Canada and Mexico remained the primary destinations for U.S. exports of steel mill products in 1995, together accounting for 50 percent (\$2.3 billion) of the annual total. U.S. exports of steel mill products to Canada grew by 20 percent to \$1.7 billion, while exports to Mexico increased by less than 1 percent to \$647 million. Because the automotive and machinery industries in the United States and Canada are extensively integrated, U.S. exports benefited from increased use of steel mill products by these industries in Canada. On the other hand, newly privatized Mexican steelmakers have restructured their operations and increased their production in an effort to serve markets that have been traditionally supplied by U.S. exporters. Also increasing, but from a much lower base, were U.S. exports to Korea, which rose by \$208 million (505 percent) to \$249 million in 1995, largely in response to needs of the expanding Korean economy.

On a product basis, the most significant changes in exports in 1995 occurred in hot-rolled sheet, which rose by 750 percent to \$720 million and accounted for 15 percent of U.S. exports of steel mill products by value. Also showing significant year-to-year export increases were coiled plates, up by over 200 percent to \$233 million, and semifinished steel, up by 70 percent to \$230 million.

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### *Copper and Related Articles*

The U.S. trade deficit in copper and related articles improved by 18 percent (\$149 million) to \$693 million in 1995, primarily as a result of increased exports to Asian countries. The price of copper increased 27 percent in 1995, which caused the value

<sup>1</sup> See write-up on Canada in this publication.

<sup>2</sup> Includes semifinished and flat-rolled products, bars, rods, angles, sections, wire, rails, pipe, tubes and fittings.

of U.S. imports and exports of copper and related articles to increase substantially. This price change accounted for virtually all the change in the value of U.S. imports, which increased by 28 percent (\$746 million) to \$3.4 billion in 1995. However, U.S. copper exports increased in both dollar and quantity terms, and the import change was more than offset by a 50-percent (\$895 million) increase in exports to \$2.7 billion.

For the second straight year, world refined copper consumption increased and was greater than new supply. As a result, copper inventories held by metal exchanges and end users declined, applying upward pressure on the price of copper. The price of copper on the London Metals Exchange increased from an average of \$1.05 per pound in 1994 to \$1.33 per pound in 1995, the highest annual average price (in nominal figures) in more than 20 years.

U.S. refined copper consumption actually decreased by 5 percent in 1995, primarily as a result of lower activity in the building and construction sector (the largest consuming sector, where copper is used mostly as wire and cable in electrical systems and tubes and hardware in plumbing systems). European consumption increased by 4 percent, but most of the increase in world consumption came from the Asia-Pacific region (not including Japan). Development of infrastructure such as electric power, telecommunications, and transportation systems in these rapidly developing countries caused 1995 consumption to grow in this region by 10 percent. These countries are also consuming more refined copper because Japanese wire and cable producers, which account for approximately 60 percent of Japanese refined copper consumption, are moving their plants to other Asian countries to reduce costs (Japanese wire and cable production decreased by 16 percent during 1991-95).

Refined copper exports, which increased by 72 percent (\$258 million) in 1995 to \$616 million, and waste/scrap exports, which increased by 93 percent (\$406 million) to \$844 million, accounted for most of the increase in 1995 exports. Canada remains the leading export market, and accounted for \$21 million and \$125 million of the increase in refined copper and waste/scrap exports, respectively. The Asia-Pacific countries accounted for virtually all the rest of the export increase. In the 1990s, these countries have been increasingly important U.S. export markets.

Refined copper imports, which increased by 20 percent (\$212 million) to \$1.3 billion, accounted for 29 percent of the change in imports in 1995, but actually declined by 9 percent in quantity terms reflecting the decline in U.S. consumption. There were also significant increases in imports of certain semifabricated products, such as copper wire, which

increased 70 percent (\$55 million) to \$135 million; and copper tubes, which increased 57 percent (\$40 million) to \$111 million. Increased imports from Canada and Mexico, the leading U.S. suppliers, accounted for virtually all the change in total imports.

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## ***Certain Base Metals and Chemical Elements***

The U.S. trade deficit in certain base metals and chemical elements increased by 70 percent (\$553 million) in 1995 to \$1.3 billion. Strong U.S. demand for unwrought nickel and higher unit prices for unwrought nickel, cobalt, and tin caused U.S. imports to increase 47 percent (\$817 million) to \$2.5 billion. The growth in imports was offset partially by a 28-percent (\$263 million) increase in exports to \$1.2 billion.

The price of nickel was 33 percent higher in 1995, primarily in response to a 13-percent rise in world production of stainless steel (many stainless steel alloys contain nickel), which caused the dollar value of U.S. imports of nickel to increase. Also, the quantity of these imports increased by approximately 23 percent because of increased U.S. stainless steel production. However, the quantity of cobalt and tin imports did not change appreciably.

The United States is almost completely dependent on foreign sources for nickel, cobalt, and tin. Canada has historically been the major U.S. supplier of unwrought nickel, accounting for more than 50 percent of U.S. imports during 1990-93. Although still the leading supplier, Canada's market share decreased to 40 percent and 35 percent in 1994 and 1995, respectively. Russia's market share has increased substantially, from 5 percent in 1994 to 27 percent in 1995. Russia's rise as a major exporter is largely due to the collapse of its nickel-consuming industries and the successful development of markets in the Western world.

A 12-percent increase in the price of cobalt in 1995 was a continuation of a trend associated with ongoing production problems and interruptions in Zaire and Zambia, two of the world's leading cobalt sources. The price of tin increased by 14 percent during 1995 as a result of strong downstream demand from brass mills, which use the metal in copper alloy semifabricates. (Tin is also used to plate steel for can stock, but demand in this sector did not increase in 1995.)

There were significant U.S. export value increases in wrought nickel and nickel alloys, wrought tin, wrought molybdenum, unwrought and wrought titanium, and wrought zirconium, mostly attributed to

unit price increases; there was little or no increase, however, in the quantity of these exports. There was no change in major U.S. export markets during 1995; Canada and Japan continued to be the leading markets accounting for more than 40 percent collectively. The EU countries accounted for almost one-half of U.S. exports of certain base metals and chemical elements.

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## **Aluminum Mill Products**

The U.S. trade surplus in aluminum mill products<sup>3</sup> improved by 27 percent (\$195 million) in 1995 to \$926 million, as growth in U.S. exports of domestic merchandise outpaced the growth in U.S. imports for consumption for a second straight year. Continued robust demand by the transportation, building and construction products, packaging, and consumer-durables industries in nearly all global regions spurred shifts in import and export volumes of flat-rolled products (sheets, strips, and plates), the predominant stock inputs for these manufacturing sectors.

During 1994-95, U.S. imports of aluminum mill products rose in value by 42 percent<sup>4</sup> from \$1.4 billion to \$2.0 billion, reflecting the combined effects of a 23-percent rise in the average unit value of these products (from \$2,278 per metric ton to \$2,812 per metric ton) and an increase in the volume of imports by 15 percent (from 635 thousand metric tons to 728 thousand metric tons). Most of the increase was in imports of flat-rolled products, which grew by 61 percent, from \$0.8 billion to \$1.3 billion. Imports of aluminum mill products also increased from nearly all major country sources in 1995, but the largest increase occurred primarily in imports of lower unit-value unalloyed bars and rods, and unalloyed and unclad sheets, strips, and plates from Russia. The value of U.S. imports from Russia more than tripled in 1995, rising from \$78 million to \$264 million. Only since 1992 has Russia supplied appreciable quantities of aluminum mill products to the United States. Nevertheless, Canada, Germany, and Japan also continued to be major import sources of aluminum mill products for the United States in 1995, with much

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<sup>3</sup> Aluminum mill products are produced from unwrought forms (e.g., ingots, slabs, and billets) by mechanical working processes such as rolling, extruding, or forging. This commodity group includes powder and flakes; bars, rods, and profiles; wires; plates, sheets, and strips; foils; tubes and pipes; and tube and pipe fittings. For additional details on imports and industry conditions, see USITC, *Industry and Trade Summary, Aluminum*, USITC publication 2706, Apr. 1995.

<sup>4</sup> 1994-95 percentage change may not correspond exactly with annual values in billions of dollars due to rounding.

of the trade supplying foreign transplant subsidiaries, joint ventures, and niche-product markets in the automotive and electronics industries. Growth in U.S. imports from these sources was not as spectacular as in the case of Russia; during this period, U.S. imports rose by 25 percent (\$186 million) from Canada, to \$920 million; 18 percent (\$24 million) from Germany, to \$158 million; and 23 percent (\$20 million) from Japan, to \$104 million. These three nations and Russia accounted for nearly 71 percent (\$1.4 billion) of total value of U.S. imports in 1995.

The value of U.S. exports of aluminum mill products rose by 37 percent during this period, from \$2.2 billion to \$3.0 billion, reflecting the combined effects of a 24-percent rise in the average unit value (from \$2,513 per metric ton to \$3,124 per metric ton) and a 10-percent increase in the volume of exports (from 866 thousand metric tons to 952 thousand metric tons). Most of this overall increase was in exports of flat-rolled products, which grew 42 percent, from \$1.5 billion to \$2.2 billion. Canada and Mexico maintained their positions as the two largest market destinations in 1995, accounting for 52 percent of the total value of U.S. exports, due largely to their proximity and extensive ties to U.S. operations. The value of U.S. exports to Canada grew by 26 percent during 1994-95, from \$0.9 billion to \$1.2 billion; and exports to Mexico increased by 7 percent, from \$354 million to \$379 million. Among destination countries, the largest percentage increase by value occurred in U.S. exports to Brazil (a 160-percent increase from \$38 million to \$98 million), of which two-thirds was can stock supplied to U.S. subsidiaries in response to fast-growing demand for aluminum beverage cans. During 1994-95, U.S. can-stock exports to Brazil rose from \$8 million to \$47 million.

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## **Precious Metals and Related Articles**

The U.S. trade surplus in precious metals and related articles<sup>5</sup> dropped for a second straight year to \$1.8 billion in 1995, which was 28 percent<sup>6</sup> (\$0.7 billion) less than the previous year level. The total value of U.S. exports of precious metals and related articles was relatively unchanged from that of the previous year at \$6.5 billion. In contrast, U.S. imports rose from \$4.0 billion in 1994 to \$4.7 billion

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<sup>5</sup> Precious metals and related articles include refined bullion, dore, semimanufactures, leaf, and powders of gold, silver, and platinum-group metals, waste and scrap, and non-nuismatic coins.

<sup>6</sup> The 1994-95 percentage change may not correspond exactly with annual values in billions of dollars, due to rounding.

in 1995, or by 16 percent, as imports of all product categories increased, except for nonnumismatic coins.

The top sources for imports of U.S. precious metals and related articles in 1995 continued to be Canada, South Africa, and Russia, which together accounted for 60 percent of the total value. Imports from the top two sources shifted slightly from the previous year levels, dropping by 10 percent (\$0.2 billion) for Canada, to \$1.6 billion and rising 12 percent (\$90 million) for South Africa, to \$830 million in 1995. In contrast, imports from Russia in 1995 were up sharply (65 percent) to \$425 million compared with \$258 million the previous year. Gold and platinum-group metals<sup>7</sup> (PGMs) in all forms accounted for 80 percent of the total value of U.S. imports in this commodity group. There are few substitutes for PGMs in industrial and automotive catalyst applications, and with few domestic resources, the United States is highly dependent upon foreign sources for all PGMs (net import reliance is estimated at around 90 percent<sup>8</sup>). South Africa continues to be the pri-

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<sup>7</sup> Platinum, palladium, rhodium, iridium, ruthenium, and osmium.

<sup>8</sup> R. Reese, "Platinum-group Metals," *Mineral Commodity Summaries*, U.S. Bureau of Mines, 1996.

mary U.S. supplier, accounting for 48 percent of total imports in 1995. However, Russia provided an increasing share of PGMs, 19 percent of all PGM imports in 1994 (\$250 million) and 24 percent in 1995 (\$413 million).

Despite a 300-percent increase in the value of silver-bullion exports (primarily to the United Kingdom) in 1995, U.S. exports of commodities in this group were predominantly gold in all forms and precious-metals waste and scrap (82 percent of total value). Switzerland and the United Kingdom, as major banking and precious-metals trading and fabrication centers, continue to be the most important market destinations, receiving more than one-half (54 percent) of the total value of U.S. exports in 1995. Switzerland surpassed the United Kingdom as the top U.S. export destination in 1995 as exports rose 42 percent (\$0.6 billion) over the previous year's level to \$1.9 billion, whereas exports to the United Kingdom over the same period were down by 10 percent (\$0.2 billion) to \$1.6 billion. Other important trading and fabrication markets include Canada, France, Hong Kong, Japan, Germany, and Taiwan, which together received an additional 36 percent of the total value of U.S. exports of precious metals and related articles in 1995.

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**Table 8-2**  
**Minerals and metals sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:				
	Exports .....	950	1,023	73	7.7
	Imports .....	153	183	30	19.6
	Trade balance .....	797	840	43	5.4
MM002	Certain miscellaneous mineral substances:				
	Exports .....	5	7	2	40.0
	Imports .....	34	47	13	38.2
	Trade balance .....	-29	-40	-11	-37.9
MM003	Iron ores and concentrates:				
	Exports .....	162	184	22	13.6
	Imports .....	510	486	-24	-4.7
	Trade balance .....	-348	-302	46	13.2
MM004	Copper ores and concentrates:				
	Exports .....	393	486	93	23.7
	Imports .....	126	127	1	0.8
	Trade balance .....	267	359	92	34.5
MM005	Lead ores and residues:				
	Exports .....	23	25	2	8.7
	Imports .....	( <sup>3</sup> )	2	2	862.1
	Trade balance .....	23	23	( <sup>3</sup> )	-1.9
MM006	Zinc ores and residues:				
	Exports .....	191	242	51	26.7
	Imports .....	18	13	-5	-27.8
	Trade balance .....	173	229	56	32.4
MM007	Certain ores, concentrates, ash, and residues:				
	Exports .....	301	704	403	133.9
	Imports .....	508	622	114	22.4
	Trade balance .....	-207	82	289	139.6
MM008	Precious metal ores and concentrates:				
	Exports .....	16	8	-8	-50.0
	Imports .....	49	87	38	77.6
	Trade balance .....	-33	-79	-46	-139.4
MM009	Certain nonmetallic minerals and articles:				
	Exports .....	944	995	51	5.4
	Imports .....	1,820	2,144	324	17.8
	Trade balance .....	-876	-1,149	-273	-31.2
MM010	Industrial ceramics:				
	Exports .....	411	635	224	54.5
	Imports .....	356	425	69	19.4
	Trade balance .....	55	210	155	281.8
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Exports .....	19	20	1	5.3
	Imports .....	15	16	1	6.7
	Trade balance .....	4	4	( <sup>3</sup> )	-6.4
MM012	Ceramic floor and wall tiles:				
	Exports .....	24	26	2	8.3
	Imports .....	519	562	43	8.3
	Trade balance .....	-495	-536	-41	-8.3
MM013	Ceramic household articles:				
	Exports .....	105	99	-6	-5.7
	Imports .....	1,563	1,658	95	6.1
	Trade balance .....	-1,458	-1,559	-101	-6.9
MM014	Flat glass and certain flat glass products:				
	Exports .....	1,031	1,135	104	10.1
	Imports .....	864	917	53	6.1
	Trade balance .....	167	218	51	30.5
MM015	Glass containers:				
	Exports .....	127	129	2	1.6
	Imports .....	323	377	54	16.7
	Trade balance .....	-196	-248	-52	-26.5
MM016	Household glassware:				
	Exports .....	192	198	6	3.1
	Imports .....	643	729	86	13.4
	Trade balance .....	-451	-531	-80	-17.7

See footnotes at end of table.

**Table 8-2—Continued**  
**Minerals and metals sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MM017	Certain glass and glass products:				
	Exports .....	437	576	139	31.8
	Imports .....	518	583	65	12.5
	Trade balance .....	-81	-7	74	91.4
MM018	Fiber glass products:				
	Exports .....	448	490	42	9.4
	Imports .....	255	294	39	15.3
	Trade balance .....	193	196	3	1.6
MM019	Natural and synthetic gemstones:				
	Exports .....	268	268	( <sup>3</sup> )	( <sup>4</sup> )
	Imports .....	6,429	6,666	237	3.7
	Trade balance .....	-6,161	-6,398	-237	-3.8
MM020	Precious metals and related articles:				
	Exports .....	6,531	6,475	-56	-0.9
	Imports .....	4,033	4,676	643	15.9
	Trade balance .....	2,498	1,799	-699	-28.0
MM021	Primary iron products:				
	Exports .....	12	13	1	8.3
	Imports .....	450	541	91	20.2
	Trade balance .....	-438	-528	-90	-20.5
MM022	Ferroalloys:				
	Exports .....	87	114	27	31.0
	Imports .....	777	1,245	468	60.2
	Trade balance .....	-690	-1,131	-441	-63.9
MM023	Iron and steel waste and scrap:				
	Exports .....	1,269	1,703	434	34.2
	Imports .....	238	300	62	26.1
	Trade balance .....	1,031	1,403	372	36.1
MM024	Abrasive and ferrous powders:				
	Exports .....	432	410	-22	-5.1
	Imports .....	595	633	38	6.4
	Trade balance .....	-163	-223	-60	-36.8
MM025	Steel mill products, all grades:				
	Exports .....	3,029	4,665	1,636	54.0
	Imports .....	12,435	11,786	-649	-5.2
	Trade balance .....	-9,406	-7,121	2,285	24.3
MM026	Steel pipe and tube fittings, and certain cast products:				
	Exports .....	484	630	146	30.2
	Imports .....	367	427	60	16.3
	Trade balance .....	117	203	86	73.5
MM027	Fabricated structurals:				
	Exports .....	122	143	21	17.2
	Imports .....	109	143	34	31.2
	Trade balance .....	13	( <sup>3</sup> )	-13	( <sup>5</sup> )
MM028	Metal construction components:				
	Exports .....	453	483	30	6.6
	Imports .....	181	258	77	42.5
	Trade balance .....	272	225	-47	-17.3
MM029	Metallic containers:				
	Exports .....	642	787	145	22.6
	Imports .....	324	380	56	17.3
	Trade balance .....	318	407	89	28.0
MM030	Wire products of iron, steel, aluminum, copper, and nickel:				
	Exports .....	469	599	130	27.7
	Imports .....	984	1,119	135	13.7
	Trade balance .....	-515	-520	-5	-1.0
MM031	Chain:				
	Exports .....	401	535	134	33.4
	Imports .....	651	729	78	12.0
	Trade balance .....	-250	-194	56	22.4
MM032	Industrial fasteners of base metal:				
	Exports .....	879	1,027	148	16.8
	Imports .....	1,646	1,871	225	13.7
	Trade balance .....	-767	-844	-77	-10.0

See footnotes at end of table.

**Table 8-2—Continued**  
**Minerals and metals sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MM033	Cooking and kitchen ware:				
	Exports .....	233	245	12	5.2
	Imports .....	1,001	1,158	157	15.7
	Trade balance .....	-768	-913	-145	-18.9
MM034	Metal and ceramic sanitary ware:				
	Exports .....	153	159	6	3.9
	Imports .....	249	271	22	8.8
	Trade balance .....	-96	-112	-16	-16.7
MM035	Iron construction castings and other nonmalleable cast-iron articles:				
	Exports .....	26	26	( <sup>3</sup> )	-1.4
	Imports .....	72	87	15	20.8
	Trade balance .....	-46	-61	-15	-32.6
MM036	Copper and related articles:				
	Exports .....	1,813	2,708	895	49.4
	Imports .....	2,655	3,401	746	28.1
	Trade balance .....	-842	-693	149	17.7
MM037	Unwrought aluminum:				
	Exports .....	896	1,294	398	44.4
	Imports .....	4,221	4,585	364	8.6
	Trade balance .....	-3,325	-3,291	34	1.0
MM038	Aluminum mill products:				
	Exports .....	2,177	2,974	797	36.6
	Imports .....	1,446	2,048	602	41.6
	Trade balance .....	731	926	195	26.7
MM039	Lead and related articles:				
	Exports .....	70	86	16	22.9
	Imports .....	149	195	46	30.9
	Trade balance .....	-79	-109	-30	-38.0
MM040	Zinc and related articles:				
	Exports .....	67	81	14	20.9
	Imports .....	813	952	139	17.1
	Trade balance .....	-746	-871	-125	-16.8
MM041	Certain base metals and chemical elements:				
	Exports .....	927	1,190	263	28.4
	Imports .....	1,720	2,536	816	47.4
	Trade balance .....	-793	-1,346	-553	-69.7
MM042	Nonpowered handtools:				
	Exports .....	1,455	1,639	184	12.6
	Imports .....	1,939	2,230	291	15.0
	Trade balance .....	-484	-591	-107	-22.1
MM043	Cutlery other than Tableware, certain sewing implements, and related products:				
	Exports .....	385	420	35	9.1
	Imports .....	585	656	71	12.1
	Trade balance .....	-200	-236	-36	-18.0
MM044	Table flatware and related products:				
	Exports .....	28	35	7	25.0
	Imports .....	224	272	48	21.4
	Trade balance .....	-196	-237	-41	-20.9
MM045	Certain builders' hardware:				
	Exports .....	620	637	17	2.7
	Imports .....	709	763	54	7.6
	Trade balance .....	-89	-126	-37	-41.6
MM046	Miscellaneous products of base metal:				
	Exports .....	2,776	3,019	243	8.8
	Imports .....	3,502	3,824	322	9.2
	Trade balance .....	-726	-805	-79	-10.9

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

<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> Less than 0.05 percent.

<sup>5</sup> Not meaningful for purposes of comparison.

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



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## CHAPTER 9

# Machinery

A \$7.8 billion (15-percent) increase in U.S. imports of machinery in 1995 was larger than the \$7.2 billion (15-percent) rise in U.S. exports, raising the U.S. trade deficit by \$575 million (22 percent) to \$3.2 billion (table 9-1). The rise in U.S. exports, from \$49.8 billion in 1994 to \$57.0 billion in 1995, was not quite enough to overcome the upturn in imports that reached \$60.2 billion in 1995, from \$52.4 billion in 1994. The import surge was led by strong U.S. demand for certain industrial machinery and parts (especially elevators, hoists, and parts for such equipment; casting machines; and semiconductor manufacturing equipment and parts for such equipment); ignition wiring harnesses for motor vehicles; low-voltage lamp ballasts, power supplies, transformers, and inductors; and electric discharge machines and related metal-cutting machine tools and parts. The continued expansion of the U.S. automotive market, in conjunction with sustained low-interest rates, which bolstered capital equipment purchases and U.S. construction activity, were among the most notable factors that promoted U.S. demand for this equipment in 1995.

The growth in U.S. exports of machinery was largely attributable to sustained shipments to Canada and substantially expanded offerings to Korea, Germany, and Japan, which combined, accounted for slightly over one-half of the total annual increase during 1995. The floating of the peso on December 22, 1994, resulted in a significant reduction in U.S. shipments of certain automobile parts and electrical machinery products to Mexico throughout 1995. As a result, Mexico was the only major foreign market for U.S. machinery exports that experienced a decline (11 percent) in 1995.

### U.S. Bilateral Trade

Canada, Mexico, Japan, and the EU-15 (most notably Germany and the United Kingdom) accounted for the majority of U.S. trade in machinery during 1995. Together, these U.S. trading partners were responsible for 58 percent of total U.S. exports; 79 percent of U.S. imports; 80 percent of the change in U.S. imports; and a combined U.S. trade deficit of \$3.4 billion during 1995.

Canada was by far the leading U.S. export market for machinery in 1995, as well as the fourth-leading source of U.S. imports. U.S. exports to Canada rose by \$715 million (6 percent) in 1995 to \$13.0 billion, or 23 percent of the annual U.S. total. Conversely, U.S. imports of this equipment from Canada climbed by \$1.2 billion (19 percent) to \$7.6 billion, resulting in a decline in the U.S. trade surplus with Canada of \$513 million to \$5.4 billion (figure 9-1). Canadian demand for machinery was not only driven by an upturn in Canadian automotive and forest products production, but also by the extensive linkages that exist between U.S. and Canadian firms, as reflected by the major products that contributed to the increase in U.S. exports: automotive air-conditioning equipment; electric motors and generators; filtering and purifying equipment; and pulp, paper, and paperboard machinery (figure 9-2).

The major factors driving U.S. demand for machinery from Canada in 1995 were the strong U.S. motor vehicle market, a decline in U.S. interest rates, and an increase in U.S. farm income. Principal categories of U.S. imports of machinery from Canada in 1995 were injection and compression molds for rubber and plastic automotive parts; tractors and commercial and residential lawn and garden equipment; filtering and purifying equipment; and electrical wire and cable.

A \$1.0 billion (14-percent) increase in U.S. imports of machinery from Mexico, in combination with a \$740 million (11-percent) decline in U.S. exports to Mexico in 1995, added \$1.7 billion to the U.S. trade deficit with Mexico, which rose to nearly \$2.0 billion in 1995. The devaluation of the peso, which began in December of 1994, resulted in a nearly 50-percent decline in the currency value before an economic austerity package was introduced in March 1995, to stabilize the peso's value. The resulting decline made machinery produced in Mexico an instant bargain, while, in Mexico, U.S. goods had to be sold at a premium price. The major types of increased U.S. imports from Mexico were ignition wiring harnesses for motor vehicles; low-voltage lamp ballasts, transformers, and

**Table 9-1**  
**Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance,**  
**by selected countries and country groups, 1994 and 1995<sup>1</sup>**

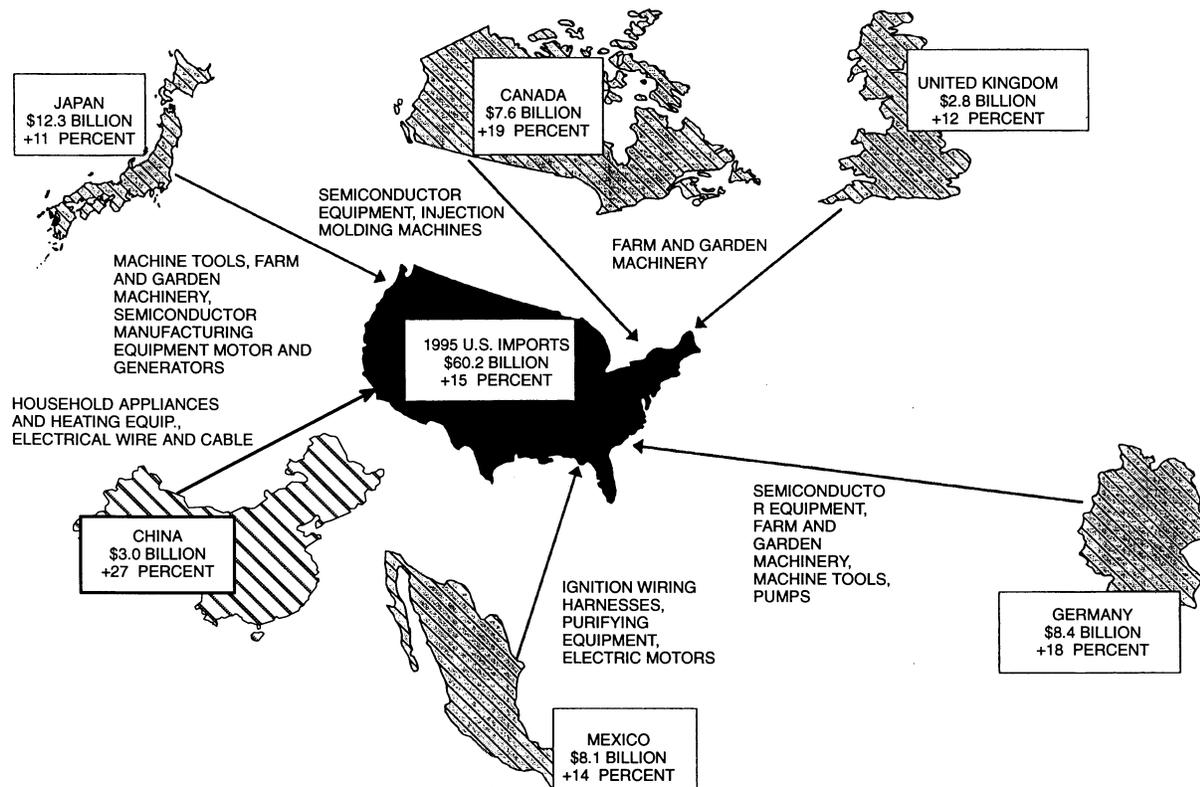
Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	12,305	13,020	715	5.8
Japan .....	2,582	3,514	932	36.1
Mexico .....	6,861	6,121	-740	-10.8
Germany .....	1,665	2,291	626	37.6
United Kingdom .....	2,049	2,429	380	18.5
Korea .....	2,361	3,754	1,393	59.0
China .....	1,433	1,798	365	25.5
Taiwan .....	1,437	1,882	445	31.0
Italy .....	650	789	140	21.5
France .....	1,380	1,615	235	17.0
All other .....	17,122	19,836	2,714	15.8
Total .....	49,844	57,049	7,206	14.5
EU-15 .....	8,767	10,629	1,862	21.2
OPEC .....	2,408	2,360	-48	-2.0
Latin America .....	11,482	11,649	167	1.5
CBERA .....	1,266	1,441	175	13.8
Asian Pacific Rim .....	12,967	17,100	4,133	31.9
ASEAN .....	3,138	3,696	559	17.8
Central and Eastern Europe .....	254	317	63	24.8
U.S. imports for consumption:				
Canada .....	6,360	7,588	1,228	19.3
Japan .....	11,116	12,325	1,209	10.9
Mexico .....	7,080	8,081	1,001	14.1
Germany .....	7,085	8,371	1,286	18.1
United Kingdom .....	2,488	2,792	304	12.2
Korea .....	1,034	1,194	161	15.5
China .....	2,390	3,040	649	27.2
Taiwan .....	2,472	2,474	2	0.1
Italy .....	2,472	2,703	231	9.3
France .....	1,245	1,544	299	24.0
All other .....	8,698	10,108	1,410	16.2
Total .....	52,440	60,220	7,781	14.8
EU-15 .....	16,605	19,368	2,763	16.6
OPEC .....	86	136	50	58.4
Latin America .....	7,899	9,054	1,156	14.6
CBERA .....	97	115	19	19.2
Asian Pacific Rim .....	19,125	21,427	2,303	12.0
ASEAN .....	1,690	1,870	180	10.7
Central and Eastern Europe .....	312	411	99	31.9
U.S. merchandise trade balance:				
Canada .....	5,945	5,432	-513	-8.6
Japan .....	-8,533	-8,811	-277	-3.2
Mexico .....	-219	-1,960	-1,741	-793.5
Germany .....	-5,420	-6,080	-660	-12.2
United Kingdom .....	-439	-363	76	17.3
Korea .....	1,327	2,560	1,233	92.9
China .....	-957	-1,242	-284	-29.7
Taiwan .....	-1,036	-593	443	42.8
Italy .....	-1,822	-1,913	-91	-5.0
France .....	135	71	-64	-47.4
All other .....	8,424	9,728	1,304	15.5
Total .....	-2,596	-3,171	-575	-22.1
EU-15 .....	-7,838	-8,740	-901	-11.5
OPEC .....	2,322	2,224	-99	-4.2
Latin America .....	3,583	2,595	-988	-27.5
CBERA .....	1,169	1,326	156	13.4
Asian Pacific Rim .....	-6,157	-4,327	1,830	29.7
ASEAN .....	1,447	1,826	379	26.2
Central and Eastern Europe .....	-58	-94	-36	-62.8

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

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 9-1**  
**U.S. machinery sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

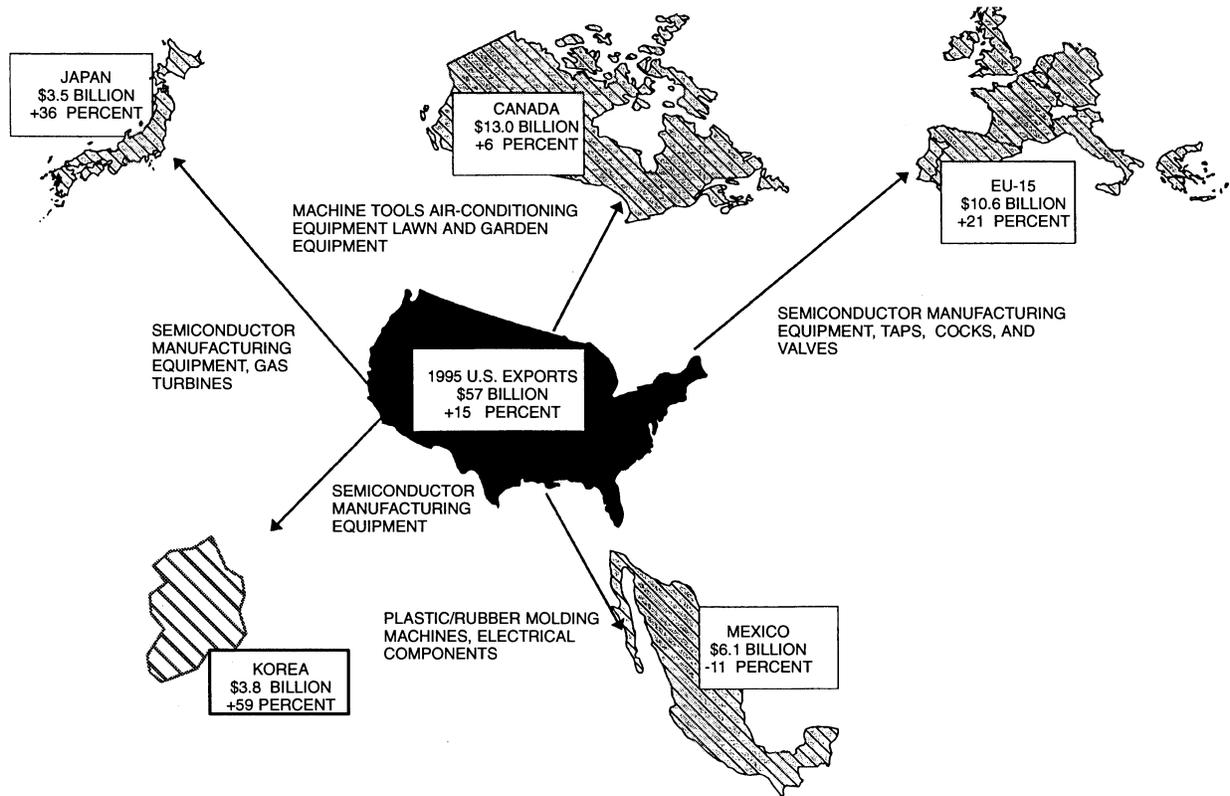
inductors; electric motors; and air-conditioning equipment, all products significantly comprised of U.S. components that undergo substantial assembly operations in Mexico under the provisions of U.S. tariff schedule item 9802.00.80.<sup>1</sup> The increase in wiring harnesses alone, which are the focus of substantial maquiladora assembly operations by U.S.-based suppliers, was approximately \$375 million in 1995. Rising U.S. demand for these products was largely attributable to strong domestic sales of motor vehicles and consumer electrical appliances in 1995. On the U.S. export side of the equation, shipment declines were registered in most major product categories. The largest downturns were recorded in U.S. exports of farm and garden equipment (down \$154 million, 46 percent); household appliances (\$108 million, 25 percent); air-conditioning equipment and parts (\$93 million, 21

percent); and commercial machinery (\$92 million, 37 percent).

U.S. bilateral trade with Japan in machinery was dominated by imports, which rose by 11 percent in 1995 to \$12.3 billion, and accounted for 20 percent of the annual U.S. total. In spite of a 36-percent increase in U.S. exports to Japan in 1995, to a total of \$3.5 billion, the trade deficit in these products grew by \$277 million (3 percent) to \$8.8 billion in 1995. The \$1.2 billion growth in imports from Japan, which retained its role as the single largest foreign source, was principally supported by shipments of semiconductor manufacturing equipment, injection molding equipment and parts, industrial vibrators, metal-cutting machine tools, farm and garden equipment, and automotive air-conditioners and refrigeration compressors. The principal product categories in which U.S. export increases to Japan were concentrated were centrifuges and filtering equipment and specialized semiconductor manufacturing equipment.

<sup>1</sup> For further discussion of these and other similar assembly operations, see *USITC, Production Sharing, 1991-1994*, USITC publication 2996.

**Figure 9-2**  
**U.S. machinery sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

U.S. trade in machinery with members of the EU-15 was generally not favorable during 1995, as the trade deficit with these countries increased by \$901 million (12 percent) to \$8.7 billion, on the basis of U.S. imports of \$19.4 billion and U.S. exports of \$10.6 billion. Germany was again the overwhelming leading contributor to this trend, as U.S. imports from this source rose by 18 percent to \$8.4 billion and U.S. exports to Germany posted a 38-percent gain to \$2.3 billion. The resulting trade deficit with Germany of \$6.1 billion accounted for 70 percent of the total deficit with the EU-15 in machinery during 1995. The leading German imports during 1995 were of printing and typesetting equipment, pumps for liquids, metal-cutting machine tools, and wrapping and packaging equipment. German manufacturers of this equipment have established strong competitive positions in U.S. markets through their world renowned craftsmanship, technological leadership, and niche specialization.

The only other major bilateral shift in U.S. trade in machinery that occurred during 1995 was a rise in U.S. exports to Korea of \$1.4 billion (59 percent) to \$3.8 billion. This significant upturn in U.S. shipments, in combination with a much smaller rise in U.S. imports from Korea (up \$161 million, or 16 percent), increased the U.S. trade surplus with Korea by \$1.2 billion to \$2.6 billion. Korea and Canada are the only major U.S. trading partners with which the United States maintains a trade surplus in machinery. Korea is currently pursuing a number of major infrastructure improvements and making significant additions to the capital equipment that drives its major export industries, particularly semiconductor devices, computers, automobiles, and telephone apparatus. Consequently, some of the largest gains in U.S. machinery exports were posted in semiconductor manufacturing equipment, nonmetalworking machine tools, air-conditioning equipment, gas turbines, and thermal processing equipment.

# Commodity Analysis

## **Semiconductor Manufacturing Equipment, Injection and Compression Molds, and Certain Other Industrial Machinery<sup>2</sup>**

Merchandise trade in semiconductor manufacturing equipment and miscellaneous industrial machinery increased by nearly \$4 billion (22 percent) in 1995, expanding the trade surplus in this product grouping by 54 percent to \$1.8 billion. Most of this growth was concentrated in high-technology semiconductor manufacturing equipment, which, in turn is tied to the rapid global growth of the computer and integrated circuits industries. Suppliers of this equipment have been operating at full capacity to fill capital equipment orders placed by semiconductor manufacturers.<sup>3</sup>

U.S. imports in this commodity group increased by 20 percent (\$1.6 billion) to \$9.7 billion in 1995. Most U.S. imports came from Canada, Japan, and Germany, all of which maintained a bilateral U.S. trade surplus in this equipment. Japan was the largest source of U.S. imports at \$2.7 billion (up by \$401 million and 18 percent) in 1995 and Canada followed at \$2.4 billion (up by \$243 million and 11 percent). The largest import product categories by value were mining equipment such as elevators, cranes, and hoists and their parts; molding machines and certain parts of industrial machinery; and a wide range of semiconductor manufacturing equipment. U.S. imports of semiconductor manufacturing equipment increased by \$117 million (30 percent) in 1995 to \$508 million. Japan led with a \$51 million increase to reach \$324 million in imports, a 19-percent increase from 1994. During this upturn in 1995, U.S. imports of certain types of equipment shifted to countries that had previously not been major suppliers. The United States imported \$53 million of chemical vapor deposition apparatus from the Netherlands, an increase of nearly \$49 million. Meanwhile, U.S. imports of physical deposition apparatus decreased overall, particularly from Japan and Germany, but British imports of this equipment doubled to \$20 million.

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<sup>2</sup> The major product categories in this grouping are industrial robots, semiconductor manufacturing equipment, injection and compression molds, and other miscellaneous industrial machinery and equipment.

<sup>3</sup> Robert Ristelhueber, "Still Unable to Keep Up With Orders," *Electronic Business Today*, Jan. 1996, p. 54.

The remarkable expansion of the global electronics industry, due to the worldwide growth of the personal computer market and the increasing application of semiconductors,<sup>4</sup> is also largely responsible for the growth of U.S. exports in this commodity group, which increased by \$2.2 billion (24 percent) to \$11.5 billion in 1995. Exports of semiconductor manufacturing equipment, which rose by \$1.3 billion (70 percent), accounted for \$3.3 billion of exports in 1995.<sup>5</sup> U.S. exports in this commodity group to Japan grew by \$421 million (56 percent) to \$1.2 billion. U.S. exports to Korea, the bulk of which was semiconductor manufacturing equipment, increased by \$558 million (77 percent) to \$1.3 billion, surpassing U.S. exports to Japan for the first time. This escalation was largely in response to Korea's recent priority to develop an indigenous semiconductor manufacturing capacity.<sup>6</sup> U.S. producers of semiconductor manufacturing equipment have identified several niche markets abroad for their products. For example, U.S. exports of semiconductor assembling and packaging equipment were shipped to Malaysia and the Philippines, while equipment necessary for semiconductor etching and deposition processes was shipped to countries with more advanced semiconductor production operations such as Korea, Japan, Taiwan, and Canada.

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## **Electrical Transformers, Static Converters, and Inductors**

During 1995, the U.S. trade deficit in electrical transformers, static converters, and inductors rose by \$574 million (60 percent) to \$1.5 billion. This rise was largely attributable to strong growth in U.S. demand for lower voltage lamp ballasts, power supplies, transformers, and inductors from Mexico and low-wage sources in the Far East. Most of these devices are used in connection with, or become part of, energy-efficient lighting systems (primarily electric discharge lamps), and consumer electronic products (personal computers, video

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<sup>4</sup> The worldwide semiconductor market expanded by 44 percent in 1995. Robert Ristelhueber, "Demand Remains Strong But Some Prices Will Slip," *Electronic Business Today*, Jan. 1996, p. 44.

<sup>5</sup> Ristelhueber, "Still Unable to Keep Up With Orders." Intense demand for equipment is reportedly due not only to the construction of new fabrication plants, but also to the increasing complexity of chips. New chip designs may involve increased layers of connecting metal on integrated circuits, and require chip manufacturers to invest in additional equipment. The addition of metal in chip design could keep the semiconductor manufacturing equipment industry growing faster than the chip companies.

<sup>6</sup> Telephone conversation with industry official, Mar. 1996.

games, portable CD players, cellular phones, answering machines, camcorders, etc.), and electrical goods (lawn and garden equipment, power tools, shavers, etc.). Demand for these products has been growing in recent years due in large part to rising disposable income, declining prices of certain products, increasing equipment portability, and energy concerns.

U.S. imports of these products rose by \$824 million (30 percent) during 1995 to \$3.5 billion. This rate of growth was the same for Mexico, the largest single foreign source, imports from which rose from \$703 million in 1994 to \$917 million in 1995. Entries from Mexico were predominately low-value, low-voltage lamp ballasts, transformers rated at less than 40 volt amperes (VA), and miscellaneous inductors.<sup>7</sup> Due to the low unit values of many of these articles, numerous domestic and foreign producers have undertaken the highly labor-intensive portions of the production of many of these products in Mexico to remain competitive with other low-wage-rate foreign suppliers.

Imports from Japan, the second-leading foreign supplier during 1995, also recorded a significant increase of \$86 million (20 percent), while rising to \$519 million, or 15 percent of total imports. Other significant import increases from the Pacific Rim region were registered by China, imports from which rose by \$140 million (60 percent) to \$375 million; Korea, up by \$44 million (51 percent) to \$130 million; and Hong Kong, a \$38 million (49-percent) rise to \$114 million. Imports from China increased substantially in a number of product categories, including lamp ballasts, up \$47 million (92 percent) to \$99 million; and unrated transformers, up \$26 million (67 percent) to \$65 million. Korean increases were concentrated in power supplies rated above 500 watts and lamp ballasts; the most notable increase in entries from Hong Kong was in unrated transformers.

The other major import shift during 1995 occurred with respect to the EU-15 countries, entries from which rose by \$169 million (45 percent) to \$543 million. Two-thirds of this activity was associated with products from Germany, which increased by \$63 million (46 percent) to \$199 million, and the United Kingdom, which advanced by \$24 million (36 percent) to \$90 million. These U.S. imports were generally of higher valued, more sophisticated power transformers, power supplies, and static converters.

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<sup>7</sup> An inductor is an electrical device that typically consists of a single coil of electrical wire (that may or not be wound around a core of magnetic material), which, when inserted into an electrical circuit, limits or blocks the flow of alternating current. These devices are used in a variety of applications including components of electric wave filters, tuned circuits, electrical measuring circuits, and energy storage devices.

U.S. exports of transformers, static converters, and inductors increased by \$250 million (14 percent) during 1995 to \$2.0 billion. Nearly 60 percent of this expansion was accounted for by shipments to Mexico, Japan, and Canada, which rose by \$48 million (7 percent) to \$687 million, \$34 million (53 percent) to \$99 million, and \$31 million (10 percent) to \$347 million, respectively. Exports to Mexico during 1995 were principally of parts of transformers and electrical inductors (coils) in support of various production operations of U.S. companies along the Mexican border. The notable areas of concentration of exports to Japan were in higher voltage (150 watts and above) power supplies and miscellaneous rectifiers other than power supplies. U.S. exports to Canada were concentrated in the lamp ballast and miscellaneous static converter categories.

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## ***Metal-cutting Machine Tools, Parts, and Accessories<sup>8</sup>***

The U.S. trade deficit in metal-cutting machine tools, parts, and accessories rose by 65 percent, from almost \$1.1 billion in 1994 to \$1.8 billion in 1995. U.S. demand for these products continued to be strong in 1995, as U.S. manufacturers increased capital expenditures for machine tools to raise manufacturing productivity. Demand for machine tools for use in the aerospace industry rose in 1995, while demand from the motor vehicle and related equipment industry remained strong.

U.S. imports rose by \$778 million (28 percent) to \$3.5 billion in 1995. Most of the increase occurred in imports of electric discharge machines, machining centers, horizontal lathes, grinding machines, and parts. Slightly over half of the increase was attributable to imports from Japan, which rose by 32 percent (\$421 million) to \$1.7 billion, with large increases in electric discharge machines, machining centers, horizontal lathes, milling machines, grinding machines, and parts. Imports from Germany, the second-largest supplier, rose by 25 percent to \$469 million, and were concentrated in machining centers, horizontal lathes, and parts. Imports from Italy rose by 41 percent to \$131 million and were scattered among a variety of machine tools and parts, as were imports from Canada, which rose by 25 percent to \$123 million. The increase in imports from Taiwan, up by 23 percent to \$237 million, occurred principally in machining centers and

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<sup>8</sup> Work-holders, tool-holders, and dividing heads.

milling machines, but otherwise was scattered among different types of machine tools. Imports from Korea, traditionally a minor import source, rose by 94 percent to \$98 million, and were concentrated in horizontal lathes. Korean machine tool builders are making a concerted effort to become world class suppliers of such lathes.

U.S. exports of metal-cutting machine tools, parts, and accessories rose by 4 percent (\$69 million), to \$1.7 billion in 1995. Exports to Canada, the leading foreign market, fell by 27 percent (\$144 million) to \$386 million, due in large part to a decline in investments in the Canadian motor-vehicle industry. U.S. exports to China, the second-largest market for these products in 1994, fell by 39 percent (\$53 million), to \$83 million in 1995. U.S. exports to China declined as U.S. machine tool exporters lost market share to foreign and Chinese machine tool builders. Exports to Mexico, the third-largest market in 1994, were flat, as U.S. motor-vehicle and related parts producers completed plant upgrades and Mexican machine tool users limited their purchases because of the weak peso in 1995. Nevertheless, these declines were offset by increased exports to the United Kingdom (up 21 percent to \$121 million), Japan (up 33 percent to \$103 million), Germany (up 29 percent to \$102 million), Korea (up 44 percent to \$88 million), Taiwan (up 94 percent to \$64 million), Singapore (up 90 percent to \$64 million), and Venezuela (up 61 percent to \$56 million).

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## ***Nonmetalworking Machine Tools and Parts***

The U.S. trade surplus in nonmetalworking machine tools and parts rose by 976 percent in 1995, from \$43 million in 1994 to \$463 million. The large increase in the trade surplus was due to a surge in U.S. exports of these machine tools, which rose by \$595 million (69 percent) to \$1.4 billion. Overall, exports of nonmetalworking machine tools and parts to Korea rose by \$188 million (167 percent) to \$301 million, to Japan by \$105 million (111 percent) to \$200 million, to Taiwan by \$100 million (113 percent) to \$188 million, and to Germany by \$84 million (163 percent) to \$135 million. Most of this increase occurred in exports of machines for etching and scoring semiconductor wafers, which rose by \$565 million (135 percent) to \$983 million. Exports of other nonmetalworking machine tools, such as those for working wood, glass, or plastics, declined slightly. Exports of etching or scoring machines for semiconductor wafers to Korea rose by 188 percent to \$281 million, to Japan by 124 percent to \$172 million, to Taiwan by 126 percent to

\$166 million, to Germany by 252 percent to \$114 million, to France by 92 percent to \$70 million, and to Italy by 274 percent to \$53 million. Demand for these machines rose as semiconductor producers opened several new plants and upgraded machinery to produce wafers with finer circuit geometries. U.S. producers of semiconductor wafer-etching machines dominate the global industry for this equipment, followed by Japanese producers.

U.S. imports of nonmetalworking machine tools rose by \$175 million (21 percent) to \$993 million in 1995. As with exports, much of the increase in imports was due to rising demand for semiconductor wafer-etching machines as U.S. semiconductor producers continued to upgrade domestic facilities. Imports of other nonmetalworking machine tools and parts, principally for working wood, glass, and other hard materials rose slightly in 1995. Overall, imports from Germany rose by \$56 million (32 percent) to \$230 million and imports from Japan rose by \$78 million (67 percent) to \$195 million. Imports from Taiwan, principally woodworking machines, were flat during 1994-95, and totaled \$209 million. U.S. furniture producers spent heavily on new woodworking machinery in 1994, so the increase in imports occurred mainly in sophisticated types of woodworking machines produced in Germany and Italy.

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## ***Insulated Electrical Wire and Cable and Related Products***

Indicative of the increased use of assembly plants in Mexico to make auto parts, U.S. imports of insulated electrical wire and cable and related products rose from \$4.8 billion in 1994 to \$5.4 billion in 1995, or by 12 percent, more than offsetting the 8-percent (\$277 million) increase in U.S. exports of these products that peaked at nearly \$3.3 billion in 1994. The U.S. trade deficit in these products consequently rose to \$1.8 billion, or 20 percent greater than the \$1.5 billion deficit registered in 1994, and generally reflected the continued strength of U.S. markets during 1995 for bulk (wire and cable without fittings) and finished or semifinished (with fittings) wire and cable products used in the assembly of motor vehicles, electronic products (such as computers and office machines), and electrical appliances.

The bulk of the \$588 million increase in U.S. imports of these products (\$368 million, or 63 percent) was the result of expanded entries from Mexico, which accounted for 62 percent (\$3.3 billion) of the U.S. total in 1995. The vast majority (\$2.7 bil-

lion) of imports from Mexico consisted of wiring harnesses for motor vehicles from assembly operations established by U.S. companies to take advantage of lower Mexican wages. The labor-intensive production operations typically performed in Mexico consist of cutting U.S.-made insulated wire to length, affixing the appropriate U.S.-made terminal connector to the end of each wire, and wrapping the entire assembly. In recent years, foreign suppliers of these automotive components to the U.S. transplant operations of Japanese and European automakers have also established extensive operations along the Mexican border, accelerating the annual total. U.S. demand for these components was also buoyed by steady U.S. sales of motor vehicles during 1995.

Canada and China, the next two leading import suppliers in 1995, each recorded significant increases of \$121 million (43 percent) to \$403 million, and \$80 million (32 percent) to \$329 million, respectively, while the Philippines slipped to become the fourth-leading supplier overall, owing to an 11-percent (\$35 million) decline to \$288 million. Imports from the Philippines were almost exclusively of ignition wiring harnesses for motor vehicles used in the U.S. transplant operations of foreign automotive producers. Canadian entries were generally widespread across all of the wire and cable categories represented in this grouping, with significant concentrations of activity in low-voltage (80 volts and under) wire not fitted with connectors (nfwc), intermediate-voltage (81 to 600 volts) copper wire and cable nfwc, and ignition wiring harnesses. During 1995, U.S. imports from China consisted principally of miscellaneous wire and cable rated at between 81 to 1,000 volts and fitted with connectors (fwc), wiring harnesses, and low-voltage wire fwc.

During 1995, double-digit percentage increases were recorded in the value of every major wire and

cable import category. The largest absolute value increase was in ignition wiring harnesses, which rose from approximately \$3.3 billion in 1994 to nearly \$3.5 billion in 1995, or by 5 percent. This product category accounted for nearly 65 percent of total U.S. imports of all insulated electrical conductors during 1995, down from 70 percent in 1994. Imports in the next leading category, miscellaneous wire and cable, rated at between 81 to 1,000 volts and fwc, increased by 21 percent during 1995 to nearly \$650 million, and represented 13 percent of the 1995 total.

The growth in U.S. exports of insulated electrical conductors was in large part the result of a 10-percent rise (up by \$85 million to \$948 million) in shipments to Canada, the second-leading export recipient, and of increases to a scattering of considerably smaller foreign markets. The most notable of these developing markets for U.S. exports in 1995 were the United Kingdom, up by \$10 million (11 percent) to \$105 million; Thailand, \$32 million (59 percent) higher at \$86 million; and Australia, expanding by \$44 million (188 percent) to \$67 million. Exports of insulated electrical conductors to Mexico, the leading U.S. market, were up only slightly in 1995, by 1 percent to \$1.3 billion, as the economic shock of the peso devaluation reduced GNP in Mexico by 7 percent in 1995, and restricted demand for electrical conductors used in the assembly of products for the Mexican market. The three leading U.S. export categories in 1995, principally for use in Mexican maquiladora assembly operations of U.S. auto part suppliers, were ignition wiring harnesses (including parts), which accounted for \$1.6 billion, or 44 percent of the annual total; coaxial wire and cable (\$497 million, or 14 percent); and low-voltage wire nfwc (\$338 million, or 9 percent).

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**Table 9-2**  
**Machinery sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-**  
**Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MT003	Pumps for liquids:				
	Exports .....	2,222	2,368	146	6.6
	Imports .....	1,777	1,967	190	10.7
	Trade balance .....	445	401	-44	-9.9
MT004	Air-conditioning equipment and parts:				
	Exports .....	4,121	4,538	417	10.1
	Imports .....	3,666	4,129	463	12.6
	Trade balance .....	455	409	-46	-10.1
MT005	Certain industrial thermal-processing equipment and certain furnaces:				
	Exports .....	1,879	2,098	219	11.7
	Imports .....	1,003	1,089	86	8.6
	Trade balance .....	876	1,009	133	15.2
MT006	Commercial Machinery:				
	Exports .....	2,031	2,390	359	17.7
	Imports .....	1,082	1,191	109	10.1
	Trade balance .....	949	1,199	250	26.3
MT007	Electrical household appliances and certain heating equipment:				
	Exports .....	2,348	2,433	85	3.6
	Imports .....	3,858	4,074	216	5.6
	Trade balance .....	-1,510	-1,641	-131	-8.7
MT008	Centrifuges and filtering and purifying equipment:				
	Exports .....	1,902	2,268	366	19.2
	Imports .....	1,067	1,330	263	24.6
	Trade balance .....	835	938	103	12.3
MT009	Wrapping, packaging, and can-sealing machinery:				
	Exports .....	792	839	47	5.9
	Imports .....	842	932	90	10.7
	Trade balance .....	-50	-93	-43	-86.0
MT010	Scales and weighing machinery:				
	Exports .....	120	127	7	5.8
	Imports .....	183	201	18	9.8
	Trade balance .....	-63	-74	-11	-17.5
MT013	Mineral processing machinery:				
	Exports .....	569	673	104	18.3
	Imports .....	260	371	111	42.7
	Trade balance .....	309	302	-7	-2.3
MT014	Farm and garden machinery and equipment:				
	Exports .....	3,929	4,309	380	9.7
	Imports .....	3,277	3,474	197	6.0
	Trade balance .....	652	835	183	28.1
MT015	Industrial food-processing and related machinery:				
	Exports .....	641	694	53	8.3
	Imports .....	439	552	113	25.7
	Trade balance .....	202	142	-60	-29.7
MT016	Pulp, paper, and paperboard machinery:				
	Exports .....	644	857	213	33.1
	Imports .....	893	978	85	9.5
	Trade balance .....	-249	-121	128	51.4
MT017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Exports .....	1,094	1,297	203	18.6
	Imports .....	1,574	2,009	435	27.6
	Trade balance .....	-480	-712	-232	-48.3
MT018	Textile machinery and parts:				
	Exports .....	687	752	65	9.5
	Imports .....	1,833	1,752	-81	-4.4
	Trade balance .....	-1,146	-1,000	146	12.7
MT019	Metal rolling mills and parts thereof:				
	Exports .....	287	235	-52	-18.1
	Imports .....	201	278	77	38.3
	Trade balance .....	86	-43	-129	( <sup>3</sup> )
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:				
	Exports .....	1,653	1,722	69	4.2
	Imports .....	2,735	3,512	777	28.4
	Trade balance .....	-1,082	-1,790	-708	-65.4

See footnotes at end of table.

**Table 9-2—Continued**  
**Machinery sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-**  
**Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
			<i>Million dollars</i>		
MT021	Machine tools for metal forming and parts thereof:				
	Exports .....	778	862	84	10.8
	Imports .....	913	1,125	212	23.2
	Trade balance .....	-135	-263	-128	-94.8
MT022	Non-metalworking machine tools and parts thereof:				
	Exports .....	861	1,456	595	69.1
	Imports .....	818	993	175	21.4
	Trade balance .....	43	463	420	976.7
MT023	Semiconductor equipment, robots, and other machinery:				
	Exports .....	9,292	11,512	2,220	23.9
	Imports .....	8,121	9,711	1,590	19.6
	Trade balance .....	1,171	1,801	630	53.8
MT024	Taps, cocks, valves, and similar devices:				
	Exports .....	1,909	2,180	271	14.2
	Imports .....	2,600	2,931	331	12.7
	Trade balance .....	-691	-751	-60	-8.7
MT026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:				
	Exports .....	764	818	54	7.1
	Imports .....	1,412	1,607	195	13.8
	Trade balance .....	-648	-789	-141	-21.8
MT027	Boilers, turbines, and related machinery:				
	Exports .....	1,231	1,540	309	25.1
	Imports .....	348	363	15	4.3
	Trade balance .....	883	1,177	294	33.3
MT028	Electric motors, generators, and related equipment:				
	Exports .....	2,955	3,391	436	14.8
	Imports .....	3,457	3,880	423	12.2
	Trade balance .....	-502	-489	13	2.6
MT029	Electrical transformers, static converters, and inductors:				
	Exports .....	1,750	2,000	250	14.3
	Imports .....	2,713	3,537	824	30.4
	Trade balance .....	-963	-1,537	-574	-59.6
MT031	Portable electric handtools:				
	Exports .....	350	369	19	5.4
	Imports .....	421	481	60	14.3
	Trade balance .....	-71	-112	-41	-57.7
MT032	Nonelectrically powered hand tools and parts thereof:				
	Exports .....	474	462	-12	-2.5
	Imports .....	619	661	42	6.8
	Trade balance .....	-145	-199	-54	-37.2
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:				
	Exports .....	811	786	-25	-3.1
	Imports .....	1,030	1,097	67	6.5
	Trade balance .....	-219	-311	-92	-42.0
MT035	Electric and gas welding and soldering equipment:				
	Exports .....	460	507	47	10.2
	Imports .....	486	596	110	22.6
	Trade balance .....	-26	-89	-63	-242.3
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:				
	Exports .....	3,289	3,566	277	8.4
	Imports .....	4,810	5,398	588	12.2
	Trade balance .....	-1,521	-1,832	-311	-20.4

<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.

<sup>3</sup> Not meaningful for purposes of comparison.

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

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# CHAPTER 10

## Transportation Equipment

The U.S. trade deficit in transportation equipment widened by \$7.4 billion (31 percent) in 1995 to \$31.6 billion (table 10-1). U.S. exports failed to keep pace with U.S. imports, declining marginally by \$231 million (0.2 percent) to \$104 billion. U.S. imports of sector goods grew by \$7.2 billion (6 percent) to \$136 billion. A large decline in the U.S. aircraft trade surplus, coupled with a modest increase in the motor-vehicle trade deficit, were the leading factors contributing to the rise in the U.S. deficit in transportation equipment.

The rise in 1995 transportation equipment imports can be attributed almost entirely to a surge in U.S. import demand for motor vehicles. Total imports of automobiles, trucks, buses, and bodies and chassis of these vehicles, grew by \$5.1 billion (7 percent) in 1995 to \$84.4 billion. These goods accounted for 62 percent of U.S. transportation equipment imports in 1995. U.S. exports of motor vehicles increased modestly, by \$534 million (3 percent) to \$21.9 billion, and those of certain motor vehicle parts increased by \$1.6 billion (8 percent) to \$22.3 billion. Nevertheless, this growth was not able to offset the growth in imports of motor vehicles.

The size of the sectoral deficit was magnified by a substantial decline in shipments of U.S.-produced aircraft, spacecraft, and related equipment. U.S. exports of these goods declined by \$4.7 billion (17 percent) in 1995 to \$23.8 billion. The decline was largely the result of a \$5.7 billion (38-percent) decline in U.S. exports of new large civil aircraft that was primarily attributable to the financial difficulties of foreign air carriers. U.S. sales to Japan and the United Kingdom were especially hard hit, declining by \$545 million (16 percent) and \$1.1 billion (39 percent), respectively.

Significant import growth was also apparent in 1995 for internal combustion engines, other than those for aircraft. These engine imports grew by \$965 million (13 percent) to \$8.4 billion, reflecting U.S. and foreign automotive firms' global production strategies and increased internationalization of the industry. U.S. exports of these engines improved, yet were not enough to counter the rise in imports, allowing the U.S. surplus in these engines to decline by \$481 million (56 percent). The U.S.

trade surplus in construction and mining equipment grew by \$653 million (19 percent) to \$4.1 billion in 1995, due largely to the increased value of exports to most major U.S. markets, including Japan, Venezuela, the United Kingdom, and Belgium. This growth reversed the decline in the trade surplus for this equipment, which had peaked at \$5.3 billion in 1991.

### U.S. Bilateral Trade

During 1995, the largest U.S. trading partners in the transportation equipment sector were Canada, Japan, Mexico, Germany, and the United Kingdom (figures 10-1 and 10-2). Canada continued to be the largest single export market for U.S. transportation equipment, accounting for 34 percent (\$35.7 billion) of total U.S. transportation equipment exports in 1995, while Japan accounted for 8 percent of total U.S. exports in this sector, or \$8.4 billion. Canada and Japan were also the leading U.S. transportation equipment import suppliers in 1995, accounting for 35 percent (\$46.8 billion) and 31 percent (\$42.3 billion) of total U.S. imports, respectively. Motor vehicles, motor-vehicle parts, and aircraft together represented 53 percent of U.S. exports and 79 percent of U.S. imports during 1995. Other significant categories of goods included aircraft and motor-vehicle engines, which accounted for 17 percent (\$17.4 billion), and construction and mining equipment, which accounted for 7 percent (\$7.8 billion).

The \$5.1 billion increase in U.S. imports of automobiles, trucks, and buses in 1995 represented the single largest shift in the sector. Although U.S. exports of motor vehicles rose by \$534 million (2 percent) in 1995 to \$21.9 billion, increased imports from Canada (8 percent, or \$2.6 billion) and Mexico (44 percent, or \$2.5 billion) offset this modest gain. Imports of these goods from Japan decreased by \$2.2 billion (7 percent) to \$29.0 billion, as U.S. output from Japanese-owned U.S.-based car companies, as well as other "transplants," increased significantly. While U.S. exports of aircraft increased by volume, exports of new large civil aircraft declined by \$5.7 billion (38 percent)

Table 10-1

**Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>**

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada .....	33,455	35,654	2,198	6.6
Japan .....	7,345	8,376	1,031	14.0
Mexico .....	8,169	6,364	-1,806	-22.1
Germany .....	3,286	3,632	346	10.5
United Kingdom .....	5,183	4,167	-1,016	-19.6
France .....	3,238	2,320	-918	-28.4
Korea .....	2,675	3,596	920	34.4
Taiwan .....	2,980	3,071	91	3.1
Sweden .....	459	733	275	59.9
Netherlands .....	2,276	2,747	471	20.7
All other .....	35,189	33,365	-1,823	-5.2
Total .....	104,255	104,025	-231	-0.2
EU-15 .....	19,445	19,925	481	2.5
OPEC .....	5,765	5,353	-412	-7.1
Latin America .....	14,812	13,834	-979	-6.6
CBERA .....	1,352	1,324	-28	-2.1
Asian Pacific Rim .....	24,623	24,508	-115	-0.5
ASEAN .....	5,324	4,218	-1,106	-20.8
Central and Eastern Europe .....	370	282	-88	-23.8
U.S. imports for consumption:				
Canada .....	44,081	46,823	2,742	6.2
Japan .....	43,581	42,313	-1,269	-2.9
Mexico .....	9,837	13,328	3,492	35.5
Germany .....	9,221	10,982	1,761	19.1
United Kingdom .....	4,867	5,009	142	2.9
France .....	5,128	4,128	-1,000	-19.5
Korea .....	2,064	2,226	162	7.8
Taiwan .....	779	860	82	10.5
Sweden .....	1,773	2,490	717	40.4
Netherlands .....	671	455	-216	-32.1
All other .....	6,443	6,993	549	8.5
Total .....	128,446	135,608	7,163	5.6
EU-15 .....	24,792	26,206	1,414	5.7
OPEC .....	163	197	34	20.8
Latin America .....	10,960	14,520	3,560	32.5
CBERA .....	19	15	-4	-20.8
Asian Pacific Rim .....	47,716	46,890	-827	-1.7
ASEAN .....	532	547	15	2.9
Central and Eastern Europe .....	181	218	36	20.1
U.S. merchandise trade balance:				
Canada .....	-10,625	-11,169	-544	-5.1
Japan .....	-36,237	-33,937	2,300	6.3
Mexico .....	-1,667	-6,965	-5,298	-317.8
Germany .....	-5,935	-7,351	-1,415	-23.8
United Kingdom .....	316	-842	-1,158	( <sup>2</sup> )
France .....	-1,891	-1,808	82	4.4
Korea .....	611	1,370	758	124.1
Taiwan .....	2,201	2,211	10	0.4
Sweden .....	-1,315	-1,757	-442	-33.6
Netherlands .....	1,605	2,292	687	42.8
All other .....	28,745	26,373	-2,373	-8.3
Total .....	-24,190	-31,583	-7,393	-30.6
EU-15 .....	-5,348	-6,281	-933	-17.5
OPEC .....	5,601	5,155	-446	-8.0
Latin America .....	3,852	-686	-4,538	( <sup>2</sup> )
CBERA .....	1,333	1,309	-24	-1.8
Asian Pacific Rim .....	-23,093	-22,381	712	3.1
ASEAN .....	4,792	3,671	-1,121	-23.4
Central and Eastern Europe .....	188	64	-124	-66.2

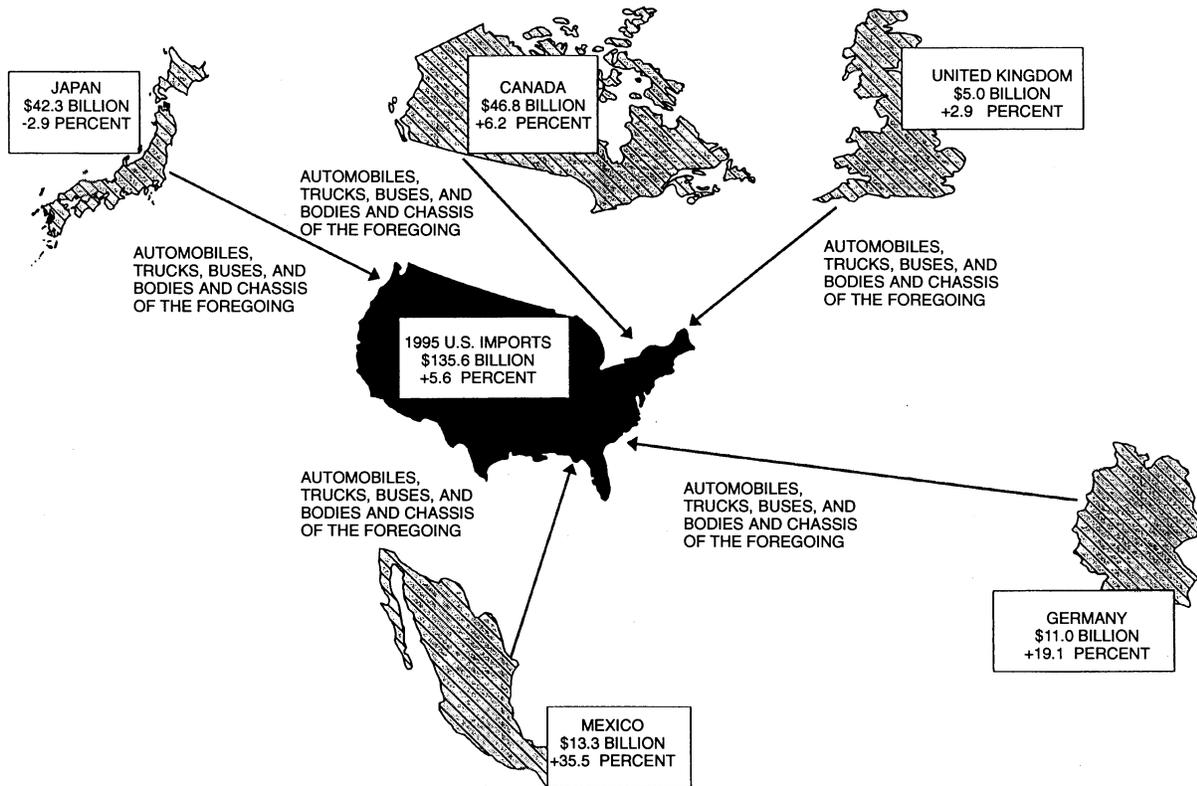
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Not meaningful for purposes of comparison.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 10-1**  
**U.S. transportation equipment sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

to \$10.6 billion, lowering the aircraft trade surplus by 20 percent to \$17.7 billion.

## Commodity Analysis

### ***Automobiles, Trucks, Buses, and Bodies and Chassis***

The U.S. trade deficit in motor vehicles<sup>1</sup> increased by \$4.6 billion (8 percent) to \$62.5 billion in 1995. The U.S. deficit with Japan and Canada accounted for 42 percent (\$26.0 billion) and 35 percent (\$21.9 billion), respectively, of the total U.S. trade deficit for the sector. However, while the deficit with Canada increased by \$2.5 billion (13 percent), the

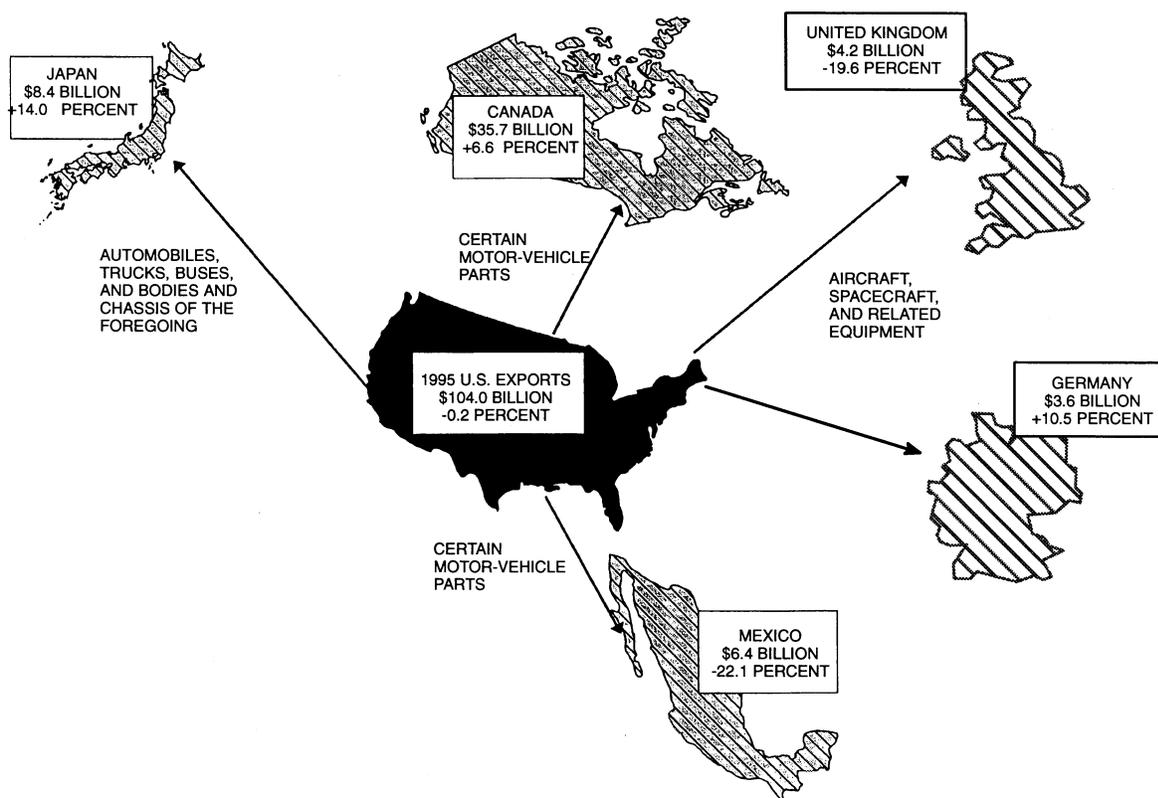
<sup>1</sup> This product category includes automobiles, trucks, buses, and bodies and chassis of the foregoing.

deficit with Japan decreased by \$3.4 billion (11 percent). Not only did Japanese exports to the United States decrease as the major Japanese automakers increased overseas production, but Toyota and Honda exported U.S.-built cars to Japan in record numbers.<sup>2</sup> U.S. exports to Japan increased by 53 percent (\$1.0 billion) to \$3.0 billion in 1995, while U.S. exports to Canada remained relatively constant.

U.S. imports of motor vehicles totaled \$84.4 billion in 1995, representing an increase of \$5.1 billion (6 percent) from 1994. Imports from Canada and Japan accounted for 39 percent (\$33.3 billion) and 34 percent (\$29.0 billion), respectively, of the 1995 total. While imports from Canada increased by \$2.6 billion (8 percent) in 1995, imports from Japan decreased by \$2.2 billion (7 percent). U.S. imports from Japan are being supplanted by U.S. production of Japanese-affiliated automakers. Output from these "transplants" totaled 1.9 million passenger

<sup>2</sup> *Japan Automotive Digest*, "Trade Surplus Fell 11% Last Year, to \$107 Billion, in First Drop Since '90," Jan. 29, 1996, p. 10.

**Figure 10-2**  
**U.S. transportation equipment sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

cars in 1995. The presence of Japanese and European automakers in the United States is increasingly significant; in 1995, non-U.S.-based automakers sold more U.S.-built cars in the United States than they imported.<sup>3</sup>

Canada's sluggish economy prompted a 12-year low in consumer spending on new motor vehicles,<sup>4</sup> while production reached a record 2.4 million units, up from 2.3 million in 1994.<sup>5</sup> On average, 85 percent of Canada's motor vehicle shipments are exported to the United States; however, in 1995, a record 92 percent were exported to the United States.<sup>6</sup> The U.S.-Canadian auto industry is fully

integrated, and the U.S. Big Three consider the United States and Canada as a single unit for production planning purposes.<sup>7</sup> Because of these factors, the state of the Canadian market has a minimal bearing on the level of motor vehicle production. In 1994, the U.S. Big Three and medium- and heavy-truck maker Navistar accounted for 84 percent (2,021,365 units) of motor-vehicle production in Canada. Honda accounted for 4 percent (106,133); Toyota, 4 percent (90,136 units); and CAMI (a 50-50 joint venture between GM and Suzuki), 7 percent (175,868 units). Volvo also assembled 7,588 cars in Canada in 1995, accounting for less than 1 percent of Canadian motor vehicle production.

U.S. exports increased by \$534 million (2 percent) in 1995 to \$21.9 billion. The most significant rise was in exports to Japan, which received 14 percent (\$3.0 billion) of the total. Japanese trade statistics show imports of U.S.-built autos reaching 122,872 units in 1995, with Toyota accounting for the largest increase (232 percent) and second-largest share

<sup>3</sup> *Autoparts Report*, "Transplants Produce More Cars in U.S. Than They Import," Feb. 1, 1996, p. 7.

<sup>4</sup> U.S. Department of State telegram, "The Canadian Auto Industry -- Major Spark in an Otherwise Lackluster Economy," message reference No. 000945, prepared by U.S. Embassy, Ottawa, Feb. 1996.

<sup>5</sup> *Automotive News*, "Canada's '95 Sales Hit Lowest Level Since '83," Jan. 15, 1996, p. 29.

<sup>6</sup> U.S. Department of State telegram, "The Canadian Auto Industry," Feb. 1996.

<sup>7</sup> *Ibid.*

at 32,899 units (27 percent). Honda accounted for 41 percent (50,694 units) of the U.S.-built auto imports, and the Big Three combined accounted for 31 percent (38,111 units).<sup>8</sup> Canada was the largest market for U.S. exports at \$11.4 billion, or 52 percent of the total; however, U.S. exports to Canada increased by less than 1 percent (\$43 million) over 1994 levels, due to the weak Canadian market for automobiles.

Motor vehicles represent one of the most significant industry sectors in terms of the volume of U.S. imports and the size of the U.S. trade deficit. In 1995, motor vehicles accounted for 11 percent of total U.S. imports, and 32 percent of the U.S. deficit. Motor vehicles also constitute a large portion of the U.S. trade deficit with its four leading trading partners, Canada, Japan, Mexico, and Germany. Motor vehicles accounted for over two-thirds of the U.S. deficit with Canada in 1995, and just under one-half of the bilateral deficits with Japan, Mexico, and Germany (table 10-2).

These deficits do not point to a lack of U.S. competitiveness, but rather to production strategies, foreign trade barriers, and general economic conditions. It has traditionally been more cost-effective for U.S. motor-vehicle manufacturers to produce motor vehicles locally for the Canadian and European markets (with a preponderance of Canadian production destined for the U.S. market). In addition, Japan has traditionally been a difficult market for U.S. automakers to enter, although some strides have been made recently as a result of the U.S.-Japan Automotive Agreement of June 1995. New registrations in Japan of imported North American-built vehicles increased by 40 percent in 1995 to 143,232 vehicles. The U.S. Big Three accounted for 41 percent (58,469) of these vehicles, and Japanese transplants accounted for 59 percent (84,763).<sup>9</sup> As with Canada and Europe, the U.S. Big Three produce locally for the Mexican market, and export some production to the United States. The devaluation of the peso had a significant impact on the motor vehicle industry in Mexico, as car sales fell by 72 percent and truck sales fell by 63 percent in 1995.<sup>10</sup> Exports were critical to automakers in Mexico in 1995; while output for the domestic market dropped by 47 percent, export production rose by 67 percent.<sup>11</sup> The impact of these conditions is evident in 1995 motor vehicle trade with Mexico. U.S. exports to Mexico declined by

<sup>8</sup> *Japan Automotive Digest*, "Imports Soared 28.8% in '95 To Second Straight Record, With a Third Due This Year," Jan. 15, 1996, p. 2.

<sup>9</sup> USTR and USDOC, *Report to President William Jefferson Clinton of the Interagency Enforcement Team Regarding the U.S.-Japan Agreement on Autos and Auto Parts*, Apr. 12, 1996, p. 21.

<sup>10</sup> *Automotive News*, "Chrysler Tops as Mexico's Market Continues to Fall," Mar. 18, 1996, p. 29.

<sup>11</sup> *Ibid.*

43 percent in 1995, and U.S. imports from Mexico increased by 44 percent in 1995, as automakers shifted some of their U.S.-market sourcing to their Mexican operations.<sup>12</sup>

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## Aircraft, Spacecraft, and Related Equipment

The U.S. trade surplus in aircraft, spacecraft, and related equipment declined by 20 percent in 1995 (\$4.4 billion) to \$17.7 billion. This slide was the result of a 17-percent (\$3 billion)<sup>13</sup> decline in U.S. shipments of large civil aircraft (LCA),<sup>14</sup> which was, in part, responsible for the 33-percent decline in U.S. exports of LCA.<sup>15</sup> In 1995, U.S. LCA shipments reached their lowest point since 1991. However, the global market for LCA is improving, as airlines began to place larger orders for new LCA in 1996. Airlines' renewed profitability is spurring new U.S. LCA orders both domestically and globally for fleet replacement and as part of a measured expansion of air-transport service.

Overall U.S. exports of aircraft, spacecraft, and related equipment declined by 17 percent (\$4.7 billion) in 1995 to \$23.8 billion. This decline was largely attributable to foreign air carriers' financial difficulties, which was led by a 38-percent (\$5.7 billion) drop in U.S. exports of new LCA to \$10.6 billion.

Japan, Korea, and the United Kingdom were the leading export markets for these goods in 1995. U.S. exports to Japan declined by 15 percent to \$2.8 billion; exports to Korea grew by 30 percent, to \$2.2 billion; and exports to the United Kingdom declined by 39 percent to \$1.7 billion. The decline in U.S. exports to Japan and the United Kingdom approximates the decrease in exports of passenger LCA to these nations.<sup>16</sup> The combined increase in U.S. exports of large military aircraft, smaller military aircraft, and passenger LCA to Korea in 1995 amounted to 87 percent of the increase in U.S. exports to Korea, or \$438 million.

<sup>12</sup> *Ward's Automotive Reports*, "Nissan May Follow Trend, Shift More U.S.-Sourcing to Mexico," Jan. 29, 1996, pp. 1 and 4.

<sup>13</sup> Aerospace Industries Association of America, Inc., "1995 Year-end Review and Forecast," Washington, D.C., p. 1.

<sup>14</sup> Large civil aircraft are those over 33,000 lbs. Passenger large civil aircraft typically have at least 100 seats.

<sup>15</sup> Passenger, cargo, and used or rebuilt LCA.

<sup>16</sup> In 1995, U.S. exports of aircraft, spacecraft, and related equipment to Japan and the United Kingdom were \$545 million and \$1.1 billion, respectively, while U.S. exports of new passenger LCA declined by \$560 million and \$1.1 billion, respectively.

**Table 10-2**

**Motor vehicles: U.S. exports, imports, and trade deficits with the top four U.S. trading partners, 1995**

Partner	Motor vehicles			Total U.S. trade			Vehicle share of total		
	Exports	Imports	Deficit	Exports	Imports	Deficit	Exports	Imports	Deficit
	<i>Million dollars</i>						<i>Percent</i>		
Canada .....	11,396	33,277	21,881	113,261	144,882	31,621	10	23	69
Japan .....	3,003	28,995	25,992	60,962	122,402	61,440	5	24	42
Mexico .....	402	8,386	7,984	44,881	61,721	16,840	1	14	47
Germany .....	658	7,662	7,004	21,175	37,126	15,951	3	21	44
Subtotal .....	15,459	78,320	62,861	240,279	366,131	125,852	6	21	50
All other .....	6,440	6,064	<sup>1</sup> -376	306,186	373,529	67,343	2	2	( <sup>2</sup> )
Total .....	21,899	84,384	62,485	546,465	739,660	193,195	4	11	32

<sup>1</sup> Surplus.

<sup>2</sup> Not meaningful for purposes of comparison.

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

U.S. imports of aircraft, spacecraft, and related equipment declined by 5 percent to \$6.1 billion in 1995. France, Canada, and the United Kingdom were the principal sources of these imports, accounting for 66 percent of total U.S. imports of these goods in 1995, 3 percent less than the previous year. U.S. imports from France declined by 13 percent (\$252 million) to \$1.7 billion. The largest drop in imports occurred in new passenger LCA from France (51 percent to \$401 million). However, U.S. imports of French cargo aircraft increased by 260 percent in 1995 to \$395 million, and imports of used or rebuilt aircraft increased by 305 percent to \$349 million. These trends were the result of U.S. passenger airlines' conservative stance regarding their air-transport market and fleet replacement needs, and the converse stance of U.S. freight airlines such as Federal Express, which are buying domestic, foreign, and rebuilt aircraft for their current and projected market needs.

The chief U.S. imports from Canada in 1995 were multi-engined, turbofan-powered, civil aircraft over 4,536 kg and not exceeding 15,000 kg (\$494 million), and parts for civil aircraft (\$449 million) in 1995. The leading U.S. imports from the United Kingdom were parts for civil aircraft, which increased by \$9 million over 1994 to \$236 million, and multi-engined turbofan civil aircraft over 4,536 kg but not exceeding 15,000 kg (\$139 million). In 1995, U.S. markets for business and commuter aircraft expanded, driven by increased U.S. demand for business travel and commuter passenger travel. U.S. imports of these aircraft are essential for both fleet replacement and business expansion.

## Certain Motor-vehicle Parts<sup>17</sup>

The U.S. trade surplus in certain motor-vehicle parts grew by nearly \$1.4 billion (30 percent) to \$6.0 billion in 1995. This continued improvement in the U.S. trade position was largely attributable to the increasing international competitiveness of U.S. parts makers, the dominance of U.S. parts makers in leading edge technological developments (such as safety and environmental systems), and the appreciation of the Japanese yen relative to the U.S. dollar.

U.S. imports of certain motor-vehicle parts remained relatively unchanged in 1995, with an increase of 1 percent to \$16.3 billion. The stagnant import levels of the three leading U.S. sources of auto parts was in part attributable to the 3-percent decline in U.S. car and truck production in 1995. U.S. imports from Canada, the leading foreign source for auto parts, were stable at \$6.4 billion; imports from Japan, the second-leading source of these products, were also unchanged at \$4.2 billion. Imports from the third-leading foreign source of auto parts, Mexico, increased by only 1 percent to \$2.2 billion in 1995.

U.S. exports of certain motor-vehicle parts rose by \$1.6 billion to \$22.3 billion in 1995, representing an 8-percent increase. U.S. exports to Canada, the leading export market, rose by 7 percent to \$12.6 billion in 1995, reflecting record high production of cars and trucks in that market. U.S. exports to Mexico, the second-leading export market, declined by 14 percent to \$3.8 billion in 1995, principally in response to the peso devaluation and related

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<sup>17</sup> Products contained in this group include body stampings, bumpers, brakes and parts, gear boxes, axles, wheels, shock absorbers, radiators, exhaust systems, clutches, steering wheels, and miscellaneous parts and accessories.

declines in consumer purchases of cars and trucks. Japan continued to be the third-leading export market, with U.S. exports rising by 23 percent to \$789 million in 1995. This increase likely was attributable to ongoing efforts by Japanese automakers to increase the use of foreign parts in their domestic auto production.

Among the top 10 U.S. export markets for certain motor-vehicle parts, significant percentage increases in 1995 exports were recorded for Austria (116 percent) and Australia (67 percent). The growth in exports to Austria in 1995 is likely related to Chrysler's startup production of the Jeep Grand Cherokee at an assembly facility operated by Steyr, an Austrian manufacturer. U.S. exports to Australia have been spurred by Ford's expanded motor-vehicle production and reduced local-content requirements and tariffs on imported auto parts, thereby making the market more accessible to U.S. auto-parts producers. U.S. exports to Brazil and Korea also increased in 1995. Exports to Brazil grew by 98 percent to \$202 million in response to declining tariffs on imported auto parts designed to improve the competitiveness of the Brazilian auto industry.<sup>18</sup> U.S. exports to Korea grew by 35 percent to \$404 million, attributable in part to the appreciation of the Japanese yen, which has enhanced the competitiveness of U.S. auto parts in the Korean market.

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## ***Internal Combustion Piston Engines, Other than for Aircraft***

The U.S. trade surplus in internal combustion piston engines (for motor vehicles) continued to decline, with a decrease of \$481 million (56 percent) in 1995 to \$383 million. Although U.S. exports of engines increased in 1995, imports increased by a larger margin, particularly from Mexico. As part of the larger automotive industry, trade shifts in the engine sector often reflect U.S. and foreign automotive firms' global production strategies and increased internationalization of the industry.

U.S. imports of engines rose by 13 percent (\$965 million) to \$8.4 billion in 1995. Imports from the leading source, Japan, increased by 13 percent to nearly \$3.0 billion in 1995. This increase was primarily attributable to an increase in vehicle production by Japanese-owned automobile assembly plants in the United States. Imports from Canada, the

<sup>18</sup> *American Metal Market*, "Brazil Cuts Tariffs on Automotive Goods," Sept. 11, 1995, p. 7.

second-leading source, fell by 6 percent to \$1.8 billion. Mexico, however, played an increasingly larger role in the U.S. engine market. Imports from Mexico, the third-leading U.S. supplier, rose by 83 percent (\$726 million) to \$1.6 billion in 1995. This sharp increase was attributable to expanded engine capacity in Mexico by U.S. and other foreign manufacturers that supply their U.S. vehicle and industrial equipment assembly plants with engines from Mexico.

U.S. exports of engines rose by 6 percent (\$484 million) to \$8.8 billion in 1995. Exports to the leading market, Canada, increased by 7 percent to \$4.7 billion in 1995 as Canadian motor-vehicle production reached record levels. Exports to the second-leading market, Mexico, increased by 6 percent to reach \$1.2 billion in 1995. Exports to the third-leading market, the United Kingdom, increased by 21 percent to \$335 million in 1995.

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## ***Construction and Mining Equipment***

The U.S. trade surplus in construction and mining equipment increased by \$653 million (19 percent) to \$4.1 billion in 1995, due largely to the increased value of exports to most major U.S. markets, including Canada, Venezuela, the United Kingdom, and Belgium. This growth, as well as a relatively stable import level, reversed the decline in the trade surplus in this equipment, which had fallen to \$3.5 billion in 1994, from its peak of \$5.3 billion in 1991.

U.S. imports of construction and mining equipment rose by 5 percent (\$173 million) to \$3.6 billion in 1995. U.S. imports from Japan, the leading foreign source of these products, rose by 7 percent (\$83 million) to \$1.2 billion in 1995. U.S. imports from Canada increased by 11 percent (\$32 million) to \$334 million, and imports from Brazil grew by 15 percent (\$15 million) to \$117 million. Imports from a number of other secondary sources, however, declined. U.S. imports from Belgium, for example, fell by 29 percent to \$254 million, reflecting the end of the United Auto Workers labor strike at Caterpillar's U.S. operations.<sup>19</sup> U.S. imports from the United Kingdom, Germany, and France also dropped in 1995, with declines of 4 percent (to \$317 million), 2 percent (to \$303 million), and 10 percent (to \$232 million), respectively.

<sup>19</sup> Caterpillar was reportedly sourcing parts from its Belgian operations during the strike. *Machinery Outlook*, "1st Half U.S. Machinery Trade Figures Yield Interesting Trends," Sept. 1994, p. 15.

U.S. exports of construction and mining equipment rose by 12 percent (\$826 million) to \$7.8 billion in 1995. U.S. exports to Canada, the leading U.S. market in 1995, increased by 7 percent to \$1.0 billion. U.S. exports to Venezuela, which rose by 44 percent to \$734 million, primarily consisted of oil well and gas field drilling equipment. Demand for these products has continued to respond to the relaxation of foreign investment restrictions in the Venezuelan hydrocarbon sector in 1993 and the related increase in offshore exploration. Other export markets experiencing significant growth in 1995 included the United Kingdom (up by 39 percent to \$376 million), Belgium (up 93 percent to \$280 million), France, (up 63 percent to \$135 million), and Brazil (up 26 percent to \$282 million).

U.S. and foreign construction and mining equipment industries have increasingly globalized their operations and have expanded into many of the previously cited countries, partly in an effort to produce "global" equipment capable of meeting local working conditions and applications and standards worldwide. As a result, most of the shifts in trade are primarily individual corporate business strategies and transactions between U.S. and U.S.-based foreign companies and their overseas operations.

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## ***Aircraft and Spacecraft Engines, Other Gas Turbines, and Parts Thereof***

The U.S. trade surplus in aircraft and spacecraft engines, other gas turbines, and parts thereof increased by 27 percent in 1995 (\$714 million) to \$3.4 billion, largely because of a \$540 million decrease in imports. The primary U.S. partner for these goods was the European Union, which accounted for 41 percent of total U.S. exports of aircraft and spacecraft engines, other gas turbines, and parts thereof, while supplying 63 percent of total U.S. imports of these goods. The European Union is the world's second-largest producer of aircraft, which accounts for this volume of trade.

U.S. exports of aircraft and spacecraft engines, other gas turbines, and parts thereof increased slightly by 2 percent (\$174 million) to \$8.6 billion in 1995. This rise was largely accounted for by a 66-percent (\$425 million) rise to \$1.1 billion in U.S. exports of nonaircraft gas turbine engines over 5,000kW, and a 7-percent increase (\$208 million) to \$3.2 billion in U.S. exports of parts of civil turbojet and

turbopropeller aircraft engines. These nonaircraft engines typically are used in stationary power applications, such as for electrical generation. With the increased global economic activity, capital purchases such as stationary power units are increasing, both to fuel new business and to raise the standard of living in many nations. U.S. exports of parts increased due to the increasing age of the global aircraft fleet, and the rise in production of general aviation aircraft.

France, Canada, and Japan were the leading export markets for aircraft and spacecraft engines, other gas turbines, and parts thereof in 1995. U.S. exports to France declined by 36 percent (\$683 million) to \$1.2 billion, while exports to Canada rose by 20 percent (\$144 million) to \$871 million. U.S. exports to Japan increased by 1 percent (\$180 million) to \$837 million. The bulk of the decline in exports to France was in the large civil aircraft (LCA) turbojet engine (those over 25kN in thrust), typically used on Airbus aircraft. Airbus followed U.S. LCA producers in delivering fewer aircraft in 1995 than in previous years, which likely accounts for the diminished sales of engines to France. Regionally, U.S. exports to the European Union, historically the largest external market, declined by 14 percent to \$3.4 billion.

U.S. imports of aircraft and spacecraft engines, other gas turbines, and parts thereof declined by 9 percent (\$540 million) to \$5.3 billion in 1995. France, the United Kingdom, and Canada were the principal sources of these imports, accounting for 69 percent of total U.S. imports of these goods (76 percent in 1994). U.S. imports from France declined by 32 percent (\$624 million) to \$1.3 billion. The largest drop in imports occurred in LCA turbojet engines (those in excess of 25kN) from France, which fell by 72 percent (\$682 million) to \$262 million in 1995. These engines typically power the Boeing 737 aircraft. The chief U.S. import from the United Kingdom was also LCA turbojet engines, usually fitted to the larger Boeing aircraft (747, 757, 767, and 777). These imports fell by 34 percent to \$775 million. As global shipments of large civil aircraft fell in 1995, the need for aircraft engines was diminished. U.S. imports from Canada, predominantly finished parts for aircraft turbojet or turbopropeller engines, rose by 22 percent to \$445 million. This rise was attributable to the increased need for servicing older engines in the U.S. fleet. Regionally, the European Union was the primary source of U.S. imports of aircraft and spacecraft engines, other gas turbines, and parts thereof, accounting for 63 percent, or \$3.3 billion, of total U.S. imports.

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**Table 10-3**  
**Transportation sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MT001	Aircraft engines and gas turbines:				
	Exports .....	8,467	8,641	174	2.1
	Imports .....	5,825	5,285	-540	-9.3
	Trade balance .....	2,642	3,356	714	27.0
MT002	Internal combustion piston engines, other than for aircraft:				
	Exports .....	8,288	8,772	484	5.8
	Imports .....	7,424	8,389	965	13.0
	Trade balance .....	864	383	-481	-55.7
MT011	Forklift trucks and similar industrial vehicles:				
	Exports .....	691	928	237	34.3
	Imports .....	955	1,136	181	19.0
	Trade balance .....	-264	-208	56	21.2
MT012	Construction and mining equipment:				
	Exports .....	6,947	7,773	826	11.9
	Imports .....	3,462	3,635	173	5.0
	Trade balance .....	3,485	4,138	653	18.7
MT025	Ball and roller bearings:				
	Exports .....	801	967	166	20.7
	Imports .....	1,302	1,520	218	16.7
	Trade balance .....	-501	-553	-52	-10.4
MT030	Primary cells and batteries and electric storage batteries:				
	Exports .....	1,125	1,208	83	7.4
	Imports .....	1,441	1,637	196	13.6
	Trade balance .....	-316	-429	-113	-35.8
MT033	Ignition, starting, lighting, and other electrical equipment:				
	Exports .....	1,409	1,336	-73	-5.2
	Imports .....	1,699	1,833	134	7.9
	Trade balance .....	-290	-497	-207	-71.4
MT037	Rail locomotive and rolling stock:				
	Exports .....	750	877	127	16.9
	Imports .....	1,161	1,292	131	11.3
	Trade balance .....	-411	-415	-4	-1.0
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:				
	Exports .....	21,365	21,899	534	2.5
	Imports .....	79,240	84,384	5,144	6.5
	Trade balance .....	-57,875	-62,485	-4,610	-8.0
MT039	Certain motor-vehicle parts:				
	Exports .....	20,685	22,265	1,580	7.6
	Imports .....	16,085	16,298	213	1.3
	Trade balance .....	4,600	5,967	1,367	29.7
MT040	Motorcycles, mopeds, and parts:				
	Exports .....	511	593	82	16.0
	Imports .....	937	1,162	225	24.0
	Trade balance .....	-426	-569	-143	-33.6
MT041	Miscellaneous vehicles and transportation-related equipment:				
	Exports .....	3,162	3,390	228	7.2
	Imports .....	1,457	1,509	52	3.6
	Trade balance .....	1,705	1,881	176	10.3
MT042	Aircraft, spacecraft, and related equipment:				
	Exports .....	28,576	23,839	-4,737	-16.6
	Imports .....	6,431	6,135	-296	-4.6
	Trade balance .....	22,145	17,704	-4,441	-20.1
MT043	Ships, tugs, pleasure boats, and similar vessels:				
	Exports .....	1,203	1,220	17	1.4
	Imports .....	653	919	266	40.7
	Trade balance .....	550	301	-249	-45.3
MT044	Motors and engines, except internal combustion, aircraft, or electric:				
	Exports .....	275	315	40	14.5
	Imports .....	374	474	100	26.7
	Trade balance .....	-99	-159	-60	-60.6

<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.



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# CHAPTER 11

## Electronic Products

The U.S. trade deficit in electronic products grew by \$11.1 billion (30 percent) in 1995 to \$47.5 billion (table 11-1). Although U.S. exports increased by \$20.4 billion (19 percent) to \$129.5 billion, U.S. imports increased by \$31.4 billion (22 percent) to \$177.1 billion. Strong international demand for U.S. television apparatus (except receivers), semiconductor devices, and radio apparatus was offset by a steep rise in U.S. imports of semiconductor imports and radio apparatus, and a moderate rise in U.S. imports of computers, peripherals, and parts.

The top three product areas contributing to the rise in U.S. imports of electronic products were semiconductor devices; computers, computer peripherals, and parts; and apparatus for making, breaking, protecting, or connecting electrical circuits (apparatus for electrical circuits), which together grew by \$24.4 billion (31 percent) to \$104 billion. These three products represented 59 percent of total U.S. imports of electronic products in 1995, similar to 1994. The growth in U.S. imports of semiconductor devices (up 51 percent in 1995, or \$13.1 billion, to \$39.2 billion) reflects new overseas production capability, and the increased use of these devices in such products as personal computers, video game machines, and telecommunications equipment (figure 11-1). U.S. imports of computers, computer peripherals, and parts grew by \$10.1 billion (22 percent) to \$56.3 billion, largely as the result of increased demand for low-cost personal computers. The \$1.1 billion (16-percent) rise in imports of apparatus for electrical circuits to \$8.5 billion reflected increased demand for components of computers, telecommunications equipment, and automotive and industrial electronics systems.

U.S. exports of electronic products rose by \$20.4 billion (19 percent) in 1995 to \$129.5 billion, surpassing the 1994 increase of \$15.1 billion (16 percent) (figure 11-2). The largest percentage gainer was television apparatus (except television receivers), which rose by \$210 million (49 percent) to \$637 million. Demand for these products was fueled by the expanding global market for television services, particularly signal transmission and cable-TV products. U.S. exports of semiconductor devices and radio apparatus also showed significant increases, rising by \$5.2 billion and \$1.4 billion (29

percent and 28 percent), respectively, to \$23.3 billion and \$6.6 billion. Semiconductor exports consisted largely of unmounted semiconductors, which were subsequently assembled abroad and re-exported. U.S. radio apparatus exports grew partly as a result of the sale of communication satellites to French Guiana and China; whereas the imports of automotive radio/tape player combination units were spurred by the increased production of foreign-owned U.S. automobile manufacturers, and strong aftermarket sales. The largest increase in the value of selected U.S. export categories came from the sales of computers, computer peripherals, and parts abroad. These exports increased by \$5.4 billion (18 percent) to \$34.5 billion because of rapidly expanding demand for integrated circuits and other computer parts in East Asia and Europe.

### U.S. Bilateral Trade

The chief categories of U.S. bilateral trade in electronic products in 1995 were semiconductor devices and computers, computer peripherals, and parts. Together, these products represented 45 percent of U.S. exports and 54 percent of U.S. imports during 1995. The largest markets for U.S. exports of these two types of products in 1995 were Japan, the United Kingdom, Canada, and Germany for computers, and Malaysia, the Philippines, and Singapore for semiconductor devices. The largest bilateral change in 1995 U.S. trade occurred between the United States and Korea. Imports of semiconductor devices from Korea increased by \$3.1 billion (79 percent) to \$7.1 billion. This increase was spread among a variety of products, both for the finished and intermediate<sup>1</sup> consumer industry.

The largest U.S. trading partners in the electronic products sector in 1995 were Japan, Canada, Mexico, Singapore, and Korea. Japan was the leading source of U.S. imports of electronic products, representing 28 percent (\$49.1 billion) of total imports (an increase of 9 percent, or \$4 billion). U.S.

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<sup>1</sup> Finished electronic products include such items as computers, television sets, and telephones; intermediate electronic products are certain subassemblies of these and other finished electronic goods.

Table 11-1

Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

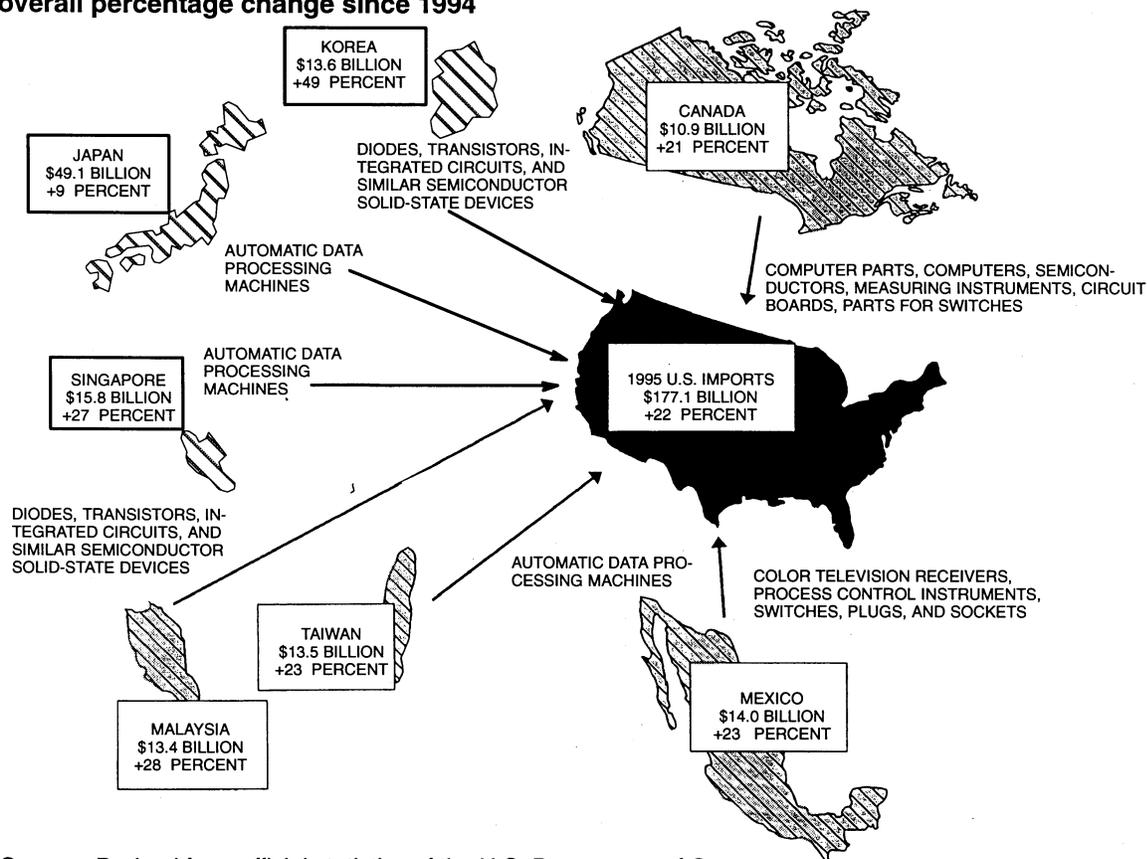
Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Japan .....	11,320	14,288	2,968	26.2
Canada .....	15,780	17,926	2,146	13.6
Mexico .....	9,852	9,843	-9	-0.1
Singapore .....	4,954	6,548	1,594	32.2
Korea .....	4,479	5,437	958	21.4
Malaysia .....	3,738	5,208	1,471	39.3
Taiwan .....	3,956	4,200	243	6.2
United Kingdom .....	8,192	9,243	1,051	12.8
Germany .....	6,291	7,598	1,308	20.8
China .....	1,410	1,880	470	33.3
All other .....	39,204	47,357	8,153	20.8
Total .....	109,176	129,529	20,352	18.6
EU-15 .....	29,685	34,685	5,000	16.8
OPEC .....	1,914	2,632	718	37.5
Latin America .....	17,205	18,522	1,317	7.7
CBERA .....	1,191	1,327	135	11.4
Asian Pacific Rim .....	39,406	50,094	10,687	27.1
ASEAN .....	12,296	16,744	4,448	36.2
Central and Eastern Europe .....	474	550	75	15.8
U.S. imports for consumption:				
Japan .....	45,086	49,119	4,032	8.9
Canada .....	9,021	10,889	1,868	20.7
Mexico .....	11,436	14,030	2,594	22.7
Singapore .....	12,441	15,763	3,322	26.7
Korea .....	9,173	13,638	4,465	48.7
Malaysia .....	10,493	13,424	2,931	27.9
Taiwan .....	10,972	13,523	2,551	23.2
United Kingdom .....	4,089	5,187	1,098	26.9
Germany .....	4,522	5,478	956	21.1
China .....	7,272	9,678	2,406	33.1
All other .....	21,152	26,331	5,179	24.5
Total .....	145,657	177,060	31,402	21.6
EU-15 .....	15,983	20,418	4,436	27.8
OPEC .....	934	1,120	187	20.0
Latin America .....	12,461	15,251	2,790	22.4
CBERA .....	542	664	122	22.5
Asian Pacific Rim .....	105,309	127,183	21,874	20.8
ASEAN .....	30,050	38,013	7,963	26.5
Central and Eastern Europe .....	77	100	23	30.2
U.S. merchandise trade balance:				
Japan .....	-33,766	-34,831	-1,064	-3.2
Canada .....	6,760	7,037	277	4.1
Mexico .....	-1,584	-4,187	-2,603	-164.3
Singapore .....	-7,486	-9,214	-1,728	-23.1
Korea .....	-4,694	-8,201	-3,507	-74.7
Malaysia .....	-6,755	-8,216	-1,460	-21.6
Taiwan .....	-7,016	-9,323	-2,307	-32.9
United Kingdom .....	4,103	4,056	-47	-1.1
Germany .....	1,768	2,120	352	19.9
China .....	-5,862	-7,799	-1,937	-33.0
All other .....	18,053	21,026	2,974	16.5
Total .....	-36,481	-47,531	-11,050	-30.3
EU-15 .....	13,702	14,267	565	4.1
OPEC .....	980	1,511	531	54.2
Latin America .....	4,744	3,271	-1,473	-31.1
CBERA .....	650	663	13	2.1
Asian Pacific Rim .....	-65,903	-77,090	-11,187	-17.0
ASEAN .....	-17,753	-21,269	-3,515	-19.8
Central and Eastern Europe .....	398	450	52	13.1

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

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Figure 11-1**  
**U.S. electronic products sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

imports of semiconductor devices from Japan grew by \$3.0 billion (40 percent) to \$10.7 billion, while U.S. imports of computers from Japan were essentially static, at \$14.8 billion. Japan was also the second-largest export market for U.S. electronic products, accounting for 11 percent (\$14.3 billion) of total U.S. exports in 1995 (in 1994, U.S. exports to Japan increased by 26 percent, or \$3 billion).

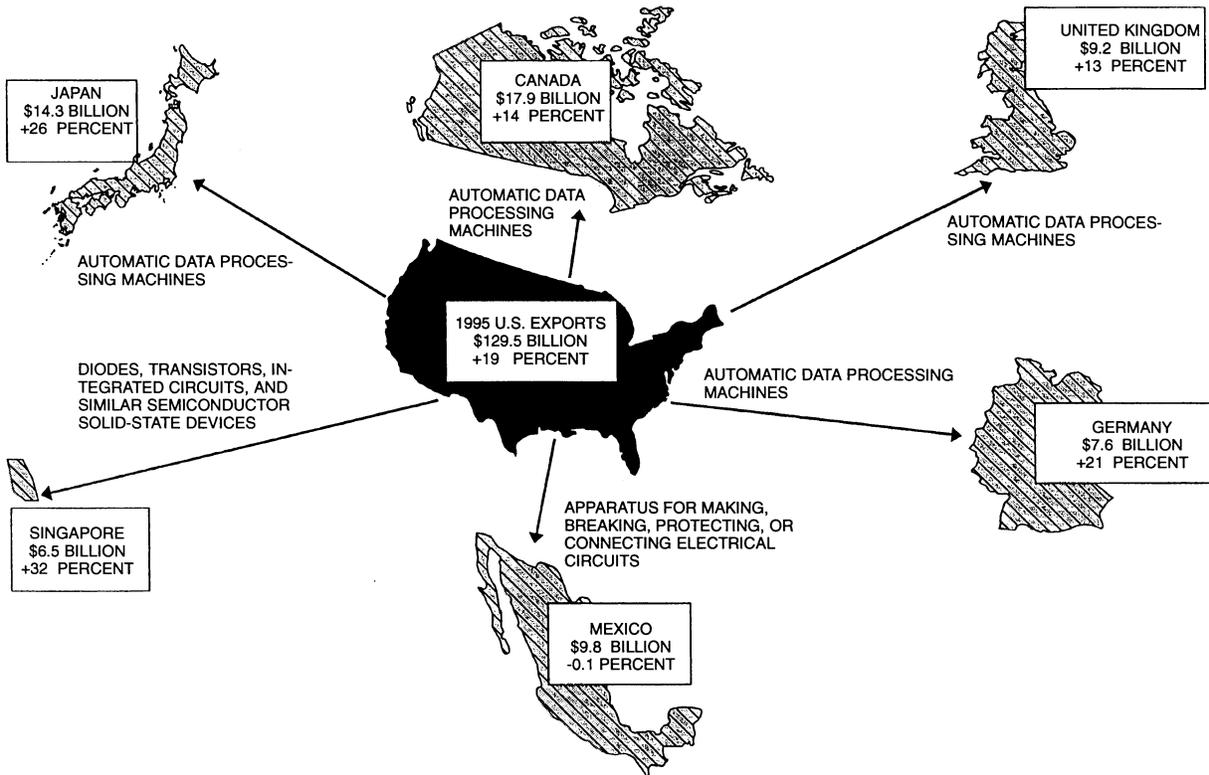
Canada was the leading U.S. export market in 1995, accounting for 14 percent (\$17.9 billion) of total U.S. exports in this sector (an increase of 14 percent, or \$2.1 billion). U.S. imports of Canadian electronic products increased by \$1.9 billion (21 percent) to \$10.8 billion. However, Canada accounted for a modest 6 percent of total U.S. imports in 1995, similar to its 1994 position.

Significant U.S. export advances in 1995 included growth in exports of semiconductor devices to Japan by 48 percent (\$666 million) to \$2.1 billion; while exports of semiconductor devices to Malaysia, Canada, Mexico, and Korea each rose by 30 percent or more. In contrast to most other electron-

ics industries, the United States maintains a trade surplus in medical goods, with the 1995 surplus rising an additional 12 percent (\$423 million) over the 1994 surplus to \$4.0 billion.<sup>2</sup> The United States is the world leader in the production of sophisticated, high-technology medical goods. U.S. exports, which grew by \$969 million (12 percent) in 1995 to \$9.0 billion, are dispersed throughout the industrial world, with Japan and Germany being the top two markets in 1995. U.S. imports of these goods, however, consist of both advanced equipment from top electronics companies in Germany and Japan and low-technology, labor-intensive apparatus from assembly plants in Mexico and the Dominican Republic. In 1995, U.S. imports of medical goods rose by \$546 million (12 percent) to \$5.0 billion.

<sup>2</sup> Medical goods consist of both electronic and nonelectronic items. For example, electromedical devices would include cardiac pacemakers, medical imaging devices (MRI, CT scanners, and ultrasound scanners), medical lasers, and patient monitoring systems. Nonelectric devices would include angioplastic catheters, syringes, coronary stents, and intravenous and blood administration sets.

**Figure 11-2**  
**U.S. electronic products sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

## Commodity Analysis

### *Diodes, Transistors, Integrated Circuits, and Similar Semiconductor Solid-state Devices*

U.S. imports of semiconductor devices<sup>3</sup> rose by \$13.2 billion (51 percent) in 1995, to a level of \$39.2 billion, and exports increased by \$5.2 billion (29 percent) to \$23.3 billion. As a result, the U.S. trade deficit in these products grew by 100 percent to \$15.9 billion. The increase in trade in semiconductors is largely a reflection of the estimated 42-percent worldwide growth in semiconductor sales during 1995.<sup>4</sup> This sales growth was primarily

<sup>3</sup> Semiconductor devices include both "discrete" devices, such as individual diodes and transistors, and integrated circuits, which include memory devices, microprocessors and other logic devices, and signal processors.

<sup>4</sup> *Electronic Business Today*, "1996 Industry Outlook: Semiconductors," Jan. 1996, pp. 44-45.

the result of greatly increased usage of dynamic random-access memories (DRAMs) and other semiconductor devices in personal computers, video game machines, cellular telephones and other telecommunications equipment, and other electronic products. However, sales growth was also the result, to a small extent, of price rises brought on by shortages in such products as DRAMs.

U.S. imports increased more rapidly than exports during 1995 for two reasons. First, the increased U.S. and world demand for DRAMs and other semiconductors was met primarily by new manufacturing plants in Korea, Japan, and other foreign countries. Second, although U.S. producers expanded production in 1995, they conducted final assembly of most of their products overseas. As a result, assembled devices reimported for the U.S. market were valued approximately 90 percent higher as imports than they had been valued as unassembled exports.<sup>5</sup> Furthermore, assembled devices that were not reimported, but rather shipped to various foreign markets, contributed only part of their value to the total value of U.S. exports.

<sup>5</sup> U.S. International Trade Commission, *Production Sharing, 1991-94*, USITC publication 2996, table 4-9, p. 4-22.

Nearly one-half the growth of U.S. semiconductor imports in 1995 was accounted for by DRAMs and other memory devices. Imports of memory devices increased by \$6.2 billion (71 percent) to \$15.1 billion, including \$11.9 billion in DRAMs. Korea and Japan together accounted for nearly one-half the growth in U.S. imports in 1995. Imports of all semiconductors from Korea rose by \$3.1 billion (79 percent) to \$7.1 billion, and imports of memory devices alone increased by \$2.3 billion (94 percent) to \$4.7 billion. Semiconductor imports from Japan grew by \$3.0 billion (40 percent) to \$10.7 billion, of which imports of memories alone increased by \$1.8 billion (62 percent) to \$4.8 billion. U.S. imports of semiconductors from Malaysia rose by \$1.6 billion (45 percent) to \$5.1 billion, and imports from Taiwan increased by \$1.1 billion (54 percent) to \$3.0 billion. In both of these cases, the increase was spread over a variety of products. U.S. imports from Singapore and the Philippines also grew substantially. Most U.S. semiconductor imports from Southeast Asian countries in 1995 were reimports of devices fabricated in the United States and sent to Southeast Asia for final assembly.

Approximately half of total U.S. exports of semiconductors in 1995, and 58 percent of the increase in these exports, consisted of unmounted semiconductors—that is, products to be assembled in other countries before sale either back in the United States, or in other markets. The value of these exports rose by \$3.0 billion (34 percent) to \$11.9 billion in 1995. Unmounted semiconductors and parts accounted for over 90 percent of 1995 U.S. semiconductor exports to Malaysia and the Philippines, more than one-half of U.S. exports to Singapore, and a substantial share of U.S. exports to Canada and Japan. The U.S. semiconductor industry also increased its exports of finished memory devices by \$905 million (59 percent) in 1995 to \$2.4 billion. Most of these exports appear to have been attributable to a single firm that conducts all its production operations in the United States.

U.S. exports to Malaysia, the largest foreign market for U.S. semiconductors, increased by \$913 million (32 percent) to \$3.8 billion in 1995, and exports to all ASEAN countries increased by \$2.0 billion (30 percent) to \$8.7 billion. Exports to Japan increased by \$666 million (48 percent) to \$2.1 billion, in part as a result of Japan's efforts to increase semiconductor imports under the terms of the 1991 U.S.-Japan Semiconductor Arrangement. U.S. exports to Canada, Mexico, and Korea also each increased by 30 percent or more. U.S. exports to Taiwan, the fifth-largest market, increased by only 7 percent, as a result of the expansion of Taiwan's domestic semiconductor production.

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## ***Automatic Data Processing Machines***

The U.S. trade deficit in computers, computer peripherals, and parts grew again in 1995, reflecting the impact of a \$10.1 billion (22-percent) increase in imports. In 1995, the trade deficit reached \$21.8 billion, although the rate of increase in the size of the deficit decreased, from a 36-percent annual growth rate in 1993/94 to 28 percent in 1994/95. Moreover, U.S. computer exports continued to grow strongly in 1995, rising by \$5.4 billion (18 percent) to \$34.5 billion. The rapid expansion of U.S. exports resulted from booming demand for integrated circuits and other computer parts in East Asia and Europe. Growth in demand for U.S. computer parts was particularly strong in Japan and Germany.

Continued strong demand by U.S. consumers for price-competitive personal computers, disk drives, and printers once again fueled the growth of U.S. imports in 1995. Particularly significant in 1995 were the increases in imports from Singapore, Taiwan, and Korea. U.S. computer imports from these three countries rose by a combined \$5.4 billion to \$22.1 billion in 1995, a 32-percent increase over the corresponding 1994 figure. Much of this increase was due to continued growth in U.S. consumption of personal computers imported from low-cost suppliers using standardized electronic components in Taiwan and Korea. Firm demand for disk drives manufactured in Singapore—primarily by U.S.-headquartered multinationals—contributed to the strong growth of U.S. imports. Singapore and Japan remained the largest suppliers of imported ink jet and laser printers (as well as printer parts) in the U.S. market, and declining prices helped fuel a sharp increase in unit sales of personal printers manufactured in these two countries. Strong growth in imports of cathode ray tube (CRT) monitors from Taiwan, Japan, and Korea also contributed to the rise in 1995 U.S. imports.

U.S. imports of disk drives and other data storage devices rose sharply from \$11.0 billion in 1994 to \$14.2 billion in 1995, a 29-percent increase. Disk drive imports from Singapore alone rose from \$4.2 billion in 1994 to \$6.0 billion in 1995. Similarly, imports of computer parts grew quickly, from \$16.1 billion in 1994 to \$21.6 billion in 1995 (a 34-percent gain). Parts imports from Taiwan increased by 45 percent in 1995 to \$3.5 billion, while imports of Korean-made parts more than doubled to \$2.4 billion.

Much of the growth in U.S. exports during 1995 can be attributed to healthy demand for U.S.-made printed circuit boards and other parts used in the assembly of computers. Exports grew strongly in the four largest markets for U.S.-made parts—Japan, the United Kingdom, Canada, and Germany. In

large part, this growth can be explained by continued strength in downstream sales of personal computers and network servers manufactured in these four markets from U.S. parts. Computer parts remained the largest single U.S. export item in this product category during 1995.

Overall, U.S. computer parts exports rose from \$11.4 billion in 1994 to \$14.6 billion in 1995, a 28-percent gain. Exports to Germany grew by 43 percent in 1995 to \$1.5 billion, while parts exports to Japan—the largest single parts export market—increased by 23 percent to \$1.6 billion. Singapore also emerged as a major U.S. parts market in 1995, with total U.S. parts exports to that country reaching \$924 million, a 111-percent increase over the 1994 export total.

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## ***Measuring, Testing, Controlling, and Analyzing Instruments***

Significant growth levels were recorded in both U.S. exports and imports of measuring, testing, controlling, and analyzing instruments (hereinafter referred to as measuring and controlling instruments) during 1995, which was a continuation of growth patterns recorded in 1994. U.S. exports grew by \$1.5 billion (15 percent) to \$11.6 billion, while imports rose by \$938 million (16 percent) to \$6.7 billion, resulting in a \$574 million (13-percent) increase in the trade surplus to \$4.9 billion. A number of factors contributed to the increase in U.S. trade of measuring and controlling instruments during 1995. With respect to exports, these factors included market assessment studies, trade fairs, and other operational activities designed to strengthen U.S. producers' export potential in world markets. U.S. exports also were enhanced by growth in certain foreign manufacturing sectors, which relied heavily upon technology-intensive U.S.-made products for increased operational productivity and improvements in the quality and appearance of finished products. The growing availability of competitively priced high-quality foreign products, coupled with intracorporate trade between U.S. companies and their foreign counterparts, contributed to the growth in U.S. imports.

U.S. exports of measuring and controlling instruments to Canada, the principal export market, increased by \$168 million (9 percent) to \$2.0 billion during 1994-95, and accounted for 18 percent of total U.S. exports in 1995. Exports to Japan, which accounted for 14 percent of total exports, rose by

\$321 million (25 percent) to \$1.6 billion. The rise in the value of U.S. exports to these countries largely reflected an increase in demand for products used in industrial applications. U.S. exports to Mexico, which represented 8 percent of total exports, declined by \$269 million (25 percent) to \$880 million, primarily reflecting the devaluation of the peso, which lowered the demand of U.S.-owned assembly plants in that country for parts and components. Among the products accounting for the increase in total U.S. exports were instruments for measuring and checking electrical quantities (up by 22 percent to \$3.3 billion); instruments for measuring and checking viscosity, porosity, expansion, surface tension, and quantities of heat, sound, and light (up by 14 percent to \$2.4 billion); and automatic regulating or controlling instruments and apparatus and parts thereof (up by 4 percent to \$2.1 billion).

Japan remained the largest supplier to the U.S. market during 1995 (accounting for 23 percent of total imports), followed by Mexico (19 percent), Germany (12 percent), and Canada (11 percent). U.S. imports from Japan increased by \$247 million (19 percent) to \$1.5 billion, largely reflecting increased U.S. purchases of automatic regulating and controlling instruments from that country. Imports from Mexico rose by \$256 million (25 percent) to \$1.3 billion, due in large part to a significant increase in U.S. demand for speedometers and tachometers. Measuring and controlling instruments imported from Germany increased by \$111 million (16 percent) to \$812 million, which reflected a marked rise in imports of instruments and apparatus for measuring or checking the flow, level, pressure, or other variables of liquids or gases, as well as instruments and apparatus for physical or chemical analysis. U.S. imports from Canada, which consisted of significant levels of speedometers and tachometers and parts and accessories for automatic regulating and controlling instruments, grew by \$36 million (5 percent) to \$766 million.

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## ***Telephone and Telegraph Apparatus***

The U.S. trade balance in telecommunications apparatus was a positive \$460 million in 1995, the first trade surplus in telephone and telegraph apparatus in more than 5 years. The trade deficit had been declining over the past 6 years, due in part to increasing exports to countries improving their telecommunications infrastructures. The trade balance with Japan improved by \$685 million between 1994 and 1995, so that the 1995 deficit was only \$858

million. The deficit with China increased by 13 percent to \$888 million in 1995.

Imports of telephone and telegraph apparatus increased by \$295 million (4 percent) to \$7.7 billion in 1995. The principal sources of imports were Japan, Canada, and China. Although still the leading source, imports from Japan fell by 21 percent to \$1.7 billion in 1995. This decline was likely caused by the appreciation of the yen and the movement of production to offshore locations in Asia. As Japanese production shifts offshore, the value of U.S. imports is less influenced by the high yen value and more influenced by the lower costs in the other Asian countries, where the offshore production facilities are located, resulting in smaller increases in imports in dollar terms. The principal imported products were cordless telephones and facsimile machines, products with negligible U.S. production. Imports of cordless telephones fell by \$120 million (9 percent), and imports of facsimile machines fell by \$194 million (16 percent). The decline in the value of imports of both products is likely a reflection of the lower costs of production in China and Malaysia, which are becoming significant sources of these items in place of Japan.

Exports of telephone and telegraph apparatus increased by \$1.5 billion (22 percent) to \$8.2 billion in 1995. The continuing deregulation of telecommunications systems throughout the world has contributed to this increase. The principal markets for U.S. exports were Canada, Japan, and Hong Kong. Exports to Hong Kong almost tripled between 1994 and 1995; this large increase was likely due to a major upgrading of the local telecommunications infrastructure. The principal products exported in 1995 were miscellaneous transmission apparatus incorporating reception apparatus; items such as multiplexers are included in this category, and parts for miscellaneous telephone apparatus, which includes parts for carrier-current line systems. Exports of miscellaneous transmission apparatus incorporating reception apparatus increased by \$536 million (32 percent) to \$2.2 billion in 1995. Exports of parts for miscellaneous telephone apparatus increased by \$184 million (21 percent) to \$1.1 billion in 1995.

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## ***Radio Transmission and Reception Apparatus, and Combinations Thereof***

The U.S. trade deficit in radio transmission and reception apparatus grew by \$674 million (26 percent) in 1995 to \$1.9 billion. The countries with which the United States had the largest trade defi-

cits in 1995 were Malaysia (\$1.6 billion), China (\$1.0 billion), Mexico (\$747 million), and Japan (\$586 million). The deficit with Malaysia grew by 11 percent to \$1.6 billion, while the deficit with Japan declined by 29 percent to \$586 million. The trade balance with Mexico in 1994 dropped from a \$55 million surplus to a \$747 million deficit in 1995.

U.S. exports of radio apparatus increased by \$1.4 billion (28 percent) in 1995 to \$6.6 billion. Exports of parts of radio apparatus increased by \$685 million (41 percent) to \$2.3 billion, accounting for 36 percent of total exports and almost half of the increase from 1994-95. Exports of transceivers capable of transmitting at frequencies greater than 400 MHz grew by \$273 million (16 percent) to \$1.3 billion, accounting for 19 percent of the total, and exports of communications satellites grew by \$221 million (53 percent) to \$640 million, accounting for 10 percent of total exports.

The major export markets for radio apparatus in 1995 were Japan and Canada, reaching \$803 million and \$743 million in 1995, accounting for 12 and 11 percent of total U.S. exports, respectively. U.S. exports to French Guiana, China, Canada, and Japan experienced the greatest increases, ranging from \$185 million for Japan to \$246 million for French Guiana. U.S. exports to French Guiana, which accounted for 6 percent of total exports, grew by \$246 million (140 percent) to \$421 million, as a result of the sale of communications satellites to France, which has a launch facility in French Guiana. U.S. exports to China, which accounted for 8 percent of total 1995 exports, grew by \$231 million (75 percent) to \$541 million, as a result of an increase in exports of parts, communications satellites, and transceivers, accounting for \$107 million, \$71 million, and \$31 million, respectively. The increase in exports of parts was likely due to the growth in manufacture and assembly of consumer electronics for export. The growth in exports of communications satellites was a result of efforts by China to increase communications capabilities within China. Exports to Canada primarily grew as a result of exports of radio/tape player combinations for incorporation into automobiles and trucks produced in Canada, with the majority of the production intended for consumption by the United States. Exports of parts to Japan more than doubled during 1994-95, and accounted for over 70 percent of total 1995 exports to Japan.

Imports of radio apparatus increased by \$764 million (10 percent) during the same period to \$8.5 billion. Imports of consumer electronics accounted for over 70 percent of total U.S. imports of radio apparatus, with automobile radio/CD player combinations accounting for 21 percent of total imports of radio apparatus in 1995. Radios in combination with CD players showed the greatest increase in imports from 1994 to 1995, growing by

71 percent to \$2.6 billion. Malaysia, China, Japan, and Mexico were the greatest sources of radio apparatus imports, accounting for \$1.6 billion, \$1.6 billion, \$1.4 billion, and \$1.3 billion, or 19, 18, 16, and 15 percent, respectively, of U.S. imports. Imports from Mexico increased by 95 percent to \$1.3 billion, mostly due to an increase in imports of automobile radio/tape player combinations. The increase in imports of radio apparatus incorporating CD players reflects the shift in U.S. consumption from audio cassettes and vinyl records to compact discs, which now account for almost 80 percent of U.S. shipments of audio software.<sup>6</sup>

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## ***Apparatus for Making, Breaking, Protecting, or Connecting Electrical Circuits***

U.S. exports and imports of apparatus for making, breaking, protecting, or connecting electrical circuits both grew by nearly 16 percent during 1995. Exports rose by \$1.0 billion to \$7.5 billion and imports by \$1.1 billion to \$8.5 billion. As a result, the U.S. trade deficit in these apparatus increased in 1995 by \$117 million (13 percent) to \$1.0 billion. These products—primarily switches, relays, fuses and circuit breakers, sockets and connectors, printed circuit boards, electrical control boards, and parts<sup>7</sup>—are components of computers, telecommunications equipment, automotive and industrial electronics systems, and other products for which worldwide demand and production have increased substantially in recent years. The increase in trade also reflects the increasing integration of the electronics industry within both the NAFTA region and the world as a whole.

Approximately 23 and 43 percent of the increase in U.S. exports of these apparatus were accounted for by Canada and Mexico, respectively, reflecting NAFTA integration. Exports to Mexico increased by 29 percent to \$1.9 billion. The most notable increases in exports to Mexico were of printed circuit boards (*HTS* heading 8534), which rose by 122 percent to \$427 million; and terminals, splices, and couplings (*HTS* subheading 8536.90.00.60), which rose by 91 percent to \$304 million. Both of these products are components of a wide variety of electronic equipment. U.S. exports to Canada increased by 13 percent to \$2.1 billion. U.S. exports to Japan, Taiwan, and other Asian markets also in-

<sup>6</sup> Recording Industry Association of America.

<sup>7</sup> *HTS* headings 8534 through 8538.

creased substantially, by 36 percent to \$317 million in the case of Japan, and by 44 percent to \$212 million in the case of Taiwan. In each of these markets, the increase was spread across a broad range of products.

U.S. imports from the largest sources—Japan, Mexico, and Canada—rose by relatively modest rates of 14 percent (\$244 million), 9 percent (\$144 million), and 4 percent (\$33 million), respectively. By contrast, imports from Taiwan rose by 26 percent (\$160 million) to \$779 million, imports from Germany rose by 19 percent (\$120 million) to \$740 million, and imports from China rose by 35 percent (\$105 million) to \$401 million. More than one-half of U.S. imports from Taiwan, and 88 percent of the 1995 increase, was accounted for by printed circuit boards. The increase in imports from other sources was spread across a range of products.

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## ***Medical Goods***

The U.S. trade surplus in medical goods rose by almost 12 percent (\$423 million) to \$4 billion in 1995. U.S. exports and imports both grew by 12 percent; however, exports grew (by \$969 million) from a larger base to \$9.0 billion in 1995, as demand increased in the markets of such important trading partners as Europe and Japan.<sup>8</sup> During the past several years, policies to contain health care costs in those markets and in the United States had slowed growth in purchases of medical supplies.<sup>9</sup> However, previously postponed expenditures by hospitals and other health care providers affected by those policies could no longer be forestalled if health care standards were to be maintained, leading to the surge in purchases of medical goods in 1995 in all three of those economies.<sup>10</sup> Producers of advanced-technology products with demonstrated capability for curtailing overall health care expenditures particularly benefited from the increased spending in the above markets in 1995.<sup>11</sup>

<sup>8</sup> U.S., European, and Japanese industry representatives; telephone interviews by USITC staff, Apr. 24-26, 1996.

<sup>9</sup> U.S. and European trade association officials; and medical industry investment analysts, Tokyo, New York, and Boston; telephone interviews by USITC staff, Apr. 10-12, 1996.

<sup>10</sup> Jill Topkis, "Medical Devices/Hospital Supplies," *Medi-Pulse: A Monthly Review of the Health Care Industry* (New York: Deutsche Morgan Grenfell/C.J. Lawrence, Oct. 16, 1995 and Feb. 16, 1996 issues), pp. 21-26 and 14-20, respectively.

<sup>11</sup> Programmable pacemakers, made by U.S. companies, are examples of devices that significantly reduce hospital and patient recovery costs because they enable doctors to recalibrate faulty pacemakers without having to operate on the patient. Other products that have proven effective in reducing health care costs and, thus, have benefited from increased health care expenditures in 1995, include advanced patient monitoring systems and microsurgical instruments. Microsurgical instruments permit more procedures to be performed on

The U.S. trade surplus with Japan almost doubled from \$329 million in 1994 to \$635 million in 1995. U.S. exports to that country increased by almost 23 percent (\$295 million) to \$1.6 billion as Japan continued efforts begun in 1990 (but curtailed during 1992-93 due to public health care budgetary constraints) to provide the necessary infrastructure for what it termed its "greying" society.<sup>12</sup> Demand for new medical technology for treating heart disease, which is increasing in Japan, particularly benefited certain U.S. developers of advanced cardiology products, such as cardiac pacemakers, defibrillators, heart valves, and angioplastic catheters.<sup>13</sup> Meanwhile, U.S. imports from Japan declined by \$11 million (1 percent) to \$957 million, as Japanese producers concentrated their efforts on the large growth in demand in the Japanese market itself rather than on traditional export markets.<sup>14</sup>

U.S. exports to the European Union (EU) increased by almost 16 percent (\$491 million) to \$3.6 billion, with the greatest increases in exports to the Netherlands (28 percent), the United Kingdom (17 percent), and Germany (16 percent). U.S. manufacturers of parts and subassemblies of x-ray, medical imaging, and other electromedical equipment were able to benefit from the increased demand in Europe to increase sales to certain EU-headquartered companies, which assembled the U.S.-made components and subassemblies into finished electromedical systems.<sup>15</sup> Intracompany transfers of equipment by certain U.S.-based companies to their affiliates in the Netherlands, Germany, and the United Kingdom were responsible for a significant portion of remaining U.S. exports to those countries. Germany was the only major EU country with which the U.S. medical goods industry had a deficit (\$58 million) in 1995 trade. However, even that figure represented an almost 11-percent improvement from the previous year, when the deficit was \$65 million.

U.S. imports by major U.S. producers of commodity hospital supplies from affiliates in Mexico, Singapore, and the Dominican Republic all resulted in U.S. trade deficits in medical goods with those countries. In recent years, U.S. manufacturers have

increased their use of production sharing in those countries to reduce the costs of everyday hospital supplies that represent the largest volume of health care expenditures and, therefore, have faced the greatest pressures of hospital cost-containment policies of U.S. public and private health care insurers.<sup>16</sup> The peso crisis in Mexico lowered relative U.S. prices of medical goods assembled by Mexican affiliates and contract manufacturers of U.S.-headquartered firms, and consequently led to a \$108 million, or 25-percent, increase in U.S. imports from that country to \$541 million in 1995.<sup>17</sup> Almost all of the imports from Singapore, which rose by 15 percent (\$33 million) to \$249 million, consisted of commodity hospital supplies such as blood administration and transfusion sets, disposable syringes, and similar apparatus from affiliates of U.S.-based manufacturers. Finally, further expansion of the Dominican Republic affiliates of certain U.S.-based manufacturers in the past 2 years have all contributed to the rapid growth of that country as a major supplier of hospital supplies to the United States. U.S. imports from the Dominican Republic, now the fourth-leading foreign supplier of medical goods to the United States, amounted to \$279 million in 1995, an increase of 74 percent, or \$119 million, from 1994.

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## ***Television Apparatus (Except Receivers and Monitors) Including Cameras, Camcorders, and Cable Apparatus<sup>18</sup>***

The trade deficit for television apparatus, except television receivers, increased by \$406 million (14 percent) to \$3.2 billion in 1995. The countries with which the United States had the greatest trade deficits were Japan (\$2.3 billion) and Mexico (\$733 million). The deficits with these countries increased by \$304 million (15 percent) and \$278 million (61 percent), respectively.

Exports of television apparatus, except television receivers, increased by \$210 million (49 percent) in 1995 to \$637 million. Exports of apparatus for

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<sup>11</sup>—Continued

an outpatient basis and, thus, reduce the lengths of recovery periods in costly hospital settings. U.S. companies have been in the forefront of such developments in less-invasive devices and, consequently, benefited much from the surge in demand in the major global markets in 1995. Ibid., and U.S. medical industry investment analysts, Boston and New York, telephone interviews by USITC staff, Apr. 12, 1996.

<sup>12</sup> Japanese Government officials and industry representatives, telephone interviews by USITC staff, Apr. 17, 1996.

<sup>13</sup> Ibid.; and U.S. industry representatives, telephone interviews by USITC staff, Apr. 24-26, 1996.

<sup>14</sup> Japanese industry representatives, telephone interview by USITC staff, Apr. 17, 1996.

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<sup>15</sup> U.S. and European industry and trade association representatives, telephone interviews by USITC staff, Apr. 17, 1996.

<sup>16</sup> U.S. industry representatives, telephone interviews by USITC staff, Apr. 10-18, 1996.

<sup>17</sup> Ibid.

<sup>18</sup> Includes television cameras, camcorders, television transmission apparatus, and apparatus for closed-circuit, satellite, and cable television systems.

television transmission reached \$401 million in 1995, accounting for 63 percent of sector exports, and more than three-quarters of the total increase from 1994-95. The largest markets for U.S. exports in 1995 were Australia, Mexico, the United Kingdom, and Canada, which, combined, accounted for 41 percent of total exports. Exports of transmission equipment to Australia increased by over \$70 million during this period, accounting for almost a half of the increase in exports of transmission apparatus. Most of the increase was a result of the growth in demand for cable television systems in Australia. Exports of transmission apparatus to Korea increased more than threefold to \$47 million, and exports of transmission apparatus to Italy increased by almost 400 percent to more than \$17 million.

Imports of television apparatus increased by \$616 million (19 percent) during the same period to \$3.9 billion. Cable and closed-circuit television transmission apparatus, camcorders, and TV apparatus for reception of television signals relayed by satellite accounted for 82 percent of 1995 imports. Japan and Mexico were the greatest sources of television apparatus imports, accounting for \$2.4 billion and \$805 million (61 and 21 percent of U.S. imports, respectively). Japan accounted for 96 percent (\$1.7 billion) of camcorders, and over 70 percent of imports from Japan of television apparatus are accounted for by camcorders. Only 22 percent of U.S. households owned camcorders in 1995,<sup>19</sup> and that rate is increasing by about 1 percentage point per year. As U.S. demand for camcorders with increased features grows, imports from Japan are likely to continue to grow. Mexico provides low-cost labor for the assembly of set-top cable television decoders that are subsequently imported into the United States for consumption. The increasing penetration of households by cable television, and the need for more than one decoder/converter per household, has led to increased imports from Mexico. Countries from which imports declined significantly were Korea and Malaysia. Imports from Korea declined by \$37 million (22 percent) to \$136 million, mainly as a result of a \$35 million decrease in imports of television apparatus for the reception of television signals. Imports from Malaysia declined by \$21 million (50 percent) to \$21 million, mainly as a result of a \$17 million

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<sup>19</sup> Electronic Industries Association.

decrease in imports of unspecified television transmission apparatus.

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## **Office Machines**

The U.S. trade deficit in office machines increased by \$432 million (11 percent) to a negative \$4.4 billion in 1995. The largest bilateral trade deficits were with Japan and China. The trade deficit with Japan worsened by \$239 million (8 percent) to \$3.3 billion in 1995. The deficit with China worsened by \$309 million (96 percent) to \$631 million in 1995.

U.S. imports of office machines increased by \$585 million (10 percent) to \$6.4 billion in 1995. The principal sources of imports were Japan and China. Imports from Japan rose by 9 percent to \$3.4 billion in 1995; however, imports from China rose by 91 percent to \$646 million. The principal imported products from all sources were plain paper electrostatic photocopying machines and parts and accessories for photocopying machines, which together accounted for 59 percent of the 1995 total. These products accounted for 76 percent of total imports from Japan in 1995. The principal import from China was also electrostatic plain paper copiers, which accounted for 41 percent of the total value of Chinese entries in 1995, compared to 16 percent in 1994. China has become a significant source of plain paper copiers, as Japanese copier manufacturers have established facilities there to produce less expensive copiers.

U.S. exports of office machines increased by \$153 million (9 percent) to \$1.9 billion in 1995. The principal markets for U.S. office machine exports were Canada and Mexico, which combined, absorbed 27 percent of the 1995 total. The principal products that were exported from the United States were parts and accessories of photocopying machines and plain paper electrostatic copiers. These two items together accounted for 40 percent of U.S. exports in 1995. Canada was the leading market for U.S. exports of both parts of photocopying machines and plain paper electrostatic copiers, which amounted to a \$292 million (5-percent) increase in 1995. Such exports were believed to be primarily intracompany transfers, since a major U.S. manufacturer of copying machines has production facilities in Canada.

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**Table 11-2**  
**Electronic technology sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
<i>Million dollars</i>					
ST001	Office machines:				
	Exports .....	1,777	1,930	153	8.6
	Imports .....	5,781	6,366	585	10.1
	Trade balance .....	-4,004	-4,436	-432	-10.8
ST002	Telephone and telegraph apparatus:				
	Exports .....	6,724	8,203	1,479	22.0
	Imports .....	7,448	7,742	294	3.9
	Trade balance .....	-724	461	1,185	( <sup>3</sup> )
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:				
	Exports .....	1,006	1,046	40	4.0
	Imports .....	1,827	2,001	174	9.5
	Trade balance .....	-821	-955	-134	-16.3
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:				
	Exports .....	640	754	114	17.8
	Imports .....	6,283	6,733	450	7.2
	Trade balance .....	-5,643	-5,979	-336	-6.0
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Exports .....	1,736	2,030	294	16.9
	Imports .....	1,943	1,936	-7	-0.4
	Trade balance .....	-207	94	301	( <sup>3</sup> )
ST006	Records, tapes, compact discs, computer software, and other recored media:				
	Exports .....	3,742	3,814	72	1.9
	Imports .....	755	916	161	21.3
	Trade balance .....	2,987	2,898	-89	-3.0
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Exports .....	5,166	6,604	1,438	27.8
	Imports .....	7,764	8,528	764	9.8
	Trade balance .....	-2,598	-1,924	674	25.9
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Exports .....	1,242	1,198	-44	-3.5
	Imports .....	438	522	84	19.2
	Trade balance .....	804	676	-128	-15.9
ST009	Television receivers and video monitors and combinations including television receivers:				
	Exports .....	1,302	1,331	29	2.2
	Imports .....	4,320	4,540	220	5.1
	Trade balance .....	-3,018	-3,209	-191	-6.3
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:				
	Exports .....	427	637	210	49.2
	Imports .....	3,265	3,881	616	18.9
	Trade balance .....	-2,838	-3,244	-406	-14.3
ST011	Electric sound and visual signaling apparatus:				
	Exports .....	578	692	114	19.7
	Imports .....	1,576	1,748	172	10.9
	Trade balance .....	-998	-1,056	-58	-5.8
ST012	Electrical capacitors, and resistors:				
	Exports .....	1,186	1,571	385	32.5
	Imports .....	1,475	1,879	404	27.4
	Trade balance .....	-289	-308	-19	-6.6
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:				
	Exports .....	6,471	7,502	1,031	15.9
	Imports .....	7,380	8,528	1,148	15.6
	Trade balance .....	-909	-1,026	-117	-12.9
ST014	Television picture tubes and other cathode ray tubes:				
	Exports .....	1,061	1,391	330	31.1
	Imports .....	1,003	1,116	113	11.3
	Trade balance .....	58	275	217	374.1

See footnotes at end of table.

**Table 11-2—Continued**  
**Electronic technology sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
			<i>Million dollars</i>		
ST015	Special-purpose tubes:				
	Exports .....	171	150	-21	-12.3
	Imports .....	215	274	59	27.4
	Trade balance .....	-44	-124	-80	-181.8
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices:				
	Exports .....	18,098	23,317	5,219	28.8
	Imports .....	26,020	39,168	13,148	50.5
	Trade balance .....	-7,922	-15,851	-7,929	-100.1
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:				
	Exports .....	2,117	2,814	697	32.9
	Imports .....	1,137	1,463	326	28.7
	Trade balance .....	980	1,351	371	37.9
ST018	Automatic data processing machines:				
	Exports .....	29,102	34,476	5,374	18.5
	Imports .....	46,161	56,308	10,147	22.0
	Trade balance .....	-17,059	-21,832	-4,773	-28.0
ST019	Photographic supplies:				
	Exports .....	1,621	1,780	159	9.8
	Imports .....	1,675	1,754	79	4.7
	Trade balance .....	-54	26	80	( <sup>3</sup> )
ST020	Exposed photographic plates, film, and paper:				
	Exports .....	110	98	-12	-10.9
	Imports .....	107	125	18	16.8
	Trade balance .....	3	-27	-30	( <sup>3</sup> )
ST021	Optical fibers, optical fiber bundles and cables:				
	Exports .....	418	475	57	13.6
	Imports .....	104	154	50	48.1
	Trade balance .....	314	321	7	2.2
ST022	Optical goods, including ophthalmic goods:				
	Exports .....	1,324	1,527	203	15.3
	Imports .....	2,385	2,820	435	18.2
	Trade balance .....	-1,061	-1,293	-232	-21.9
ST023	Photographic cameras and equipment:				
	Exports .....	980	1,038	58	5.9
	Imports .....	2,315	2,618	303	13.1
	Trade balance .....	-1,335	-1,580	-245	-18.4
ST024	Medical goods:				
	Exports .....	7,997	8,966	969	12.1
	Imports .....	4,405	4,951	546	12.4
	Trade balance .....	3,592	4,015	423	11.8
ST025	Surveying and navigational instruments:				
	Exports .....	1,470	1,511	41	2.8
	Imports .....	461	556	95	20.6
	Trade balance .....	1,009	955	-54	-5.4
ST026	Watches:				
	Exports .....	163	139	-24	-14.7
	Imports .....	2,127	2,243	116	5.5
	Trade balance .....	-1,964	-2,104	-140	-7.1
ST027	Clocks and timing devices:				
	Exports .....	113	108	-5	-4.4
	Imports .....	424	430	6	1.4
	Trade balance .....	-311	-322	-11	-3.5
ST028	Arms and ammunition:				
	Exports .....	2,212	2,662	450	20.3
	Imports .....	777	657	-120	-15.4
	Trade balance .....	1,435	2,005	570	39.7
ST029	Balances of a sensitivity of 5 cg or better:				
	Exports .....	18	21	3	16.7
	Imports .....	37	35	-2	-5.4
	Trade balance .....	-19	-14	5	26.3
ST030	Drawing and mathematical calculating or measuring instruments:				
	Exports .....	145	172	27	18.6
	Imports .....	322	401	79	24.5
	Trade balance .....	-177	-229	-52	-29.4

See footnotes at end of table.

**Table 11-2—Continued**

**Electronic technology sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
			<i>Million dollars</i>		
ST031	Measuring, testing, controlling, and analyzing instruments:				
	Exports .....	10,060	11,572	1,512	15.0
	Imports .....	5,727	6,665	938	16.4
	Trade balance .....	4,333	4,907	574	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.

<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> Not meaningful for purposes of comparison.

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



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# CHAPTER 12

## Miscellaneous Manufactures<sup>1</sup>

Led by sharp increases in U.S. imports of furniture, toys, and miscellaneous articles (primarily works of art, Christmas decorations, and artificial flowers), the U.S. trade deficit in miscellaneous manufactures expanded by \$2.7 billion (11 percent) in 1995 to \$27.3 billion. Strong growth in U.S. imports, which rose by \$3.2 billion (9 percent) in 1995 to \$38.6 billion, overwhelmed a modest growth in exports, which increased by just \$532 million (5 percent) to \$11.3 billion (table 12-1).

Furniture accounted for the most pronounced increase in U.S. imports of miscellaneous manufactures in 1995, as such trade rose by \$785 million (10 percent) to \$8.4 billion in 1995. The increase in imports was principally the result of the relatively weak currencies of Canada and Mexico—the top two sources of furniture imports—and the continued success of China, Malaysia, and Indonesia in the U.S. furniture market. High transportation costs associated with shipping many types of furniture from Asia and integration of the industry producing motor-vehicles seats in North America were responsible for making Canada and Mexico the top U.S. partners in furniture trade in 1995. Furniture producers in the East Asian countries noted above have access to both low-cost labor and significant sources of lumber.

American toy companies are preeminent in the invention and design of toys. However, most toy production occurs overseas. Toy manufacturing and assembly is labor-intensive and producers in countries with access to low-cost labor have a significant competitive advantage. U.S. imports of toys and models rose by \$516 million (13 percent) in 1995 to \$4.5 billion.

U.S. imports of miscellaneous articles climbed by \$588 million (13 percent) in 1995 to \$5.0 billion. Works of art, Christmas decorations, and artificial flowers accounted for the bulk of the increase in imports in 1995 (table 12-2). A substantial portion of U.S. imports of works of art are of museum-quality works that have been purchased at overseas auctions held by Sotheby's or Christie's. U.S. imports of Christmas decorations and artificial flowers are of labor-intensive products that are not cost effectively produced in the United States.

Sporting goods accounted for the sector's most pronounced export increase in 1995, as such exports rose by \$405 million (31 percent) to \$1.7 billion (table 12-3). Increased discretionary spending power in certain newly industrialized countries (Korea, Taiwan, and Singapore), a gradual decline in tariff and nontariff barriers to U.S. goods in overseas markets, and the willingness of foreign consumers to pay premium prices for certain U.S. sporting goods with a global reputation for top quality were largely responsible for this trend. In percentage terms, the largest export increases in sporting goods were recorded with Korea (144 percent), Taiwan (89 percent), and Japan (46 percent). However, in terms of value, Japan accounted for the largest increase (\$175 million), followed by Canada (\$44 million) and the United Kingdom (\$37 million). The increase to Japan was spearheaded by rising shipments of snow ski equipment, water sports equipment, and golf clubs and parts. Increased exports to Canada and the United Kingdom were led by roller blades and gymnasium and athletic equipment, while exports of golf clubs rose to Korea and Taiwan.

### U.S. Bilateral Trade

Together, the top five trading partners (China, Canada, Japan, Taiwan, and Mexico) accounted for one-half of U.S. exports of miscellaneous manufactures in 1995 (figure 12-1), and close to two-thirds of U.S. imports (figure 12-2). The most significant expansion in the U.S. bilateral trade deficit in 1995 occurred with China. The U.S. merchandise trade deficit with China for this sector in 1995 was three times the second-largest deficit (that with Taiwan); and expanded at twice the rate of the next-largest bilateral trade deficit increase (Mexico). The most significant improvement in the U.S. merchandise trade balance in miscellaneous manufactures in 1995 was with Japan.

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<sup>1</sup> Miscellaneous manufactures include a wide range of consumer products such as luggage, handbags, musical instruments, silverware, jewelry, bicycles, furniture, writing instruments, lamps, sporting goods, brushes, brooms, toys, dolls, games, umbrellas, and miscellaneous articles (Christmas ornaments, artificial flowers, typewriter ribbons, objects of art, and antiques).

Table 12-1

Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1994 and 1995<sup>1</sup>

Item	1994	1995	Change, 1995 from 1994	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China .....	81	140	59	73.3
Canada .....	2,693	2,841	148	5.5
Japan .....	1,325	1,582	257	19.4
Taiwan .....	273	261	-12	-4.3
Mexico .....	1,505	1,064	-441	-29.3
Italy .....	112	136	25	22.1
United Kingdom .....	720	729	9	1.3
Korea .....	295	380	85	29.0
Thailand .....	68	80	12	18.2
France .....	278	294	15	5.5
All other .....	3,419	3,791	372	10.9
Total .....	10,769	11,300	532	4.9
EU-15 .....	2,062	2,195	133	6.4
OPEC .....	304	287	-18	-5.8
Latin America .....	2,328	2,103	-226	-9.7
CBERA .....	294	340	46	15.7
Asian Pacific Rim .....	2,758	3,272	514	18.6
ASEAN .....	350	358	8	2.4
Central and Eastern Europe .....	25	33	8	32.2
U.S. imports for consumption:				
China .....	9,883	11,659	1,775	18.0
Canada .....	2,706	3,274	568	21.0
Japan .....	2,843	2,605	-238	-8.4
Taiwan .....	4,029	3,861	-168	-4.2
Mexico .....	2,185	2,496	310	14.2
Italy .....	2,458	2,662	204	8.3
United Kingdom .....	1,082	1,324	242	22.4
Korea .....	1,035	1,043	7	0.7
Thailand .....	1,308	1,309	1	0.1
France .....	990	1,011	22	2.2
All other .....	6,827	7,338	512	7.5
Total .....	35,346	38,583	3,237	9.2
EU-15 .....	6,078	6,832	755	12.4
OPEC .....	428	511	83	19.5
Latin America .....	3,383	3,500	117	3.5
CBERA .....	354	358	4	1.1
Asian Pacific Rim .....	21,548	23,107	1,559	7.2
ASEAN .....	2,884	3,090	205	7.1
Central and Eastern Europe .....	161	169	8	5.0
U.S. merchandise trade balance:				
China .....	-9,803	-11,519	-1,716	-17.5
Canada .....	-13	-432	-420	-3,352.2
Japan .....	-1,518	-1,023	495	32.6
Taiwan .....	-3,756	-3,600	156	4.2
Mexico .....	-680	-1,431	-751	-110.4
Italy .....	-2,346	-2,525	-179	-7.6
United Kingdom .....	-362	-595	-233	-64.3
Korea .....	-740	-662	78	10.5
Thailand .....	-1,240	-1,229	11	0.9
France .....	-711	-718	-6	-0.9
All other .....	-3,407	-3,547	-140	-4.1
Total .....	-24,577	-27,283	-2,705	-11.0
EU-15 .....	-4,015	-4,638	-622	-15.5
OPEC .....	-123	-224	-101	-81.9
Latin America .....	-1,055	-1,398	-343	-32.5
CBERA .....	-60	-18	42	69.8
Asian Pacific Rim .....	-18,789	-19,835	-1,045	-5.6
ASEAN .....	-2,535	-2,732	-197	-7.8
Central and Eastern Europe .....	-136	-136	( <sup>2</sup> )	-0.1

<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> Less than \$500,000.

Note.—Because of rounding, figures may not add to the totals shown. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1995.

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

**Table 12-2**  
**Leading increases in U.S. imports of miscellaneous articles, by product, 1994-95**

Product	1994	1995	Increase 1994-95	
			Value	Ratio
		<i>Million dollars</i>		<i>Percent</i>
Works of art .....	2,405	2,658	253	11
Christmas ornaments .....	805	1,034	229	28
Artificial flowers .....	587	630	43	7
All other .....	652	715	63	10
<b>Total .....</b>	<b>4,449</b>	<b>5,037</b>	<b>588</b>	<b>13</b>

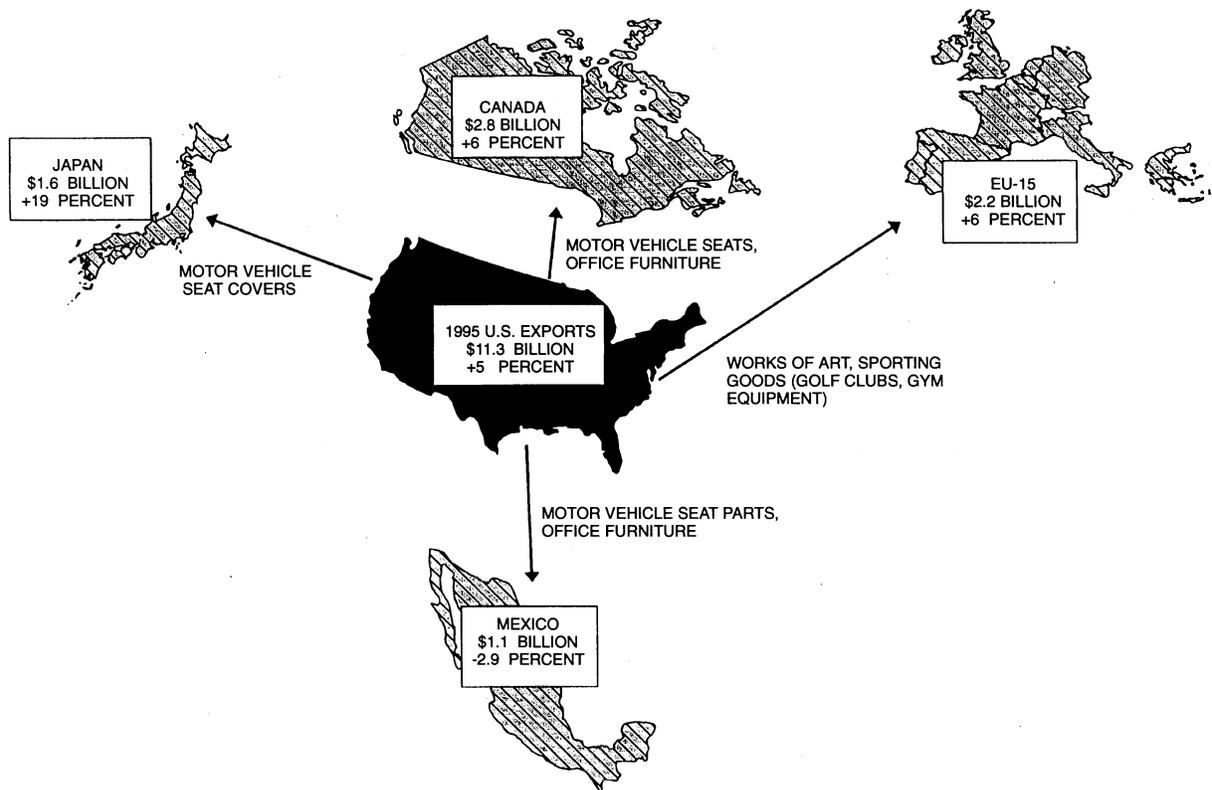
Source: Compiled from official statistics of the U.S. Department of Commerce.

**Table 12-3**  
**Leading increases in U.S. exports of sporting goods, by product, 1994-95**

Product	1994	1995	Increase 1994-95	
			Value	Ratio
		<i>Million dollars</i>		<i>Percent</i>
Golf clubs and parts .....	538	686	147	27
Roller skates and blades .....	40	98	57	142
Snow ski equipment .....	75	128	53	71
Water sports equipment .....	72	107	35	49
All other .....	601	712	111	18
<b>Total .....</b>	<b>1,326</b>	<b>1,731</b>	<b>405</b>	<b>31</b>

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

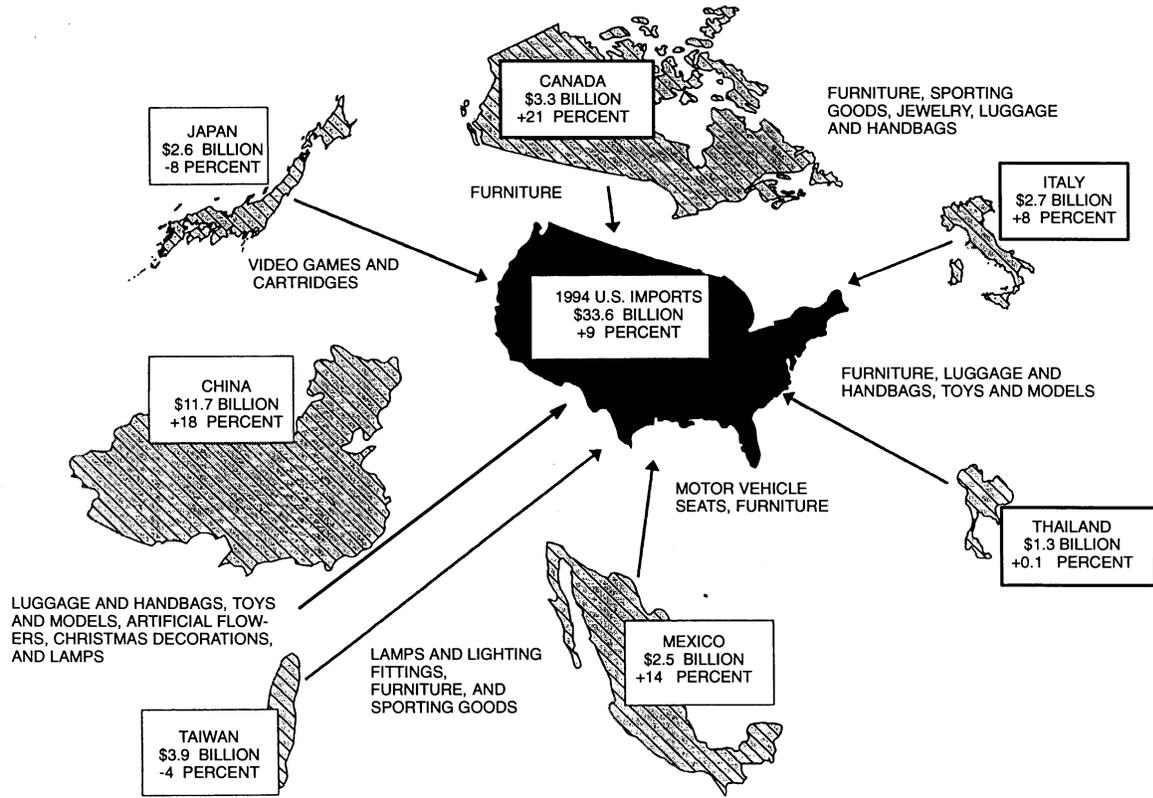
**Figure 12-1**  
**U.S. miscellaneous manufactures sector exports, 1995: Leading U.S. exports, by major markets, and overall percentage change since 1994**



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

**Figure 12-2**

**U.S. miscellaneous manufactures sector imports, 1995: Leading U.S. imports, by major sources, and overall percentage change since 1994**



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

U.S. imports from China rose by \$1.8 billion (18 percent) in 1995 to \$11.7 billion, while U.S. exports to China rose by \$59 million (73 percent) to \$140 million. The result was a \$1.7 billion (18-percent) expansion in the bilateral trade deficit in 1995 with China to \$11.5 billion. The most pronounced increase in imports from China in 1995 was for toys, miscellaneous articles, and lamps and lighting fittings (table 12-4). The Chinese Government has implemented a number of economic reforms in order to attract foreign investment. As a result, certain U.S. producers of toys, and lamps and lighting fittings have shifted the manufacturing operations that cannot be efficiently automated to China. Although China's substantial labor force is expected to provide stable wage rates well into the next century, labor shortages have caused significant increases in wage rates in several other East Asian countries including Taiwan, Hong Kong, and Singapore.

U.S. trade deficit with Mexico more than doubled in 1995, growing by \$751 million to \$1.4 billion, as U.S. exports to Mexico fell by \$441 million (29 percent) to \$1.1 billion; and U.S. imports rose by \$310 million (14 percent) to \$2.5 billion. The prin-

cipal increases in U.S. imports from Mexico were accounted for by games and furniture. Furniture accounted for the bulk of the decline in exports to Mexico in 1995, as such trade fell by \$146 million (21 percent) to \$561 million. The decline of the peso, which was devaluated in December of 1994 and then allowed to float freely, pushed U.S.-made furniture out of the reach of most consumers in Mexico. Concurrently, the devaluation had a beneficial effect on Mexican-made furniture being sold in the United States. Imports of games from Mexico more than doubled in 1995, rising by \$100 million to \$184 million, as U.S. and Japanese producers of video game cartridges and other games chose Mexico as an alternative to China for the assembly of labor-intensive games.

The U.S. trade deficit with Canada in miscellaneous manufactures in 1995 expanded by \$420 million as exports rose by \$148 million (6 percent) to \$2.8 billion; and imports rose by more than three times as fast to \$568 million (21 percent) to \$3.3 billion. Furniture accounted for virtually all of the increase in imports from Canada in 1995 and one-half of the increase in exports. U.S. imports of furniture from Canada rose by \$417 million (21 per-

Table 12-4

## Leading trade increases in U.S. imports of miscellaneous articles, by country, and product, 1994-95

Product	1994	1995	Increase 1994-95	
			Value	Ratio
	Million dollars			Percent
<b>China</b>				
Toys and models .....	2,760	3,285	525	19
Miscellaneous articles .....	1,191	1,449	258	22
Lamps and lighting fittings .....	840	1,095	255	30
All other .....	5,092	5,830	738	14
<b>Total .....</b>	<b>9,883</b>	<b>11,659</b>	<b>1,775</b>	<b>18</b>
<b>Mexico</b>				
Games and fairground amusements .....	84	184	100	118
Furniture .....	1,110	1,196	86	8
All other .....	991	1,116	125	13
<b>Total .....</b>	<b>2,185</b>	<b>2,496</b>	<b>310</b>	<b>14</b>

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

cent) to \$2.4 billion; while U.S. exports rose by \$71 million (5 percent) to \$1.5 billion. Canadian furniture manufacturers have become increasingly competitive in the U.S. market by streamlining and modernizing their methods of manufacture. These steps were taken in order to survive intensified competition from U.S. producers following the implementation of NAFTA. U.S. furniture is popular in Canada because consumers in these two countries have similar lifestyles and tastes in furniture.

The U.S. trade deficit with Japan in miscellaneous manufactures contracted by nearly one-third in 1995, falling by \$495 million to \$1.02 billion. U.S. exports to Japan rose by \$257 million (19 percent) to \$1.6 billion; while imports fell by \$238 million (8 percent) to \$2.6 billion. Two thirds of the increase in exports to Japan was accounted for by sporting goods. The decline in U.S. imports from Japan was principally accounted for by video games. U.S. imports of video games declined as a result of the saturation of the U.S. market for video games employing 16-bit technology, and a longer-than-expected wait for the next generation of video games employing 32-bit and 64-bit technology. Further, the rising relative labor cost in Japan has led some manufacturers to shift production to Mexico.

## Commodity Analysis

### Furniture and Selected Furnishings

The devaluation-driven constriction of the Mexican furniture market together with steady U.S. demand

for imported furniture—particularly from NAFTA partners—contributed to a \$783 million (18-percent) expansion of the U.S. trade deficit in furniture in 1995 to \$5.1 billion. U.S. exports remained at \$3.3 billion in 1995; while imports rose by \$785 million (10 percent) to \$8.4 billion.

Canada and Mexico were the largest trading partners for furniture in 1995, respectively accounting for \$1.5 billion (45 percent) and \$561 million (17 percent) of U.S. exports; and \$2.4 billion (29 percent) and \$1.2 billion (14 percent) of U.S. imports. High transportation costs in shipping many types of furniture and integration of the industry producing motor-vehicle seats in North America are responsible for making Canada and Mexico the top U.S. partners. The strength of U.S. consumer demand relative to both low demand in Canada<sup>2</sup> and the erosion of purchasing power in Mexico because of the devaluation of the peso, fueled a \$346 million (56-percent) growth in the bilateral trade deficit with Canada in 1995 to \$965 million and a \$232 million (58-percent) rise in the deficit with Mexico to \$635 million.

U.S. exports of furniture to Canada rose by just \$71 million (5 percent) in 1995 to \$1.5 billion. Canadian demand for furniture has been modest because consumers have been reluctant to commit to large purchases as a result of employment uncertainty caused by the ongoing restructuring in the Canadian economy and the stagnant growth of disposable income in Canada. Candel Inc., Dorel, Durham Furniture, Palliser, and Shermag—major Canadian furniture producers—have stated that the Canadian furniture market was so weak in 1995 that roughly two-thirds of their production was exported to the United States.<sup>3</sup>

<sup>2</sup> See section on Canada earlier in this report.

<sup>3</sup> Michael J. Knell, "Exports Prove Major Factor in Manufactures Growth," *Furniture Today*, Oct. 4, 1995, p. 3.

U.S. imports of furniture from Canada in 1995 rose by \$417 million (17 percent) to \$2.4 billion. Canadian furniture manufacturers have become increasingly competitive in U.S. markets by streamlining and modernizing their methods of manufacture. These steps were taken in order to survive increased levels of U.S. competition resulting from the implementation of the NAFTA. Products that have done particularly well in the U.S. market are mid-priced household furniture of maple, oak, veneered birch solids, and upholstered leather furniture. Canadian household furniture producers provide furniture to the U.S. market at lower prices than their European competitors, in part due to access to less expensive lumber and significantly lower transportation costs.

U.S. exports of furniture to Mexico fell by \$146 million (10 percent) in 1995 to \$561 million. The cost of U.S.-made furniture in the Mexican market rose significantly because of the decline of the peso, which was devalued in December of 1994 and then allowed to float freely. U.S.-made furniture sold in Mexico was already priced significantly higher than domestic brands. U.S. imports from Mexico rose by \$86 million (7 percent) in 1995 to \$1.2 billion as the peso devaluation lowered the cost of U.S. imports of furniture from Mexico. In addition, furniture manufacturers located in Mexico are increasing their efforts to enter the U.S. market.<sup>4</sup> Mexican producers generally target the low-to mid-priced segments of the U.S. furniture market because they have not yet been able to perfect their finishing operations.

Motor-vehicle seats and parts accounted for one-third of the total value of U.S. imports of furniture from Canada in 1995; and for almost two-thirds of U.S. imports from Mexico. These products accounted for a comparable proportion of U.S. exports of furniture to these two countries. U.S. trade with Canada and Mexico in motor-vehicle seats and parts reflects the highly rationalized nature of North American car production. U.S. imports from Canada typically consist of top-of-the-line, electronically adjustable car seats, while a large portion of the imports from Mexico are of seat covers of textile material or leather. The bulk of the imports from both countries are assembled from U.S.-made parts and materials. U.S. imports of motor-vehicle seats and parts from Canada rose by \$71 million (10 percent) to \$763 million in 1995; while such trade from Mexico rose by \$35 million (5 percent) to \$757 million. U.S. exports of seats and parts to Canada rose by \$57 million (11 percent) in 1995 to \$562 million; while exports to Mexico rose by \$21 million (5 percent) to \$418 million.

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<sup>4</sup> Clint Engel, "Tupelo Pavilion to Feature 30 Mexican Manufacturers," *Furniture Today*, Feb. 5, 1996, p. 2.

A significant number of Taiwan furniture manufacturers have relocated to China because of rising labor costs in Taiwan and problems with quality and delivery in their home country.<sup>5</sup> Much of the furniture produced in China is made from imported country oak, and cherry veneer on maple solids. China's manufacturing capabilities over the last 5 years have risen from low-end promotional furniture to mid-priced living room and dining room furniture. These furniture lines provide producers with higher profit margins. Furniture manufacturers in China are currently establishing production lines for bedroom furniture.<sup>6</sup> Wood household furniture is carved in China and then shipped to the United States for assembly and finishing.

Imports from Taiwan, the third-largest source for furniture, declined for the second straight year as imports fell by \$133 million (11 percent) in 1995 to \$1.1 billion. Reduced imports from Taiwan were more than offset by increased imports from other Asian sources. Imports from China rose by \$130 million (17 percent) in 1995 to \$878 million; while those from Indonesia rose by \$42 million (22 percent) to \$229 million. U.S. imports from Malaysia in 1995 rose by \$24 million (8 percent) to \$326 million. Wood household furniture accounted for the bulk of the increase in imports from all three of these Asian suppliers; China and Indonesia are also important suppliers of rattan furniture.

The cost of tropical hardwoods and rattan is rising as the supply becomes more limited because of restraints on logging and delays in forest-replanting programs. As a result, furniture producers in China are beginning to expand into low-end office furniture of metal.<sup>7</sup> U.S. imports of metal furniture from China rose by 37 percent (\$73 million) in 1995 to \$201 million.

The strong U.S. market for high-quality furniture allowed for a \$76 million (14-percent) rise in imports from Italy in 1995 to \$634 million. Most imports from Italy are of wood household furniture, although Italy is also a leading supplier of leather furniture.

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<sup>5</sup> Some three-fourths of foreign investment in China comes from ethnic Chinese abroad, mostly in Hong Kong and Taiwan. Brian Carroll, "Despite Obstacles, China's Gaining Fast," *Furniture Today*, Feb. 20, 1996, p. 40.

<sup>6</sup> According to *Furniture Today* (Brian Carroll) the major factories in China exporting to the United States, ranked by volume are— (1) TechLane, Shenzhen, 120 containers per month; (2) Lacquercraft, Dongguan, 85 containers per month; (3) Kingstone, Dongguan, 65 containers per month; and (4) Universal Furniture, Tianjin, 40 containers per month.

<sup>7</sup> *Asiamag Ltd*, "Furniture and Home Products," Hong Kong, June 1995, p. 254.

## Toys and Models

Surging imports from China in 1995 prompted yet another rise in the overall U.S. merchandise trade deficit in toys,<sup>8</sup> from \$3.5 billion in 1994 to \$3.9 billion in 1995, an increase of 13 percent. Although U.S. exports of toys increased by \$53 million (10 percent) to \$581 million in 1995, that growth was dwarfed by the \$516 million (13-percent) rise in U.S. imports of toys to \$4.5 billion in 1995.

The United States is the world's largest market for toys because of its comparatively high standard of living that permits more income to be spent on nonsubsistence, or luxury, goods such as toys.<sup>9</sup> Also, according to the Toy Manufacturers of America, "American toy manufacturers are pre-eminent in the invention and design of toys."<sup>10</sup> However, because most toy manufacturing and assembly is highly labor-intensive, many foreign producers have a competitive advantage in terms of cheaper labor costs vis-a-vis domestic producers. For this reason, U.S. toy companies tend to establish production operations overseas, especially in the Far East and Mexico, by contracting for labor and/or buying foreign factories, while maintaining limited domestic production to take advantage of technological expertise, lower shipping costs, and faster delivery times.<sup>11</sup>

U.S. imports from China, which have increased by \$1.8 billion (123 percent) since 1991, continued that trend in 1995 while rising by \$525 million (19 percent) over the previous year to \$3.3 billion. Under the economic reforms of Deng Xiaoping, the Chinese Government has been very successful in attracting foreign investment in an effort to expand trade and economic growth.<sup>12</sup> Many toy companies have taken advantage of these reforms, which have included the creation in 1980 of four Special Economic Zones encompassing tax and other incentives (that have subsequently been extended across much of the country), the reduction of tariffs, raising of quota limits, and provision of easier access to

foreign exchange.<sup>13</sup> China's failed bid to become a founding member of the World Trade Organization, and its continuing problems in obtaining the renewal of U.S. most-favored nation (MFN) status because of alleged human rights abuses, have not reduced U.S. toy industry investment in China in any noticeable fashion. Nevertheless, China's MFN status continues to be a concern for those in the domestic industry.

The categories of toys that experienced the greatest growth in U.S. imports from China in 1995 were stuffed toys, which increased by \$117 million (20 percent) to \$708 million; toys without a spring mechanism, increased by \$105 million (13 percent) to \$933 million; toys with a spring mechanism, increased by \$52 million (63 percent) to \$134 million; and toys in sets, including toy tea sets, increased by \$51 million (18 percent) to \$337 million.

U.S. imports of toys from Canada rose by \$43 million (55 percent) in 1995 to \$122 million. The main increase in U.S. imports from Canada was the result of a \$15 million (311-percent) increase in imports of toys in sets<sup>14</sup> to \$20 million, and a \$13 million (100-percent) increase in imports of puzzles to \$27 million. The latter were mainly three-dimensional puzzles, which were an innovative item in 1995.

Despite the 50-percent devaluation of the peso in December 1994, U.S. imports of toys from Mexico grew by only \$8.5 million (4 percent) in 1995 to \$211 million. This moderate increase was generally attributable to the fact that almost all toys from Mexico are assembled by U.S. companies that also have plants in China. Further, costs of U.S.-origin materials were unaffected by the devaluation, and labor costs in postdevaluation Mexico were still much higher than in China. Toys assembled in Mexico tend to be larger with higher per-unit transportation costs than those imported from China by U.S. parent companies.

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<sup>8</sup> Toys accounted for over 95 percent of the articles imported in this category in 1995.

<sup>9</sup> Furthermore, as a result of negotiations during the Uruguay Round of the GATT, on Jan. 1, 1995, toys became duty free when entering the U.S. market.

<sup>10</sup> Toy Manufacturers of America, *Toy Industry Fact Book, 1995-96*, p. 9.

<sup>11</sup> European and Japanese toy companies follow this strategy as well, which allows them to take advantage of cheaper foreign labor, and assists with efficient domestic distribution in these developing countries with their growing demand for toys.

<sup>12</sup> See section on China in this report.

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<sup>13</sup> EIU, *Country Profile: China*, Jan. 1, 1996.

<sup>14</sup> Industry sources have several possible explanations for the increase in U.S. imports of toy sets from Canada. In order to take advantage of NAFTA, and before toys went duty free in 1995, plants in Canada may have imported separate articles from China, assembled them into a toy set, and then re-exported them to the United States. Also, because toys are duty-free now, some companies may potentially be entering products as sets that previously were not considered toys, such as craft or make-up kits.

Table 12-5

Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
		<i>Million dollars</i>			
MM047	Luggage, handbags, and flat goods:				
	Exports .....	233	253	20	8.6
	Imports .....	3,008	3,332	324	10.8
	Trade balance .....	-2,775	-3,079	-304	-11.0
MM048	Certain other leather goods:				
	Exports .....	88	93	5	5.7
	Imports .....	196	229	33	16.8
	Trade balance .....	-108	-136	-28	-25.9
MM049	Musical instruments and accessories:				
	Exports .....	389	418	29	7.5
	Imports .....	883	1,015	132	14.9
	Trade balance .....	-494	-597	-103	-20.9
MM050	Umbrellas, whips, riding crops, and canes:				
	Exports .....	8	10	2	25.0
	Imports .....	188	198	10	5.3
	Trade balance .....	-180	-188	-8	-4.4
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal:				
	Exports .....	89	74	-15	-16.9
	Imports .....	317	139	-178	-56.2
	Trade balance .....	-228	-65	163	71.5
MM052	Precious jewelry and related articles:				
	Exports .....	381	386	5	1.3
	Imports .....	3,525	3,642	117	3.3
	Trade balance .....	-3,144	-3,256	-112	-3.6
MM053	Costume jewelry and related articles:				
	Exports .....	126	124	-2	-1.6
	Imports .....	567	493	-74	-13.1
	Trade balance .....	-441	-369	72	16.3
MM054	Bicycles and certain parts:				
	Exports .....	200	257	57	28.5
	Imports .....	825	968	143	17.3
	Trade balance .....	-625	-711	-86	-13.8
MM055	Furniture and selected furnishings:				
	Exports .....	3,300	3,302	2	0.1
	Imports .....	7,638	8,423	785	10.3
	Trade balance .....	-4,338	-5,121	-783	-18.1
MM056	Writing instruments and related articles:				
	Exports .....	233	264	31	13.3
	Imports .....	611	668	57	9.3
	Trade balance .....	-378	-404	-26	-6.9
MM057	Lamps and lighting fittings:				
	Exports .....	519	543	24	4.6
	Imports .....	1,956	2,198	242	12.4
	Trade balance .....	-1,437	-1,655	-218	-15.2
MM058	Prefabricated buildings:				
	Exports .....	415	409	-6	-1.4
	Imports .....	48	67	19	39.6
	Trade balance .....	367	342	-25	-6.8
MM059	Children's vehicles:				
	Exports .....	44	44	(3)	0.7
	Imports .....	249	266	17	6.8
	Trade balance .....	-205	-222	-17	-8.3
MM060	Dolls:				
	Exports .....	29	28	-1	-3.4
	Imports .....	934	1,167	233	24.9
	Trade balance .....	-905	-1,139	-234	-25.9
MM061	Toys and models:				
	Exports .....	528	581	53	10.0
	Imports .....	4,010	4,526	516	12.9
	Trade balance .....	-3,482	-3,945	-463	-13.3
MM062	Games and fairground amusements:				
	Exports .....	1,117	1,130	13	1.2
	Imports .....	2,575	2,494	-81	-3.1
	Trade balance .....	-1,458	-1,364	94	6.4
MM063	Sporting goods:				
	Exports .....	1,326	1,731	405	30.5
	Imports .....	2,699	2,956	257	9.5
	Trade balance .....	-1,373	-1,225	148	10.8

See footnotes at end of table.

**Table 12-5—Continued**

**Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1994-Dec. 1995<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1994	1995	Change, 1995 from 1994	
				Amount	Percent
			<i>Million dollars</i>		
MM064	Smokers' articles:				
	Exports .....	75	85	10	13.3
	Imports .....	145	153	8	5.5
	Trade balance .....	-70	-68	2	2.9
MM065	Brooms, brushes, and hair grooming articles:				
	Exports .....	148	149	1	0.7
	Imports .....	525	610	85	16.2
	Trade balance .....	-377	-461	-84	-22.3
MM066	Miscellaneous articles:				
	Exports .....	1,524	1,420	-104	-6.8
	Imports .....	4,449	5,037	588	13.2
	Trade balance .....	-2,925	-3,617	-692	-23.7

<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.

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

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



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**Appendix A**  
**Industry/Commodity Groups**  
**in this Report**



## **Agricultural products sector**

AG001 Certain miscellaneous live animals, offals, meat, and animal products  
AG002 Cattle and beef  
AG003 Swine and pork  
AG004 Sheep and meat of sheep  
AG005 Poultry  
AG006 Fresh or chilled fish  
AG007 Frozen fish  
AG008 Fish canned, cured, or otherwise prepared, and live fish  
AG009 Shellfish  
AG010 Dairy produce  
AG011 Eggs  
AG012 Sugar and other sweeteners  
AG013 Animal feeds  
AG014 Live plants  
AG015 Seeds  
AG016 Cut flowers  
AG017 Miscellaneous vegetable substances  
AG018 Fresh, chilled, or frozen vegetables  
AG019 Prepared or preserved vegetables, mushrooms, and olives  
AG020 Edible nuts  
AG021 Tropical fruit  
AG022 Citrus fruit  
AG023 Deciduous fruit  
AG024 Other fresh fruit  
AG025 Dried fruit other than tropical  
AG026 Frozen fruit  
AG027 Prepared or preserved fruit  
AG028 Coffee and tea  
AG029 Spices  
AG030 Cereals  
AG031 Milled grains, malts, and starches  
AG032 Oilseeds  
AG033 Animal or vegetable fats and oils  
AG034 Edible preparations  
AG035 Cocoa, chocolate, and confectionery  
AG036 Fruit and vegetable juices  
AG037 Nonalcoholic beverages, excluding fruit and vegetable juices  
AG038 Malt beverages  
AG039 Wine and certain other fermented beverages  
AG040 Distilled spirits  
AG041 Unmanufactured tobacco  
AG042 Cigars, and certain other manufactured tobacco  
AG043 Cigarettes  
AG044 Hides, skins, and leather  
AG045 Furskins  
AG062 Ethyl alcohol for nonbeverage purposes

AG063 Wool and other animal hair  
AG064 Cotton, not carded or combed

## **Forest products sector**

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

## **Chemicals and related products sector**

CH008 Other olefins  
CH009 Primary aromatics  
CH010 Benzenoid commodity chemicals  
CH011 Benzenoid specialty chemicals  
CH012 Miscellaneous organic chemicals  
CH013 Selected inorganic chemicals and elements  
CH014 Inorganic acids  
CH015 Salts and other inorganic chemicals  
CH016 Chlor-alkali chemicals  
CH017 Industrial gases  
CH018 Fertilizers  
CH019 Paints, inks and related items, and certain components thereof  
CH020 Synthetic organic pigments  
CH021 Synthetic dyes and azoic couplers  
CH022 Synthetic tanning agents  
CH023 Natural tanning and dyeing materials  
CH024 Photographic chemicals and preparations  
CH025 Pesticide products and formulations  
CH026 Adhesives and glues  
CH027 Medicinal chemicals, except antibiotics  
CH028 Antibiotics  
CH029 Essential oils and other flavoring materials  
CH030 Perfumes, cosmetics, and toiletries  
CH031 Soap, detergents, and surface-active agents  
CH032 Miscellaneous chemicals and specialties  
CH033 Explosives and propellant powders

## **Chemicals and related products sector—Continued**

CH034	Polyethylene resins in primary forms
CH035	Polypropylene resins in primary forms
CH036	PVC resins in primary forms
CH037	Styrene polymers in primary forms
CH038	Saturated polyester resins
CH039	Other plastics in primary forms
CH040	SBR rubber in primary forms
CH041	Other synthetic rubbers
CH042	Pneumatic tires and tubes (new)
CH043	Other tires
CH044	Plastic or rubber semifabricated forms
CH045	Plastic containers and closures
CH046	Hose, belting, and plastic pipe
CH047	Miscellaneous rubber or plastic products
CH048	Gelatin
CH049	Natural rubber

## **Energy-related products sector**

CH001	Electrical energy
CH002	Nuclear materials
CH003	Coal, coke, and related chemicals products
CH004	Crude petroleum
CH005	Petroleum products
CH006	Natural gas and components
CH007	Major primary olefins

## **Textiles, apparel, and footwear sector**

CH050	Manmade fibers and filament yarns
CH051	Spun yarns and miscellaneous yarns
CH052	Broadwoven fabrics
CH053	Knit fabrics
CH054	Miscellaneous fabrics
CH055	Coated, covered, impregnated, or laminated textile fabrics
CH056	Cordage, nets, and netting
CH057	Certain textile articles and fabrics suitable for industrial use
CH058	Miscellaneous textiles and articles
CH059	Sacks and bags of textile materials
CH060	Carpets and rugs
CH061	Home furnishings
CH062	Mens' and boys' suits and sports coats
CH063	Mens' and boys' coats and jackets
CH064	Mens' and boys' trousers
CH065	Women's and girls' trousers
CH066	Shirts and blouses
CH067	Sweaters
CH068	Women's and girls' suits, skirts, and coats

CH069	Women's and girls' dresses
CH070	Robes, nightwear, and underwear
CH071	Hosiery
CH072	Body-supporting garments
CH073	Neckwear, handkerchiefs, and scarves
CH074	Gloves, including gloves for sports
CH075	Headwear
CH076	Leather apparel and accessories
CH077	Fur apparel and other fur articles
CH078	Rubber, plastic, and coated-fabric apparel
CH079	Nonwoven and related products
CH080	Other wearing apparel
CH081	Apparel fasteners
CH082	Footwear and footwear parts

## **Minerals and metals sector**

MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included
MM002	Certain miscellaneous minerals substances
MM003	Iron ores and concentrates
MM004	Copper ores and concentrates
MM005	Lead ores and residues
MM006	Zinc ores and residues
MM007	Certain ores, concentrates, ash, and residues
MM008	Precious metal ores and concentrates
MM009	Certain nonmetallic minerals and articles
MM010	Industrial ceramics
MM011	Ceramic bricks and miscellaneous ceramic construction articles
MM012	Ceramic floor and wall tiles
MM013	Ceramic household articles
MM014	Flat glass and certain flat glass products
MM015	Glass containers
MM016	Household glassware
MM017	Certain glass and glass products
MM018	Fiberglass products
MM019	Natural and synthetic gemstones
MM020	Precious metals and related articles
MM021	Primary iron products
MM022	Ferroalloys
MM023	Iron and steel waste and scrap
MM024	Abrasive and ferrous products
MM025	Steel mill products, all grades
MM026	Steel pipe and tube fittings, and certain cast products
MM027	Fabricated structurals
MM028	Metal construction components
MM029	Metallic containers
MM030	Wire products of iron, steel, aluminum, copper, and nickel
MM031	Chain
MM032	Industrial fasteners of base metal

## Minerals and metals sector—Continued

MM033	Cooking and kitchen ware
MM034	Metal and ceramic sanitary ware
MM035	Iron construction castings and other nonmalleable cast-iron articles
MM036	Copper and related articles
MM037	Unwrought aluminum
MM038	Aluminum mill products
MM039	Lead and related articles
MM040	Zinc and related articles
MM041	Certain base metals and chemical elements
MM042	Nonpowered hand tools
MM043	Cutlery other than tableware, certain sewing implements, and related products
MM044	Table flatware and related products
MM045	Certain builders' hardware
MM046	Miscellaneous products of base metal

## Machinery sector

MT003	Pumps, for liquids
MT004	Air-conditioning equipment and parts
MT005	Certain industrial thermal-processing equipment and certain furnaces
MT006	Commercial machinery
MT007	Electrical household appliances and certain heating equipment
MT008	Centrifuges and filtering and purifying equipment
MT009	Wrapping, packaging, and can-sealing machinery
MT010	Scales and weighing machinery
MT013	Mineral processing machinery
MT014	Farm and garden machinery and equipment
MT015	Industrial food-processing and related machinery
MT016	Pulp, paper, and paperboard machinery
MT017	Printing, typesetting, and bookbinding machinery and printing plates
MT018	Textile machinery and parts
MT019	Metal rolling mills and parts thereof
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools
MT021	Machine tools for metal forming and parts thereof
MT022	Non-metalworking machine tools and parts thereof
MT023	Semiconductor equipment, robots, and other machinery
MT024	Taps, cocks, valves, and similar devices

MT026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof
MT027	Boilers, turbines, and related machinery
MT028	Electric motors, generators, and related equipment
MT029	Electrical transformers, static converters, and inductors
MT031	Portable electric handtools
MT032	Nonelectrically powered handtools and parts thereof
MT034	Flashlights and other similar electric lights, lights bulbs and fluorescent tubes; arc lamps
MT035	Electric and gas welding and soldering equipment
MT036	Insulated electrical wire and cable and conduit; glass and ceramic insulators

## Transportation equipment sector

MT001	Aircraft engines and gas turbines
MT002	Internal combustion piston engines, other than for aircraft
MT011	Forklift trucks and similar industrial vehicles
MT012	Construction and mining equipment
MT025	Ball and roller bearings
MT030	Primary cells and batteries and electric storage batteries
MT033	Ignition, starting, lighting, and other electrical equipment
MT037	Rail locomotive and rolling stock
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing
MT039	Certain motor-vehicles parts
MT040	Motorcycles, mopeds, and parts
MT041	Miscellaneous vehicles and transportation-related equipment
MT042	Aircraft, spacecraft, and related equipment
MT043	Ships, tugs, pleasure boats, and similar vessels
MT044	Motors and engines, except internal combustion, aircraft, or electric

## Electronic products sector

ST001	Office machines
ST002	Telephone and telegraph apparatus
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players
ST005	Unrecorded magnetic tapes, discs, and other media
ST006	Records, tapes, compact discs, computer software, and other recorded media

**Electronic products sector—  
Continued**

ST007	Radio transmission and reception apparatus, and combinations thereof	ST026	Watches
ST008	Radio navigational aid, radar, and remote control apparatus	ST027	Clocks and timing devices
ST009	Television receivers and video monitors and combinations including television receivers	ST028	Arms and ammunition
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	ST029	Balances of a sensitivity of 5 cgs or better
ST011	Electric sound and visual signaling apparatus	ST030	Drawing and mathematical calculating and measuring instruments
ST012	Electric capacitors and resistors	ST031	Measuring, testing, controlling, and analyzing instruments
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits		
ST014	Television picture tubes and other cathode ray tubes		
ST015	Special-purpose tubes		
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices		
ST017	Electrical and electronic articles, apparatus and parts not elsewhere provided for		
ST018	Automatic data processing machines		
ST019	Photographic supplies		
ST020	Exposed photographic plates, film, and paper		
ST021	Optical fibers, optical fiber bundles, and cables		
ST022	Optical goods, including ophthalmic goods		
ST023	Photographic cameras and equipment		
ST024	Medical goods		
ST025	Surveying and navigational instruments		

**Miscellaneous manufactures sector**

MM047	Luggage, handbags, and flat goods
MM048	Certain other leather goods
MM049	Musical instruments and accessories
MM050	Umbrellas, whips, riding crops, and canes
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal
MM052	Precious jewelry and related articles
MM053	Costume jewelry and related articles
MM054	Bicycles and certain parts
MM055	Furniture and selected furnishings
MM056	Writing instruments and related articles
MM057	Lamps and lighting fittings
MM058	Prefabricated buildings
MM059	Children's vehicles
MM060	Dolls
MM061	Toys and models
MM062	Games and fairground amusements
MM063	Sporting goods
MM064	Smokers' articles
MM065	Brooms, brushes, and hair grooming articles
MM066	Miscellaneous articles

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# Appendix B

## Profile of U.S. Industry and Market, by Industry/Commodity Groups, 1991-95

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



**Table B-1**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG001	Certain miscellaneous live animals, meat, offals, and animal products:					
	Number of establishments	150,397	147,000	143,766	145,000	132,800
	Employees ( <i>thousands</i> )	189	167	147	148	149
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. production ( <i>million dollars</i> )	6,200	6,700	6,700	6,800	6,700
	U.S. exports ( <i>million dollars</i> )	1,549	1,509	1,456	1,521	1,783
	U.S. imports ( <i>million dollars</i> )	1,004	905	914	1,010	1,071
	Apparent U.S. consumption ( <i>million dollars</i> )	5,655	6,096	6,158	6,289	5,988
	Trade balance ( <i>million dollars</i> )	545	604	542	511	712
	Ratio of imports to apparent consumption ( <i>percent</i> )	17.8	14.8	14.8	16.1	17.9
	Ratio of exports to shipments ( <i>percent</i> )	25.0	22.5	21.7	22.4	26.6
AG002	Cattle and beef:					
	Number of establishments	1,230,870	1,233,400	1,25,990	1,152,431	1,182,394
	Employees ( <i>thousands</i> )	1,367	1,347	1,339	1,259	1,292
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. production ( <i>million dollars</i> )	47,000	50,000	50,000	52,000	57,000
	U.S. exports ( <i>million dollars</i> )	1,816	2,120	2,016	2,361	2,648
	U.S. imports ( <i>million dollars</i> )	2,643	2,906	3,045	2,716	2,627
	Apparent U.S. consumption ( <i>million dollars</i> )	47,827	50,786	51,029	52,355	56,979
	Trade balance ( <i>million dollars</i> )	-827	-786	-1,029	-355	21
	Ratio of imports to apparent consumption ( <i>percent</i> )	5.5	5.7	6.0	5.2	4.6
	Ratio of exports to shipments ( <i>percent</i> )	3.9	4.2	4.0	4.5	4.6
AG003	Swine and pork:					
	Number of establishments	257,418	237,500	235,840	234,190	206,087
	Employees ( <i>thousands</i> )	336	323	321	315	277
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	17,500	17,000	17,540	17,190	17,444
	U.S. exports ( <i>million dollars</i> )	304	400	438	486	748
	U.S. imports ( <i>million dollars</i> )	573	436	501	503	566
	Apparent U.S. consumption ( <i>million dollars</i> )	17,769	17,036	17,603	17,207	17,262
	Trade balance ( <i>million dollars</i> )	-269	-36	-63	-17	182
	Ratio of imports to apparent consumption ( <i>percent</i> )	3.2	2.6	2.8	2.9	3.3
	Ratio of exports to shipments ( <i>percent</i> )	1.7	2.4	2.5	2.8	4.3
AG004	Sheep and meat of sheep:					
	Number of establishments	105,710	101,792	93,991	87,350	82,120
	Employees ( <i>thousands</i> )	106	103	95	89	83
	Capacity utilization ( <i>percent</i> )	(2)	(2)	(2)	(2)	(2)
	U.S. shipments ( <i>million dollars</i> )	487	470	485	460	478
	U.S. exports ( <i>million dollars</i> )	36	36	39	37	19
	U.S. imports ( <i>million dollars</i> )	37	46	62	59	85
	Apparent U.S. consumption ( <i>million dollars</i> ) <sup>3</sup>	488	480	508	482	544
	Trade balance ( <i>million dollars</i> )	-1	-10	-23	-22	-66
	Ratio of imports to apparent consumption ( <i>percent</i> )	7.6	9.6	12.2	12.2	15.6
	Ratio of exports to shipments ( <i>percent</i> )	7.4	7.7	8.0	8.0	4.0
AG005	Poultry:					
	Number of establishments	300	300	300	300	300
	Employees ( <i>thousands</i> )	183	188	190	195	195
	Capacity utilization ( <i>percent</i> )	90	90	90	90	90
	U.S. production ( <i>million dollars</i> )	21,625	22,825	23,738	25,786	27,050
	U.S. exports ( <i>million dollars</i> )	930	1,051	1,229	1,691	2,149
	U.S. imports ( <i>million dollars</i> )	28	22	24	23	31
	Apparent U.S. consumption ( <i>million dollars</i> )	20,723	21,796	22,533	24,118	24,932
	Trade balance ( <i>million dollars</i> )	902	1,029	1,205	1,668	2,118
	Ratio of imports to apparent consumption ( <i>percent</i> )	0.1	0.1	0.1	0.1	0.1
	Ratio of exports to shipments ( <i>percent</i> )	4.3	4.6	5.2	6.6	7.9
AG006	Fresh or chilled fish:					
	Number of establishments	90,000	82,000	80,000	70,000	62,000
	Employees ( <i>thousands</i> )	200	180	150	150	110
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	2,500	2,700	2,500	2,700	2,450
	U.S. exports ( <i>million dollars</i> )	160	190	196	217	244
	U.S. imports ( <i>million dollars</i> )	615	601	652	744	808
	Apparent U.S. consumption ( <i>million dollars</i> )	2,955	3,111	2,956	3,227	3,014
	Trade balance ( <i>million dollars</i> )	-455	-411	-456	-527	-564
	Ratio of imports to apparent consumption ( <i>percent</i> )	20.8	19.3	22.1	23.1	26.8
	Ratio of exports to shipments ( <i>percent</i> )	6.4	7.0	7.8	8.0	10.0
AG007	Frozen fish:					
	Number of establishments	860	880	880	850	875
	Employees ( <i>thousands</i> )	65	70	70	65	60
	Capacity utilization ( <i>percent</i> )	75	70	70	75	(1)
	U.S. shipments ( <i>million dollars</i> )	1,656	2,215	2,132	2,207	2,000
	U.S. exports ( <i>million dollars</i> )	1,641	1,886	1,526	1,556	1,754
	U.S. imports ( <i>million dollars</i> )	1,467	1,302	1,293	1,267	1,384

See footnotes at end of table.

Table B-1—Continued

## Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG007	Frozen fish—Continued					
	Apparent U.S. consumption (million dollars) .....	1,482	1,631	1,899	1,918	1,630
	Trade balance (million dollars) .....	174	584	233	289	370
	Ratio of imports to apparent consumption (percent) .....	99.0	79.8	68.1	66.1	84.9
	Ratio of exports to shipments (percent) .....	99.1	85.1	71.6	70.5	87.7
AG008	Fish, canned, cured, or otherwise prepared, and live fish:					
	Number of establishments .....	650	600	600	550	550
	Employees (thousands) .....	20	18	18	17	18
	Capacity utilization (percent) .....	75	80	85	75	80
	U.S. shipments (million dollars) .....	1,600	1,500	1,600	1,700	1,850
	U.S. exports (million dollars) .....	427	446	417	373	429
	U.S. imports (million dollars) .....	760	683	617	685	671
	Apparent U.S. consumption (million dollars) .....	1,933	1,737	1,800	2,012	2,092
	Trade balance (million dollars) .....	-333	-237	-200	-312	-242
	Ratio of imports to apparent consumption (percent) .....	39.3	39.3	34.3	34.0	32.1
	Ratio of exports to shipments (percent) .....	26.7	29.7	26.1	21.9	23.2
AG009	Shellfish:					
	Number of establishments .....	800	800	800	800	800
	Employees (thousands) .....	60	60	60	60	60
	Capacity utilization (percent) .....	66	66	66	66	66
	U.S. production (million dollars) .....	1,600	1,600	1,600	1,600	1,900
	U.S. exports (million dollars) .....	852	872	860	904	788
	U.S. imports (million dollars) .....	2,793	3,067	3,243	3,896	3,884
	Apparent U.S. consumption (million dollars) .....	3,541	3,795	3,983	4,592	4,996
	Trade balance (million dollars) .....	-1,941	-2,195	-2,383	-2,992	-3,096
	Ratio of imports to apparent consumption (percent) .....	78.9	80.8	81.4	84.8	77.7
	Ratio of exports to shipments (percent) .....	53.3	54.5	53.8	56.5	41.5
AG010	Dairy produce:					
	Number of establishments .....	183,000	174,000	162,000	152,000	143,000
	Employees (thousands) .....	770	733	682	695	662
	Capacity utilization (percent) .....	82	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	44,360	48,000	47,000	49,000	50,000
	U.S. exports (million dollars) .....	325	593	655	572	636
	U.S. imports (million dollars) .....	756	845	836	922	1,052
	Apparent U.S. consumption (million dollars) .....	44,791	48,252	47,181	49,350	50,416
	Trade balance (million dollars) .....	-431	-252	-181	-350	-416
	Ratio of imports to apparent consumption (percent) .....	1.7	1.8	1.8	1.9	2.1
	Ratio of exports to shipments (percent) .....	0.7	1.2	1.4	1.2	1.3
AG011	Eggs:					
	Number of establishments .....	75	75	75	70	70
	Employees (thousands) .....	8	8	8	8	8
	Capacity utilization (percent) .....	85	85	85	85	85
	U.S. production (million dollars) .....	4,787	4,148	4,701	4,833	5,365
	U.S. exports (million dollars) .....	140	134	133	158	164
	U.S. imports (million dollars) .....	20	27	35	30	20
	Apparent U.S. consumption (million dollars) .....	4,667	4,041	4,603	4,705	5,221
	Trade balance (million dollars) .....	120	107	98	128	144
	Ratio of imports to apparent consumption (percent) .....	0.4	0.7	0.8	0.6	0.4
	Ratio of exports to shipments (percent) .....	2.9	2.8	3.2	3.4	3.4
AG012	Sugar and other sweeteners:					
	Number of establishments .....	100	100	100	97	95
	Employees (thousands) .....	32	31	31	30	30
	Capacity utilization (percent) .....	87	89	89	90	90
	U.S. shipments (million dollars) .....	8,000	8,000	8,200	8,300	8,666
	U.S. exports (million dollars) .....	362	300	269	303	354
	U.S. imports (million dollars) .....	844	857	812	844	885
	Apparent U.S. consumption (million dollars) .....	8,482	8,557	8,743	8,841	9,197
	Trade balance (million dollars) .....	-482	-557	-543	-541	-531
	Ratio of imports to apparent consumption (percent) .....	10.0	10.0	9.3	9.5	9.6
	Ratio of exports to shipments (percent) .....	4.5	3.8	3.3	3.7	4.1
AG013	Animal feeds:					
	Number of establishments .....	2,500	2,300	2,224	2,000	2,000
	Employees (thousands) .....	60	55	55	50	50
	Capacity utilization (percent) .....	85	85	85	85	85
	U.S. production (million dollars) .....	26,000	27,000	27,000	25,000	24,000
	U.S. exports (million dollars) .....	3,323	3,656	3,616	3,482	3,822
	U.S. imports (million dollars) .....	399	450	543	613	580
	Apparent U.S. consumption (million dollars) .....	23,076	23,794	23,927	22,131	20,758
	Trade balance (million dollars) .....	2,924	3,206	3,073	2,869	3,242
	Ratio of imports to apparent consumption (percent) .....	1.7	1.9	2.3	2.8	2.8
	Ratio of exports to shipments (percent) .....	12.8	13.5	13.4	13.9	15.9
AG014	Live plants:					
	Number of establishments .....	25,000	25,000	25,000	24,000	24,000
	Employees (thousands) .....	125	125	125	120	120

See footnotes at end of table.

Table B-1—Continued

## Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
A014	Live Plants—Continued					
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars) .....	8,100	8,957	8,927	9,407	9,676
	U.S. exports (million dollars) .....	106	103	94	99	96
	U.S. imports (million dollars) .....	177	200	216	238	283
	Apparent U.S. consumption (million dollars) .....	8,171	9,054	9,049	9,546	9,863
	Trade balance (million dollars) .....	-71	-97	-122	-139	-187
	Ratio of imports to apparent consumption (percent) .....	2.2	2.2	2.4	2.5	2.9
	Ratio of exports to shipments (percent) .....	1.3	1.1	1.1	1.1	1.0
AG015	Seeds:					
	Number of establishments .....	12,800	10,929	10,000	9,000	9,000
	Employees (thousands) .....	196	168	153	138	138
	Capacity utilization (percent) .....	80	85	85	85	85
	U.S. shipments (million dollars) .....	2,000	2,000	2,000	2,000	2,000
	U.S. exports (million dollars) .....	289	316	319	340	348
	U.S. imports (million dollars) .....	135	154	156	155	175
	Apparent U.S. consumption (million dollars) .....	1,846	1,838	1,837	1,815	1,827
	Trade balance (million dollars) .....	154	162	163	185	173
	Ratio of imports to apparent consumption (percent) .....	7.3	8.4	8.5	8.5	9.6
	Ratio of exports to shipments (percent) .....	14.5	15.8	16.0	17.0	17.4
AG016	Cut flowers:					
	Number of establishments .....	3,000	3,000	3,000	2,900	2,500
	Employees (thousands) .....	39	39	39	36	35
	Capacity utilization (percent) .....	.2	.2	.2	.2	.2
	U.S. shipments (million dollars) .....	507	493	453	470	409
	U.S. exports (million dollars) .....	34	33	39	38	40
	U.S. imports (million dollars) .....	322	352	382	420	512
	Apparent U.S. consumption (million dollars) .....	795	812	796	852	881
	Trade balance (million dollars) .....	-288	-319	-343	-382	-472
	Ratio of imports to apparent consumption (percent) .....	40.5	43.3	48.0	49.3	58.1
	Ratio of exports to shipments (percent) .....	6.7	6.7	8.6	8.1	9.8
AG017	Miscellaneous vegetable substances:					
	Firms (number) .....	112	100	100	90	80
	Employees (thousands) .....	2	2	2	2	2
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) <sup>4</sup> .....	850	800	800	813	800
	U.S. exports (million dollars) .....	392	462	436	433	458
	U.S. imports (million dollars) .....	556	545	568	623	762
	Apparent U.S. consumption (million dollars) .....	1,014	883	932	1,003	1,104
	Trade balance (million dollars) .....	-164	-83	-132	-190	-304
	Ratio of imports to apparent consumption (percent) .....	54.8	61.7	60.9	62.1	69.0
	Ratio of exports to shipments (percent) .....	46.1	57.8	54.5	53.3	57.3
AG018	Fresh, chilled, or frozen vegetables:					
	Number of establishments .....	34,000	38,000	36,500	36,400	36,100
	Employees (thousands) .....	42	42	40	50	45
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) .....	4,220	4,376	3,938	4,300	4,400
	U.S. exports (million dollars) .....	903	972	1,058	1,122	1,148
	U.S. imports (million dollars) .....	1,048	966	1,253	1,364	1,586
	Apparent U.S. consumption (million dollars) .....	4,365	4,370	4,133	4,542	4,838
	Trade balance (million dollars) .....	-145	6	-195	-242	-438
	Ratio of imports to apparent consumption (percent) .....	24.0	22.1	30.3	30.0	32.8
	Ratio of exports to shipments (percent) .....	21.4	22.2	26.9	26.1	26.1
AG019	Prepared or preserved vegetables, mushrooms, and olives:					
	Number of establishments .....	2,010	1,990	1,750	1,700	1,690
	Employees (thousands) .....	5	4	4	4	4
	Capacity utilization (percent) .....	82	81	83	85	87
	U.S. production (million dollars) .....	7,631	7,799	8,189	8,400	8,200
	U.S. exports (million dollars) .....	953	955	1,075	1,290	1,360
	U.S. imports (million dollars) .....	774	788	777	909	1,005
	Apparent U.S. consumption (million dollars) .....	7,452	7,632	7,891	8,019	7,845
	Trade balance (million dollars) .....	179	167	298	381	355
	Ratio of imports to apparent consumption (percent) .....	10.4	10.3	9.8	11.3	12.8
	Ratio of exports to shipments (percent) .....	12.5	12.2	13.1	15.4	16.6
AG020	Edible nuts:					
	Number of establishments .....	70,000	70,000	70,000	68,000	68,000
	Employees (thousands) .....	325	325	300	380	380
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars) .....	2,690	2,703	2,740	2,756	2,603
	U.S. exports (million dollars) .....	1,067	1,188	1,224	1,318	1,462
	U.S. imports (million dollars) .....	429	461	460	497	509
	Apparent U.S. consumption (million dollars) .....	2,052	1,976	1,976	1,935	1,650
	Trade balance (million dollars) .....	638	727	764	821	953
	Ratio of imports to apparent consumption (percent) .....	20.9	23.3	23.3	25.7	30.8
	Ratio of exports to shipments (percent) .....	39.7	44.0	44.7	47.8	56.2

See footnotes at end of table.

Table B-1—Continued

## Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG021	Tropical fruit:					
	Number of establishments	9,000	9,000	9,000	9,000	9,000
	Employees (thousands)	25	25	25	25	25
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	343	226	361	348	355
	U.S. exports (million dollars)	57	64	69	70	76
	U.S. imports (million dollars)	1,132	1,233	1,217	1,253	1,337
	Apparent U.S. consumption (million dollars)	1,418	1,395	1,509	1,531	1,616
	Trade balance (million dollars)	-1,075	-1,169	-1,148	-1,183	-1,261
	Ratio of imports to apparent consumption (percent)	79.8	88.4	80.6	81.8	82.7
Ratio of exports to shipments (percent)	16.6	28.3	19.1	20.1	21.4	
AG022	Citrus fruit:					
	Number of establishments	17,878	17,898	17,918	17,938	17,865
	Employees (thousands)	98	97	95	95	94
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,415	2,401	2,151	2,245	2,256
	U.S. exports (million dollars)	614	649	647	674	740
	U.S. imports (million dollars)	148	134	119	129	132
	Apparent U.S. consumption (million dollars)	1,949	1,886	1,623	1,700	1,648
	Trade balance (million dollars)	466	515	528	545	608
	Ratio of imports to apparent consumption (percent)	7.6	7.1	7.3	7.6	8.0
Ratio of exports to shipments (percent)	25.4	27.0	30.1	30.0	32.8	
AG023	Deciduous fruit:					
	Farms (number)	85,000	84,000	83,000	82,000	82,000
	Employees (thousands)	160	160	160	160	160
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,118	1,820	1,888	1,790	2,305
	U.S. exports (million dollars)	517	607	596	774	718
	U.S. imports (million dollars)	127	163	146	157	181
	Apparent U.S. consumption (million dollars)	1,728	1,376	1,438	1,173	1,768
	Trade balance (million dollars)	390	444	450	617	537
	Ratio of imports to apparent consumption (percent)	7.3	11.8	10.2	13.4	10.2
Ratio of exports to shipments (percent)	24.4	33.4	31.6	43.2	31.1	
AG024	Other fresh fruit:					
	Number of establishments	60,000	60,000	60,000	60,000	60,000
	Employees (thousands)	120	120	120	120	120
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	1,435	1,605	1,860	1,915	1,859
	U.S. exports (million dollars)	414	409	437	482	488
	U.S. imports (million dollars)	511	486	473	528	615
	Apparent U.S. consumption (million dollars)	1,532	1,682	1,896	1,961	1,986
	Trade balance (million dollars)	-97	-77	-36	-46	-127
	Ratio of imports to apparent consumption (percent)	33.4	28.9	24.9	26.9	31.0
Ratio of exports to shipments (percent)	28.9	25.5	23.5	25.2	26.3	
AG025	Dried fruit, other than tropical:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	9	10	10	9	9
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	738	835	787	754	748
	U.S. exports (million dollars)	344	357	360	369	382
	U.S. imports (million dollars)	34	34	42	46	47
	Apparent U.S. consumption (million dollars)	428	512	469	431	413
	Trade balance (million dollars)	310	323	318	323	335
	Ratio of imports to apparent consumption (percent)	7.9	6.6	9.0	10.7	11.4
Ratio of exports to shipments (percent)	46.6	42.8	45.7	48.9	51.1	
AG026	Frozen fruit:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	555	600	620	650	650
	U.S. exports (million dollars)	48	58	58	71	77
	U.S. imports (million dollars)	61	57	63	64	68
	Apparent U.S. consumption (million dollars)	568	599	655	643	641
	Trade balance (million dollars)	-13	1	-5	7	9
	Ratio of imports to apparent consumption (percent)	10.7	9.5	9.6	10.0	10.6
Ratio of exports to shipments (percent)	8.6	9.7	9.4	10.9	11.8	
AG027	Prepared or preserved fruit:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	20	20	20	20	20
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	3,030	2,970	3,080	3,170	3,946
	U.S. exports (million dollars)	149	167	166	157	179
	U.S. imports (million dollars)	355	417	421	414	415
	Apparent U.S. consumption (million dollars)	3,236	3,220	3,335	3,427	4,182
	Trade balance (million dollars)	-206	-250	-255	-257	-236

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG027	Prepared or preserved fruit— <i>Continued</i>					
	Ratio of imports to apparent consumption (percent) . . . .	11.0	13.0	12.6	12.1	9.9
	Ratio of exports to shipments (percent) . . . . .	4.9	5.6	5.4	5.0	4.5
AG028	Coffee and tea:					
	Number of establishments . . . . .	156	172	172	172	172
	Employees (thousands) . . . . .	11	11	11	11	11
	Capacity utilization (percent) . . . . .	90	73	85	85	85
	U.S. shipments (million dollars) . . . . .	5,520	5,300	5,200	6,000	7,080
	U.S. exports (million dollars) . . . . .	118	160	187	231	229
	U.S. imports (million dollars) . . . . .	1,999	1,871	1,705	2,655	3,427
	Apparent U.S. consumption (million dollars) . . . . .	7,401	7,011	6,718	8,424	10,278
	Trade balance (million dollars) . . . . .	-1,881	-1,711	-1,518	-2,424	-3,198
	Ratio of imports to apparent consumption (percent) . . . .	27.0	26.7	25.4	31.5	33.3
	Ratio of exports to shipments (percent) . . . . .	2.1	3.0	3.6	3.9	3.2
AG029	Spices:					
	Number of establishments . . . . .	76	74	74	74	74
	Employees (thousands) . . . . .	8	8	8	8	8
	Capacity utilization (percent) . . . . .	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) . . . . .	1,300	1,325	1,350	1,375	1,436
	U.S. exports (million dollars) . . . . .	38	43	51	52	46
	U.S. imports (million dollars) . . . . .	223	234	223	272	290
	Apparent U.S. consumption (million dollars) . . . . .	1,485	1,516	1,522	1,595	1,680
	Trade balance (million dollars) . . . . .	-185	-191	-172	-220	-244
	Ratio of imports to apparent consumption (percent) . . . .	15.0	15.4	14.7	17.1	17.3
	Ratio of exports to shipments (percent) . . . . .	2.9	3.2	3.8	3.8	3.2
AG030	Cereals:					
	Number of establishments . . . . .	414,000	405,000	394,000	383,000	372,000
	Employees (thousands) . . . . .	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) . . . . .	28,900	28,000	31,700	27,300	34,700
	U.S. exports (million dollars) . . . . .	10,096	11,245	10,728	10,088	14,870
	U.S. imports (million dollars) . . . . .	354	513	586	861	723
	Apparent U.S. consumption (million dollars) . . . . .	19,158	17,268	21,558	18,073	20,553
	Trade balance (million dollars) . . . . .	9,742	10,732	10,142	9,227	14,147
	Ratio of imports to apparent consumption (percent) . . . .	1.8	3.0	2.7	4.8	3.5
	Ratio of exports to shipments (percent) . . . . .	34.9	40.2	33.8	37.0	42.9
AG031	Milled grains, malts, and starches:					
	Number of establishments . . . . .	414	413	412	412	350
	Employees (thousands) . . . . .	22	22	22	22	20
	Capacity utilization (percent) . . . . .	85	85	90	90	90
	U.S. production (million dollars) . . . . .	12,438	13,276	14,115	14,115	14,500
	U.S. exports (million dollars) . . . . .	370	387	445	464	491
	U.S. imports (million dollars) . . . . .	58	70	96	132	151
	Apparent U.S. consumption (million dollars) . . . . .	12,126	12,959	13,766	13,783	14,160
	Trade balance (million dollars) . . . . .	312	317	349	332	340
	Ratio of imports to apparent consumption (percent) . . . .	0.5	0.5	0.7	1.0	1.1
	Ratio of exports to shipments (percent) . . . . .	3.0	2.9	3.2	3.3	3.4
AG032	Oilseeds:					
	Number of establishments . . . . .	414,000	405,000	394,000	383,800	372,000
	Employees (thousands) . . . . .	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) . . . . .	12,065	12,000	13,100	13,100	15,030
	U.S. exports (million dollars) . . . . .	4,124	4,564	4,758	4,537	5,661
	U.S. imports (million dollars) . . . . .	118	122	155	268	221
	Apparent U.S. consumption (million dollars) . . . . .	8,059	7,558	8,497	8,831	9,590
	Trade balance (million dollars) . . . . .	4,006	4,442	4,603	4,269	5,440
	Ratio of imports to apparent consumption (percent) . . . .	1.5	1.6	1.8	3.0	2.3
	Ratio of exports to shipments (percent) . . . . .	34.2	38.0	36.3	34.6	37.7
AG033	Animal or vegetable fats and oils:					
	Number of establishments . . . . .	550	540	530	520	510
	Employees (thousands) . . . . .	30	30	32	34	34
	Capacity utilization (percent) . . . . .	84	85	86	88	88
	U.S. shipments (million dollars) . . . . .	5,700	5,300	6,200	7,800	7,800
	U.S. exports (million dollars) . . . . .	1,123	1,439	1,454	1,851	2,529
	U.S. imports (million dollars) . . . . .	734	966	856	1,046	1,265
	Apparent U.S. consumption (million dollars) . . . . .	5,311	4,827	5,602	6,995	6,536
	Trade balance (million dollars) . . . . .	389	473	598	805	1,264
	Ratio of imports to apparent consumption (percent) . . . .	13.8	20.0	15.3	15.0	19.4
	Ratio of exports to shipments (percent) . . . . .	19.7	27.2	23.5	23.7	32.4
AG034	Edible preparations:					
	Number of establishments . . . . .	5,100	5,100	5,100	5,100	5,100
	Employees (thousands) . . . . .	395	395	397	397	400
	Capacity utilization (percent) . . . . .	84	84	85	90	90
	U.S. production (million dollars) . . . . .	93,742	94,700	96,600	100,000	105,000
	U.S. exports (million dollars) . . . . .	1,925	2,156	2,522	3,062	2,871

See footnotes at end of table.

Table B-1—Continued

## Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG034	Edible preparations—Continued					
	U.S. imports (million dollars)	1,113	1,249	1,348	1,561	1,746
	Apparent U.S. consumption (million dollars)	92,930	93,793	95,426	98,499	103,875
	Trade balance (million dollars)	812	907	1,174	1,501	1,125
	Ratio of imports to apparent consumption (percent)	1.2	1.3	1.4	1.6	1.7
	Ratio of exports to shipments (percent)	2.1	2.3	2.6	3.1	2.7
AG035	Cocoa, chocolate, and confectionery:					
	Number of establishments	871	920	920	920	920
	Employees (thousands)	57	62	62	62	62
	Capacity utilization (percent)	65	62	62	66	70
	U.S. shipments (million dollars)	9,710	10,428	10,756	11,076	11,700
	U.S. exports (million dollars)	345	438	560	545	524
	U.S. imports (million dollars)	1,302	1,347	1,299	1,299	1,478
	Apparent U.S. consumption (million dollars)	10,667	11,337	11,495	11,830	12,654
	Trade balance (million dollars)	-957	-909	-739	-754	-954
	Ratio of imports to apparent consumption (percent)	12.2	11.9	11.3	11.0	11.7
	Ratio of exports to shipments (percent)	3.6	4.2	5.2	4.9	4.5
AG036	Fruit and vegetable juices:					
	Number of establishments	100	100	100	100	98
	Employees (thousands)	150	150	150	150	149
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,000	1,950	2,100	2,200	2,276
	U.S. exports (million dollars)	385	461	470	539	652
	U.S. imports (million dollars)	793	812	653	663	635
	Apparent U.S. consumption (million dollars)	2,408	2,301	2,283	2,324	2,259
	Trade balance (million dollars)	-408	-351	-183	-124	17
	Ratio of imports to apparent consumption (percent)	32.9	35.3	28.6	28.5	28.1
	Ratio of exports to shipments (percent)	19.3	23.6	22.4	24.5	28.6
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:					
	Number of establishments	3,100	3,100	3,200	3,300	3,200
	Employees (thousands)	112	112	110	112	110
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	37,000	38,000	40,000	42,000	44,100
	U.S. exports (million dollars)	154	191	220	344	332
	U.S. imports (million dollars)	242	250	277	349	353
	Apparent U.S. consumption (million dollars)	37,088	38,059	40,057	42,005	44,121
	Trade balance (million dollars)	-88	-59	-57	-5	-21
	Ratio of imports to apparent consumption (percent)	0.7	0.7	0.7	0.8	0.8
	Ratio of exports to shipments (percent)	0.4	0.5	0.6	0.8	0.8
AG038	Malt beverages:					
	Number of establishments <sup>5</sup>	134	194	194	194	194
	Employees (thousands)	32	35	35	35	35
	Capacity utilization (percent)	86	84	84	84	84
	U.S. shipments (million dollars)	15,925	17,340	17,671	17,800	17,800
	U.S. exports (million dollars)	169	194	202	341	413
	U.S. imports (million dollars)	813	854	929	1,038	1,151
	Apparent U.S. consumption (million dollars)	16,569	18,000	18,398	18,497	18,538
	Trade balance (million dollars)	-644	-660	-727	-697	-738
	Ratio of imports to apparent consumption (percent)	4.9	4.7	5.0	5.6	6.2
	Ratio of exports to shipments (percent)	1.1	1.1	1.1	1.9	2.3
AG039	Wine and certain other fermented beverages:					
	Number of establishments <sup>6</sup>	1,610	1,590	1,590	1,590	1,590
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	83	83	83	83	83
	U.S. shipments (million dollars)	3,586	4,301	4,514	4,400	4,400
	U.S. exports (million dollars)	147	176	177	192	236
	U.S. imports (million dollars)	920	1,094	984	1,044	1,159
	Apparent U.S. consumption (million dollars)	4,359	5,219	5,321	5,252	5,323
	Trade balance (million dollars)	-773	-918	-807	-852	-923
	Ratio of imports to apparent consumption (percent)	21.1	21.0	18.5	19.9	21.8
	Ratio of exports to shipments (percent)	4.1	4.1	3.9	4.4	5.4
AG040	Distilled spirits:					
	Number of establishments	72	65	65	65	65
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	77	78	78	78	78
	U.S. shipments (million dollars)	3,656	3,394	3,569	3,650	3,800
	U.S. exports (million dollars)	279	343	344	356	390
	U.S. imports (million dollars)	1,304	1,552	1,442	1,552	1,629
	Apparent U.S. consumption (million dollars)	4,681	4,603	4,667	4,846	5,039
	Trade balance (million dollars)	-1,025	-1,209	-1,098	-1,196	-1,239
	Ratio of imports to apparent consumption (percent)	27.9	33.7	30.9	32.0	32.3
	Ratio of exports to shipments (percent)	7.6	10.1	9.6	9.8	10.3

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995	
AG041	Unmanufactured tobacco:						
	Number of establishments	122,341	113,777	104,675	96,301	90,000	
	Employees (thousands)	367	341	314	289	280	
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)	
	U.S. production (million dollars)	2,881	2,962	2,949	2,646	2,800	
	U.S. exports (million dollars)	1,428	1,651	1,306	1,303	1,400	
	U.S. imports (million dollars) <sup>7</sup>	736	1,475	1,370	613	550	
	Apparent U.S. consumption (million dollars)	2,189	2,786	3,013	1,956	1,950	
	Trade balance (million dollars)	692	176	(64)	690	850	
	Ratio of imports to apparent consumption (percent)	33.6	52.9	45.5	31.3	28.2	
	Ratio of exports to shipments (percent)	49.6	55.7	44.3	49.2	50.0	
	AG042	Cigars, and certain other manufactured tobacco:					
		Number of establishments	49	57	57	57	57
Employees (thousands)		6	6	6	6	6	
Capacity utilization (percent)		87	85	85	85	85	
U.S. shipments (million dollars)		2,089	2,072	2,110	2,150	2,170	
U.S. exports (million dollars)		342	317	327	402	452	
U.S. imports (million dollars)		79	85	107	90	117	
Apparent U.S. consumption (million dollars)		1,826	1,840	1,890	1,838	1,835	
Trade balance (million dollars)		263	232	220	312	335	
Ratio of imports to apparent consumption (percent)		4.3	4.6	5.7	4.9	6.4	
Ratio of exports to shipments (percent)		16.4	15.3	15.5	18.7	20.8	
AG043		Cigarettes:					
		Number of establishments	12	11	11	11	11
	Employees (thousands)	27	25	24	23	25	
	Capacity utilization (percent)	90	87	87	87	87	
	U.S. shipments (million dollars)	27,111	29,476	23,266	27,000	29,000	
	U.S. exports (million dollars)	4,232	4,192	3,926	4,965	4,770	
	U.S. imports (million dollars)	120	199	360	73	51	
	Apparent U.S. consumption (million dollars)	22,999	25,483	19,700	22,108	24,281	
	Trade balance (million dollars)	4,112	3,993	3,566	4,892	4,719	
	Ratio of imports to apparent consumption (percent)	0.5	0.8	1.8	0.3	0.2	
	Ratio of exports to shipments (percent)	15.6	14.2	16.9	18.4	16.4	
	AG044	Hides, skins, and leather:					
		Number of establishments	1,301	1,235	1,235	1,220	1,220
Employees (thousands)		17	18	18	18	18	
Capacity utilization (percent)		(2)	(2)	(2)	(2)	(2)	
U.S. shipments (million dollars)		4,919	4,194	4,337	4,755	5,170	
U.S. exports (million dollars)		1,967	1,974	1,977	2,108	2,319	
U.S. imports (million dollars)		695	767	868	995	1,095	
Apparent U.S. consumption (million dollars)		3,647	2,987	3,228	3,642	3,946	
Trade balance (million dollars)		1,272	1,207	1,109	1,113	1,224	
Ratio of imports to apparent consumption (percent)		19.1	25.7	26.9	27.3	27.7	
Ratio of exports to shipments (percent)		40.0	47.1	45.6	44.3	44.9	
AG045		Furskins:					
		Number of establishments	682	571	498	457	450
	Employees (thousands)	3	3	3	3	3	
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)	
	U.S. shipments (million dollars)	166	164	146	185	153	
	U.S. exports (million dollars)	154	134	128	167	157	
	U.S. imports (million dollars)	75	83	83	109	87	
	Apparent U.S. consumption (million dollars)	87	113	101	127	83	
	Trade balance (million dollars)	79	51	45	58	70	
	Ratio of imports to apparent consumption (percent)	86.2	73.5	82.2	85.8	104.8	
	Ratio of exports to shipments (percent)	92.8	81.7	87.7	90.3	102.6	
	AG062	Ethyl alcohol for nonbeverages purposes:					
		Number of establishments	20	30	30	35	42
Employees (thousands)		6	7	7	7	7	
Capacity utilization (percent)		92	93	94	90	80	
U.S. production (million dollars)		1,209	1,239	1,178	1,594	1,408	
U.S. exports (million dollars)		79	38	71	215	265	
U.S. imports (million dollars)		84	114	143	146	164	
Apparent U.S. consumption (million dollars)		1,214	1,315	1,250	1,525	1,307	
Trade balance (million dollars)		-5	-76	-72	69	101	
Ratio of imports to apparent consumption (percent)		6.9	8.7	11.4	9.6	12.5	
Ratio of exports to shipments (percent)		6.5	3.1	6.0	13.5	18.8	
AG063		Wool and other animal hair: <sup>8</sup>					
		Number of establishments	66,091	63,268	60,737	59,722	53,378
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)	
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)	
	U.S. production (million dollars) <sup>9</sup>	68	74	51	78	86	
	U.S. exports (million dollars)	21	19	14	36	35	
	U.S. imports (million dollars)	170	172	175	173	214	
	Apparent U.S. consumption (million dollars)	217	227	212	215	265	
	Trade balance (million dollars)	-149	-153	-161	-137	-179	

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG063	Wool and other animal hair <sup>8</sup> —Continued					
	Ratio of imports to apparent consumption (percent) . . . .	78.3	75.8	82.5	80.5	80.8
	Ratio of exports to shipments (percent) . . . . .	30.9	25.7	27.5	46.2	40.7
AG064	Cotton, not carded or combed: <sup>10</sup>					
	Number of establishments . . . . .	35,000	34,812	34,800	34,800	34,800
	Employees (thousands) . . . . .	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) . . . . .	4,913	4,273	4,494	6,099	2,000
	U.S. exports (million dollars) . . . . .	2,480	1,999	1,528	2,653	3,681
	U.S. imports (million dollars) . . . . .	4	0	0	7	10
	Apparent U.S. consumption (million dollars) . . . . .	2,437	2,274	2,966	3,453	-1,671
	Trade balance (million dollars) . . . . .	2,476	1,999	1,528	2,646	3,671
	Ratio of imports to apparent consumption (percent) . . . .	0.2	0.0	0.0	0.2	-0.6
	Ratio of exports to shipments (percent) . . . . .	50.5	46.8	34.0	43.5	184.1

<sup>1</sup> Not available.

<sup>2</sup> Capacity utilization is not meaningful in this industry.

<sup>3</sup> Does not reflect changes in inventory.

<sup>4</sup> Does not include gums and resins. Production data for gums and resins are no longer reported.

<sup>5</sup> Figures do not include microbreweries and brewpubs. The total number of establishments licensed to brew malt beverages (including microbreweries and brewpubs) was 392 during the year ending Sept. 30, 1992, as reported by the Bureau of Alcohol Tobacco, and Firearms (BATF).

<sup>6</sup> Figures represent the number of bonded wine cellars as reported by the BATF.

<sup>7</sup> In 1992, initial official published statistics for U.S. imports of unmanufactured tobacco were overstated by \$123 million. A correction to these import statistics was issued and is reflected in this number.

<sup>8</sup> Figures represent the numbers of payments made under the Federal Wool Incentive program.

<sup>9</sup> Figures represent value of shorn wool production (greasy basis) and mohair production.

<sup>10</sup> Estimated from 1992 Census of Agriculture.

Table B-2

## Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG046	Logs and rough wood products:					
	Number of establishments	10,000	13,000	13,100	13,000	13,000
	Employees (thousands)	78	84	87	85	85
	Capacity utilization (percent)	70	82	92	92	90
	U.S. shipments (million dollars)	11,600	13,000	15,000	16,000	16,500
	U.S. exports (million dollars)	2,765	2,809	3,134	2,963	3,063
	U.S. imports (million dollars)	299	349	387	366	404
	Apparent U.S. consumption (million dollars)	9,134	10,540	12,253	13,403	13,841
	Trade balance (million dollars)	2,466	2,460	2,747	2,597	2,659
	Ratio of imports to apparent consumption (percent)	3.3	3.3	3.2	2.7	2.9
	Ratio of exports to shipments (percent)	23.8	21.6	20.9	18.5	18.6
AG047	Lumber:					
	Number of establishments	6,400	6,880	7,000	7,000	6,900
	Employees (thousands)	155	167	175	170	170
	Capacity utilization (percent)	85	85	85	90	90
	U.S. shipments (million dollars)	19,200	23,000	27,000	26,000	26,000
	U.S. exports (million dollars)	2,220	2,337	2,470	2,458	2,447
	U.S. imports (million dollars)	2,644	3,481	5,032	6,059	5,515
	Apparent U.S. consumption (million dollars)	19,624	24,144	29,562	29,601	29,068
	Trade balance (million dollars)	-424	-1,144	-2,562	-3,601	-3,068
	Ratio of imports to apparent consumption (percent)	13.5	14.4	17.0	20.5	19.0
	Ratio of exports to shipments (percent)	11.6	10.2	9.1	9.5	9.4
AG048	Moldings, millwork, and joinery:					
	Number of establishments	2,600	3,000	3,000	3,000	3,500
	Employees (thousands)	85	87	90	85	90
	Capacity utilization (percent)	77	68	70	80	80
	U.S. shipments (million dollars)	9,000	9,200	10,275	10,895	11,000
	U.S. exports (million dollars)	366	444	458	443	456
	U.S. imports (million dollars)	531	659	812	959	969
	Apparent U.S. consumption (million dollars)	9,165	9,415	10,629	11,411	11,513
	Trade balance (million dollars)	-165	-215	-354	-516	-513
	Ratio of imports to apparent consumption (percent)	5.8	7.0	7.6	8.4	8.4
	Ratio of exports to production (percent)	4.1	4.8	4.5	4.1	4.1
AG049	Structural panel products:					
	Number of establishments	600	600	600	600	625
	Employees (thousands)	70	74	76	75	75
	Capacity utilization (percent)	80	80	80	85	85
	U.S. production (million dollars)	10,400	12,000	12,200	13,500	14,500
	U.S. exports (million dollars)	748	858	921	962	1,018
	U.S. imports (million dollars)	858	1,190	1,515	1,820	1,986
	Apparent U.S. consumption (million dollars)	10,510	12,332	12,794	14,358	15,468
	Trade balance (million dollars)	-110	-332	-594	-858	-968
	Ratio of imports to apparent consumption (percent)	8.2	9.6	11.8	12.7	12.8
	Ratio of exports to production (percent)	7.2	7.2	7.5	7.1	7.0
AG050	Wooden containers:					
	Number of establishments	2,600	2,400	2,500	2,500	2,600
	Employees (thousands)	29	40	41	35	42
	Capacity utilization (percent)	77	74	74	75	80
	U.S. production (million dollars)	2,000	2,800	3,110	3,600	3,800
	U.S. exports (million dollars)	76	73	83	76	77
	U.S. imports (million dollars)	142	162	174	197	224
	Apparent U.S. consumption (million dollars)	2,066	2,889	3,201	3,721	3,947
	Trade balance (million dollars)	-66	-89	-91	-121	-147
	Ratio of imports to apparent consumption (percent)	6.9	5.6	5.4	5.3	5.7
	Ratio of exports to shipments (percent)	3.8	2.6	2.7	2.1	2.0
AG051	Tools and tool handles of wood:					
	Number of establishments	135	135	135	135	130
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	73	70	70	70	75
	U.S. production (million dollars)	155	160	160	170	170
	U.S. exports (million dollars)	14	16	20	16	18
	U.S. imports (million dollars)	76	86	94	109	130
	Apparent U.S. consumption (million dollars)	217	230	234	263	282
	Trade balance (million dollars)	-62	-70	-74	-93	-112
	Ratio of imports to apparent consumption (percent)	35.0	37.4	40.2	41.4	46.1
	Ratio of exports to shipments (percent)	9.0	10.0	12.5	9.4	10.6
AG052	Miscellaneous articles of wood:					
	Number of establishments	680	680	680	650	700
	Employees (thousands)	35	35	40	38	38
	Capacity utilization (percent)	73	73	75	75	75
	U.S. production (million dollars)	2,500	2,575	2,700	2,800	2,800
	U.S. exports (million dollars)	156	147	155	177	178
	U.S. imports (million dollars)	394	428	465	540	615
	Apparent U.S. consumption (million dollars)	2,738	2,856	3,010	3,163	3,237

See footnotes at end of table.

**Table B-2—Continued**  
**Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG052	Miscellaneous articles of wood—Continued					
	Trade balance (million dollars)	-238	-281	-310	-363	-437
	Ratio of imports to apparent consumption (percent)	14.4	15.0	15.4	17.1	19.0
	Ratio of exports to shipments (percent)	6.2	5.7	5.7	6.3	6.4
AG053	Cork and rattan:					
	Number of establishments	31	31	31	30	35
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	73	70	60	75	75
	U.S. production (million dollars)	62	70	58	78	78
	U.S. exports (million dollars)	35	44	44	50	65
	U.S. imports (million dollars)	306	342	354	360	408
	Apparent U.S. consumption (million dollars)	333	368	368	388	421
	Trade balance (million dollars)	-271	-298	-310	-310	-343
	Ratio of imports to apparent consumption (percent)	91.9	92.9	96.2	92.8	96.9
	Ratio of exports to shipments (percent)	56.5	62.9	75.9	64.1	83.3
AG054	Wood pulp and wastepaper:					
	Number of establishments	(1)	(1)	(1)	(1)	(1)
	Employees (thousands)	13	13	13	14	14
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	7,900	8,100	7,700	8,000	8,220
	U.S. exports (million dollars)	3,616	3,862	2,999	3,816	6,241
	U.S. imports (million dollars)	2,176	2,138	1,899	2,329	3,845
	Apparent U.S. consumption (million dollars)	6,460	6,376	6,600	6,513	5,824
	Trade balance (million dollars)	1,440	1,724	1,100	1,487	2,396
	Ratio of imports to apparent consumption (percent)	33.7	33.5	28.8	35.8	66.0
	Ratio of exports to shipments (percent)	45.8	47.7	38.9	47.7	75.9
AG055	Paper boxes and bags:					
	Number of establishments	2,600	2,600	2,600	2,600	2,600
	Employees (thousands)	180	180	180	182	182
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	34,000	36,100	36,500	37,000	37,925
	U.S. exports (million dollars)	547	665	752	871	1,083
	U.S. imports (million dollars)	246	315	358	451	596
	Apparent U.S. consumption (million dollars)	33,699	35,750	36,106	36,580	37,438
	Trade balance (million dollars)	301	350	394	420	487
	Ratio of imports to apparent consumption (percent)	0.7	0.9	1.0	1.2	1.6
	Ratio of exports to shipments (percent)	1.6	1.8	2.1	2.4	2.9
AG056	Industrial papers and paperboards:					
	Number of establishments	700	700	700	704	704
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	42,000	42,000	42,000	43,000	43,300
	U.S. exports (million dollars)	3,314	3,328	3,331	3,827	5,085
	U.S. imports (million dollars)	936	1,065	1,114	1,388	1,884
	Apparent U.S. consumption (million dollars)	39,622	39,737	39,783	40,561	40,099
	Trade balance (million dollars)	2,378	2,263	2,217	2,439	3,201
	Ratio of imports to apparent consumption (percent)	2.4	2.7	2.8	3.4	4.7
	Ratio of exports to shipments (percent)	7.9	7.9	7.9	8.9	11.7
AG057	Newsprint:					
	Number of establishments	18	18	19	19	19
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	90	96	97	98	96
	U.S. production (million dollars)	4,200	4,200	4,300	4,350	4,410
	U.S. exports (million dollars)	388	467	496	481	591
	U.S. imports (million dollars)	3,979	3,599	3,593	3,333	4,418
	Apparent U.S. consumption (million dollars)	7,791	7,332	7,397	7,202	8,237
	Trade balance (million dollars)	-3,591	-3,132	-3,097	-2,852	-3,827
	Ratio of imports to apparent consumption (percent)	51.1	49.1	48.6	46.3	53.6
	Ratio of exports to shipments (percent)	9.2	11.1	11.5	11.1	13.4
AG058	Printing and writing papers:					
	Number of establishments	132	132	132	132	132
	Employees (thousands)	134	131	134	134	133
	Capacity utilization (percent)	(1)	90	91	91	93
	U.S. production (million dollars)	19,250	19,750	19,750	20,800	22,900
	U.S. exports (million dollars)	871	948	911	1,146	1,421
	U.S. imports (million dollars)	2,092	2,168	2,634	2,831	4,192
	Apparent U.S. consumption (million dollars)	20,471	20,970	21,473	22,485	25,671
	Trade balance (million dollars)	-1,221	-1,220	-1,723	-1,685	-2,771
	Ratio of imports to apparent consumption (percent)	10.2	10.3	12.3	12.6	16.3
	Ratio of exports to shipments (percent)	4.5	4.8	4.6	5.5	6.2
AG059	Certain specialty papers:					
	Number of establishments	(1)	(1)	(1)	(1)	(1)
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	4,700	4,900	4,800	4,950	5,010

See footnotes at end of table.

**Table B-2—Continued**  
**Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
AG059	Certain specialty papers:					
	U.S. exports ( <i>million dollars</i> )	431	426	432	530	718
	U.S. imports ( <i>million dollars</i> )	441	476	512	568	742
	Apparent U.S. consumption ( <i>million dollars</i> )	4,710	4,950	4,880	4,988	5,034
	Trade balance ( <i>million dollars</i> )	-10	-50	-80	-38	-24
	Ratio of imports to apparent consumption ( <i>percent</i> )	9.4	9.6	10.5	11.4	14.7
	Ratio of exports to shipments ( <i>percent</i> )	9.2	8.7	9.0	10.7	14.3
AG060	Miscellaneous paper products:					
	Number of establishments	(1)	(1)	(1)	(1)	(1)
	Employees ( <i>thousands</i> )	(1)	(1)	(1)	(1)	(1)
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. production ( <i>million dollars</i> )	20,000	20,000	20,000	21,000	22,255
	U.S. exports ( <i>million dollars</i> )	577	635	706	781	888
	U.S. imports ( <i>million dollars</i> )	376	429	489	583	758
	Apparent U.S. consumption ( <i>million dollars</i> )	19,799	19,794	19,783	20,802	22,125
	Trade balance ( <i>million dollars</i> )	201	206	217	198	130
	Ratio of imports to apparent consumption ( <i>percent</i> )	1.9	2.2	2.5	2.8	3.4
	Ratio of exports to shipments ( <i>percent</i> )	2.9	3.2	3.5	3.7	4.0
AG061	Printed matter:					
	Number of establishments	60,000	60,000	60,000	60,000	60,000
	Employees ( <i>thousands</i> )	1,500	1,500	1,500	1,500	1,500
	Capacity utilization ( <i>percent</i> )	(2)	(2)	(2)	(2)	(2)
	U.S. production ( <i>million dollars</i> )	157,000	160,000	166,000	176,000	181,000
	U.S. exports ( <i>million dollars</i> )	3,470	3,670	3,828	3,788	4,113
	U.S. imports ( <i>million dollars</i> )	1,649	1,813	1,962	2,146	2,468
	Apparent U.S. consumption ( <i>million dollars</i> )	155,179	158,143	164,134	174,358	179,355
	Trade balance ( <i>million dollars</i> )	1,821	1,857	1,866	1,642	1,645
	Ratio of imports to apparent consumption ( <i>percent</i> )	1.1	1.1	1.2	1.2	1.4
	Ratio of exports to shipments ( <i>percent</i> )	2.2	2.3	2.3	2.2	2.3

<sup>1</sup> Not available.

<sup>2</sup> Capacity utilization is not meaningful in this industry.

**Table B-3**  
**Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH008	Other olefins:					
	Establishments ( <i>number</i> )	23	23	23	23	23
	Employees ( <i>thousands</i> )	1	1	1	1	1
	Capacity utilization ( <i>percent</i> )	85	88	87	90	95
	U.S. shipments ( <i>million dollars</i> )	910	920	940	980	1,050
	U.S. exports ( <i>million dollars</i> )	285	253	223	190	242
	U.S. imports ( <i>million dollars</i> )	19	32	35	38	53
	Apparent U.S. consumption ( <i>million dollars</i> )	644	699	752	828	861
	Trade balance ( <i>million dollars</i> )	266	221	188	152	189
	Ratio of imports to apparent consumption ( <i>percent</i> )	3.0	4.6	4.7	4.6	6.2
Ratio of exports to shipments ( <i>percent</i> )	31.3	27.5	23.7	19.4	23.0	
CH009	Primary aromatics:					
	Establishments ( <i>number</i> )	31	31	31	31	31
	Employees ( <i>thousands</i> )	2	2	2	2	2
	Capacity utilization ( <i>percent</i> )	63	66	73	78	80
	U.S. shipments ( <i>million dollars</i> )	3,700	3,600	3,931	4,200	1,250
	U.S. exports ( <i>million dollars</i> )	105	106	145	138	208
	U.S. imports ( <i>million dollars</i> )	196	187	169	158	246
	Apparent U.S. consumption ( <i>million dollars</i> )	3,791	3,681	3,955	4,220	1,288
	Trade balance ( <i>million dollars</i> )	-91	-81	-24	-20	-38
	Ratio of imports to apparent consumption ( <i>percent</i> )	5.2	5.1	4.3	3.7	19.1
Ratio of exports to shipments ( <i>percent</i> )	2.6	2.9	3.7	3.3	16.6	
CH010	Benzenoid commodity chemicals:					
	Establishments ( <i>number</i> )	54	54	53	53	53
	Employees ( <i>thousands</i> )	15	15	15	15	15
	Capacity utilization ( <i>percent</i> )	85	82	82	82	90
	U.S. shipments ( <i>million dollars</i> )	14,150	14,000	13,500	13,900	15,581
	U.S. exports ( <i>million dollars</i> )	1,385	1,162	1,213	1,555	2,258
	U.S. imports ( <i>million dollars</i> )	364	313	339	392	813
	Apparent U.S. consumption ( <i>million dollars</i> )	13,129	13,151	12,626	12,737	14,136
	Trade balance ( <i>million dollars</i> )	1,021	849	874	1,163	1,445
	Ratio of imports to apparent consumption ( <i>percent</i> )	2.8	2.4	2.7	3.1	5.8
Ratio of exports to shipments ( <i>percent</i> )	9.8	8.3	9.0	11.2	14.5	
CH011	Benzenoid specialty chemicals:					
	Establishments ( <i>number</i> )	250	250	250	250	250
	Employees ( <i>thousands</i> )	95	95	95	95	95
	Capacity utilization ( <i>percent</i> )	89	87	82	65	85
	U.S. shipments ( <i>million dollars</i> )	7,930	8,175	7,800	8,000	8,900
	U.S. exports ( <i>million dollars</i> )	3,244	3,448	3,650	4,073	4,551
	U.S. imports ( <i>million dollars</i> )	1,999	2,211	2,063	2,281	3,179
	Apparent U.S. consumption ( <i>million dollars</i> )	6,685	6,938	6,213	6,208	7,528
	Trade balance ( <i>million dollars</i> )	1,245	1,237	1,587	1,792	1,372
	Ratio of imports to apparent consumption ( <i>percent</i> )	29.9	31.9	33.2	36.7	42.2
Ratio of exports to shipments ( <i>percent</i> )	40.9	42.2	46.8	50.9	51.1	
CH012	Miscellaneous organic chemicals:					
	Establishments ( <i>number</i> )	236	240	245	250	259
	Employees ( <i>thousands</i> )	80	70	70	75	75
	Capacity utilization ( <i>percent</i> )	80	85	85	85	89
	U.S. shipments ( <i>million dollars</i> )	39,300	43,000	44,500	51,000	57,500
	U.S. exports ( <i>million dollars</i> )	4,745	4,842	4,886	5,890	8,013
	U.S. imports ( <i>million dollars</i> )	2,792	3,251	3,502	4,442	4,968
	Apparent U.S. consumption ( <i>million dollars</i> )	37,347	41,409	43,116	49,552	54,455
	Trade balance ( <i>million dollars</i> )	1,953	1,591	1,384	1,448	3,045
	Ratio of imports to apparent consumption ( <i>percent</i> )	7.5	7.9	8.1	9.0	9.1
Ratio of exports to shipments ( <i>percent</i> )	12.1	11.3	11.0	11.5	13.9	
CH013	Selected inorganic chemicals and elements:					
	Firms ( <i>number</i> )	480	(1)	(1)	(1)	(1)
	Employees ( <i>thousands</i> )	79	(1)	(1)	(1)	(1)
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	2,651	2,526	2,390	(1)	(1)
	U.S. exports ( <i>million dollars</i> )	893	768	781	790	997
	U.S. imports ( <i>million dollars</i> )	1,573	1,363	1,252	1,235	1,658
	Apparent U.S. consumption ( <i>million dollars</i> )	3,331	3,121	2,861	(1)	(1)
	Trade balance ( <i>million dollars</i> )	-680	-595	-471	-445	-661
	Ratio of imports to apparent consumption ( <i>percent</i> )	47.2	43.7	43.8	(1)	(1)
Ratio of exports to shipments ( <i>percent</i> )	33.7	30.4	32.7	(1)	(1)	
CH014	Inorganic acids:					
	Establishments ( <i>number</i> )	145	145	145	145	143
	Employees ( <i>thousands</i> )	9	9	9	9	9
	Capacity utilization ( <i>percent</i> )	80	80	80	80	60
	U.S. shipments ( <i>million dollars</i> )	2,426	2,499	2,550	2,601	2,653
	U.S. exports ( <i>million dollars</i> )	129	156	157	160	166
	U.S. imports ( <i>million dollars</i> )	168	142	144	199	209
Apparent U.S. consumption ( <i>million dollars</i> )	2,465	2,485	2,537	2,640	2,696	

See footnote at end of table.

**Table B-3—Continued**  
**Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH014	Inorganic acids—Continued					
	Trade balance (million dollars) . . . . .	-39	14	13	-39	-43
	Ratio of imports to apparent consumption (percent) . . .	6.8	5.7	5.7	7.5	7.8
	Ratio of exports to shipments (percent) . . . . .	5.3	6.2	6.2	6.2	6.3
CH015	Salts and other inorganic chemicals:					
	Establishments (number) . . . . .	230	225	220	217	215
	Employees (thousands) . . . . .	35	34	33	32	32
	Capacity utilization (percent) . . . . .	72	72	72	(1)	(1)
	U.S. shipments (million dollars) . . . . .	7,000	7,315	7,403	7,773	7,800
	U.S. exports (million dollars) . . . . .	1,958	2,191	2,222	2,487	3,119
	U.S. imports (million dollars) . . . . .	1,354	1,471	1,812	2,166	2,536
	Apparent U.S. consumption (million dollars) . . . . .	6,396	6,595	6,993	7,452	7,217
	Trade balance (million dollars) . . . . .	604	720	410	321	583
	Ratio of imports to apparent consumption (percent) . . .	21.2	22.3	25.9	29.1	35.1
	Ratio of exports to shipments (percent) . . . . .	28.0	30.0	30.0	32.0	40.0
CH016	Chlor-alkali chemicals:					
	Establishments (number) . . . . .	27	27	27	27	27
	Employees (thousands) . . . . .	6	6	6	6	6
	Capacity utilization (percent) . . . . .	94	96	95	95	95
	U.S. shipments (million dollars) . . . . .	3,864	3,682	3,700	3,720	(1)
	U.S. exports (million dollars) . . . . .	912	803	598	594	899
	U.S. imports (million dollars) . . . . .	177	170	125	149	210
	Apparent U.S. consumption (million dollars) . . . . .	3,129	3,049	3,227	3,275	(1)
	Trade balance (million dollars) . . . . .	735	633	473	445	689
	Ratio of imports to apparent consumption (percent) . . .	5.7	5.6	3.9	4.5	(1)
	Ratio of exports to shipments (percent) . . . . .	23.6	21.8	16.2	16.0	(1)
CH017	Industrial gases:					
	Establishments (number) . . . . .	103	103	103	103	103
	Employees (thousands) . . . . .	9	9	9	9	9
	Capacity utilization (percent) . . . . .	73	73	73	73	73
	U.S. shipments (million dollars) . . . . .	2,815	3,131	3,200	3,400	3,500
	U.S. exports (million dollars) . . . . .	95	98	99	105	114
	U.S. imports (million dollars) . . . . .	38	39	39	42	47
	Apparent U.S. consumption (million dollars) . . . . .	2,758	3,072	3,140	3,337	3,433
	Trade balance (million dollars) . . . . .	57	59	60	63	67
	Ratio of imports to apparent consumption (percent) . . .	1.4	1.3	1.2	1.3	1.4
	Ratio of exports to shipments (percent) . . . . .	3.4	3.1	3.1	3.1	3.3
CH018	Fertilizers:					
	Establishments (number) . . . . .	357	350	348	350	350
	Employees (thousands) . . . . .	38	38	37	37	37
	Capacity utilization (percent) . . . . .	80	80	80	85	83
	U.S. shipments (million dollars) . . . . .	9,340	8,515	7,758	8,737	9,480
	U.S. exports (million dollars) . . . . .	3,138	2,483	1,877	2,780	3,319
	U.S. imports (million dollars) . . . . .	1,536	1,471	1,600	2,040	2,357
	Apparent U.S. consumption (million dollars) . . . . .	7,738	7,503	7,481	7,997	8,518
	Trade balance (million dollars) . . . . .	1,602	1,012	277	740	962
	Ratio of imports to apparent consumption (percent) . . .	19.9	19.6	21.4	25.5	27.7
	Ratio of exports to shipments (percent) . . . . .	33.6	29.2	24.2	31.8	35.0
CH019	Paints, inks, and related items, certain components thereof:					
	Establishments (number) . . . . .	1,580	1,580	1,580	1,580	1,580
	Employees (thousands) . . . . .	13	14	14	15	15
	Capacity utilization (percent) . . . . .	80	82	84	85	84
	U.S. shipments (million dollars) . . . . .	17,360	17,793	18,250	19,000	19,673
	U.S. exports (million dollars) . . . . .	1,554	1,712	1,772	2,057	2,340
	U.S. imports (million dollars) . . . . .	826	930	980	1,148	1,425
	Apparent U.S. consumption (million dollars) . . . . .	16,632	17,011	17,458	18,091	18,758
	Trade balance (million dollars) . . . . .	728	782	792	909	915
	Ratio of imports to apparent consumption (percent) . . .	5.0	5.5	5.6	6.3	7.6
	Ratio of exports to shipments (percent) . . . . .	9.0	9.6	9.7	10.8	11.9
CH020	Synthetic organic pigments:					
	Firms (number) . . . . .	32	32	32	32	32
	Employees (thousands) . . . . .	6	6	6	6	6
	Capacity utilization (percent) . . . . .	85	85	85	85	85
	U.S. shipments (million dollars) . . . . .	644	789	793	793	870
	U.S. exports (million dollars) . . . . .	200	223	267	299	283
	U.S. imports (million dollars) . . . . .	249	274	294	339	341
	Apparent U.S. consumption (million dollars) . . . . .	693	840	820	833	928
	Trade balance (million dollars) . . . . .	-49	-51	-27	-40	-58
	Ratio of imports to apparent consumption (percent) . . .	35.9	32.6	35.9	40.7	36.7
	Ratio of exports to shipments (percent) . . . . .	31.1	28.3	33.7	37.7	32.5
CH021	Synthetic dyes and azoic couples:					
	Firms (number) . . . . .	32	32	32	32	32
	Employees (thousands) . . . . .	8	8	8	8	8
	Capacity utilization (percent) . . . . .	85	85	85	85	85

See footnote at end of table.

Table B-3—Continued

## Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH021	Synthetic dyes and azoic couples—Continued					
	U.S. shipments (million dollars)	858	860	991	991	870
	U.S. exports (million dollars)	178	192	200	227	267
	U.S. imports (million dollars)	497	571	583	595	569
	Apparent U.S. consumption (million dollars)	1,177	1,239	1,374	1,359	1,172
	Trade balance (million dollars)	-319	-379	-383	-368	-302
	Ratio of imports to apparent consumption (percent)	42.2	46.1	42.4	43.8	48.5
	Ratio of exports to shipments (percent)	20.7	22.3	20.2	22.9	30.7
CH022	Synthetic tanning agents:					
	Firms (number)	5	5	5	5	5
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	85	65	85	85	85
	U.S. shipments (million dollars)	20	20	19	20	20
	U.S. exports (million dollars)	13	11	10	11	14
	U.S. imports (million dollars)	4	4	6	6	6
	Apparent U.S. consumption (million dollars)	11	13	15	15	12
	Trade balance (million dollars)	9	7	4	5	8
	Ratio of imports to apparent consumption (percent)	36.4	30.8	40.0	40.0	50.0
	Ratio of exports to shipments (percent)	65.0	55.0	52.6	55.0	70.0
CH023	Natural tanning and dyeing materials:					
	Firms (number)	10	10	10	10	10
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	10	10	10	10	10
	U.S. exports (million dollars)	12	17	16	19	17
	U.S. imports (million dollars)	56	65	64	58	52
	Apparent U.S. consumption (million dollars)	54	58	58	49	45
	Trade balance (million dollars)	-44	-48	-48	-39	-35
	Ratio of imports to apparent consumption (percent)	103.7	112.1	110.3	118.4	115.6
	Ratio of exports to shipments (percent)	120.0	170.0	160.0	190.0	170.0
CH024	Photographic chemicals and preparations:					
	Firms (number)	5	5	5	5	5
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	(1)	(1)	(1)	(1)	(1)
	U.S. exports (million dollars)	287	306	331	383	506
	U.S. imports (million dollars)	405	496	554	650	749
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	-118	-190	-223	-267	-243
	Ratio of imports to apparent consumption (percent)	(1)	(1)	(1)	(1)	(1)
	Ratio of exports to shipments (percent)	(1)	(1)	(1)	(1)	(1)
CH025	Pesticide products and formulations:					
	Firms (number)	59	59	59	59	55
	Employees (thousands)	22	22	22	22	20
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	4,019	4,174	4,580	4,580	4,580
	U.S. exports (million dollars)	1,509	1,543	1,584	1,736	1,969
	U.S. imports (million dollars)	681	806	825	852	1,017
	Apparent U.S. consumption (million dollars)	3,191	3,437	3,821	3,696	3,628
	Trade balance (million dollars)	828	737	759	884	952
	Ratio of imports to apparent consumption (percent)	21.3	23.5	21.6	23.1	28.0
	Ratio of exports to shipments (percent)	37.5	37.0	34.6	37.9	43.0
CH026	Adhesives and glues:					
	Establishments (number)	485	480	480	482	490
	Employees (thousands)	10	10	10	10	10
	Capacity utilization (percent)	82	80	80	85	84
	U.S. shipments (million dollars)	2,850	2,910	2,890	3,040	3,200
	U.S. exports (million dollars)	194	222	256	308	348
	U.S. imports (million dollars)	93	111	118	134	138
	Apparent U.S. consumption (million dollars)	2,749	2,799	2,752	2,866	2,990
	Trade balance (million dollars)	101	111	138	174	210
	Ratio of imports to apparent consumption (percent)	3.4	4.0	4.3	4.7	4.6
	Ratio of exports to shipments (percent)	6.8	7.6	8.9	10.1	10.9
CH027	Medicinal chemicals, except antibiotics:					
	Firms (number)	750	750	750	700	700
	Employees (thousands)	154	155	158	150	140
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	46,050	48,000	50,428	51,400	52,000
	U.S. exports (million dollars)	4,458	5,248	5,690	6,086	6,470
	U.S. imports (million dollars)	3,918	4,888	4,897	5,691	7,075
	Apparent U.S. consumption (million dollars)	45,510	47,640	49,635	51,005	52,605
	Trade balance (million dollars)	540	360	793	395	-605
	Ratio of imports to apparent consumption (percent)	8.6	10.3	9.9	11.2	13.4
	Ratio of exports to shipments (percent)	9.7	10.9	11.3	11.8	12.4

See footnote at end of table.

**Table B-3—Continued**  
**Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH028	Antibiotics:					
	Firms ( <i>number</i> )	20	20	20	18	17
	Employees ( <i>thousands</i> )	34	36	39	34	34
	Capacity utilization ( <i>percent</i> )	80	80	80	80	80
	U.S. shipments ( <i>million dollars</i> )	5,830	7,600	8,000	8,200	8,300
	U.S. exports ( <i>million dollars</i> )	1,380	1,568	1,580	1,528	1,621
	U.S. imports ( <i>million dollars</i> )	986	1,138	1,226	1,280	1,580
	Apparent U.S. consumption ( <i>million dollars</i> )	5,436	7,170	7,646	7,952	8,259
	Trade balance ( <i>million dollars</i> )	394	430	354	248	41
	Ratio of imports to apparent consumption ( <i>percent</i> )	18.1	15.9	16.0	16.1	19.1
Ratio of exports to shipments ( <i>percent</i> )	23.7	20.6	19.8	18.6	19.5	
CH029	Essential oils and other flavoring materials:					
	Establishments ( <i>number</i> )	58	58	58	57	55
	Employees ( <i>thousands</i> )	51	49	50	51	52
	Capacity utilization ( <i>percent</i> )	80	75	77	80	80
	U.S. shipments ( <i>million dollars</i> )	2,950	2,700	2,800	2,900	3,000
	U.S. exports ( <i>million dollars</i> )	614	618	734	848	910
	U.S. imports ( <i>million dollars</i> )	490	555	557	624	810
	Apparent U.S. consumption ( <i>million dollars</i> )	2,826	2,637	2,623	2,676	2,900
	Trade balance ( <i>million dollars</i> )	124	63	177	224	100
	Ratio of imports to apparent consumption ( <i>percent</i> )	17.3	21.0	21.2	23.3	27.9
Ratio of exports to shipments ( <i>percent</i> )	20.8	22.9	26.2	29.2	30.3	
CH030	Perfumes, cosmetics, and toiletries:					
	Establishments ( <i>number</i> )	650	650	650	650	650
	Employees ( <i>thousands</i> )	55	56	57	57	56
	Capacity utilization ( <i>percent</i> )	80	83	85	87	88
	U.S. shipments ( <i>million dollars</i> )	16,700	17,200	17,900	18,500	19,000
	U.S. exports ( <i>million dollars</i> )	1,075	1,228	1,415	1,715	1,875
	U.S. imports ( <i>million dollars</i> )	716	898	973	1,055	1,168
	Apparent U.S. consumption ( <i>million dollars</i> )	16,341	16,870	17,458	17,840	18,293
	Trade balance ( <i>million dollars</i> )	359	330	442	660	707
	Ratio of imports to apparent consumption ( <i>percent</i> )	4.4	5.3	5.6	5.9	6.4
Ratio of exports to shipments ( <i>percent</i> )	6.4	7.1	7.9	9.3	9.9	
CH031	Soaps, detergents, and surfactants:					
	Establishments ( <i>number</i> )	950	950	950	950	950
	Employees ( <i>thousands</i> )	46	47	47	47	48
	Capacity utilization ( <i>percent</i> )	80	83	85	87	88
	U.S. shipments ( <i>million dollars</i> )	14,500	14,900	15,400	16,000	16,500
	U.S. exports ( <i>million dollars</i> )	1,018	1,158	1,200	1,454	1,644
	U.S. imports ( <i>million dollars</i> )	364	387	450	556	653
	Apparent U.S. consumption ( <i>million dollars</i> )	13,846	14,129	14,567	15,102	15,509
	Trade balance ( <i>million dollars</i> )	654	771	813	898	991
	Ratio of imports to apparent consumption ( <i>percent</i> )	2.6	2.7	3.1	3.7	4.2
Ratio of exports to shipments ( <i>percent</i> )	7.0	7.8	8.2	9.1	10.0	
CH032	Miscellaneous chemicals and specialties:					
	Establishments ( <i>number</i> )	(1)	(1)	(1)	(1)	(1)
	Employees ( <i>thousands</i> )	(1)	(1)	(1)	(1)	(1)
	Capacity utilization ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	(1)	(1)	(1)	(1)	(1)
	U.S. exports ( <i>million dollars</i> )	1,117	1,251	1,289	1,371	1,572
	U.S. imports ( <i>million dollars</i> )	505	673	603	733	901
	Apparent U.S. consumption ( <i>million dollars</i> )	(1)	(1)	(1)	(1)	(1)
	Trade balance ( <i>million dollars</i> )	612	578	686	638	671
	Ratio of imports to apparent consumption ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)
Ratio of exports to shipments ( <i>percent</i> )	(1)	(1)	(1)	(1)	(1)	
CH033	Explosives and propellant powders:					
	Firms ( <i>number</i> )	135	135	135	135	135
	Employees ( <i>thousands</i> )	15	15	13	13	13
	Capacity utilization ( <i>percent</i> )	90	90	92	90	89
	U.S. shipments ( <i>million dollars</i> )	1,380	1,410	1,522	1,650	1,600
	U.S. exports ( <i>million dollars</i> )	169	212	259	252	250
	U.S. imports ( <i>million dollars</i> )	178	216	209	196	187
	Apparent U.S. consumption ( <i>million dollars</i> )	1,389	1,414	1,472	1,594	1,537
	Trade balance ( <i>million dollars</i> )	-9	-4	50	56	63
	Ratio of imports to apparent consumption ( <i>percent</i> )	12.8	15.3	14.2	12.3	12.2
Ratio of exports to shipments ( <i>percent</i> )	12.2	15.0	17.0	15.3	15.6	
CH034	Polyethylene resins in primary forms:					
	Establishments ( <i>number</i> )	37	40	40	40	41
	Employees ( <i>thousands</i> )	22	22	21	21	20
	Capacity utilization ( <i>percent</i> )	87	86	86	88	88
	U.S. shipments ( <i>million dollars</i> )	7,355	7,916	6,890	7,493	7,671
	U.S. exports ( <i>million dollars</i> )	1,460	1,255	1,260	1,459	1,988
	U.S. imports ( <i>million dollars</i> )	448	462	571	783	1,192
	Apparent U.S. consumption ( <i>million dollars</i> )	6,343	7,123	6,201	6,817	6,875
	Trade balance ( <i>million dollars</i> )	1,012	793	689	676	796

See footnote at end of table.

**Table B-3—Continued**  
**Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH034	Polyethylene resins in primary forms— <i>Continued</i>					
	Ratio of imports to apparent consumption (percent) . . .	7.1	6.5	9.2	11.5	17.3
	Ratio of exports to shipments (percent) . . . . .	19.9	15.9	18.3	19.5	25.9
CH035	Polypropylene resins in primary forms:					
	Establishments (number) . . . . .	19	21	23	23	23
	Employees (thousands) . . . . .	5	5	5	5	5
	Capacity utilization (percent) . . . . .	88	85	86	88	87
	U.S. shipments (million dollars) . . . . .	1,998	2,048	2,801	3,065	3,119
	U.S. exports (million dollars) . . . . .	788	522	432	449	660
	U.S. imports (million dollars) . . . . .	64	83	116	155	190
	Apparent U.S. consumption (million dollars) . . . . .	1,274	1,609	2,485	2,771	2,649
	Trade balance (million dollars) . . . . .	724	439	316	294	470
	Ratio of imports to apparent consumption (percent) . . .	5.0	5.2	4.7	5.6	7.2
	Ratio of exports to shipments (percent) . . . . .	39.4	25.5	15.4	14.6	21.2
CH036	PVC resins in primary forms:					
	Establishments (number) . . . . .	26	27	27	27	27
	Employees (thousands) . . . . .	8	8	7	7	7
	Capacity utilization (percent) . . . . .	95	97	97	100	97
	U.S. shipments (million dollars) . . . . .	2,659	2,788	3,243	3,475	3,519
	U.S. exports (million dollars) . . . . .	549	488	500	671	856
	U.S. imports (million dollars) . . . . .	54	82	117	182	192
	Apparent U.S. consumption (million dollars) . . . . .	2,164	2,382	2,860	2,986	2,855
	Trade balance (million dollars) . . . . .	495	406	383	489	664
	Ratio of imports to apparent consumption (percent) . . .	2.5	3.4	4.1	6.1	6.7
	Ratio of exports to shipments (percent) . . . . .	20.6	17.5	15.4	19.3	24.3
CH037	Styrene polymers in primary forms:					
	Establishments (number) . . . . .	68	68	68	68	68
	Employees (thousands) . . . . .	11	11	11	11	11
	Capacity utilization (percent) . . . . .	84	91	90	94	94
	U.S. shipments (million dollars) . . . . .	4,204	4,077	4,611	4,999	5,013
	U.S. exports (million dollars) . . . . .	550	539	600	662	790
	U.S. imports (million dollars) . . . . .	132	199	235	300	351
	Apparent U.S. consumption (million dollars) . . . . .	3,786	3,737	4,246	4,637	4,574
	Trade balance (million dollars) . . . . .	418	340	365	362	439
	Ratio of imports to apparent consumption (percent) . . .	3.5	5.3	5.5	6.5	7.7
	Ratio of exports to shipments (percent) . . . . .	13.1	13.2	13.0	13.2	15.8
CH038	Saturated polyester resins:					
	Establishments (number) . . . . .	48	49	49	49	50
	Employees (thousands) . . . . .	6	6	6	6	6
	Capacity utilization (percent) . . . . .	72	77	79	83	86
	U.S. shipments (million dollars) . . . . .	2,972	3,066	3,221	3,925	4,216
	U.S. exports (million dollars) . . . . .	408	456	390	491	640
	U.S. imports (million dollars) . . . . .	69	88	108	197	242
	Apparent U.S. consumption (million dollars) . . . . .	2,633	2,698	2,939	3,631	3,818
	Trade balance (million dollars) . . . . .	339	368	282	294	398
	Ratio of imports to apparent consumption (percent) . . .	2.6	3.3	3.7	5.4	6.3
	Ratio of exports to shipments (percent) . . . . .	13.7	14.9	12.1	12.5	15.2
CH039	Other plastics in primary forms:					
	Establishments (number) . . . . .	280	279	279	279	278
	Employees (thousands) . . . . .	33	33	32	32	32
	Capacity utilization (percent) . . . . .	89	89	90	93	92
	U.S. shipments (million dollars) . . . . .	13,020	13,956	14,012	14,900	14,958
	U.S. exports (million dollars) . . . . .	3,647	3,793	3,992	4,670	5,398
	U.S. imports (million dollars) . . . . .	1,046	1,208	1,386	1,684	1,937
	Apparent U.S. consumption (million dollars) . . . . .	10,419	11,371	11,406	11,914	11,497
	Trade balance (million dollars) . . . . .	2,601	2,585	2,606	2,986	3,461
	Ratio of imports to apparent consumption (percent) . . .	10.0	10.6	12.2	14.1	16.8
	Ratio of exports to shipments (percent) . . . . .	28.0	27.2	28.5	31.3	36.1
CH040	SBR rubber in primary forms:					
	Establishments (number) . . . . .	10	10	11	11	11
	Employees (thousands) . . . . .	5	5	5	5	5
	Capacity utilization (percent) . . . . .	90	90	89	90	91
	U.S. shipments (million dollars) . . . . .	884	1,033	968	1,025	1,187
	U.S. exports (million dollars) . . . . .	219	256	255	298	353
	U.S. imports (million dollars) . . . . .	92	116	111	137	159
	Apparent U.S. consumption (million dollars) . . . . .	757	891	824	864	993
	Trade balance (million dollars) . . . . .	127	142	144	161	194
	Ratio of imports to apparent consumption (percent) . . .	12.2	13.0	13.5	15.9	16.0
	Ratio of exports to shipments (percent) . . . . .	24.8	25.0	26.3	29.1	29.7
CH041	Other synthetic rubber:					
	Establishments (number) . . . . .	34	34	34	34	34
	Employees (thousands) . . . . .	12	11	11	11	11
	Capacity utilization (percent) . . . . .	79	80	79	80	81
	U.S. shipments (million dollars) . . . . .	3,340	3,401	2,906	3,070	3,111
	U.S. exports (million dollars) . . . . .	772	833	769	874	1,011

See footnote at end of table.

Table B-3—Continued

## Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH041	Other synthetic rubber—Continued					
	U.S. imports (million dollars)	376	403	445	491	557
	Apparent U.S. consumption (million dollars)	2,944	2,971	2,582	2,687	2,657
	Trade balance (million dollars)	396	430	324	383	454
	Ratio of imports to apparent consumption (percent)	12.8	13.6	17.2	18.3	21.0
	Ratio of exports to shipments (percent)	23.1	24.5	26.5	28.5	32.5
CH042	Pneumatic tires and tubes (new):					
	Establishments (number)	38	39	39	37	40
	Employees (thousands)	63	62	63	63	62
	Capacity utilization (percent)	95	95	95	97	98
	U.S. shipments (million dollars)	10,200	10,500	10,600	10,900	11,000
	U.S. exports (million dollars)	1,215	1,402	1,464	1,614	1,869
	U.S. imports (million dollars)	2,223	2,448	2,661	2,960	3,073
	Apparent U.S. consumption (million dollars)	11,208	11,546	11,797	12,246	12,204
	Trade balance (million dollars)	-1,008	-1,048	-1,197	-1,346	-1,204
	Ratio of imports to apparent consumption (percent)	19.8	21.2	22.6	24.2	25.2
	Ratio of exports to shipments (percent)	11.9	13.4	13.8	14.8	17.0
CH043	Other tires:					
	Establishments (number)	1,850	1,800	1,750	1,600	1,400
	Employees (thousands)	6	6	6	5	5
	Capacity utilization (percent)	88	85	88	90	92
	U.S. shipments (million dollars)	2,000	2,000	1,800	1,800	1,750
	U.S. exports (million dollars)	58	66	66	79	73
	U.S. imports (million dollars)	78	94	107	114	121
	Apparent U.S. consumption (million dollars)	2,020	2,028	1,841	1,835	1,798
	Trade balance (million dollars)	-20	-28	-41	-35	-48
	Ratio of imports to apparent consumption (percent)	3.9	4.6	5.8	6.2	6.7
	Ratio of exports to shipments (percent)	2.9	3.3	3.7	4.4	4.2
CH044	Plastic or rubber semifabricated forms:					
	Establishments (number)	1,540	1,546	1,551	1,551	1,555
	Employees (thousands)	100	101	103	103	103
	Capacity utilization (percent)	79	81	81	81	82
	U.S. shipments (million dollars)	16,770	16,914	17,462	17,800	18,127
	U.S. exports (million dollars)	2,603	2,833	3,139	3,596	4,116
	U.S. imports (million dollars)	1,752	1,934	2,015	2,286	2,647
	Apparent U.S. consumption (million dollars)	15,919	16,015	16,338	16,490	16,658
	Trade balance (million dollars)	851	899	1,124	1,310	1,469
	Ratio of imports to apparent consumption (percent)	11.0	12.1	12.3	13.9	15.9
	Ratio of exports to shipments (percent)	15.5	16.7	18.0	20.2	22.7
CH045	Plastic containers and closures:					
	Establishments (number)	1,860	1,860	1,860	1,860	1,860
	Employees (thousands)	74	75	77	76	76
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	8,962	9,039	9,280	9,466	9,578
	U.S. exports (million dollars)	681	841	914	1,060	1,264
	U.S. imports (million dollars)	665	738	845	968	1,210
	Apparent U.S. consumption (million dollars)	8,946	8,936	9,211	9,374	9,524
	Trade balance (million dollars)	16	103	69	92	54
	Ratio of imports to apparent consumption (percent)	7.4	8.3	9.2	10.3	12.7
	Ratio of exports to shipments (percent)	7.6	9.3	9.8	11.2	13.2
CH046	Hose, belting and plastic pipe:					
	Establishments (number)	438	438	438	475	476
	Employees (thousands)	36	36	36	38	38
	Capacity utilization (percent)	71	71	72	75	76
	U.S. shipments (million dollars)	5,159	5,204	5,355	5,900	6,129
	U.S. exports (million dollars)	739	829	880	1,027	1,137
	U.S. imports (million dollars)	594	657	699	855	991
	Apparent U.S. consumption (million dollars)	5,014	5,032	5,174	5,728	5,983
	Trade balance (million dollars)	145	172	181	172	146
	Ratio of imports to apparent consumption (percent)	11.8	13.1	13.5	14.9	16.6
	Ratio of exports to shipments (percent)	14.3	15.9	16.4	17.4	18.6
CH047	Miscellaneous rubber or plastic products:					
	Establishments (number)	12,900	12,800	12,900	12,900	12,800
	Employees (thousands)	620	600	605	605	595
	Capacity utilization (percent)	85	90	85	87	88
	U.S. shipments (million dollars)	70,000	72,000	70,000	72,000	71,000
	U.S. exports (million dollars)	1,997	2,407	2,592	3,110	3,253
	U.S. imports (million dollars)	2,929	3,448	3,815	4,456	4,914
	Apparent U.S. consumption (million dollars)	70,932	73,041	71,223	73,346	72,661
	Trade balance (million dollars)	-932	-1,041	-1,223	-1,346	-1,661
	Ratio of imports to apparent consumption (percent)	4.1	4.7	5.4	6.1	6.8
	Ratio of exports to shipments (percent)	2.9	3.3	3.7	4.3	4.6

See footnote at end of table.

Table B-3—Continued

## Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995	
CH048	Gelatin:						
	Establishments ( <i>number</i> ) .....	8	8	8	8	8	
	Employees ( <i>thousands</i> ) .....	1	1	1	1	1	
	Capacity utilization ( <i>percent</i> ) .....	88	92	90	90	90	
	U.S. shipments ( <i>million dollars</i> ) .....	135	145	148	152	160	
	U.S. exports ( <i>million dollars</i> ) .....	31	33	35	36	42	
	U.S. imports ( <i>million dollars</i> ) .....	80	94	97	90	102	
	Apparent U.S. consumption ( <i>million dollars</i> ) .....	184	206	210	206	220	
	Trade balance ( <i>million dollars</i> ) .....	-49	-61	-62	-54	-60	
	Ratio of imports to apparent consumption ( <i>percent</i> ) ...	43.5	45.6	46.2	43.7	46.4	
	Ratio of exports to shipments ( <i>percent</i> ) .....	23.0	22.8	23.6	23.7	26.3	
	CH049	Natural rubber:					
		Establishments ( <i>number</i> ) .....	(1)	(1)	(1)	(1)	(1)
Employees ( <i>thousands</i> ) .....		(1)	(1)	(1)	(1)	(1)	
Capacity utilization ( <i>percent</i> ) .....		(1)	(1)	(1)	(1)	(1)	
U.S. shipments ( <i>million dollars</i> ) .....		0	0	0	0	0	
U.S. exports ( <i>million dollars</i> ) .....		36	31	27	33	42	
U.S. imports ( <i>million dollars</i> ) .....		663	770	852	965	1,629	
Apparent U.S. consumption ( <i>million dollars</i> ) .....		627	739	825	932	1,587	
Trade balance ( <i>million dollars</i> ) .....		-627	-739	-825	-932	-1,587	
Ratio of imports to apparent consumption ( <i>percent</i> ) ...		105.7	104.2	103.3	103.5	102.6	
Ratio of exports to shipments ( <i>percent</i> ) .....		(1)	(1)	(1)	(1)	(1)	

<sup>1</sup> Not available.

**Table B-4**  
**Energy-related products: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH001	Electrical energy:					
	Establishments ( <i>number</i> )	3,225	3,225	3,225	3,225	3,225
	Employees ( <i>thousands</i> )	(1)	(1)	(1)	(1)	(1)
	Capacity utilization ( <i>percent</i> )	100	100	100	100	100
	U.S. shipments ( <i>million dollars</i> )	145,800	153,831	163,261	185,062	190,428
	U.S. exports ( <i>million dollars</i> )	54	64	61	30	47
	U.S. imports ( <i>million dollars</i> )	487	590	662	960	856
	Apparent U.S. consumption ( <i>million dollars</i> )	146,233	154,357	163,862	185,992	191,237
	Trade balance ( <i>million dollars</i> )	-433	-526	-601	-930	-809
	Ratio of imports to apparent consumption ( <i>percent</i> )	0.3	0.4	0.4	0.5	0.4
Ratio of exports to shipments ( <i>percent</i> )	0.0	0.0	0.0	0.0	0.0	
CH002	Nuclear materials:					
	Establishments ( <i>number</i> )	40	(1)	(1)	(1)	(1)
	Employees ( <i>thousands</i> )	30	(1)	(1)	(1)	(1)
	Capacity utilization ( <i>percent</i> )	58	(1)	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	3,800	(1)	(1)	(1)	(1)
	U.S. exports ( <i>million dollars</i> )	1,120	1,247	1,139	1,226	965
	U.S. imports ( <i>million dollars</i> )	1,092	1,080	930	1,114	1,127
	Apparent U.S. consumption ( <i>million dollars</i> )	3,772	(1)	(1)	(1)	(1)
	Trade balance ( <i>million dollars</i> )	28	167	209	112	-162
	Ratio of imports to apparent consumption ( <i>percent</i> )	29.0	(1)	(1)	(1)	(1)
Ratio of exports to shipments ( <i>percent</i> )	29.5	(1)	(1)	(1)	(1)	
CH003	Coal, coke, and related chemical products:					
	Establishments ( <i>number</i> )	525	523	520	520	520
	Employees ( <i>thousands</i> )	129	160	155	150	150
	Capacity utilization ( <i>percent</i> )	85	85	85	85	85
	U.S. shipments ( <i>million dollars</i> )	22,346	23,461	25,980	30,000	29,700
	U.S. exports ( <i>million dollars</i> )	4,990	4,723	3,587	3,464	4,328
	U.S. imports ( <i>million dollars</i> )	453	536	603	799	847
	Apparent U.S. consumption ( <i>million dollars</i> )	17,809	19,274	22,996	27,335	26,219
	Trade balance ( <i>million dollars</i> )	4,537	4,187	2,984	2,665	3,481
	Ratio of imports to apparent consumption ( <i>percent</i> )	2.5	2.8	2.6	2.9	3.2
Ratio of exports to shipments ( <i>percent</i> )	22.3	20.1	13.8	11.5	14.6	
CH004	Crude petroleum:					
	Establishments ( <i>number</i> )	18,000	18,000	18,000	18,000	18,000
	Employees ( <i>thousands</i> )	204	204	204	204	204
	Capacity utilization ( <i>percent</i> )	100	100	100	100	100
	U.S. shipments ( <i>million dollars</i> )	45,800	41,750	35,613	34,000	34,846
	U.S. exports ( <i>million dollars</i> )	35	27	20	44	1
	U.S. imports ( <i>million dollars</i> )	37,374	38,104	38,248	38,530	42,077
	Apparent U.S. consumption ( <i>million dollars</i> )	83,139	79,827	73,841	72,486	76,922
	Trade balance ( <i>million dollars</i> )	-37,339	-38,077	-38,228	-38,486	-42,076
	Ratio of imports to apparent consumption ( <i>percent</i> )	45.0	47.7	51.8	53.2	54.7
Ratio of exports to shipments ( <i>percent</i> )	0.1	0.1	0.1	0.1	0.0	
CH005	Petroleum products:					
	Establishments ( <i>number</i> )	190	190	190	190	190
	Employees ( <i>thousands</i> )	75	75	75	75	75
	Capacity utilization ( <i>percent</i> )	85	85	85	85	85
	U.S. shipments ( <i>million dollars</i> )	129,291	120,565	127,488	130,000	131,549
	U.S. exports ( <i>million dollars</i> )	7,461	6,603	6,654	6,014	6,583
	U.S. imports ( <i>million dollars</i> )	12,578	11,260	11,041	10,450	9,777
	Apparent U.S. consumption ( <i>million dollars</i> )	134,408	125,222	131,875	134,436	134,743
	Trade balance ( <i>million dollars</i> )	-5,117	-4,657	-4,387	-4,436	-3,194
	Ratio of imports to apparent consumption ( <i>percent</i> )	9.4	9.0	8.4	7.8	7.3
Ratio of exports to shipments ( <i>percent</i> )	5.8	5.5	5.2	4.6	5.0	
CH006	Natural gas and components:					
	Establishments ( <i>number</i> )	(1)	(1)	(1)	(1)	(1)
	Employees ( <i>thousands</i> )	200	200	200	205	205
	Capacity utilization ( <i>percent</i> )	80	80	80	80	80
	U.S. shipments ( <i>million dollars</i> )	75,000	75,000	77,000	76,000	76,000
	U.S. exports ( <i>million dollars</i> )	700	759	603	568	775
	U.S. imports ( <i>million dollars</i> )	3,358	3,595	4,421	5,201	5,157
	Apparent U.S. consumption ( <i>million dollars</i> )	77,658	77,836	80,818	80,633	80,382
	Trade balance ( <i>million dollars</i> )	-2,658	-2,836	-3,818	-4,633	-4,382
	Ratio of imports to apparent consumption ( <i>percent</i> )	4.3	4.6	5.5	6.5	6.4
Ratio of exports to shipments ( <i>percent</i> )	0.9	1.0	0.8	0.7	1.0	
CH007	Major primary olefins:					
	Establishments ( <i>number</i> )	37	37	37	37	37
	Employees ( <i>thousands</i> )	5	5	5	5	5
	Capacity utilization ( <i>percent</i> )	93	95	94	97	98
	U.S. shipments ( <i>million dollars</i> )	11,589	12,100	12,300	13,200	13,300
	U.S. exports ( <i>million dollars</i> )	222	225	148	123	145
	U.S. imports ( <i>million dollars</i> )	188	200	193	289	496
Apparent U.S. consumption ( <i>million dollars</i> )	11,555	12,075	12,345	13,366	13,651	

See footnote at end of table.

**Table B-4—Continued**  
**Energy-related products: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH007	Major primary olefins— <i>Continued</i>					
	Trade balance ( <i>million dollars</i> ) . . . . .	34	25	-45	-166	-351
	Ratio of imports to apparent consumption ( <i>percent</i> ) . . .	1.6	1.7	1.6	2.2	3.6
	Ratio of exports to shipments ( <i>percent</i> ) . . . . .	1.9	1.9	1.2	0.9	1.1

<sup>1</sup> Not available.

**Table B-5**  
**Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995	
CH050	Manmade fibers and filament yarns:						
	Establishments ( <i>number</i> )	220	230	230	230	230	
	Employees ( <i>thousands</i> )	75	73	69	69	68	
	Capacity utilization ( <i>percent</i> )	83	82	84	85	89	
	U.S. shipments ( <i>million dollars</i> )	12,581	12,862	13,100	14,100	14,700	
	U.S. exports ( <i>million dollars</i> )	1,608	1,434	1,393	1,585	2,064	
	U.S. imports ( <i>million dollars</i> )	780	900	1,126	1,299	1,381	
	Apparent U.S. consumption ( <i>million dollars</i> )	11,753	12,328	12,833	13,814	14,017	
	Trade balance ( <i>million dollars</i> )	828	534	267	286	683	
	Ratio of imports to apparent consumption ( <i>percent</i> )	6.6	7.3	8.8	9.4	9.9	
	Ratio of exports to shipments ( <i>percent</i> )	12.8	11.1	10.6	11.2	14.0	
	CH051	Spun yarns and miscellaneous yarns:					
		Establishments ( <i>number</i> )	455	465	465	460	468
Employees ( <i>thousands</i> )		88	86	83	82	81	
Capacity utilization ( <i>percent</i> )		87	86	(1)	(1)	(1)	
U.S. shipments ( <i>million dollars</i> )		8,307	8,540	8,583	8,070	7,900	
U.S. exports ( <i>million dollars</i> )		494	434	347	458	574	
U.S. imports ( <i>million dollars</i> )		404	474	497	594	613	
Apparent U.S. consumption ( <i>million dollars</i> )		8,217	8,580	8,733	8,206	7,939	
Trade balance ( <i>million dollars</i> )		90	-40	-150	-136	-39	
Ratio of imports to apparent consumption ( <i>percent</i> )		4.9	5.5	5.7	7.2	7.7	
Ratio of exports to shipments ( <i>percent</i> )		5.9	5.1	4.0	5.7	7.3	
CH052		Broadwoven fabrics:					
		Establishments ( <i>number</i> )	1,400	1,330	1,330	2,086	1,976
	Employees ( <i>thousands</i> )	242	242	243	225	226	
	Capacity utilization ( <i>percent</i> )	85	89	92	93	90	
	U.S. shipments ( <i>million dollars</i> )	20,540	22,040	22,330	22,720	23,200	
	U.S. exports ( <i>million dollars</i> )	1,321	1,471	1,592	1,747	1,888	
	U.S. imports ( <i>million dollars</i> )	2,950	3,223	3,339	3,362	3,462	
	Apparent U.S. consumption ( <i>million dollars</i> )	22,169	23,792	24,077	24,335	24,774	
	Trade balance ( <i>million dollars</i> )	-1,629	-1,752	-1,747	-1,615	-1,574	
	Ratio of imports to apparent consumption ( <i>percent</i> )	13.3	13.5	13.9	13.8	14.0	
	Ratio of exports to shipments ( <i>percent</i> )	6.4	6.7	7.1	7.7	8.1	
	CH053	Knit fabrics:					
		Establishments ( <i>number</i> )	650	664	670	670	670
Employees ( <i>thousands</i> )		48	49	49	49	49	
Capacity utilization ( <i>percent</i> )		77	74	(1)	(1)	(1)	
U.S. shipments ( <i>million dollars</i> )		6,541	7,412	7,469	7,530	7,400	
U.S. exports ( <i>million dollars</i> )		287	328	322	344	437	
U.S. imports ( <i>million dollars</i> )		183	217	286	336	334	
Apparent U.S. consumption ( <i>million dollars</i> )		6,437	7,301	7,433	7,522	7,297	
Trade balance ( <i>million dollars</i> )		104	111	36	8	103	
Ratio of imports to apparent consumption ( <i>percent</i> )		2.8	3.0	3.8	4.5	4.6	
Ratio of exports to shipments ( <i>percent</i> )		4.4	4.4	4.3	4.6	5.9	
CH054		Miscellaneous fabrics:					
		Establishments ( <i>number</i> )	260	275	275	275	275
	Employees ( <i>thousands</i> )	27	25	26	26	25	
	Capacity utilization ( <i>percent</i> )	79	78	78	80	80	
	U.S. shipments ( <i>million dollars</i> )	1,250	1,320	1,340	1,370	1,400	
	U.S. exports ( <i>million dollars</i> )	174	179	199	234	268	
	U.S. imports ( <i>million dollars</i> )	86	100	105	130	151	
	Apparent U.S. consumption ( <i>million dollars</i> )	1,162	1,241	1,246	1,266	1,283	
	Trade balance ( <i>million dollars</i> )	88	79	94	104	117	
	Ratio of imports to apparent consumption ( <i>percent</i> )	7.4	8.1	8.4	10.3	11.8	
	Ratio of exports to shipments ( <i>percent</i> )	13.9	13.6	14.9	17.1	19.1	
	CH055	Coated, covered, impregnated or laminated textile fabrics:					
		Establishments ( <i>number</i> )	250	260	279	275	270
Employees ( <i>thousands</i> )		11	11	10	11	11	
Capacity utilization ( <i>percent</i> )		81	77	78	80	80	
U.S. shipments ( <i>million dollars</i> )		1,868	2,055	2,100	2,200	2,300	
U.S. exports ( <i>million dollars</i> )		313	360	370	450	492	
U.S. imports ( <i>million dollars</i> )		189	200	206	227	243	
Apparent U.S. consumption ( <i>million dollars</i> )		1,744	1,895	1,936	1,977	2,051	
Trade balance ( <i>million dollars</i> )		124	160	164	223	249	
Ratio of imports to apparent consumption ( <i>percent</i> )		10.8	10.6	10.6	11.5	11.8	
Ratio of exports to shipments ( <i>percent</i> )		16.8	17.5	17.6	20.5	21.4	
CH056		Cordage, nets, and netting:					
		Establishments ( <i>number</i> )	188	204	200	195	200
	Employees ( <i>thousands</i> )	7	7	7	7	7	
	Capacity utilization ( <i>percent</i> )	75	82	80	80	70	
	U.S. shipments ( <i>million dollars</i> )	566	564	559	750	770	
	U.S. exports ( <i>million dollars</i> )	48	52	50	43	48	
	U.S. imports ( <i>million dollars</i> )	127	124	123	147	162	
	Apparent U.S. consumption ( <i>million dollars</i> )	645	636	632	854	884	

See footnotes at end of table.

Table B-5—Continued

## Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH056	Cordage, nets, and netting—Continued					
	Trade balance (million dollars)	-79	-72	-73	-104	-114
	Ratio of imports to apparent consumption (percent)	19.7	19.5	19.5	17.2	18.3
	Ratio of exports to shipments (percent)	8.5	9.2	8.9	5.7	6.2
CH057	Certain textile articles and fabrics suitable for industrial use:					
	Establishments (number)	75	78	80	80	78
	Employees (thousands)	15	15	14	14	13
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	3,050	3,100	3,250	3,500	3,400
	U.S. exports (million dollars)	211	268	277	282	277
	U.S. imports (million dollars)	142	144	177	202	235
	Apparent U.S. consumption (million dollars)	2,981	2,976	3,150	3,420	3,358
	Trade balance (million dollars)	69	124	100	80	42
	Ratio of imports to apparent consumption (percent)	4.8	4.8	5.6	5.9	7.0
	Ratio of exports to shipments (percent)	6.9	8.6	8.5	8.1	8.1
CH058	Miscellaneous textiles and articles:					
	Establishments (number)	3,800	3,800	3,800	3,800	3,600
	Employees (thousands)	83	83	86	85	83
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	7,000	7,200	7,500	7,875	8,270
	U.S. exports (million dollars)	605	709	793	848	976
	U.S. imports (million dollars)	794	894	983	1,179	1,417
	Apparent U.S. consumption (million dollars)	7,189	7,385	7,690	8,206	8,711
	Trade balance (million dollars)	-189	-185	-190	-331	-441
	Ratio of imports to apparent consumption (percent)	11.0	12.1	12.8	14.4	16.3
	Ratio of exports to shipments (percent)	8.6	9.8	10.6	10.8	11.8
CH059	Sacks and bags of textile materials:					
	Establishments (number)	270	280	260	260	250
	Employees (thousands)	5	6	6	6	5
	Capacity utilization (percent)	77	73	70	70	70
	U.S. shipments (million dollars)	299	420	430	440	430
	U.S. exports (million dollars)	16	17	30	22	26
	U.S. imports (million dollars)	52	43	50	52	76
	Apparent U.S. consumption (million dollars)	335	446	450	470	480
	Trade balance (million dollars)	-36	-26	-20	-30	-50
	Ratio of imports to apparent consumption (percent)	15.5	9.6	11.1	11.1	15.8
	Ratio of exports to shipments (percent)	5.4	4.0	7.0	5.0	6.0
CH060	Carpets and rugs:					
	Establishments (number)	450	450	475	475	447
	Employees (thousands)	49	49	51	52	52
	Capacity utilization (percent)	75	82	84	84	84
	U.S. shipments (million dollars)	7,980	8,749	9,318	9,530	9,800
	U.S. exports (million dollars)	704	725	730	713	686
	U.S. imports (million dollars)	591	709	671	748	858
	Apparent U.S. consumption (million dollars)	7,867	8,733	9,259	9,565	9,972
	Trade balance (million dollars)	113	16	59	-35	-172
	Ratio of imports to apparent consumption (percent)	7.5	8.1	7.2	7.8	8.6
	Ratio of exports to shipments (percent)	8.8	8.3	7.8	7.5	7.0
CH061	Home furnishings:					
	Establishments (number)	1,550	1,600	1,650	1,650	1,620
	Employees (thousands)	67	66	65	66	72
	Capacity utilization (percent)	68	82	80	85	85
	U.S. shipments (million dollars)	6,800	6,900	7,000	7,350	7,500
	U.S. exports (million dollars)	251	249	253	261	266
	U.S. imports (million dollars)	726	827	939	1,075	1,258
	Apparent U.S. consumption (million dollars)	7,275	7,478	7,686	8,164	8,492
	Trade balance (million dollars)	-475	-578	-686	-814	-992
	Ratio of imports to apparent consumption (percent)	10.0	11.1	12.2	13.2	14.8
	Ratio of exports to shipments (percent)	3.7	3.6	3.6	3.6	3.5
CH062	Men's and boys' suits and sport coats:					
	Establishments (number)	345	330	314	304	313
	Employees (thousands)	34	37	35	34	31
	Capacity utilization (percent)	88	85	82	87	82
	U.S. shipments (million dollars)	1,900	2,044	1,860	1,937	1,680
	U.S. exports (million dollars)	98	114	125	148	149
	U.S. imports (million dollars)	561	662	664	748	850
	Apparent U.S. consumption (million dollars)	2,363	2,592	2,399	2,537	2,381
	Trade balance (million dollars)	-463	-548	-539	-600	-701
	Ratio of imports to apparent consumption (percent)	23.7	25.5	27.7	29.5	35.7
	Ratio of exports to shipments (percent)	5.2	5.6	6.7	7.6	8.9
CH063	Men's and boys' coats and jackets:					
	Establishments (number)	394	411	423	410	410
	Employees (thousands)	25	24	26	24	24
	Capacity utilization (percent)	85	86	87	90	91

See footnotes at end of table.

**Table B-5—Continued**  
**Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH063	Men's and boys' coats and jackets— <i>Continued</i>					
	U.S. shipments (million dollars)	1,023	1,232	1,253	1,217	1,276
	U.S. exports (million dollars)	81	103	102	136	125
	U.S. imports (million dollars)	1,039	1,285	1,563	1,773	1,692
	Apparent U.S. consumption (million dollars)	1,981	2,414	2,714	2,854	2,843
	Trade balance (million dollars)	-958	-1,182	-1,461	-1,637	-1,567
	Ratio of imports to apparent consumption (percent)	52.4	53.2	57.6	62.1	59.5
	Ratio of exports to shipments (percent)	7.9	8.4	8.1	11.2	9.8
	CH064	Men's and boys' trousers:				
Establishments (number)		753	738	726	713	732
Employees (thousands)		105	105	102	101	100
Capacity utilization (percent)		86	90	90	92	88
U.S. shipments (million dollars)		6,676	7,295	7,480	8,384	8,074
U.S. exports (million dollars)		663	843	974	1,050	1,082
U.S. imports (million dollars)		2,304	2,666	2,797	3,145	3,755
Apparent U.S. consumption (million dollars)		8,317	9,118	9,303	10,479	10,747
Trade balance (million dollars)		-1,641	-1,823	-1,823	-2,095	-2,673
Ratio of imports to apparent consumption (percent)	27.7	29.2	30.1	30.0	34.9	
Ratio of exports to shipments (percent)	9.9	11.6	13.0	12.5	13.4	
CH065	Women's and girls' trousers:					
	Establishments (number)	1,818	1,760	1,712	1,700	1,835
	Employees (thousands)	68	68	66	64	64
	Capacity utilization (percent)	90	92	94	93	94
	U.S. shipments (million dollars)	3,827	4,389	5,143	5,099	5,195
	U.S. exports (million dollars)	215	312	325	409	486
	U.S. imports (million dollars)	2,737	3,342	3,354	3,583	3,670
	Apparent U.S. consumption (million dollars)	6,349	7,419	8,172	8,273	8,379
	Trade balance (million dollars)	-2,522	-3,030	-3,029	-3,174	-3,184
Ratio of imports to apparent consumption (percent)	43.1	45.0	41.0	43.3	43.8	
Ratio of exports to shipments (percent)	5.6	7.1	6.3	8.0	9.4	
CH066	Shirts and blouses:					
	Establishments (number)	1,957	2,030	2,004	1,986	2,066
	Employees (thousands)	125	133	133	122	117
	Capacity utilization (percent)	90	88	89	89	87
	U.S. shipments (million dollars)	9,364	10,697	11,329	11,764	11,403
	U.S. exports (million dollars)	455	664	854	1,021	1,285
	U.S. imports (million dollars)	7,410	9,173	10,042	10,840	11,986
	Apparent U.S. consumption (million dollars)	16,319	19,206	20,517	21,583	22,104
	Trade balance (million dollars)	-6,955	-8,509	-9,188	-9,819	-10,701
Ratio of imports to apparent consumption (percent)	45.4	47.8	48.9	50.2	54.2	
Ratio of exports to shipments (percent)	4.9	6.2	7.5	8.7	11.3	
CH067	Sweaters:					
	Establishments (number)	329	315	312	314	327
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	90	88	90	90	76
	U.S. shipments (million dollars)	737	813	895	896	752
	U.S. exports (million dollars)	27	27	32	30	32
	U.S. imports (million dollars)	1,917	2,149	1,961	2,052	1,750
	Apparent U.S. consumption (million dollars)	2,627	2,935	2,824	2,918	2,470
	Trade balance (million dollars)	-1,890	-2,122	-1,929	-2,022	-1,718
Ratio of imports to apparent consumption (percent)	73.0	73.2	69.4	70.3	70.9	
Ratio of exports to shipments (percent)	3.7	3.3	3.6	3.3	4.3	
CH068	Women's and girls' suits, skirts, and coats:					
	Establishments (number)	1,020	1,060	1,081	1,016	966
	Employees (thousands)	50	52	54	48	45
	Capacity utilization (percent)	93	92	90	86	85
	U.S. shipments (million dollars)	3,587	3,809	4,082	3,656	3,491
	U.S. exports (million dollars)	204	260	283	255	274
	U.S. imports (million dollars)	2,635	3,011	3,244	3,261	3,548
	Apparent U.S. consumption (million dollars)	6,018	6,560	7,043	6,662	6,765
	Trade balance (million dollars)	-2,431	-2,751	-2,961	-3,006	-3,274
Ratio of imports to apparent consumption (percent)	43.8	45.9	46.1	48.9	52.4	
Ratio of exports to shipments (percent)	5.7	6.8	6.9	7.0	7.8	
CH069	Women's and girls' dresses:					
	Establishments (number)	2,480	2,375	2,314	2,182	2,056
	Employees (thousands)	70	63	59	55	49
	Capacity utilization (percent)	87	83	85	82	85
	U.S. shipments (million dollars)	4,530	4,360	4,633	4,782	4,679
	U.S. exports (million dollars)	65	98	105	103	112
	U.S. imports (million dollars)	938	1,011	1,082	1,260	1,443
	Apparent U.S. consumption (million dollars)	5,403	5,273	5,610	5,939	6,010
	Trade balance (million dollars)	-873	-913	-977	-1,157	-1,331
Ratio of imports to apparent consumption (percent)	17.4	19.2	19.3	21.2	24.0	
Ratio of exports to shipments (percent)	1.4	2.2	2.3	2.2	2.4	

See footnotes at end of table.

**Table B-5—Continued**  
**Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH070	Robes, nightwear, and underwear:					
	Establishments ( <i>number</i> )	719	707	688	664	624
	Employees ( <i>thousands</i> )	73	66	62	59	55
	Capacity utilization ( <i>percent</i> )	93	94	92	92	94
	U.S. shipments ( <i>million dollars</i> )	3,815	3,921	3,916	4,021	4,679
	U.S. exports ( <i>million dollars</i> )	302	382	512	569	712
	U.S. imports ( <i>million dollars</i> )	1,293	1,563	1,909	2,197	2,673
	Apparent U.S. consumption ( <i>million dollars</i> )	4,806	5,102	5,313	5,649	6,640
	Trade balance ( <i>million dollars</i> )	-991	-1,181	-1,397	-1,628	-1,961
	Ratio of imports to apparent consumption ( <i>percent</i> )	26.9	30.6	35.9	38.9	40.3
	Ratio of exports to shipments ( <i>percent</i> )	7.9	9.7	13.1	14.2	15.2
CH071	Hosiery:					
	Establishments ( <i>number</i> )	666	691	679	679	675
	Employees ( <i>thousands</i> )	70	70	69	67	65
	Capacity utilization ( <i>percent</i> )	90	63	85	88	85
	U.S. shipments ( <i>million dollars</i> )	3,941	4,426	4,691	4,832	4,784
	U.S. exports ( <i>million dollars</i> )	98	135	206	220	257
	U.S. imports ( <i>million dollars</i> )	314	178	231	291	363
	Apparent U.S. consumption ( <i>million dollars</i> )	4,157	4,469	4,716	4,903	4,890
	Trade balance ( <i>million dollars</i> )	-216	-43	-25	-71	-106
	Ratio of imports to apparent consumption ( <i>percent</i> )	7.6	4.0	4.9	5.9	7.4
	Ratio of exports to shipments ( <i>percent</i> )	2.5	3.1	4.4	4.6	5.4
CH072	Body-supporting garments:					
	Establishments ( <i>number</i> )	111	103	110	104	101
	Employees ( <i>thousands</i> )	11	12	12	12	12
	Capacity utilization ( <i>percent</i> )	88	90	88	91	92
	U.S. shipments ( <i>million dollars</i> )	1,368	1,567	1,588	1,795	1,867
	U.S. exports ( <i>million dollars</i> )	231	278	316	344	431
	U.S. imports ( <i>million dollars</i> )	444	557	639	751	927
	Apparent U.S. consumption ( <i>million dollars</i> )	1,581	1,846	1,911	2,202	2,363
	Trade balance ( <i>million dollars</i> )	-213	-279	-323	-407	-496
	Ratio of imports to apparent consumption ( <i>percent</i> )	28.1	30.2	33.4	34.1	39.2
	Ratio of exports to shipments ( <i>percent</i> )	16.9	17.7	19.9	19.2	23.1
CH073	Neckwear, handkerchiefs and scarves <sup>2</sup> :					
	Establishments ( <i>number</i> )	158	167	167	171	160
	Employees ( <i>thousands</i> )	7	7	7	7	6
	Capacity utilization ( <i>percent</i> )	87	86	82	80	75
	U.S. shipments ( <i>million dollars</i> )	443	544	484	416	354
	U.S. exports ( <i>million dollars</i> )	20	21	31	26	29
	U.S. imports ( <i>million dollars</i> )	283	294	322	336	339
	Apparent U.S. consumption ( <i>million dollars</i> )	706	817	775	726	664
	Trade balance ( <i>million dollars</i> )	-263	-273	-291	-310	-310
	Ratio of imports to apparent consumption ( <i>percent</i> )	40.1	36.0	41.5	46.3	51.1
	Ratio of exports to shipments ( <i>percent</i> )	4.5	3.9	6.4	6.3	8.2
CH074	Gloves, including gloves for sports:					
	Establishments ( <i>number</i> )	205	185	175	160	160
	Employees ( <i>thousands</i> )	11	10	10	8	8
	Capacity utilization ( <i>percent</i> )	77	77	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	795	812	868	870	910
	U.S. exports ( <i>million dollars</i> )	165	166	157	168	175
	U.S. imports ( <i>million dollars</i> )	912	1,124	1,349	1,499	1,733
	Apparent U.S. consumption ( <i>million dollars</i> )	1,542	1,770	2,060	2,201	2,468
	Trade balance ( <i>million dollars</i> )	-747	-958	-1,192	-1,331	-1,558
	Ratio of imports to apparent consumption ( <i>percent</i> )	59.1	63.5	65.5	68.1	70.2
	Ratio of exports to shipments ( <i>percent</i> )	20.8	20.4	18.1	19.3	19.2
CH075	Headwear:					
	Establishments ( <i>number</i> )	310	315	335	345	360
	Employees ( <i>thousands</i> )	16	19	20	21	21
	Capacity utilization ( <i>percent</i> )	84	85	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	801	867	939	970	990
	U.S. exports ( <i>million dollars</i> )	89	103	109	112	115
	U.S. imports ( <i>million dollars</i> )	495	687	778	821	842
	Apparent U.S. consumption ( <i>million dollars</i> )	1,207	1,451	1,608	1,679	1,717
	Trade balance ( <i>million dollars</i> )	-406	-584	-669	-709	-727
	Ratio of imports to apparent consumption ( <i>percent</i> )	41.0	47.3	48.4	48.9	49.0
	Ratio of exports to shipments ( <i>percent</i> )	11.1	11.9	11.6	11.5	11.6
CH076	Leather apparel and accessories:					
	Establishments ( <i>number</i> )	470	430	405	382	367
	Employees ( <i>thousands</i> )	11	11	11	10	9
	Capacity utilization ( <i>percent</i> )	77	79	(1)	(1)	(1)
	U.S. shipments ( <i>million dollars</i> )	545	547	556	555	530
	U.S. exports ( <i>million dollars</i> )	96	99	97	93	122
	U.S. imports ( <i>million dollars</i> )	1,226	1,411	1,418	1,456	1,199
	Apparent U.S. consumption ( <i>million dollars</i> )	1,675	1,859	1,877	1,918	1,607

See footnotes at end of table.

Table B-5—Continued

## Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
CH076	Leather apparel and accessories—Continued					
	Trade balance (million dollars)	-1,130	-1,312	-1,321	-1,363	-1,077
	Ratio of imports to apparent consumption (percent)	73.2	75.9	75.5	75.9	74.6
	Ratio of exports to shipments (percent)	17.6	18.1	17.4	16.8	23.0
CH077	Fur apparel and other fur articles:					
	Establishments (number)	315	249	213	190	178
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	94	95	(1)	(1)	(1)
	U.S. shipments (million dollars)	257	199	188	175	180
	U.S. exports (million dollars)	61	67	55	58	72
	U.S. imports (million dollars)	172	140	173	187	146
	Apparent U.S. consumption (million dollars)	368	272	306	304	254
	Trade balance (million dollars)	-111	-73	-118	-129	-74
	Ratio of imports to apparent consumption (percent)	46.7	51.5	56.5	61.5	57.5
	Ratio of exports to shipments (percent)	23.7	33.7	29.3	33.1	40.0
CH078	Rubber, plastic, and coated-fabric apparel:					
	Establishments (number)	65	(1)	(1)	(1)	(1)
	Employees (thousands)	3	3	3	2	2
	Capacity utilization (percent)	63	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	145	140	122	120	115
	U.S. exports (million dollars)	54	48	70	87	91
	U.S. imports (million dollars)	127	140	160	172	192
	Apparent U.S. consumption (million dollars)	218	232	212	205	216
	Trade balance (million dollars)	-73	-92	-90	-85	-101
	Ratio of imports to apparent consumption (percent)	58.3	60.3	75.5	83.9	88.9
	Ratio of exports to shipments (percent)	37.2	34.3	57.4	72.5	79.1
CH079	Nonwoven and related products:					
	Establishments (number)	80	82	85	90	90
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	86	85	90	90	90
	U.S. shipments (million dollars)	3,377	3,400	3,550	3,750	3,900
	U.S. exports (million dollars)	378	407	447	526	577
	U.S. imports (million dollars)	360	436	435	437	476
	Apparent U.S. consumption (million dollars)	3,359	3,429	3,538	3,661	3,799
	Trade balance (million dollars)	18	-29	12	89	101
	Ratio of imports to apparent consumption (percent)	10.7	12.7	12.3	11.9	12.5
	Ratio of exports to shipments (percent)	11.2	12.0	12.6	14.0	14.8
CH080	Other wearing apparel:					
	Establishments (number)	(1)	(1)	(1)	(1)	(1)
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	(1)	(1)	(1)	(1)	(1)
	U.S. exports (million dollars)	286	368	448	603	910
	U.S. imports (million dollars)	1,259	1,612	2,006	2,292	2,297
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	-973	-1,244	-1,558	-1,689	-1,387
	Ratio of imports to apparent consumption (percent)	(1)	(1)	(1)	(1)	(1)
	Ratio of exports to shipments (percent)	(1)	(1)	(1)	(1)	(1)
CH081	Apparel fasteners:					
	Establishments (number)	110	104	96	93	90
	Employees (thousands)	6	6	5	5	5
	Capacity utilization (percent)	84	85	86	87	85
	U.S. shipments (million dollars)	468	475	480	500	485
	U.S. exports (million dollars)	59	75	81	88	84
	U.S. imports (million dollars)	109	120	122	122	127
	Apparent U.S. consumption (million dollars)	518	520	521	534	528
	Trade balance (million dollars)	-50	-45	-41	-34	-43
	Ratio of imports to apparent consumption (percent)	21.0	23.1	23.4	22.8	24.1
	Ratio of exports to shipments (percent)	12.6	15.8	16.9	17.6	17.3
CH082	Footwear and footwear parts:					
	Establishments (number)	712	668	665	668	678
	Employees (thousands)	84	80	77	73	66
	Capacity utilization (percent)	80	77	80	82	79
	U.S. shipments (million dollars)	4,323	4,358	4,403	4,593	4,152
	U.S. exports (million dollars)	542	603	604	646	671
	U.S. imports (million dollars)	9,542	10,141	11,105	11,714	12,095
	Apparent U.S. consumption (million dollars)	13,323	13,896	14,904	15,661	15,576
	Trade balance (million dollars)	-9,000	-9,538	-10,501	-11,068	-11,424
	Ratio of imports to apparent consumption (percent)	71.6	73.0	74.5	74.8	77.7
	Ratio of exports to shipments (percent)	12.5	13.8	13.7	14.1	16.2

1 Not available.

2 Includes neckties, mufflers, scarves, shawls, and veils.

**Table B-6**  
**Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:					
	Number of establishments	323	320	320	320	320
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	76	70	72	74	78
	U.S. shipments (million dollars)	2,600	2,400	2,450	2,550	2,700
	U.S. exports (million dollars)	748	847	855	950	1,023
	U.S. imports (million dollars)	87	97	125	153	183
	Apparent U.S. consumption (million dollars)	1,939	1,650	1,720	1,753	1,860
	Trade balance (million dollars)	661	750	730	797	840
	Ratio of imports to apparent consumption (percent)	4.5	5.9	7.3	8.7	9.8
	Ratio of exports to shipments (percent)	28.8	35.3	34.9	37.3	37.9
MM002	Certain miscellaneous mineral substances:					
	Number of establishments	10	10	9	9	8
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	80	84	82	82	80
	U.S. shipments (million dollars)	40	42	40	42	40
	U.S. exports (million dollars)	19	3	3	5	7
	U.S. imports (million dollars)	41	36	33	34	47
	Apparent U.S. consumption (million dollars)	62	75	70	71	80
	Trade balance (million dollars)	-22	-33	-30	-29	-40
	Ratio of imports to apparent consumption (percent)	66.1	48.0	47.1	47.9	58.8
	Ratio of exports to shipments (percent)	47.5	7.1	7.5	11.9	17.5
MM003	Iron ores and concentrates:					
	Number of establishments	23	22	22	23	24
	Employees (thousands)	8	8	8	9	10
	Capacity utilization (percent)	70	73	73	80	92
	U.S. shipments (million dollars)	1,530	1,550	1,510	1,580	1,795
	U.S. exports (million dollars)	156	187	167	162	184
	U.S. imports (million dollars)	437	396	415	510	486
	Apparent U.S. consumption (million dollars)	1,811	1,759	1,758	1,928	2,097
	Trade balance (million dollars)	-281	-209	-248	-348	-302
	Ratio of imports to apparent consumption (percent)	24.1	22.5	23.6	26.5	23.2
	Ratio of exports to shipments (percent)	10.2	12.1	11.1	10.3	10.3
MM004	Copper ores and concentrates:					
	Number of establishments	65	65	50	50	40
	Employees (thousands)	14	14	13	13	13
	Capacity utilization (percent)	85	90	90	90	90
	U.S. shipments (million dollars)	2,350	2,500	2,180	2,720	3,410
	U.S. exports (million dollars)	382	445	342	393	486
	U.S. imports (million dollars)	67	107	42	126	127
	Apparent U.S. consumption (million dollars)	2,035	2,162	1,880	2,453	3,051
	Trade balance (million dollars)	315	338	300	267	359
	Ratio of imports to apparent consumption (percent)	3.3	4.9	2.2	5.1	4.2
	Ratio of exports to shipments (percent)	16.3	17.8	15.7	14.4	14.3
MM005	Lead ores and residues:					
	Number of establishments	15	15	15	16	16
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	64	54	(1)	(1)	(1)
	U.S. shipments (million dollars)	350	300	275	350	390
	U.S. exports (million dollars)	38	32	14	23	25
	U.S. imports (million dollars)	3	2	0	0	2
	Apparent U.S. consumption (million dollars)	315	270	261	327	367
	Trade balance (million dollars)	35	30	14	23	23
	Ratio of imports to apparent consumption (percent)	1.0	0.7	0.0	0.0	0.5
	Ratio of exports to shipments (percent)	10.9	10.7	5.1	6.6	6.4
MM006	Zinc ores and residues:					
	Number of establishments	26	26	26	26	26
	Employees (thousands)	2	2	2	2	3
	Capacity utilization (percent)	86	87	(1)	(1)	(1)
	U.S. shipments (million dollars)	600	675	500	630	700
	U.S. exports (million dollars)	232	250	137	191	242
	U.S. imports (million dollars)	28	46	18	18	13
	Apparent U.S. consumption (million dollars)	396	471	381	457	471
	Trade balance (million dollars)	204	204	119	173	229
	Ratio of imports to apparent consumption (percent)	7.1	9.8	4.7	3.9	2.8
	Ratio of exports to shipments (percent)	38.7	37.0	27.4	30.3	34.6
MM007	Certain ores, concentrates, ash, and residues:					
	Number of establishments	196	186	180	175	175
	Employees (thousands)	5	5	4	4	4
	Capacity utilization (percent)	47	53	50	48	51
	U.S. shipments (million dollars)	540	475	340	410	520
	U.S. exports (million dollars)	292	280	191	301	704
	U.S. imports (million dollars)	473	475	476	508	622
	Apparent U.S. consumption (million dollars)	721	670	625	617	438

See footnotes at end of table.

Table B-6—Continued

## Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM007	Certain ores, concentrates, ash, and residues—Continued					
	Trade balance (million dollars)	-181	-195	-285	-207	82
	Ratio of imports to apparent consumption (percent)	65.6	70.9	76.2	82.3	142.0
	Ratio of exports to shipments (percent)	54.1	58.9	56.2	73.4	135.4
MM008	Precious metal ores and concentrates:					
	Number of establishments	420	430	420	420	420
	Employees (thousands)	17	17	16	15	14
	Capacity utilization (percent)	88	87	80	70	73
	U.S. shipments (million dollars)	2,940	3,115	3,265	3,505	3,389
	U.S. exports (million dollars)	4	5	3	16	8
	U.S. imports (million dollars)	11	4	20	49	87
	Apparent U.S. consumption (million dollars)	2,947	3,114	3,282	3,538	3,468
	Trade balance (million dollars)	-7	1	-17	-33	-79
	Ratio of imports to apparent consumption (percent)	0.4	0.1	0.6	1.4	2.5
	Ratio of exports to shipments (percent)	0.1	0.2	0.1	0.5	0.2
MM009	Certain nonmetallic minerals and articles:					
	Number of establishments	20,000	20,000	20,000	20,000	20,000
	Employees (thousands)	300	300	300	300	300
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	39,000	42,000	45,000	50,000	50,000
	U.S. exports (million dollars)	865	926	861	944	995
	U.S. imports (million dollars)	1,392	1,304	1,438	1,820	2,144
	Apparent U.S. consumption (million dollars)	39,527	42,378	45,577	50,876	51,149
	Trade balance (million dollars)	-527	-378	-577	-876	-1,149
	Ratio of imports to apparent consumption (percent)	3.5	3.1	3.2	3.6	4.2
	Ratio of exports to shipments (percent)	2.2	2.2	1.9	1.9	2.0
MM010	Industrial ceramics:					
	Number of establishments	180	180	190	220	220
	Employees (thousands)	12	12	11	11	11
	Capacity utilization (percent)	73	73	73	74	76
	U.S. shipments (million dollars)	2,200	2,350	2,400	2,500	2,700
	U.S. exports (million dollars)	373	386	387	411	635
	U.S. imports (million dollars)	265	301	330	356	425
	Apparent U.S. consumption (million dollars)	2,092	2,265	2,343	2,445	2,490
	Trade balance (million dollars)	108	85	57	55	210
	Ratio of imports to apparent consumption (percent)	12.7	13.3	14.1	14.6	17.1
	Ratio of exports to shipments (percent)	17.0	16.4	16.1	16.4	23.5
MM011	Ceramic bricks and miscellaneous ceramic construction articles:					
	Number of establishments	328	328	328	328	328
	Employees (thousands)	19	19	19	19	19
	Capacity utilization (percent)	71	71	75	75	75
	U.S. shipments (million dollars)	900	900	1,000	1,000	1,000
	U.S. exports (million dollars)	18	17	17	19	20
	U.S. imports (million dollars)	20	21	22	15	16
	Apparent U.S. consumption (million dollars)	902	904	1,005	996	996
	Trade balance (million dollars)	-2	-4	-5	4	4
	Ratio of imports to apparent consumption (percent)	2.2	2.3	2.2	1.5	1.6
	Ratio of exports to shipments (percent)	2.0	1.9	1.7	1.9	2.0
MM012	Ceramic floor and wall tiles:					
	Number of establishments	110	110	110	110	110
	Employees (thousands)	10	10	10	10	10
	Capacity utilization (percent)	71	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	639	640	661	655	661
	U.S. exports (million dollars)	21	19	23	24	26
	U.S. imports (million dollars)	365	419	472	519	562
	Apparent U.S. consumption (million dollars)	983	1,040	1,110	1,150	1,197
	Trade balance (million dollars)	-344	-400	-449	-495	-536
	Ratio of imports to apparent consumption (percent)	37.1	40.3	42.5	45.1	47.0
	Ratio of exports to shipments (percent)	3.3	3.0	3.5	3.7	3.9
MM013	Ceramic household articles:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	12	11	11	11	11
	Capacity utilization (percent)	81	83	(1)	(1)	(1)
	U.S. shipments (million dollars)	700	700	710	720	760
	U.S. exports (million dollars)	87	103	110	105	99
	U.S. imports (million dollars)	1,236	1,391	1,426	1,563	1,658
	Apparent U.S. consumption (million dollars)	1,849	1,988	2,026	2,178	2,319
	Trade balance (million dollars)	-1,149	-1,288	-1,316	-1,458	-1,559
	Ratio of imports to apparent consumption (percent)	66.8	70.0	70.4	71.8	71.5
	Ratio of exports to shipments (percent)	12.4	14.7	15.5	14.6	13.0
MM014	Flat glass and certain flat glass products:					
	Number of establishments	1,100	1,100	1,100	1,100	1,100
	Employees (thousands)	51	49	48	48	51
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	6,300	6,700	7,200	7,800	8,500

See footnotes at end of table.

Table B-6—Continued

## Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM014	Flat glass and certain flat glass products—Continued					
	U.S. exports (million dollars)	786	836	951	1,031	1,135
	U.S. imports (million dollars)	584	599	698	864	917
	Apparent U.S. consumption (million dollars)	6,098	6,463	6,947	7,633	8,282
	Trade balance (million dollars)	202	237	253	167	218
	Ratio of imports to apparent consumption (percent)	9.6	9.3	10.0	11.3	11.1
	Ratio of exports to shipments (percent)	12.5	12.5	13.2	13.2	13.4
MM015	Glass containers:					
	Number of establishments	76	76	76	76	76
	Employees (thousands)	35	32	31	29	27
	Capacity utilization (percent)	85	93	(2)	(2)	(2)
	U.S. shipments (million dollars)	4,847	4,816	4,782	4,650	4,400
	U.S. exports (million dollars)	122	155	133	127	129
	U.S. imports (million dollars)	236	263	265	323	377
	Apparent U.S. consumption (million dollars)	4,961	4,924	4,914	4,846	4,648
	Trade balance (million dollars)	-114	-108	-132	-196	-248
	Ratio of imports to apparent consumption (percent)	4.8	5.3	5.4	6.7	8.1
Ratio of exports to shipments (percent)	2.5	3.2	2.8	2.7	2.9	
MM016	Household glassware:					
	Number of establishments	218	218	218	218	218
	Employees (thousands)	16	17	17	19	19
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	1,500	1,600	1,600	1,800	1,800
	U.S. exports (million dollars)	137	150	167	192	198
	U.S. imports (million dollars)	513	533	568	643	729
	Apparent U.S. consumption (million dollars)	1,876	1,983	2,001	2,251	2,331
	Trade balance (million dollars)	-376	-383	-401	-451	-531
	Ratio of imports to apparent consumption (percent)	27.3	26.9	28.4	28.6	31.3
Ratio of exports to shipments (percent)	9.1	9.4	10.4	10.7	11.0	
MM017	Certain glass and glass products:					
	Number of establishments	443	443	443	443	443
	Employees (thousands)	17	19	20	21	21
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,400	2,500	2,600	2,900	2,900
	U.S. exports (million dollars)	361	369	387	437	576
	U.S. imports (million dollars)	318	400	408	518	583
	Apparent U.S. consumption (million dollars)	2,357	2,531	2,621	2,981	2,907
	Trade balance (million dollars)	43	-31	-21	-81	-7
	Ratio of imports to apparent consumption (percent)	13.5	15.8	15.6	17.4	20.1
Ratio of exports to shipments (percent)	15.0	14.8	14.9	15.1	19.9	
MM018	Fiberglass products:					
	Number of establishments	253	253	253	253	253
	Employees (thousands)	34	35	33	34	35
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	4,600	4,900	5,100	5,600	5,700
	U.S. exports (million dollars)	384	392	387	448	490
	U.S. imports (million dollars)	127	160	200	255	294
	Apparent U.S. consumption (million dollars)	4,343	4,668	4,913	5,407	5,504
	Trade balance (million dollars)	257	232	187	193	196
	Ratio of imports to apparent consumption (percent)	2.9	3.4	4.1	4.7	5.3
Ratio of exports to shipments (percent)	8.3	8.0	7.6	8.0	8.6	
MM019	Natural and synthetic gemstones:					
	Number of establishments	418	418	391	391	370
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	600	600	600	800	700
	U.S. exports (million dollars)	324	476	231	268	268
	U.S. imports (million dollars)	4,623	4,783	5,739	6,429	6,666
	Apparent U.S. consumption (million dollars)	4,899	4,907	6,108	6,961	7,098
	Trade balance (million dollars)	-4,299	-4,307	-5,508	-6,161	-6,398
	Ratio of imports to apparent consumption (percent)	94.4	97.5	94.0	92.4	93.9
Ratio of exports to shipments (percent)	54.0	79.3	38.5	33.5	38.3	
MM020	Precious metals and related articles:					
	Number of establishments	100	100	100	100	100
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	6,640	6,735	6,135	6,710	6,453
	U.S. exports (million dollars)	4,216	4,869	9,895	6,531	6,475
	U.S. imports (million dollars)	4,406	4,083	3,994	4,033	4,676
	Apparent U.S. consumption (million dollars)	6,830	5,949	234	4,212	4,654
	Trade balance (million dollars)	-190	786	5,901	2,498	1,799
	Ratio of imports to apparent consumption (percent)	64.5	68.6	1,706.8	95.8	100.5
Ratio of exports to shipments (percent)	63.5	72.3	161.3	97.3	100.3	

See footnotes at end of table.

Table B-6—Continued

## Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM021	Primary iron products:					
	Number of establishments	17	17	17	17	17
	Employees (thousands)	23	22	22	23	23
	Capacity utilization (percent)	85	80	90	94	95
	U.S. shipments (million dollars)	7,965	7,100	7,230	7,320	7,390
	U.S. exports (million dollars)	8	8	8	12	13
	U.S. imports (million dollars)	129	130	213	450	541
	Apparent U.S. consumption (million dollars)	8,086	7,222	7,435	7,758	7,918
	Trade balance (million dollars)	-121	-122	-205	-438	-528
	Ratio of imports to apparent consumption (percent)	1.6	1.8	2.9	5.8	6.8
Ratio of exports to shipments (percent)	0.1	0.1	0.1	0.2	0.2	
MM022	Ferroalloys:					
	Number of establishments	28	27	26	26	25
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	73	64	72	80	85
	U.S. shipments (million dollars)	794	740	785	815	900
	U.S. exports (million dollars)	99	110	95	87	114
	U.S. imports (million dollars)	835	807	760	777	1,245
	Apparent U.S. consumption (million dollars)	1,530	1,437	1,450	1,505	2,031
	Trade balance (million dollars)	-736	-697	-665	-690	-1,131
	Ratio of imports to apparent consumption (percent)	54.6	56.2	52.4	51.6	61.3
Ratio of exports to shipments (percent)	12.5	14.9	12.1	10.7	12.7	
MM023	Iron and steel waste and scrap:					
	Number of establishments	1,250	1,200	1,150	1,175	1,169
	Employees (thousands)	25	23	24	25	25
	Capacity utilization (percent)	78	81	86	90	92
	U.S. shipments (million dollars)	4,580	4,270	5,320	6,230	6,425
	U.S. exports (million dollars)	1,240	1,107	1,323	1,269	1,703
	U.S. imports (million dollars)	149	155	182	238	300
	Apparent U.S. consumption (million dollars)	3,489	3,318	4,179	5,199	5,022
	Trade balance (million dollars)	1,091	952	1,141	1,031	1,403
	Ratio of imports to apparent consumption (percent)	4.3	4.7	4.4	4.6	6.0
Ratio of exports to shipments (percent)	27.1	25.9	24.9	20.4	26.5	
MM024	Abrasives and ferrous powders:					
	Number of establishments	50	50	50	45	45
	Employees (thousands)	20	20	19	19	18
	Capacity utilization (percent)	79	80	78	80	82
	U.S. shipments (million dollars)	2,400	2,500	2,571	2,650	2,700
	U.S. exports (million dollars)	342	380	398	432	410
	U.S. imports (million dollars)	462	495	545	595	633
	Apparent U.S. consumption (million dollars)	2,520	2,615	2,718	2,813	2,923
	Trade balance (million dollars)	-120	-115	-147	-163	-223
	Ratio of imports to apparent consumption (percent)	18.3	18.9	20.1	21.2	21.7
Ratio of exports to shipments (percent)	14.3	15.2	15.5	16.3	15.2	
MM025	Steel mill products, all grades:					
	Number of establishments	860	850	850	850	850
	Employees (thousands)	193	177	168	171	168
	Capacity utilization (percent)	73	81	89	91	92
	U.S. shipments (million dollars)	46,000	49,000	56,000	60,000	61,000
	U.S. exports (million dollars)	3,688	3,046	2,811	3,029	4,665
	U.S. imports (million dollars)	7,886	7,932	8,670	12,435	11,786
	Apparent U.S. consumption (million dollars)	50,198	53,886	61,859	69,406	68,121
	Trade balance (million dollars)	-4,198	-4,886	-5,859	-9,406	-7,121
	Ratio of imports to apparent consumption (percent)	15.7	14.7	14.0	17.9	17.3
Ratio of exports to shipments (percent)	8.0	6.2	5.0	5.0	7.6	
MM026	Steel pipe and tube fittings, and certain cast products:					
	Number of establishments	600	500	500	495	495
	Employees (thousands)	45	43	42	40	40
	Capacity utilization (percent)	80	80	80	80	81
	U.S. shipments (million dollars)	4,000	3,800	3,600	3,700	3,750
	U.S. exports (million dollars)	477	525	484	484	630
	U.S. imports (million dollars)	344	285	310	367	427
	Apparent U.S. consumption (million dollars)	3,867	3,560	3,426	3,583	3,547
	Trade balance (million dollars)	133	240	174	117	203
	Ratio of imports to apparent consumption (percent)	8.9	8.0	9.0	10.2	12.0
Ratio of exports to shipments (percent)	11.9	13.8	13.4	13.1	16.8	
MM027	Fabricated structurals:					
	Number of establishments	2,360	2,242	2,130	2,024	2,020
	Employees (thousands)	73	69	67	66	64
	Capacity utilization (percent)	65	70	85	83	81
	U.S. shipments (million dollars)	8,483	7,947	7,319	8,805	8,601
	U.S. exports (million dollars)	110	99	117	122	143
	U.S. imports (million dollars)	47	45	85	109	143
	Apparent U.S. consumption (million dollars)	8,420	7,893	7,287	8,792	8,601
	Trade balance (million dollars)	63	54	32	13	( <sup>3</sup> )

See footnotes at end of table.

**Table B-6—Continued**  
**Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM027	Fabricated structurals— <i>Continued</i>					
	Ratio of imports to apparent consumption (percent) . . .	0.6	0.6	1.2	1.2	1.7
	Ratio of exports to shipments (percent) . . . . .	1.3	1.2	1.6	1.4	1.7
MM028	Metal construction components:					
	Number of establishments . . . . .	4,200	4,000	3,933	3,867	3,797
	Employees (thousands) . . . . .	126	118	118	116	114
	Capacity utilization (percent) . . . . .	74	77	78	80	80
	U.S. shipments (million dollars) . . . . .	10,834	11,630	10,498	12,629	12,835
	U.S. exports (million dollars) . . . . .	377	396	407	453	483
	U.S. imports (million dollars) . . . . .	139	124	138	181	258
	Apparent U.S. consumption (million dollars) . . . . .	10,596	11,358	10,229	12,357	12,610
	Trade balance (million dollars) . . . . .	238	272	269	272	225
	Ratio of imports to apparent consumption (percent) . . .	1.3	1.1	1.3	1.5	2.0
Ratio of exports to shipments (percent) . . . . .	3.5	3.4	3.9	3.6	3.8	
MM029	Metallic containers:					
	Number of establishments <sup>4</sup> . . . . .	565	540	520	521	521
	Employees (thousands) <sup>4</sup> . . . . .	66	60	58	60	59
	Capacity utilization (percent) <sup>4</sup> . . . . .	85	88	90	90	90
	U.S. shipments (million dollars) <sup>4</sup> . . . . .	17,184	17,080	17,330	18,200	17,500
	U.S. exports (million dollars) . . . . .	511	647	635	642	787
	U.S. imports (million dollars) . . . . .	244	271	282	324	380
	Apparent U.S. consumption (million dollars) <sup>4</sup> . . . . .	16,917	16,704	16,977	17,882	17,093
	Trade balance (million dollars) . . . . .	267	376	353	318	407
	Ratio of imports to apparent consumption (percent) <sup>4</sup> . . .	1.4	1.6	1.7	1.8	2.2
Ratio of exports to shipments (percent) <sup>4</sup> . . . . .	3.0	3.8	3.7	3.5	4.5	
MM030	Wire products of iron, steel, aluminum, copper, and nickel:					
	Number of establishments . . . . .	1,350	1,325	1,300	1,300	1,300
	Employees (thousands) . . . . .	64	60	60	55	55
	Capacity utilization (percent) . . . . .	75	80	85	85	90
	U.S. shipments (million dollars) . . . . .	9,400	9,300	9,500	11,785	11,800
	U.S. exports (million dollars) . . . . .	266	297	337	469	599
	U.S. imports (million dollars) . . . . .	570	642	668	984	1,119
	Apparent U.S. consumption (million dollars) . . . . .	9,704	9,645	9,831	12,300	12,320
	Trade balance (million dollars) . . . . .	-304	-345	-331	-515	-520
	Ratio of imports to apparent consumption (percent) . . .	5.9	6.7	6.8	8.0	9.1
Ratio of exports to shipments (percent) . . . . .	2.8	3.2	3.5	4.0	5.1	
MM031	Chain:					
	Number of establishments . . . . .	33	33	33	33	33
	Employees (thousands) . . . . .	7	7	7	7	7
	Capacity utilization (percent) . . . . .	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) . . . . .	690	683	785	790	798
	U.S. exports (million dollars) . . . . .	343	311	326	401	535
	U.S. imports (million dollars) . . . . .	478	498	556	651	729
	Apparent U.S. consumption (million dollars) . . . . .	825	870	1,015	1,040	992
	Trade balance (million dollars) . . . . .	-135	-187	-230	-250	-194
	Ratio of imports to apparent consumption (percent) . . .	57.9	57.2	54.8	62.6	73.5
Ratio of exports to shipments (percent) . . . . .	49.7	45.5	41.5	50.8	67.0	
MM032	Industrial fasteners of base metal:					
	Number of establishments . . . . .	937	937	935	925	925
	Employees (thousands) . . . . .	52	52	53	52	52
	Capacity utilization (percent) . . . . .	75	75	75	75	85
	U.S. shipments (million dollars) . . . . .	(1)	(1)	5,500	6,050	6,100
	U.S. exports (million dollars) . . . . .	663	719	743	879	1,027
	U.S. imports (million dollars) . . . . .	1,324	1,469	1,643	1,646	1,871
	Apparent U.S. consumption (million dollars) . . . . .	(1)	(1)	6,400	6,817	6,944
	Trade balance (million dollars) . . . . .	-661	-750	-900	-767	-844
	Ratio of imports to apparent consumption (percent) . . .	(1)	(1)	25.7	24.1	26.9
Ratio of exports to shipments (percent) . . . . .	(1)	(1)	13.5	14.5	16.8	
MM033	Cooking and kitchen ware:					
	Number of establishments . . . . .	23	23	23	23	23
	Employees (thousands) . . . . .	5	5	5	5	5
	Capacity utilization (percent) . . . . .	75	75	75	75	75
	U.S. shipments (million dollars) . . . . .	807	817	884	958	999
	U.S. exports (million dollars) . . . . .	218	209	216	233	245
	U.S. imports (million dollars) . . . . .	751	822	881	1,001	1,158
	Apparent U.S. consumption (million dollars) . . . . .	1,340	1,430	1,549	1,726	1,912
	Trade balance (million dollars) . . . . .	-533	-613	-665	-768	-913
	Ratio of imports to apparent consumption (percent) . . .	56.0	57.5	56.9	58.0	60.6
Ratio of exports to shipments (percent) . . . . .	27.0	25.6	24.4	24.3	24.5	
MM034	Metal and ceramic sanitary ware:					
	Number of establishments <sup>4</sup> . . . . .	190	195	200	200	200
	Employees (thousands) <sup>4</sup> . . . . .	25	24	25	25	25
	Capacity utilization (percent) <sup>4</sup> . . . . .	70	75	80	85	83
	U.S. shipments (million dollars) <sup>4</sup> . . . . .	1,325	1,328	1,412	1,506	1,470
	U.S. exports (million dollars) . . . . .	118	135	165	153	159

See footnotes at end of table.

**Table B-6—Continued**  
**Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM034	Metal and ceramic sanitary ware—Continued					
	U.S. imports (million dollars)	156	182	204	249	271
	Apparent U.S. consumption (million dollars) <sup>4</sup>	1,363	1,375	1,451	1,602	1,582
	Trade balance (million dollars)	-38	-47	-39	-96	-112
	Ratio of imports to apparent consumption (percent) <sup>4</sup>	11.4	13.2	14.1	15.5	17.1
	Ratio of exports to shipments (percent) <sup>4</sup>	8.9	10.2	11.7	10.2	10.8
MM035	Iron construction castings and other nonmalleable cast-iron articles:					
	Number of establishments	27	27	27	27	25
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	85	85	85	85	86
	U.S. shipments (million dollars)	142	142	145	144	145
	U.S. exports (million dollars)	31	27	29	26	26
	U.S. imports (million dollars)	51	48	57	72	87
	Apparent U.S. consumption (million dollars)	162	163	173	190	206
	Trade balance (million dollars)	-20	-21	-28	-46	-61
	Ratio of imports to apparent consumption (percent)	31.5	29.4	32.9	37.9	42.2
	Ratio of exports to shipments (percent)	21.8	19.0	20.0	18.1	17.9
MM036	Copper and related articles:					
	Number of establishments	840	840	840	830	680
	Employees (thousands)	37	37	39	41	42
	Capacity utilization (percent)	87	86	88	91	92
	U.S. shipments (million dollars)	10,900	11,100	10,400	12,500	15,300
	U.S. exports (million dollars)	1,843	1,528	1,562	1,813	2,708
	U.S. imports (million dollars)	1,822	1,908	2,068	2,655	3,401
	Apparent U.S. consumption (million dollars)	10,879	11,480	10,906	13,342	15,993
	Trade balance (million dollars)	21	-380	-506	-842	-693
	Ratio of imports to apparent consumption (percent)	16.7	16.6	19.0	19.9	21.3
	Ratio of exports to shipments (percent)	16.9	13.8	15.0	14.5	17.7
MM037	Unwrought aluminum:					
	Number of establishments	95	91	91	91	91
	Employees (thousands)	45	45	45	45	45
	Capacity utilization (percent)	99	97	89	79	81
	U.S. shipments (million dollars)	5,400	5,100	4,300	5,200	6,400
	U.S. exports (million dollars)	1,842	1,154	771	896	1,294
	U.S. imports (million dollars)	2,021	2,120	2,774	4,221	4,585
	Apparent U.S. consumption (million dollars)	5,579	6,066	6,303	8,525	9,691
	Trade balance (million dollars)	-179	-966	-2,003	-3,325	-3,291
	Ratio of imports to apparent consumption (percent)	36.2	34.9	44.0	49.5	47.3
	Ratio of exports to shipments (percent)	34.1	22.6	17.9	17.2	20.2
MM038	Aluminum mill products:					
	Number of establishments	425	390	385	385	385
	Employees (thousands)	51	45	40	40	40
	Capacity utilization (percent)	70	78	82	90	94
	U.S. shipments (million dollars)	14,470	15,280	14,195	19,875	24,115
	U.S. exports (million dollars)	1,698	1,761	1,728	2,177	2,974
	U.S. imports (million dollars)	967	1,015	1,096	1,446	2,048
	Apparent U.S. consumption (million dollars)	13,739	14,534	13,563	19,144	23,189
	Trade balance (million dollars)	731	746	632	731	926
	Ratio of imports to apparent consumption (percent)	7.0	7.0	8.1	7.6	8.8
	Ratio of exports to shipments (percent)	11.7	11.5	12.2	11.0	12.3
MM039	Lead and related articles:					
	Number of establishments	55	55	50	50	50
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	62	(1)	(1)	(1)
	U.S. shipments (million dollars)	900	900	825	1,000	1,100
	U.S. exports (million dollars)	113	78	64	70	86
	U.S. imports (million dollars)	80	119	97	149	195
	Apparent U.S. consumption (million dollars)	867	941	858	1,079	1,209
	Trade balance (million dollars)	33	-41	-33	-79	-109
	Ratio of imports to apparent consumption (percent)	9.2	12.6	11.3	13.8	16.1
	Ratio of exports to shipments (percent)	12.6	8.7	7.8	7.0	7.8
MM040	Zinc and related articles:					
	Number of establishments	40	40	40	39	39
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	70	76	(1)	(1)	(1)
	U.S. shipments (million dollars)	575	685	525	500	560
	U.S. exports (million dollars)	91	75	58	67	81
	U.S. imports (million dollars)	663	832	746	813	952
	Apparent U.S. consumption (million dollars)	1,147	1,442	1,213	1,246	1,431
	Trade balance (million dollars)	-572	-757	-688	-746	-871
	Ratio of imports to apparent consumption (percent)	57.8	57.7	61.5	65.2	66.5
	Ratio of exports to shipments (percent)	15.8	10.9	11.0	13.4	14.5

See footnotes at end of table.

Table B-6—Continued

## Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM041	Certain base metals and chemical elements:					
	Number of establishments	(1)	(1)	(1)	(1)	(1)
	Employees (thousands)	22	20	20	20	21
	Capacity utilization (percent)	79	72	73	75	76
	U.S. shipments (million dollars)	2,720	2,740	2,720	2,980	3,100
	U.S. exports (million dollars)	1,005	905	808	927	1,190
	U.S. imports (million dollars)	1,865	1,636	1,472	1,720	2,536
	Apparent U.S. consumption (million dollars)	3,580	3,471	3,384	3,773	4,446
	Trade balance (million dollars)	-860	-731	-664	-793	-1,346
	Ratio of imports to apparent consumption (percent)	52.1	47.1	43.5	45.6	57.0
Ratio of exports to shipments (percent)	36.9	33.0	29.7	31.1	38.4	
MM042	Nonpowered handtools:					
	Number of establishments	1,252	1,252	1,250	1,250	1,250
	Employees (thousands)	125	118	121	125	121
	Capacity utilization (percent)	75	75	80	85	85
	U.S. shipments (million dollars)	10,735	10,622	11,472	13,193	13,868
	U.S. exports (million dollars)	1,091	1,192	1,315	1,455	1,639
	U.S. imports (million dollars)	1,620	1,450	1,789	1,939	2,230
	Apparent U.S. consumption (million dollars)	11,264	10,880	11,946	13,677	14,459
	Trade balance (million dollars)	-529	-258	-474	-484	-591
	Ratio of imports to apparent consumption (percent)	14.4	13.3	15.0	14.2	15.4
Ratio of exports to shipments (percent)	10.2	11.2	11.5	11.0	11.8	
MM043	Cutlery other than tableware, certain sewing implements, and related products:					
	Number of establishments	135	135	135	135	132
	Employees (thousands)	10	12	12	11	11
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	1,500	1,500	1,635	1,850	1,900
	U.S. exports (million dollars)	227	280	308	385	420
	U.S. imports (million dollars)	438	484	525	585	656
	Apparent U.S. consumption (million dollars)	1,711	1,704	1,852	2,050	2,136
	Trade balance (million dollars)	-211	-204	-217	-200	-236
	Ratio of imports to apparent consumption (percent)	25.6	28.4	28.3	28.5	30.7
Ratio of exports to shipments (percent)	15.1	18.7	18.8	20.8	22.1	
MM044	Table flatware and related products:					
	Number of establishments	6	6	6	5	5
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	80	80	85	90	90
	U.S. shipments (million dollars)	200	195	195	198	200
	U.S. exports (million dollars)	24	24	21	28	35
	U.S. imports (million dollars)	196	216	209	224	272
	Apparent U.S. consumption (million dollars)	372	387	383	394	437
	Trade balance (million dollars)	-172	-192	-188	-196	-237
	Ratio of imports to apparent consumption (percent)	52.7	55.8	54.6	56.9	62.2
Ratio of exports to shipments (percent)	12.0	12.3	10.8	14.1	17.5	
MM045	Certain builders' hardware:					
	Number of establishments	203	220	220	198	198
	Employees (thousands)	32	32	32	31	31
	Capacity utilization (percent)	75	81	81	83	85
	U.S. shipments (million dollars)	3,154	3,434	3,512	3,983	4,135
	U.S. exports (million dollars)	458	495	553	620	637
	U.S. imports (million dollars)	532	590	646	709	763
	Apparent U.S. consumption (million dollars)	3,228	3,529	3,605	4,072	4,261
	Trade balance (million dollars)	-74	-95	-93	-89	-126
	Ratio of imports to apparent consumption (percent)	16.5	16.7	17.9	17.4	17.9
Ratio of exports to shipments (percent)	14.5	14.4	15.7	15.6	15.4	
MM046	Miscellaneous products of base metal:					
	Number of establishments	4,950	4,950	4,950	5,000	5,000
	Employees (thousands)	380	340	350	380	380
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	25,500	25,300	25,500	26,000	26,300
	U.S. exports (million dollars)	1,901	2,122	2,344	2,776	3,019
	U.S. imports (million dollars)	2,309	2,669	2,936	3,502	3,824
	Apparent U.S. consumption (million dollars)	25,908	25,847	26,092	26,726	27,105
	Trade balance (million dollars)	-408	-547	-592	-726	-805
	Ratio of imports to apparent consumption (percent)	8.9	10.3	11.3	13.1	14.1
Ratio of exports to shipments (percent)	7.5	8.4	9.2	10.7	11.5	

<sup>1</sup> Not available.

<sup>2</sup> Capacity utilization could not be meaningfully calculated for this industry group.

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

<sup>4</sup> Estimated.

**Table B-7**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT003	Pumps for liquids:					
	Number of establishments	580	568	585	572	585
	Employees (thousands)	53	51	53	51	55
	Capacity utilization (percent)	59	58	63	64	69
	U.S. shipments (million dollars)	6,720	6,586	6,784	6,920	7,152
	U.S. exports (million dollars)	1,766	1,857	2,043	2,222	2,368
	U.S. imports (million dollars)	1,142	1,294	1,477	1,777	1,967
	Apparent U.S. consumption (million dollars)	6,096	6,023	6,218	6,475	6,751
	Trade balance (million dollars)	624	563	566	445	401
	Ratio of imports to apparent consumption (percent)	18.7	21.5	23.8	27.4	29.1
Ratio of exports to shipments (percent)	26.3	28.2	30.1	32.1	33.1	
MT004	Air-conditioning equipment and parts:					
	Number of establishments	1,110	1,077	1,109	1,165	1,275
	Employees (thousands)	145	140	143	146	152
	Capacity utilization (percent)	75	74	76	79	85
	U.S. shipments (million dollars)	21,405	20,763	21,386	22,455	26,946
	U.S. exports (million dollars)	3,218	3,533	3,739	4,121	4,538
	U.S. imports (million dollars)	2,668	2,824	3,055	3,666	4,129
	Apparent U.S. consumption (million dollars)	20,855	20,054	20,702	22,000	26,537
	Trade balance (million dollars)	550	709	684	455	409
	Ratio of imports to apparent consumption (percent)	12.8	14.1	14.8	16.7	15.6
Ratio of exports to shipments (percent)	15.0	17.0	17.5	18.4	16.8	
MT005	Certain industrial thermal-processing equipment, and certain furnaces:					
	Number of establishments	300	294	302	305	308
	Employees (thousands)	31	28	31	33	35
	Capacity utilization (percent)	65	63	66	66	67
	U.S. shipments (million dollars)	3,220	3,156	3,314	3,380	3,549
	U.S. exports (million dollars)	1,331	1,440	1,532	1,879	2,098
	U.S. imports (million dollars)	784	813	794	1,003	1,089
	Apparent U.S. consumption (million dollars)	2,673	2,529	2,576	2,504	2,540
	Trade balance (million dollars)	547	627	738	876	1,009
	Ratio of imports to apparent consumption (percent)	29.3	32.1	30.8	40.1	42.9
Ratio of exports to shipments (percent)	41.3	45.6	46.2	55.6	59.1	
MT006	Commercial machinery:					
	Number of establishments	560	530	510	500	520
	Employees (thousands)	40	40	40	40	41
	Capacity utilization (percent)	80	80	80	83	83
	U.S. shipments (million dollars)	6,426	6,722	6,760	6,895	7,240
	U.S. exports (million dollars)	1,491	1,734	1,870	2,031	2,390
	U.S. imports (million dollars)	815	890	964	1,082	1,191
	Apparent U.S. consumption (million dollars)	5,750	5,878	5,854	5,946	6,041
	Trade balance (million dollars)	676	844	906	949	1,199
	Ratio of imports to apparent consumption (percent)	14.2	15.1	16.5	18.2	19.7
Ratio of exports to shipments (percent)	23.2	25.8	27.7	29.5	33.0	
MT007	Electrical household appliances and certain heating equipment:					
	Number of establishments	450	450	440	420	422
	Employees (thousands)	104	98	98	98	102
	Capacity utilization (percent)	80	83	83	83	84
	U.S. shipments (million dollars)	15,667	19,273	19,851	20,248	21,260
	U.S. exports (million dollars)	1,886	2,100	2,277	2,348	2,433
	U.S. imports (million dollars)	2,830	3,373	3,570	3,858	4,074
	Apparent U.S. consumption (million dollars)	16,611	20,546	21,144	21,758	22,901
	Trade balance (million dollars)	-944	-1,273	-1,293	-1,510	-1,641
	Ratio of imports to apparent consumption (percent)	17.0	16.4	16.9	17.7	17.8
Ratio of exports to shipments (percent)	12.0	10.9	11.5	11.6	11.4	
MT008	Centrifuges and filtering and purifying equipment:					
	Number of establishments	265	278	278	270	280
	Employees (thousands)	34	36	36	35	28
	Capacity utilization (percent)	80	82	82	80	80
	U.S. shipments (million dollars)	2,940	3,087	3,180	3,500	3,800
	U.S. exports (million dollars)	1,705	1,703	1,728	1,902	2,268
	U.S. imports (million dollars)	666	650	706	1,067	1,330
	Apparent U.S. consumption (million dollars)	1,901	2,034	2,158	2,665	2,862
	Trade balance (million dollars)	1,039	1,053	1,022	835	938
	Ratio of imports to apparent consumption (percent)	35.0	32.0	32.7	40.0	46.5
Ratio of exports to shipments (percent)	58.0	55.2	54.3	54.3	59.7	
MT009	Wrapping, packaging, and can-sealing machinery:					
	Number of establishments	590	630	630	630	630
	Employees (thousands)	24	26	25	25	25
	Capacity utilization (percent)	85	86	87	88	88
	U.S. shipments (million dollars)	2,767	2,861	3,098	3,272	3,300
	U.S. exports (million dollars)	611	606	672	792	839
	U.S. imports (million dollars)	643	699	719	842	932
Apparent U.S. consumption (million dollars)	2,799	2,954	3,145	3,322	3,393	

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT009	Wrapping, packaging, and can-sealing machinery—Continued					
	Trade balance (million dollars)	-32	-93	-47	-50	-93
	Ratio of imports to apparent consumption (percent)	23.0	23.7	22.9	25.3	27.5
	Ratio of exports to shipments (percent)	22.1	21.2	21.7	24.2	25.4
MT010	Scales and weighing machinery:					
	Number of establishments	102	97	97	95	90
	Employees (thousands)	7	6	6	6	6
	Capacity utilization (percent)	75	72	72	72	75
	U.S. shipments (million dollars)	649	662	675	705	750
	U.S. exports (million dollars)	102	105	108	120	127
	U.S. imports (million dollars)	151	157	162	183	201
	Apparent U.S. consumption (million dollars)	698	714	729	768	824
	Trade balance (million dollars)	-49	-52	-54	-63	-74
	Ratio of imports to apparent consumption (percent)	21.6	22.0	22.2	23.8	24.4
MT013	Mineral processing machinery:					
	Number of establishments	100	100	100	90	90
	Employees (thousands)	7	7	6	7	7
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	705	730	752	775	915
	U.S. exports (million dollars)	452	537	539	569	673
	U.S. imports (million dollars)	215	200	236	260	371
	Apparent U.S. consumption (million dollars)	468	393	449	466	613
	Trade balance (million dollars)	237	337	303	309	302
	Ratio of imports to apparent consumption (percent)	45.9	50.9	52.6	55.8	60.5
MT014	Farm and garden machinery and equipment:					
	Number of establishments	1,900	1,870	1,900	1,900	1,870
	Employees (thousands)	98	94	98	103	100
	Capacity utilization (percent)	57	60	75	87	85
	U.S. shipments (million dollars)	12,745	12,275	13,916	16,560	16,200
	U.S. exports (million dollars)	3,444	3,449	3,724	3,929	4,309
	U.S. imports (million dollars)	2,181	2,242	2,469	3,277	3,474
	Apparent U.S. consumption (million dollars)	11,482	11,068	12,661	15,908	15,365
	Trade balance (million dollars)	1,263	1,207	1,255	652	835
	Ratio of imports to apparent consumption (percent)	19.0	20.3	19.5	20.6	22.6
MT015	Industrial food-processing and related machinery:					
	Number of establishments	510	505	500	500	500
	Employees (thousands)	18	18	19	20	20
	Capacity utilization (percent)	80	80	80	83	83
	U.S. shipments (million dollars)	2,193	2,102	2,311	2,266	2,330
	U.S. exports (million dollars)	537	595	609	641	694
	U.S. imports (million dollars)	395	445	411	439	552
	Apparent U.S. consumption (million dollars)	2,051	1,952	2,113	2,064	2,188
	Trade balance (million dollars)	142	150	198	202	142
	Ratio of imports to apparent consumption (percent)	19.3	22.8	19.5	21.3	25.2
MT016	Pulp, paper, and paperboard machinery:					
	Number of establishments	250	237	237	237	235
	Employees (thousands)	20	19	18	17	18
	Capacity utilization (percent)	78	75	75	75	75
	U.S. shipments (million dollars)	2,374	2,255	2,529	2,812	3,000
	U.S. exports (million dollars)	641	586	655	644	857
	U.S. imports (million dollars)	694	637	709	893	978
	Apparent U.S. consumption (million dollars)	2,427	2,306	2,583	3,061	3,121
	Trade balance (million dollars)	-53	-51	-54	-249	-121
	Ratio of imports to apparent consumption (percent)	28.6	27.6	27.4	29.2	31.3
MT017	Printing, typesetting, and bookbinding machinery and printing plates:					
	Number of establishments	1,775	1,739	1,745	1,745	1,745
	Employees (thousands)	60	58	19	21	21
	Capacity utilization (percent)	85	84	75	75	75
	U.S. shipments (million dollars)	5,095	4,993	2,727	3,015	3,200
	U.S. exports (million dollars)	1,133	1,120	1,125	1,094	1,297
	U.S. imports (million dollars)	1,178	1,242	1,366	1,574	2,009
	Apparent U.S. consumption (million dollars)	5,140	5,116	2,968	3,495	3,912
	Trade balance (million dollars)	-45	-122	-241	-480	-712
	Ratio of imports to apparent consumption (percent)	22.9	24.3	46.0	45.0	51.4
MT018	Textile machinery and parts:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	15	15	14	15	15
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT018	Textile machinery and parts—Continued					
	U.S. shipments (million dollars)	1,515	1,470	1,380	1,460	1,591
	U.S. exports (million dollars)	685	659	657	687	752
	U.S. imports (million dollars)	1,196	1,502	1,843	1,833	1,752
	Apparent U.S. consumption (million dollars)	2,026	2,313	2,566	2,606	2,591
	Trade balance (million dollars)	-511	-843	-1,186	-1,146	-1,000
	Ratio of imports to apparent consumption (percent)	59.0	64.9	71.8	70.3	67.6
MT019	Ratio of exports to shipments (percent)	45.2	44.8	47.6	47.1	47.3
	Metal rolling mills and parts thereof:					
	Number of establishments	18	18	18	17	15
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	60	60	70	75	80
	U.S. shipments (million dollars)	440	437	516	467	445
	U.S. exports (million dollars)	185	182	265	287	235
MT020	U.S. imports (million dollars)	130	103	144	201	278
	Apparent U.S. consumption (million dollars)	385	358	395	381	488
	Trade balance (million dollars)	55	79	121	86	-43
	Ratio of imports to apparent consumption (percent)	33.8	28.8	36.5	52.8	57.0
	Ratio of exports to shipments (percent)	42.0	41.6	51.4	61.5	52.8
	Machine tools for cutting metal and parts; tool holders, etc.:					
	Number of establishments	830	800	800	820	800
MT021	Employees (thousands)	78	80	82	86	88
	Capacity utilization (percent)	63	70	80	89	85
	U.S. shipments (million dollars)	5,646	5,578	5,812	6,535	6,650
	U.S. exports (million dollars)	1,132	1,270	1,292	1,653	1,722
	U.S. imports (million dollars)	2,213	1,960	2,188	2,735	3,512
	Apparent U.S. consumption (million dollars)	6,727	6,268	6,708	7,617	8,440
	Trade balance (million dollars)	-1,081	-690	-896	-1,082	-1,790
MT022	Ratio of imports to apparent consumption (percent)	32.9	31.3	32.6	35.9	41.6
	Ratio of exports to shipments (percent)	20.0	22.8	22.2	25.3	25.9
	Machine tools for metal forming and parts thereof:					
	Number of establishments	360	350	350	360	340
	Employees (thousands)	17	16	17	17	18
	Capacity utilization (percent)	68	70	80	89	85
	U.S. shipments (million dollars)	1,672	1,651	1,735	1,933	2,153
MT023	U.S. exports (million dollars)	656	779	737	778	862
	U.S. imports (million dollars)	590	552	644	913	1,125
	Apparent U.S. consumption (million dollars)	1,606	1,424	1,642	2,068	2,416
	Trade balance (million dollars)	66	227	93	-135	(263)
	Ratio of imports to apparent consumption (percent)	36.7	38.8	39.2	44.1	46.6
	Ratio of exports to shipments (percent)	39.2	47.2	42.5	40.2	40.0
	Non-metal working machine tools and parts thereof:					
MT024	Number of establishments	345	330	330	340	330
	Employees (thousands)	12	11	13	15	16
	Capacity utilization (percent)	70	75	80	89	85
	U.S. shipments (million dollars)	1,200	1,762	1,885	2,249	2,564
	U.S. exports (million dollars)	377	474	665	861	1,456
	U.S. imports (million dollars)	540	633	681	818	993
	Apparent U.S. consumption (million dollars)	1,363	1,921	1,901	2,206	2,101
MT025	Trade balance (million dollars)	-163	-159	-16	43	463
	Ratio of imports to apparent consumption (percent)	39.6	33.0	35.8	37.1	47.3
	Ratio of exports to shipments (percent)	31.4	26.9	35.3	38.3	56.8
	Semiconductor equipment, robots, and other machinery:					
	Number of establishments	5,700	5,586	5,580	5,580	6,000
	Employees (thousands)	265	260	260	260	300
	Capacity utilization (percent)	69	68	68	73	100
MT026	U.S. shipments (million dollars)	27,600	27,048	28,219	34,427	40,000
	U.S. exports (million dollars)	6,550	6,787	7,574	9,292	11,512
	U.S. imports (million dollars)	5,341	5,242	6,131	8,121	9,711
	Apparent U.S. consumption (million dollars)	26,391	25,503	26,776	33,256	38,199
	Trade balance (million dollars)	1,209	1,545	1,443	1,171	1,801
	Ratio of imports to apparent consumption (percent)	20.2	20.6	22.9	24.4	25.4
	Ratio of exports to shipments (percent)	23.7	25.1	26.8	27.0	28.8
MT027	Taps, cocks, valves, and similar devices:					
	Number of establishments	910	892	895	889	893
	Employees (thousands)	75	72	74	71	74
	Capacity utilization (percent)	73	70	72	73	76
	U.S. shipments (million dollars)	9,768	9,573	9,669	9,862	10,355
	U.S. exports (million dollars)	1,346	1,521	1,665	1,909	2,180
	U.S. imports (million dollars)	1,760	2,057	2,175	2,600	2,931
MT028	Apparent U.S. consumption (million dollars)	10,182	10,109	10,179	10,553	11,106
	Trade balance (million dollars)	-414	-536	-510	-691	-751
	Ratio of imports to apparent consumption (percent)	17.3	20.3	21.4	24.6	26.4
	Ratio of exports to shipments (percent)	13.8	15.9	17.2	19.4	21.1

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT026	Gear boxes and other speed changers; torque converters; etc.					
	Number of establishments	240	220	230	230	230
	Employees ( <i>thousands</i> )	39	38	39	40	39
	Capacity utilization ( <i>percent</i> )	75	75	80	89	85
	U.S. shipments ( <i>million dollars</i> )	3,810	3,657	3,876	4,298	4,556
	U.S. exports ( <i>million dollars</i> )	536	592	652	764	818
	U.S. imports ( <i>million dollars</i> )	880	964	1,102	1,412	1,607
	Apparent U.S. consumption ( <i>million dollars</i> )	4,154	4,029	4,326	4,946	5,345
	Trade balance ( <i>million dollars</i> )	-344	-372	-450	-648	-789
	Ratio of imports to apparent consumption ( <i>percent</i> )	21.2	23.9	25.5	28.5	30.1
	Ratio of exports to shipments ( <i>percent</i> )	14.1	16.2	16.8	17.8	18.0
MT027	Boilers, turbines, and related machinery:					
	Number of establishments	35	35	35	35	30
	Employees ( <i>thousands</i> )	10	10	11	11	9
	Capacity utilization ( <i>percent</i> )	50	60	65	74	75
	U.S. shipments ( <i>million dollars</i> )	1,730	1,556	1,634	1,797	1,805
	U.S. exports ( <i>million dollars</i> )	897	857	1,134	1,231	1,540
	U.S. imports ( <i>million dollars</i> )	305	230	306	348	363
	Apparent U.S. consumption ( <i>million dollars</i> )	1,138	929	806	914	628
	Trade balance ( <i>million dollars</i> )	592	627	828	883	1,177
	Ratio of imports to apparent consumption ( <i>percent</i> )	26.8	24.8	38.0	38.1	57.8
	Ratio of exports to shipments ( <i>percent</i> )	51.8	55.1	69.4	68.5	85.3
MT028	Electric motors, generators, and related equipment:					
	Number of establishments	475	470	470	475	475
	Employees ( <i>thousands</i> )	88	86	87	90	93
	Capacity utilization ( <i>percent</i> )	84	81	80	82	84
	U.S. shipments ( <i>million dollars</i> )	10,450	11,240	11,570	12,150	12,880
	U.S. exports ( <i>million dollars</i> )	2,327	2,742	2,925	2,955	3,391
	U.S. imports ( <i>million dollars</i> )	2,368	2,658	2,974	3,457	3,880
	Apparent U.S. consumption ( <i>million dollars</i> )	10,491	11,156	11,619	12,652	13,369
	Trade balance ( <i>million dollars</i> )	-41	84	-49	-502	-489
	Ratio of imports to apparent consumption ( <i>percent</i> )	22.6	23.8	25.6	27.3	29.0
	Ratio of exports to shipments ( <i>percent</i> )	22.3	24.4	25.3	24.3	26.3
MT029	Electrical transformers, static converters, and inductors:					
	Number of establishments	290	285	285	290	290
	Employees ( <i>thousands</i> )	46	43	44	45	44
	Capacity utilization ( <i>percent</i> )	70	68	70	75	78
	U.S. shipments ( <i>million dollars</i> )	5,150	5,000	5,765	5,955	6,500
	U.S. exports ( <i>million dollars</i> )	1,118	1,206	1,421	1,750	2,000
	U.S. imports ( <i>million dollars</i> )	1,800	2,130	2,467	2,713	3,537
	Apparent U.S. consumption ( <i>million dollars</i> )	5,832	5,924	6,811	6,918	8,037
	Trade balance ( <i>million dollars</i> )	-682	-924	-1,046	-963	-1,537
	Ratio of imports to apparent consumption ( <i>percent</i> )	30.9	36.0	36.2	39.2	44.0
	Ratio of exports to shipments ( <i>percent</i> )	21.7	24.1	24.6	29.4	30.8
MT031	Portable electric handtools:					
	Number of establishments	29	29	29	30	30
	Employees ( <i>thousands</i> )	8	8	8	8	9
	Capacity utilization ( <i>percent</i> )	76	82	83	84	85
	U.S. shipments ( <i>million dollars</i> )	1,300	1,375	1,450	1,530	1,650
	U.S. exports ( <i>million dollars</i> )	252	260	323	350	369
	U.S. imports ( <i>million dollars</i> )	332	381	370	421	481
	Apparent U.S. consumption ( <i>million dollars</i> )	1,380	1,496	1,497	1,601	1,762
	Trade balance ( <i>million dollars</i> )	-80	-121	-47	-71	-112
	Ratio of imports to apparent consumption ( <i>percent</i> )	24.1	25.5	24.7	26.3	27.3
	Ratio of exports to shipments ( <i>percent</i> )	19.4	18.9	22.3	22.9	22.4
MT032	Nonelectrically powered handtools and parts thereof:					
	Number of establishments	49	45	45	48	46
	Employees ( <i>thousands</i> )	10	11	12	13	12
	Capacity utilization ( <i>percent</i> )	72	77	82	89	85
	U.S. shipments ( <i>million dollars</i> )	1,094	1,288	1,495	1,491	1,558
	U.S. exports ( <i>million dollars</i> )	348	381	378	474	462
	U.S. imports ( <i>million dollars</i> )	420	470	550	619	661
	Apparent U.S. consumption ( <i>million dollars</i> )	1,166	1,377	1,667	1,636	1,757
	Trade balance ( <i>million dollars</i> )	-72	-89	-172	-145	-199
	Ratio of imports to apparent consumption ( <i>percent</i> )	36.0	34.1	33.0	37.8	37.6
	Ratio of exports to shipments ( <i>percent</i> )	31.8	29.6	25.3	31.8	29.7
MT034	Flashlights and other similar electric lights, light bulbs, etc.:					
	Number of establishments	125	125	125	125	125
	Employees ( <i>thousands</i> )	25	25	25	26	25
	Capacity utilization ( <i>percent</i> )	83	82	81	82	80
	U.S. shipments ( <i>million dollars</i> )	3,000	2,950	3,200	3,330	3,325
	U.S. exports ( <i>million dollars</i> )	624	671	712	811	786
U.S. imports ( <i>million dollars</i> )	728	882	965	1,030	1,097	

See footnote at end of table.

Table B-7—Continued

## Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT034	Flashlights and other similar electric lights, light bulbs, etc.—Continued					
	Apparent U.S. consumption (million dollars) .....	3,104	3,161	3,453	3,549	3,636
	Trade balance (million dollars) .....	-104	-211	-253	-219	-311
	Ratio of imports to apparent consumption (percent) ...	23.5	27.9	27.9	29.0	30.2
	Ratio of exports to shipments (percent) .....	20.8	22.7	22.3	24.4	23.6
MT035	Electric and gas welding and soldering equipment:					
	Number of establishments .....	184	186	178	183	225
	Employees (thousands) .....	21	22	18	19	22
	Capacity utilization (percent) .....	72	73	78	78	83
	U.S. shipments (million dollars) .....	2,648	2,674	2,410	2,467	2,714
	U.S. exports (million dollars) .....	389	406	405	460	507
	U.S. imports (million dollars) .....	435	345	502	486	596
	Apparent U.S. consumption (million dollars) .....	2,694	2,613	2,507	2,493	2,803
	Trade balance (million dollars) .....	-46	61	-97	-26	-89
	Ratio of imports to apparent consumption (percent) ...	16.1	13.2	20.0	19.5	21.3
	Ratio of exports to shipments (percent) .....	14.7	15.2	16.8	18.6	18.7
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:					
	Number of establishments .....	525	530	525	530	535
	Employees (thousands) .....	79	78	75	80	84
	Capacity utilization (percent) .....	78	75	81	83	85
	U.S. shipments (million dollars) .....	13,500	13,250	13,200	13,725	14,680
	U.S. exports (million dollars) .....	2,201	2,567	2,991	3,289	3,566
	U.S. imports (million dollars) .....	2,707	3,154	3,564	4,810	5,398
	Apparent U.S. consumption (million dollars) .....	14,006	13,837	13,773	15,246	16,512
	Trade balance (million dollars) .....	-506	-587	-573	-1,521	-1,832
	Ratio of imports to apparent consumption (percent) ...	19.3	22.8	25.9	31.5	32.7
	Ratio of exports to shipments (percent) .....	16.3	19.4	22.7	24.0	24.3

<sup>1</sup> Capacity utilization could not be meaningfully calculated for this industry.

Table B-8

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT001	Aircraft engines and gas turbines:					
	Number of establishments	26	26	26	26	30
	Employees (thousands)	185	163	140	121	114
	Capacity utilization (percent)	80	98	88	80	85
	U.S. shipments (million dollars)	22,073	19,047	17,704	16,060	15,099
	U.S. exports (million dollars)	8,346	8,293	8,266	8,467	8,641
	U.S. imports (million dollars)	5,385	6,185	5,735	5,825	5,285
	Apparent U.S. consumption (million dollars)	19,112	16,939	15,173	13,418	11,743
	Trade balance (million dollars)	2,961	2,108	2,531	2,642	3,356
	Ratio of imports to apparent consumption (percent)	28.2	36.5	37.8	43.4	45.0
MT002	Internal combustion piston engines, other than for aircraft:					
	Number of establishments	790	800	800	800	800
	Employees (thousands)	148	149	150	155	155
	Capacity utilization (percent)	69	75	76	80	82
	U.S. shipments (million dollars)	30,300	31,100	32,000	34,000	36,000
	U.S. exports (million dollars)	5,853	6,640	7,450	8,288	8,772
	U.S. imports (million dollars)	5,166	5,618	6,340	7,424	8,389
	Apparent U.S. consumption (million dollars)	29,613	30,078	30,890	33,136	35,617
	Trade balance (million dollars)	687	1,022	1,110	864	383
	Ratio of imports to apparent consumption (percent)	17.4	18.7	20.5	22.4	23.6
MT011	Forklift trucks and similar industrial vehicles:					
	Number of establishments	430	432	432	432	435
	Employees (thousands)	17	17	17	18	20
	Capacity utilization (percent)	75	75	72	75	95
	U.S. shipments (million dollars)	2,406	2,757	2,900	3,440	4,600
	U.S. exports (million dollars)	627	570	566	691	928
	U.S. imports (million dollars)	614	712	721	955	1,136
	Apparent U.S. consumption (million dollars)	2,393	2,899	3,055	3,704	4,808
	Trade balance (million dollars)	13	-142	-155	-264	-208
	Ratio of imports to apparent consumption (percent)	25.7	24.6	23.6	25.8	23.6
MT012	Construction and mining equipment:					
	Number of establishments	1,550	1,600	1,600	1,600	1,600
	Employees (thousands)	84	79	79	80	78
	Capacity utilization (percent)	68	70	71	73	75
	U.S. shipments (million dollars)	13,500	12,350	13,050	13,870	15,500
	U.S. exports (million dollars)	6,814	6,773	6,651	6,947	7,773
	U.S. imports (million dollars)	1,504	1,716	2,299	3,462	3,635
	Apparent U.S. consumption (million dollars)	8,190	7,293	8,698	10,385	11,362
	Trade balance (million dollars)	5,310	5,057	4,352	3,485	4,138
	Ratio of imports to apparent consumption (percent)	18.4	23.5	26.4	33.3	32.0
MT025	Ball and roller bearings:					
	Number of establishments	140	140	143	140	145
	Employees (thousands)	37	35	37	37	38
	Capacity utilization (percent)	60	63	65	67	75
	U.S. shipments (million dollars)	3,762	4,011	4,278	4,470	5,400
	U.S. exports (million dollars)	720	713	719	801	967
	U.S. imports (million dollars)	903	990	1,114	1,302	1,520
	Apparent U.S. consumption (million dollars)	3,945	4,288	4,673	4,971	5,953
	Trade balance (million dollars)	-183	-277	-395	-501	-553
	Ratio of imports to apparent consumption (percent)	22.9	23.1	23.8	26.2	25.5
MT030	Primary cells and batteries and electric storage batteries:					
	Number of establishments	220	222	225	230	232
	Employees (thousands)	31	32	35	40	42
	Capacity utilization (percent)	82	83	85	87	87
	U.S. shipments (million dollars)	5,000	5,200	5,500	6,200	6,711
	U.S. exports (million dollars)	797	848	957	1,125	1,208
	U.S. imports (million dollars)	795	947	1,079	1,441	1,637
	Apparent U.S. consumption (million dollars)	4,998	5,299	5,622	6,516	7,140
	Trade balance (million dollars)	2	-99	-122	-316	-429
	Ratio of imports to apparent consumption (percent)	15.9	17.9	19.2	22.1	22.9
MT033	Ignition, starting, lighting, and other electrical equipment:					
	Number of establishments	522	525	523	523	520
	Employees (thousands)	49	55	56	54	52
	Capacity utilization (percent)	75	78	79	77	75
	U.S. shipments (million dollars)	7,050	7,870	8,200	7,800	7,420
	U.S. exports (million dollars)	975	1,122	1,432	1,409	1,336

Table B-8—Continued

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT033	Ignition, starting, lighting, and other electrical equipment—Continued					
	U.S. imports (million dollars)	1,191	1,296	1,495	1,699	1,833
	Apparent U.S. consumption (million dollars)	7,266	8,044	8,263	8,090	7,917
	Trade balance (million dollars)	-216	-174	-63	-290	-497
	Ratio of imports to apparent consumption (percent)	16.4	16.1	18.1	21.0	23.2
	Ratio of exports to shipments (percent)	13.8	14.3	17.5	18.1	18.0
MT037	Rail locomotive and rolling stock:					
	Number of establishments	137	130	135	140	140
	Employees (thousands)	26	25	25	25	24
	Capacity utilization (percent)	61	66	75	90	90
	U.S. shipments (million dollars)	4,450	4,494	4,703	4,913	5,123
	U.S. exports (million dollars)	546	580	574	750	877
	U.S. imports (million dollars)	662	744	729	1,161	1,292
	Apparent U.S. consumption (million dollars)	4,566	4,658	4,858	5,324	5,538
	Trade balance (million dollars)	-115	-164	-155	-411	-415
	Ratio of imports to apparent consumption (percent)	14.5	16.0	15.0	21.8	23.3
	Ratio of exports to shipments (percent)	12.3	12.9	12.2	15.3	17.1
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:					
	Number of establishments	1,020	1,020	1,025	1,125	1,125
	Employees (thousands)	316	314	328	338	335
	Capacity utilization (percent)	67	71	77	87	85
	U.S. shipments (million dollars)	128,500	139,800	161,500	175,800	170,500
	U.S. exports (million dollars)	15,385	17,679	18,555	21,365	21,899
	U.S. imports (million dollars)	58,832	60,376	68,607	79,240	84,384
	Apparent U.S. consumption (million dollars)	171,947	182,497	211,552	233,675	232,985
	Trade balance (million dollars)	-43,447	-42,697	-50,052	-57,875	-62,485
	Ratio of imports to apparent consumption (percent)	34.2	33.1	32.4	33.9	36.2
	Ratio of exports to shipments (percent)	12.0	12.6	11.5	12.2	12.8
MT039	Certain motor vehicle parts:					
	Number of establishments	5,750	5,825	5,910	5,900	5,895
	Employees (thousands)	400	408	404	396	385
	Capacity utilization (percent)	77	79	81	81	85
	U.S. shipments (million dollars)	63,500	66,500	73,300	79,000	85,000
	U.S. exports (million dollars)	13,607	16,046	18,469	20,685	22,265
	U.S. imports (million dollars)	11,490	13,304	14,646	16,085	16,298
	Apparent U.S. consumption (million dollars)	61,383	63,758	69,477	74,400	79,033
	Trade balance (million dollars)	2,117	2,742	3,823	4,600	5,967
	Ratio of imports to apparent consumption (percent)	18.7	20.9	21.1	21.6	20.6
	Ratio of exports to shipments (percent)	21.4	24.1	25.2	26.2	26.2
MT040	Motorcycles, mopeds, and parts:					
	Number of establishments	58	58	58	58	60
	Employees (thousands)	7	7	8	8	8
	Capacity utilization (percent)	78	79	80	81	85
	U.S. shipments (million dollars)	790	1,080	1,200	1,370	1,500
	U.S. exports (million dollars)	441	497	506	511	593
	U.S. imports (million dollars)	584	803	877	937	1,162
	Apparent U.S. consumption (million dollars)	933	1,386	1,571	1,796	2,069
	Trade balance (million dollars)	-143	-306	-371	-426	-569
	Ratio of imports to apparent consumption (percent)	62.6	57.9	55.8	52.2	56.2
	Ratio of exports to shipments (percent)	55.8	46.0	42.2	37.3	39.5
MT041	Miscellaneous vehicles and transportation-related equipment:					
	Number of establishments	1,204	1,205	1,200	1,200	1,200
	Employees (thousands)	36	38	36	35	36
	Capacity utilization (percent)	59	60	60	60	62
	U.S. shipments (million dollars)	5,700	5,800	5,750	5,500	5,900
	U.S. exports (million dollars)	2,217	2,701	2,441	3,156	3,390
	U.S. imports (million dollars)	1,194	1,153	1,465	1,456	1,509
	Apparent U.S. consumption (million dollars)	4,677	4,252	4,774	3,800	4,019
	Trade balance (million dollars)	1,023	1,548	976	1,700	1,881
	Ratio of imports to apparent consumption (percent)	25.5	27.1	30.7	38.3	37.5
	Ratio of exports to shipments (percent)	38.9	46.6	42.5	57.4	57.5
MT042	Aircraft, spacecraft, and related equipment:					
	Number of establishments	335	320	275	270	275
	Employees (thousands)	568	522	464	413	386
	Capacity utilization (percent)	79	98	87	78	65
	U.S. shipments (million dollars)	55,691	55,775	50,748	47,918	45,816
	U.S. exports (million dollars)	34,403	35,172	30,673	28,576	23,839
	U.S. imports (million dollars)	7,501	7,262	6,255	6,431	6,135
	Apparent U.S. consumption (million dollars)	28,789	27,865	26,330	25,773	28,112
	Trade balance (million dollars)	26,902	27,910	24,418	22,145	17,704
	Ratio of imports to apparent consumption (percent)	26.1	26.1	23.8	25.0	21.8
	Ratio of exports to shipments (percent)	61.8	63.1	60.4	59.6	52.0

Table B-8—Continued

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MT043	Ships, tugs, pleasure boats, and similar vessels:					
	Number of establishments .....	2,400	2,350	2,350	2,200	2,200
	Employees ( <i>thousands</i> ) .....	162	154	142	146	145
	Capacity utilization ( <i>percent</i> ) .....	73	65	60	70	75
	U.S. shipments ( <i>million dollars</i> ) .....	14,525	13,662	13,602	14,497	14,992
	U.S. exports ( <i>million dollars</i> ) .....	1,174	1,441	1,002	1,203	1,220
	U.S. imports ( <i>million dollars</i> ) .....	279	378	1,019	653	919
	Apparent U.S. consumption ( <i>million dollars</i> ) .....	13,630	12,599	13,619	13,947	14,691
	Trade balance ( <i>million dollars</i> ) .....	895	1,063	-17	550	301
	Ratio of imports to apparent consumption ( <i>percent</i> ) ...	2.0	3.0	7.5	4.7	6.3
MT044	Motors and engines, except internal combustion, aircraft, or electric:					
	Number of establishments .....	44	45	45	45	45
	Employees ( <i>thousands</i> ) .....	9	9	9	9	9
	Capacity utilization ( <i>percent</i> ) .....	84	84	84	84	88
	U.S. shipments ( <i>million dollars</i> ) .....	4,010	4,100	4,150	4,200	4,800
	U.S. exports ( <i>million dollars</i> ) .....	245	231	244	275	315
	U.S. imports ( <i>million dollars</i> ) .....	213	230	283	374	474
	Apparent U.S. consumption ( <i>million dollars</i> ) .....	3,978	4,099	4,189	4,299	4,959
	Trade balance ( <i>million dollars</i> ) .....	32	1	-39	-99	-159
	Ratio of imports to apparent consumption ( <i>percent</i> ) ...	5.4	5.6	6.8	8.7	9.6
Ratio of exports to shipments ( <i>percent</i> ) .....	6.1	5.6	5.9	6.5	6.6	

**Table B-9**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
ST001	Office machines:					
	Number of establishments	355	350	350	350	350
	Employees (thousands)	123	121	123	121	120
	Capacity utilization (percent)	70	72	72	74	75
	U.S. shipments (million dollars)	8,579	8,387	8,614	8,897	9,160
	U.S. exports (million dollars)	1,953	2,003	1,770	1,777	1,930
	U.S. imports (million dollars)	3,960	4,578	5,052	5,781	6,366
	Apparent U.S. consumption (million dollars)	10,586	10,962	11,896	12,901	13,596
	Trade balance (million dollars)	-2,007	-2,575	-3,282	-4,004	-4,436
	Ratio of imports to apparent consumption (percent)	37.4	41.8	42.5	44.8	46.8
Ratio of exports to shipments (percent)	22.8	23.9	20.5	20.0	21.1	
ST002	Telephone and telegraph apparatus:					
	Number of establishments	630	625	630	636	635
	Employees (thousands)	92	90	89	87	86
	Capacity utilization (percent)	66	68	72	74	75
	U.S. shipments (million dollars)	15,940	16,259	16,422	16,688	18,025
	U.S. exports (million dollars)	3,234	4,170	5,199	6,724	8,203
	U.S. imports (million dollars)	4,852	5,606	6,143	7,448	7,742
	Apparent U.S. consumption (million dollars)	17,558	17,695	17,366	17,412	17,564
	Trade balance (million dollars)	-1,618	-1,436	-944	-724	461
	Ratio of imports to apparent consumption (percent)	27.6	31.7	35.4	42.8	44.1
Ratio of exports to shipments (percent)	20.3	25.6	31.7	40.3	45.5	
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:					
	Number of establishments	110	110	110	110	110
	Employees (thousands)	12	12	12	12	13
	Capacity utilization (percent)	73	74	75	75	75
	U.S. shipments (million dollars)	1,300	1,645	1,755	1,965	2,200
	U.S. exports (million dollars)	669	720	851	1,006	1,046
	U.S. imports (million dollars)	1,070	1,241	1,473	1,827	2,001
	Apparent U.S. consumption (million dollars)	1,701	2,166	2,377	2,786	3,155
	Trade balance (million dollars)	-401	-521	-622	-821	-955
	Ratio of imports to apparent consumption (percent)	62.9	57.3	62.0	65.6	63.4
Ratio of exports to shipments (percent)	51.5	43.8	48.5	51.2	47.5	
ST004	Tape recorders, tape players, video cassette recorders, turntables, etc:					
	Number of establishments	28	25	24	24	24
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	74	75	75	75	75
	U.S. shipments (million dollars)	324	384	311	300	300
	U.S. exports (million dollars)	516	627	579	640	754
	U.S. imports (million dollars)	4,809	5,444	5,445	6,283	6,733
	Apparent U.S. consumption (million dollars)	4,617	5,201	5,177	5,943	6,279
	Trade balance (million dollars)	-4,293	-4,817	-4,866	-5,643	-5,979
	Ratio of imports to apparent consumption (percent)	104.2	104.7	105.2	105.7	107.2
Ratio of exports to shipments (percent)	159.3	163.3	186.2	213.3	251.3	
ST005	Unrecorded magnetic tapes, discs, and other media:					
	Number of establishments	58	58	58	55	55
	Employees (thousands)	25	25	25	25	25
	Capacity utilization (percent)	78	85	85	85	85
	U.S. shipments (million dollars)	3,895	4,335	4,485	4,780	5,000
	U.S. exports (million dollars)	1,759	1,743	1,675	1,736	2,030
	U.S. imports (million dollars)	1,673	1,729	1,928	1,943	1,936
	Apparent U.S. consumption (million dollars)	3,809	4,321	4,738	4,987	4,906
	Trade balance (million dollars)	86	14	-253	-207	94
	Ratio of imports to apparent consumption (percent)	43.9	40.0	40.7	39.0	39.5
Ratio of exports to shipments (percent)	45.2	40.2	37.3	36.3	40.6	
ST006	Records, tapes, compact discs, computer software, etc.:					
	Number of establishments	10,000	10,500	11,000	11,200	11,400
	Employees (thousands)	153	167	175	180	185
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	19,792	22,232	24,838	27,000	30,800
	U.S. exports (million dollars)	2,201	2,756	3,281	3,742	3,814
	U.S. imports (million dollars)	379	522	616	755	916
	Apparent U.S. consumption (million dollars)	17,970	19,998	22,173	24,013	27,902
	Trade balance (million dollars)	1,822	2,234	2,665	2,987	2,898
	Ratio of imports to apparent consumption (percent)	2.1	2.6	2.8	3.1	3.3
Ratio of exports to shipments (percent)	11.1	12.4	13.2	13.9	12.4	
ST007	Radio transmission and reception apparatus, and combinations thereof:					
	Number of establishments	264	260	256	252	250
	Employees (thousands)	75	73	71	70	70
	Capacity utilization (percent)	87	87	87	87	87
	U.S. shipments (million dollars)	12,050	10,400	10,940	11,640	12,060
	U.S. exports (million dollars)	3,370	3,528	4,283	5,166	6,604

See footnote at end of table.

**Table B-9—Continued**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
ST007	Radio transmission and reception apparatus, and combinations thereof— <i>Continued</i>					
	U.S. imports (million dollars)	5,387	5,958	6,420	7,764	8,528
	Apparent U.S. consumption (million dollars)	14,067	12,830	13,077	14,238	13,984
	Trade balance (million dollars)	-2,017	-2,430	-2,137	-2,598	-1,924
	Ratio of imports to apparent consumption (percent)	38.3	46.4	49.1	54.5	61.0
	Ratio of exports to shipments (percent)	28.0	33.9	39.1	44.4	54.8
ST008	Radio navigational aid, radar, and remote control apparatus:					
	Number of establishments	115	110	105	100	100
	Employees (thousands)	135	125	116	108	105
	Capacity utilization (percent)	72	72	72	72	72
	U.S. shipments (million dollars)	15,220	15,140	13,500	13,170	13,565
	U.S. exports (million dollars)	1,244	1,111	1,249	1,242	1,198
	U.S. imports (million dollars)	496	446	408	438	522
	Apparent U.S. consumption (million dollars)	14,472	14,475	12,659	12,366	12,889
	Trade balance (million dollars)	748	665	841	804	676
	Ratio of imports to apparent consumption (percent)	3.4	3.1	3.2	3.5	4.0
	Ratio of exports to shipments (percent)	8.2	7.3	9.3	9.4	8.8
ST009	Television receivers and video monitors and combinations, etc.:					
	Number of establishments	32	30	28	26	25
	Employees (thousands)	21	21	21	21	20
	Capacity utilization (percent)	68	68	68	70	70
	U.S. shipments (million dollars)	4,562	4,865	4,696	5,148	5,000
	U.S. exports (million dollars)	1,075	1,224	1,199	1,302	1,331
	U.S. imports (million dollars)	3,103	3,532	3,707	4,319	4,540
	Apparent U.S. consumption (million dollars)	6,590	7,173	7,204	8,165	8,209
	Trade balance (million dollars)	-2,028	-2,308	-2,508	-3,017	-3,209
	Ratio of imports to apparent consumption (percent)	47.1	49.2	51.5	52.9	55.3
	Ratio of exports to shipments (percent)	23.6	25.2	25.5	25.3	26.6
ST010	Television apparatus (except receivers and monitors), etc.:					
	Number of establishments	130	125	120	115	115
	Employees (thousands)	11	9	8	8	8
	Capacity utilization (percent)	75	72	72	72	72
	U.S. shipments (million dollars)	1,250	1,230	1,300	1,370	1,440
	U.S. exports (million dollars)	236	229	339	427	637
	U.S. imports (million dollars)	2,755	2,236	2,536	3,265	3,881
	Apparent U.S. consumption (million dollars)	3,769	3,237	3,497	4,208	4,684
	Trade balance (million dollars)	-2,519	-2,007	-2,197	-2,838	-3,244
	Ratio of imports to apparent consumption (percent)	73.1	69.1	72.5	77.6	82.9
	Ratio of exports to shipments (percent)	18.9	18.6	26.1	31.2	44.2
ST011	Electric sound and visual signaling apparatus:					
	Number of establishments	221	218	210	205	200
	Employees (thousands)	14	14	14	14	15
	Capacity utilization (percent)	88	87	85	85	85
	U.S. shipments (million dollars)	1,740	1,675	1,585	1,565	1,750
	U.S. exports (million dollars)	418	483	560	578	692
	U.S. imports (million dollars)	921	1,073	1,261	1,576	1,748
	Apparent U.S. consumption (million dollars)	2,243	2,265	2,286	2,563	2,806
	Trade balance (million dollars)	-503	-590	-701	-998	-1,056
	Ratio of imports to apparent consumption (percent)	41.1	47.4	55.2	61.5	62.3
	Ratio of exports to shipments (percent)	24.0	28.8	35.3	36.9	39.5
ST012	Electrical capacitors and resistors:					
	Number of establishments	171	222	230	240	230
	Employees (thousands)	31	30	30	29	29
	Capacity utilization (percent)	78	75	80	80	80
	U.S. shipments (million dollars)	2,343	2,457	2,633	2,678	2,820
	U.S. exports (million dollars)	818	898	960	1,186	1,571
	U.S. imports (million dollars)	884	1,022	1,181	1,475	1,879
	Apparent U.S. consumption (million dollars)	2,409	2,581	2,854	2,967	3,128
	Trade balance (million dollars)	-66	-124	-221	-289	-308
	Ratio of imports to apparent consumption (percent)	36.7	39.6	41.4	49.7	60.1
	Ratio of exports to shipments (percent)	34.9	36.5	36.5	44.3	55.7
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:					
	Number of establishments	1,760	1,790	1,800	1,825	1,820
	Employees (thousands)	174	173	174	176	179
	Capacity utilization (percent)	79	73	80	85	85
	U.S. shipments (million dollars)	22,282	23,170	26,252	28,900	30,400
	U.S. exports (million dollars)	4,870	4,924	5,224	6,471	7,502
	U.S. imports (million dollars)	5,612	5,445	6,254	7,380	8,528
	Apparent U.S. consumption (million dollars)	23,024	23,691	27,282	29,809	31,426

See footnote at end of table.

Table B-9—Continued

## Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits—Continued					
	Trade balance (million dollars)	-742	-521	-1,030	-909	-1,026
	Ratio of imports to apparent consumption (percent)	24.4	23.0	22.9	24.8	27.1
	Ratio of exports to shipments (percent)	21.9	21.3	19.9	22.4	24.7
ST014	Television picture tubes and other cathode ray tubes:					
	Number of establishments	19	19	19	19	19
	Employees (thousands)	20	20	21	22	22
	Capacity utilization (percent)	82	87	87	85	85
	U.S. shipments (million dollars)	2,270	2,320	2,460	2,600	2,700
	U.S. exports (million dollars)	565	602	769	1,061	1,391
	U.S. imports (million dollars)	679	758	822	1,003	1,116
	Apparent U.S. consumption (million dollars)	2,384	2,476	2,513	2,542	2,425
	Trade balance (million dollars)	-114	-156	-53	58	275
	Ratio of imports to apparent consumption (percent)	28.5	30.6	32.7	39.5	46.0
	Ratio of exports to shipments (percent)	24.9	25.9	31.3	40.8	51.5
ST015	Special-purpose tubes:					
	Number of establishments	40	40	40	40	38
	Employees (thousands)	6	6	5	5	5
	Capacity utilization (percent)	76	73	71	70	70
	U.S. shipments (million dollars)	1,073	948	860	800	800
	U.S. exports (million dollars)	194	169	159	171	150
	U.S. imports (million dollars)	137	170	168	215	274
	Apparent U.S. consumption (million dollars)	1,016	949	869	844	924
	Trade balance (million dollars)	57	-1	-9	-44	-124
	Ratio of imports to apparent consumption (percent)	13.5	17.9	19.3	25.5	29.7
	Ratio of exports to shipments (percent)	18.1	17.8	18.5	21.4	18.8
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	225	222	214	222	241
	Capacity utilization (percent)	77	76	84	85	88
	U.S. shipments (million dollars)	29,668	32,157	35,152	38,500	51,000
	U.S. exports (million dollars)	10,887	11,527	13,813	18,098	23,317
	U.S. imports (million dollars)	13,080	15,449	19,466	26,020	39,168
	Apparent U.S. consumption (million dollars)	31,861	36,079	40,805	46,422	66,851
	Trade balance (million dollars)	-2,193	-3,922	-5,653	-7,922	-15,851
	Ratio of imports to apparent consumption (percent)	41.1	42.8	47.7	56.1	58.6
	Ratio of exports to shipments (percent)	36.7	35.8	39.3	47.0	45.7
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:					
	Number of establishments	658	661	660	640	640
	Employees (thousands)	21	23	24	23	23
	Capacity utilization (percent)	70	70	70	75	78
	U.S. shipments (million dollars)	3,150	3,500	3,700	3,700	3,800
	U.S. exports (million dollars)	1,679	1,682	1,871	2,117	2,814
	U.S. imports (million dollars)	815	928	987	1,137	1,463
	Apparent U.S. consumption (million dollars)	2,286	2,746	2,816	2,720	2,449
	Trade balance (million dollars)	864	754	884	980	1,351
	Ratio of imports to apparent consumption (percent)	35.7	33.8	35.0	41.8	59.7
	Ratio of exports to shipments (percent)	53.3	48.1	50.6	57.2	74.1
ST018	Automatic data processing machines:					
	Number of establishments	700	732	754	770	785
	Employees (thousands)	211	203	189	180	190
	Capacity utilization (percent)	73	78	85	87	89
	U.S. shipments (million dollars)	49,314	50,946	55,053	58,000	63,800
	U.S. exports (million dollars)	24,001	24,985	25,397	29,102	34,476
	U.S. imports (million dollars)	25,986	31,564	37,906	46,161	56,308
	Apparent U.S. consumption (million dollars)	51,299	57,525	67,562	75,059	85,632
	Trade balance (million dollars)	-1,985	-6,579	-12,509	-17,059	-21,832
	Ratio of imports to apparent consumption (percent)	50.7	54.9	56.1	61.5	65.8
	Ratio of exports to shipments (percent)	48.7	49.0	46.1	50.2	54.0
ST019	Photographic supplies:					
	Number of establishments	115	112	112	112	110
	Employees (thousands)	34	35	34	34	33
	Capacity utilization (percent)	88	88	85	85	85
	U.S. shipments (million dollars)	9,400	9,200	9,500	9,500	9,750
	U.S. exports (million dollars)	1,791	1,669	1,636	1,621	1,780
	U.S. imports (million dollars)	1,486	1,610	1,702	1,675	1,754
	Apparent U.S. consumption (million dollars)	9,095	9,141	9,566	9,554	9,724
	Trade balance (million dollars)	305	59	-66	-54	26
	Ratio of imports to apparent consumption (percent)	16.3	17.6	17.8	17.5	18.0
	Ratio of exports to shipments (percent)	19.1	18.1	17.2	17.1	18.3

See footnote at end of table.

Table B-9—Continued

## Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
ST020	Exposed photographic plates, film, and paper:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	230	230	230	230	230
	Capacity utilization (percent)	88	88	85	85	85
	U.S. shipments (million dollars)	5,000	5,100	5,500	6,290	6,440
	U.S. exports (million dollars)	102	102	100	110	98
	U.S. imports (million dollars)	81	124	156	107	125
	Apparent U.S. consumption (million dollars)	4,979	5,122	5,556	6,287	6,467
	Trade balance (million dollars)	21	-22	-56	3	-27
	Ratio of imports to apparent consumption (percent)	1.6	2.4	2.8	1.7	1.9
Ratio of exports to shipments (percent)	2.0	2.0	1.8	1.7	1.5	
ST021	Optical fibers, optical fiber bundles and cables:					
	Number of establishments	52	55	56	58	60
	Employees (thousands)	6	7	7	8	9
	Capacity utilization (percent)	88	90	90	90	90
	U.S. shipments (million dollars)	1,256	1,602	1,829	2,290	2,750
	U.S. exports (million dollars)	247	293	325	418	475
	U.S. imports (million dollars)	57	85	90	104	154
	Apparent U.S. consumption (million dollars)	1,066	1,394	1,594	1,976	2,429
	Trade balance (million dollars)	190	208	235	314	321
	Ratio of imports to apparent consumption (percent)	5.3	6.1	5.6	5.3	6.3
Ratio of exports to shipments (percent)	19.7	18.3	17.8	18.3	17.3	
ST022	Optical goods, including ophthalmic goods:					
	Number of establishments	905	900	902	904	900
	Employees (thousands)	60	58	58	60	58
	Capacity utilization (percent)	88	88	78	80	78
	U.S. shipments (million dollars)	4,450	4,350	4,250	4,750	4,900
	U.S. exports (million dollars)	1,071	1,194	1,150	1,324	1,527
	U.S. imports (million dollars)	1,920	2,098	2,181	2,385	2,820
	Apparent U.S. consumption (million dollars)	5,299	5,254	5,281	5,811	6,193
	Trade balance (million dollars)	-849	-904	-1,031	-1,061	-1,293
	Ratio of imports to apparent consumption (percent)	36.2	39.9	41.3	41.0	45.5
Ratio of exports to shipments (percent)	24.1	27.4	27.1	27.9	31.2	
ST023	Photographic cameras and equipment:					
	Number of establishments	635	635	635	635	630
	Employees (thousands)	13	12	12	12	11
	Capacity utilization (percent)	88	88	85	85	85
	U.S. shipments (million dollars)	1,580	1,550	1,530	1,510	1,550
	U.S. exports (million dollars)	808	936	940	980	1,038
	U.S. imports (million dollars)	1,728	1,703	1,968	2,315	2,618
	Apparent U.S. consumption (million dollars)	2,500	2,317	2,558	2,845	3,130
	Trade balance (million dollars)	-920	-767	-1,028	-1,335	-1,580
	Ratio of imports to apparent consumption (percent)	69.1	73.5	76.9	81.4	83.6
Ratio of exports to shipments (percent)	51.1	60.4	61.4	64.9	67.0	
ST024	Medical goods:					
	Number of establishments	2,305	2,315	2,320	2,325	2,325
	Employees (thousands)	165	170	175	178	160
	Capacity utilization (percent)	83	84	85	87	88
	U.S. shipments (million dollars)	20,500	22,200	24,000	25,200	27,000
	U.S. exports (million dollars)	6,206	6,940	7,360	7,997	8,966
	U.S. imports (million dollars)	3,762	3,997	4,381	4,405	4,951
	Apparent U.S. consumption (million dollars)	18,056	19,257	21,021	21,608	22,985
	Trade balance (million dollars)	2,444	2,943	2,979	3,592	4,015
	Ratio of imports to apparent consumption (percent)	20.8	20.8	20.8	20.4	21.5
Ratio of exports to shipments (percent)	30.3	31.3	30.7	31.7	33.2	
ST025	Surveying and navigational instruments:					
	Number of establishments	349	366	360	356	355
	Employees (thousands)	50	47	45	42	41
	Capacity utilization (percent)	71	66	65	63	63
	U.S. shipments (million dollars)	7,546	6,937	6,700	6,435	6,762
	U.S. exports (million dollars)	1,734	1,709	1,556	1,470	1,511
	U.S. imports (million dollars)	499	562	477	461	556
	Apparent U.S. consumption (million dollars)	6,311	5,790	5,621	5,426	5,807
	Trade balance (million dollars)	1,235	1,147	1,079	1,009	955
	Ratio of imports to apparent consumption (percent)	7.9	9.7	8.5	8.5	9.6
Ratio of exports to shipments (percent)	23.0	24.6	23.2	22.8	22.3	
ST026	Watches:					
	Number of establishments	20	20	20	20	20
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	59	60	61	61	60
	U.S. shipments (million dollars)	220	210	230	250	240
	U.S. exports (million dollars)	126	117	138	163	139
	U.S. imports (million dollars)	1,855	1,869	2,048	2,127	2,243
	Apparent U.S. consumption (million dollars)	1,949	1,962	2,140	2,214	2,344

See footnote at end of table.

**Table B-9—Continued**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
ST026	Watches—Continued					
	Trade balance (million dollars) .....	-1,729	-1,752	-1,910	-1,964	-2,104
	Ratio of imports to apparent consumption (percent) ...	95.2	95.3	95.7	96.1	95.7
	Ratio of exports to shipments (percent) .....	57.3	55.7	60.0	65.2	57.9
ST027	Clocks and timing devices:					
	Number of establishments .....	50	49	49	47	46
	Employees (thousands) .....	5	5	5	4	4
	Capacity utilization (percent) .....	64	67	68	67	65
	U.S. shipments (million dollars) .....	535	520	535	520	510
	U.S. exports (million dollars) .....	100	90	97	113	108
	U.S. imports (million dollars) .....	317	350	400	424	430
	Apparent U.S. consumption (million dollars) .....	752	780	838	831	832
	Trade balance (million dollars) .....	-217	-260	-303	-311	-322
	Ratio of imports to apparent consumption (percent) ...	42.2	44.9	47.7	51.0	51.7
	Ratio of exports to shipments (percent) .....	18.7	17.3	18.1	21.7	21.2
ST028	Arms and ammunition:					
	Number of establishments .....	375	375	370	365	360
	Employees (thousands) .....	200	200	190	185	175
	Capacity utilization (percent) .....	74	76	75	74	73
	U.S. shipments (million dollars) .....	14,000	15,000	14,000	12,000	11,000
	U.S. exports (million dollars) .....	2,311	2,534	2,372	2,212	2,662
	U.S. imports (million dollars) .....	515	563	682	777	657
	Apparent U.S. consumption (million dollars) .....	12,204	13,029	12,310	10,565	8,995
	Trade balance (million dollars) .....	1,796	1,971	1,690	1,435	2,005
	Ratio of imports to apparent consumption (percent) ...	4.2	4.3	5.5	7.4	7.3
	Ratio of exports to shipments (percent) .....	16.5	16.9	16.9	18.4	24.2
ST029	Balances of a sensitivity of 5 cg or better:					
	Number of establishments .....	12	10	10	10	10
	Employees (thousands) .....	( <sup>1</sup> )				
	Capacity utilization (percent) .....	58	65	60	61	61
	U.S. shipments (million dollars) .....	28	33	30	34	32
	U.S. exports (million dollars) .....	14	16	18	18	21
	U.S. imports (million dollars) .....	31	41	38	37	35
	Apparent U.S. consumption (million dollars) .....	45	58	50	53	46
	Trade balance (million dollars) .....	-17	-25	-20	-19	-14
	Ratio of imports to apparent consumption (percent) ...	68.9	70.7	76.0	69.8	76.1
	Ratio of exports to shipments (percent) .....	50.0	48.5	60.0	52.9	65.6
ST030	Drawing and mathematical calculating or measuring instruments:					
	Number of establishments .....	180	ITS	175	175	175
	Employees (thousands) .....	7	6	6	6	6
	Capacity utilization (percent) .....	66	67	65	64	64
	U.S. shipments (million dollars) .....	527	542	545	543	545
	U.S. exports (million dollars) .....	138	166	162	145	172
	U.S. imports (million dollars) .....	196	231	235	322	401
	Apparent U.S. consumption (million dollars) .....	585	607	618	720	774
	Trade balance (million dollars) .....	-58	-65	-73	-177	-229
	Ratio of imports to apparent consumption (percent) ...	33.5	38.1	38.0	44.7	51.8
	Ratio of exports to shipments (percent) .....	26.2	30.6	29.7	26.7	31.6
ST031	Measuring, testing, controlling, and analyzing instruments:					
	Number of establishments .....	3,220	3,215	3,215	3,210	3,210
	Employees (thousands) .....	229	220	222	225	225
	Capacity utilization (percent) .....	70	71	72	74	74
	U.S. shipments (million dollars) .....	23,500	23,700	24,400	25,800	27,090
	U.S. exports (million dollars) .....	7,756	8,185	9,026	10,060	11,572
	U.S. imports (million dollars) .....	3,620	4,014	4,553	5,727	6,665
	Apparent U.S. consumption (million dollars) .....	19,364	19,529	19,927	21,467	22,183
	Trade balance (million dollars) .....	4,136	4,171	4,473	4,333	4,907
	Ratio of imports to apparent consumption (percent) ...	18.7	20.6	22.8	26.7	30.0
	Ratio of exports to shipments (percent) .....	33.0	34.5	37.0	39.0	42.7

<sup>1</sup> Not available.

**Table B-10**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM047	Luggage, handbags, and flat goods:					
	Number of establishments	700	701	685	675	670
	Employees ( <i>thousands</i> )	23	22	20	20	19
	Capacity utilization ( <i>percent</i> )	80	75	70	70	70
	U.S. shipments ( <i>million dollars</i> )	1,836	1,797	1,683	1,712	1,745
	U.S. exports ( <i>million dollars</i> )	159	194	199	233	253
	U.S. imports ( <i>million dollars</i> )	2,281	2,437	2,584	3,008	3,332
	Apparent U.S. consumption ( <i>million dollars</i> )	3,958	4,040	4,068	4,487	4,824
	Trade balance ( <i>million dollars</i> )	-2,122	-2,243	-2,385	-2,775	-3,079
	Ratio of imports to apparent consumption ( <i>percent</i> )	57.6	60.3	63.5	67.0	69.1
MM048	Certain other leather goods:					
	Number of establishments	470	441	450	450	455
	Employees ( <i>thousands</i> )	9	8	8	7	7
	Capacity utilization ( <i>percent</i> )	83	85	85	85	85
	U.S. shipments ( <i>million dollars</i> )	477	498	568	543	570
	U.S. exports ( <i>million dollars</i> )	63	74	79	88	93
	U.S. imports ( <i>million dollars</i> )	140	158	168	196	229
	Apparent U.S. consumption ( <i>million dollars</i> )	554	582	657	651	706
	Trade balance ( <i>million dollars</i> )	-77	-84	-89	-108	-136
	Ratio of imports to apparent consumption ( <i>percent</i> )	25.3	27.1	25.6	30.1	32.4
MM049	Musical instruments and accessories:					
	Firms ( <i>number</i> )	450	470	468	470	470
	Employees ( <i>thousands</i> )	11	12	12	12	12
	Capacity utilization ( <i>percent</i> )	58	60	59	60	61
	U.S. shipments ( <i>million dollars</i> )	823	884	880	890	935
	U.S. exports ( <i>million dollars</i> )	303	341	354	389	418
	U.S. imports ( <i>million dollars</i> )	713	824	861	883	1,015
	Apparent U.S. consumption ( <i>million dollars</i> )	1,233	1,367	1,387	1,384	1,532
	Trade balance ( <i>million dollars</i> )	-410	-483	-507	-494	-597
	Ratio of imports to apparent consumption ( <i>percent</i> )	57.8	60.3	62.1	63.8	66.3
MM050	Umbrellas, whips, riding crops, and canes:					
	Number of establishments	20	15	15	15	17
	Employees ( <i>number</i> )	430	400	405	400	405
	Capacity utilization ( <i>percent</i> )	78	78	78	78	78
	U.S. shipments ( <i>million dollars</i> )	60	60	61	62	64
	U.S. exports ( <i>million dollars</i> )	10	11	9	8	10
	U.S. imports ( <i>million dollars</i> )	143	173	180	188	198
	Apparent U.S. consumption ( <i>million dollars</i> )	193	222	232	242	252
	Trade balance ( <i>million dollars</i> )	-133	-162	-171	-180	-188
	Ratio of imports to apparent consumption ( <i>percent</i> )	74.1	77.9	77.6	77.7	78.6
MM051	Silverware and certain other articles of precious metal:					
	Number of establishments	46	45	45	44	44
	Employees ( <i>thousands</i> )	3	3	3	3	3
	Capacity utilization ( <i>percent</i> )	73	75	78	75	80
	U.S. shipments ( <i>million dollars</i> )	179	180	185	180	185
	U.S. exports ( <i>million dollars</i> )	127	138	87	89	74
	U.S. imports ( <i>million dollars</i> )	41	64	109	317	139
	Apparent U.S. consumption ( <i>million dollars</i> )	93	106	207	408	250
	Trade balance ( <i>million dollars</i> )	86	74	-22	-228	-65
	Ratio of imports to apparent consumption ( <i>percent</i> )	44.1	60.4	52.7	77.7	55.6
MM052	Precious jewelry and related articles:					
	Firms ( <i>number</i> )	2,150	2,216	2,215	2,220	2,225
	Employees ( <i>thousands</i> )	33	33	33	33	34
	Capacity utilization ( <i>percent</i> )	55	55	60	60	60
	U.S. shipments ( <i>million dollars</i> )	3,502	3,658	3,799	3,800	3,987
	U.S. exports ( <i>million dollars</i> )	424	495	407	381	386
	U.S. imports ( <i>million dollars</i> )	2,518	2,795	3,232	3,525	3,642
	Apparent U.S. consumption ( <i>million dollars</i> )	5,596	5,958	6,624	6,944	7,243
	Trade balance ( <i>million dollars</i> )	-2,094	-2,300	-2,825	-3,144	-3,256
	Ratio of imports to apparent consumption ( <i>percent</i> )	45.0	46.9	48.8	50.8	50.3
MM053	Costume jewelry and related articles:					
	Firms ( <i>number</i> )	900	904	910	915	915
	Employees ( <i>thousands</i> )	18	18	18	19	19
	Capacity utilization ( <i>percent</i> )	65	68	70	69	70
	U.S. shipments ( <i>million dollars</i> )	1,399	1,509	1,453	1,505	1,598
	U.S. exports ( <i>million dollars</i> )	123	114	120	126	124
	U.S. imports ( <i>million dollars</i> )	491	532	544	567	493

**Table B-10—Continued**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM053	Costume jewelry and related articles— <i>Continued</i>					
	Apparent U.S. consumption (million dollars) . . . . .	1,767	1,927	1,877	1,946	1,967
	Trade balance (million dollars) . . . . .	-368	-418	-424	-441	-369
	Ratio of imports to apparent consumption (percent) . . . . .	27.8	27.6	29.0	29.1	25.1
	Ratio of exports to shipments (percent) . . . . .	8.8	7.6	8.3	8.4	7.8
MM054	Bicycles and certain parts:					
	Number of establishments . . . . .	30	30	30	30	30
	Employees (thousands) . . . . .	6	6	7	7	7
	Capacity utilization (percent) . . . . .	91	91	88	75	67
	U.S. shipments (million dollars) . . . . .	1,245	1,105	1,210	1,200	1,175
	U.S. exports (million dollars) . . . . .	174	175	197	200	257
	U.S. imports (million dollars) . . . . .	745	734	841	825	968
	Apparent U.S. consumption (million dollars) . . . . .	1,816	1,664	1,854	1,825	1,886
	Trade balance (million dollars) . . . . .	-571	-559	-644	-625	-711
	Ratio of imports to apparent consumption (percent) . . . . .	41.0	44.1	45.4	45.2	51.3
	Ratio of exports to shipments (percent) . . . . .	14.0	15.8	16.3	16.7	21.9
MM055	Furniture and selected furnishings:					
	Number of establishments . . . . .	14,500	14,500	14,500	14,600	14,600
	Employees (thousands) . . . . .	480	475	480	485	495
	Capacity utilization (percent) . . . . .	70	71	71	72	73
	U.S. shipments (million dollars) . . . . .	43,000	46,300	50,300	54,800	57,500
	U.S. exports (million dollars) . . . . .	2,256	2,700	2,941	3,300	3,302
	U.S. imports (million dollars) . . . . .	4,981	5,555	6,298	7,638	8,423
	Apparent U.S. consumption (million dollars) . . . . .	45,725	49,155	53,657	59,138	62,621
	Trade balance (million dollars) . . . . .	-2,725	-2,855	-3,357	-4,338	-5,121
	Ratio of imports to apparent consumption (percent) . . . . .	10.9	11.3	11.7	12.9	13.5
	Ratio of exports to shipments (percent) . . . . .	5.2	5.8	5.8	6.0	5.7
MM056	Writing instruments and related articles:					
	Number of establishments . . . . .	200	200	200	200	200
	Employees (thousands) . . . . .	12	12	13	13	13
	Capacity utilization (percent) . . . . .	78	78	80	80	80
	U.S. shipments (million dollars) . . . . .	1,555	1,605	1,690	1,760	1,795
	U.S. exports (million dollars) . . . . .	207	258	242	233	264
	U.S. imports (million dollars) . . . . .	451	513	568	611	668
	Apparent U.S. consumption (million dollars) . . . . .	1,799	1,860	2,016	2,138	2,199
	Trade balance (million dollars) . . . . .	-244	-255	-326	-378	-404
	Ratio of imports to apparent consumption (percent) . . . . .	25.1	27.6	28.2	28.6	30.4
	Ratio of exports to shipments (percent) . . . . .	13.3	16.1	14.3	13.2	14.7
MM057	Lamps and lighting fittings:					
	Number of establishments . . . . .	1,570	1,550	1,570	1,560	1,560
	Employees (thousands) . . . . .	61	61	63	62	62
	Capacity utilization (percent) . . . . .	73	73	73	75	80
	U.S. shipments (million dollars) . . . . .	7,800	7,950	8,500	7,120	8,000
	U.S. exports (million dollars) . . . . .	373	449	472	519	543
	U.S. imports (million dollars) . . . . .	1,295	1,499	1,712	1,956	2,198
	Apparent U.S. consumption (million dollars) . . . . .	8,722	9,000	9,740	8,557	9,655
	Trade balance (million dollars) . . . . .	-922	-1,050	-1,240	-1,437	-1,655
	Ratio of imports to apparent consumption (percent) . . . . .	14.8	16.7	17.6	22.9	22.8
	Ratio of exports to shipments (percent) . . . . .	4.8	5.6	5.6	7.3	6.8
MM058	Prefabricated buildings:					
	Number of establishments . . . . .	1,100	1,100	1,100	1,200	1,300
	Employees (thousands) . . . . .	71	74	79	86	94
	Capacity utilization (percent) . . . . .	70	70	75	76	77
	U.S. shipments (million dollars) . . . . .	8,300	9,100	11,128	13,341	15,210
	U.S. exports (million dollars) . . . . .	276	273	329	415	409
	U.S. imports (million dollars) . . . . .	21	64	71	48	67
	Apparent U.S. consumption (million dollars) . . . . .	8,045	8,891	10,870	12,974	14,868
	Trade balance (million dollars) . . . . .	255	209	258	367	342
	Ratio of imports to apparent consumption (percent) . . . . .	0.3	0.7	0.7	0.4	0.5
	Ratio of exports to shipments (percent) . . . . .	3.3	3.0	3.0	3.1	2.7
MM059	Children's vehicles:					
	Number of establishments . . . . .	45	45	45	45	45
	Employees (thousands) . . . . .	3	3	3	3	3
	Capacity utilization (percent) . . . . .	79	84	90	90	90
	U.S. shipments (million dollars) . . . . .	469	497	518	544	540
	U.S. exports (million dollars) . . . . .	28	30	34	44	44
	U.S. imports (million dollars) . . . . .	206	194	228	248	266
	Apparent U.S. consumption (million dollars) . . . . .	647	661	712	748	762
	Trade balance (million dollars) . . . . .	-178	-164	-194	-204	-222
	Ratio of imports to apparent consumption (percent) . . . . .	31.8	29.3	32.0	33.2	34.9
	Ratio of exports to shipments (percent) . . . . .	6.0	6.0	6.6	8.1	8.1

Table B-10—Continued

## Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1991-95

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM060	Dolls:					
	Number of establishments	180	170	165	165	160
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	70	70	70	70
	U.S. shipments (million dollars)	112	116	117	116	115
	U.S. exports (million dollars)	21	29	27	29	28
	U.S. imports (million dollars)	845	901	885	934	1,167
	Apparent U.S. consumption (million dollars)	936	988	975	1,021	1,254
	Trade balance (million dollars)	-824	-872	-858	-905	-1,139
	Ratio of imports to apparent consumption (percent)	90.3	91.2	90.8	91.5	93.1
Ratio of exports to shipments (percent)	18.8	25.0	23.1	25.0	24.3	
MM061	Toys and models:					
	Number of establishments	315	315	315	312	312
	Employees (thousands)	12	12	12	11	11
	Capacity utilization (percent)	71	80	85	86	90
	U.S. shipments (million dollars)	1,698	1,913	2,026	2,049	2,104
	U.S. exports (million dollars)	387	427	468	528	581
	U.S. imports (million dollars)	2,880	3,597	3,666	4,010	4,526
	Apparent U.S. consumption (million dollars)	4,191	5,083	5,224	5,531	6,049
	Trade balance (million dollars)	-2,493	-3,170	-3,198	-3,482	-3,945
	Ratio of imports to apparent consumption (percent)	68.7	70.8	70.2	72.5	74.8
Ratio of exports to shipments (percent)	22.8	22.3	23.1	25.8	27.6	
MM062	Games and fairground amusements:					
	Number of establishments	325	325	325	320	315
	Employees (thousands)	45	50	50	45	45
	Capacity utilization (percent)	80	79	96	98	98
	U.S. shipments (million dollars)	2,068	2,038	2,477	2,602	2,618
	U.S. exports (million dollars)	684	884	1,000	1,117	1,130
	U.S. imports (million dollars)	2,091	2,729	3,461	2,575	2,494
	Apparent U.S. consumption (million dollars)	3,475	3,883	4,938	4,060	3,982
	Trade balance (million dollars)	-1,407	-1,845	-2,461	-1,458	-1,364
	Ratio of imports to apparent consumption (percent)	60.2	70.3	70.1	63.4	62.6
Ratio of exports to shipments (percent)	33.1	43.4	40.4	42.9	43.2	
MM063	Sporting goods:					
	Number of establishments	2,050	2,123	2,125	2,130	2,135
	Employees (thousands)	61	61	62	65	66
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	6,504	6,900	7,285	7,542	8,596
	U.S. exports (million dollars)	930	1,024	1,140	1,326	1,731
	U.S. imports (million dollars)	1,750	2,148	2,159	2,699	2,956
	Apparent U.S. consumption (million dollars)	7,324	8,024	8,304	8,915	9,821
	Trade balance (million dollars)	-820	-1,124	-1,019	-1,373	-1,225
	Ratio of imports to apparent consumption (percent)	23.9	26.8	26.0	30.3	30.1
Ratio of exports to shipments (percent)	14.3	14.8	15.6	17.6	20.1	
MM064	Smokers' articles:					
	Number of establishments	15	15	15	12	10
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	65	65	65	65	70
	U.S. shipments (million dollars)	166	165	168	165	170
	U.S. exports (million dollars)	77	73	74	75	85
	U.S. imports (million dollars)	132	148	137	145	153
	Apparent U.S. consumption (million dollars)	221	240	231	235	238
	Trade balance (million dollars)	-55	-75	-63	-70	-68
	Ratio of imports to apparent consumption (percent)	59.7	61.7	59.3	61.7	64.3
Ratio of exports to shipments (percent)	46.4	44.2	44.0	45.5	50.0	
MM065	Brooms, brushes, and hair grooming articles:					
	Number of establishments	290	290	285	280	280
	Employees (thousands)	12	12	11	10	10
	Capacity utilization (percent)	62	64	65	70	75
	U.S. shipments (million dollars)	1,445	1,500	1,700	1,650	1,700
	U.S. exports (million dollars)	95	110	143	148	149
	U.S. imports (million dollars)	453	468	491	525	610
	Apparent U.S. consumption (million dollars)	1,803	1,858	2,048	2,027	2,161
	Trade balance (million dollars)	-358	-358	-348	-377	-461
	Ratio of imports to apparent consumption (percent)	25.1	25.2	24.0	25.9	28.2
Ratio of exports to shipments (percent)	6.6	7.3	8.4	9.0	8.8	

**Table B-10—Continued**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1991-95**

USITC code	Industry/commodity group	1991	1992	1993	1994	1995
MM066	Miscellaneous articles:					
	Number of establishments .....	2,100	2,100	2,100	2,200	2,200
	Employees ( <i>thousands</i> ) .....	37	37	37	38	39
	Capacity utilization ( <i>percent</i> ) .....	60	60	60	60	62
	U.S. shipments ( <i>million dollars</i> ) .....	22,600	22,700	24,100	26,000	27,300
	U.S. exports ( <i>million dollars</i> ) .....	1,503	1,352	1,250	1,524	1,420
	U.S. imports ( <i>million dollars</i> ) .....	3,347	3,718	4,449	4,449	5,037
	Apparent U.S. consumption ( <i>million dollars</i> ) .....	24,444	25,066	27,299	28,925	30,917
	Trade balance ( <i>million dollars</i> ) .....	-1,844	-2,366	-3,199	-2,925	-3,617
	Ratio of imports to apparent consumption ( <i>percent</i> ) ...	13.7	14.8	16.3	15.4	16.3
	Ratio of exports to shipments ( <i>percent</i> ) .....	6.7	6.0	5.2	5.9	5.2



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**Appendix C**  
**Political Entities Included in Selected**  
**Country Groupings**



## **ASEAN<sup>1</sup>**

Brunei  
Indonesia  
Malaysia

Philippines  
Singapore  
Thailand

## **ASIAN PACIFIC RIM**

Australia  
Brunei  
Cambodia  
China  
Christmas Island  
Cocos Island  
Cook Islands  
Heard Island and McDonald Islands  
Hong Kong  
Indonesia  
Japan  
Korea  
Laos

Macao  
Malaysia  
New Zealand  
Niue  
Norfolk Island  
North Korea  
Papua New Guinea  
Philippines  
Singapore  
Taiwan  
Thailand  
Tokelau  
Vietnam

## **CBERA<sup>2</sup>**

Antigua and Barbuda  
Aruba  
Bahamas  
Barbados  
Belize  
British Virgin Islands  
Costa Rica  
Dominica  
Dominican Republic  
El Salvador  
Grenada  
Guatemala

Guyana  
Haiti  
Honduras  
Jamaica  
Montserrat  
Netherlands Antilles  
Nicaragua  
Panama  
St. Kitts and Nevis  
St. Lucia  
St. Vincent and the Grenadines  
Trinidad and Tobago

## **CENTRAL AND EASTERN EUROPE**

Albania  
Bosnia–Hercegovina  
Bulgaria  
Croatia  
Czech Republic  
Hungary  
Macedonia, The Former Yugoslavia Republic

Montenegro  
Poland  
Romania  
Serbia  
Slovakia  
Slovenia

## **EU-15<sup>3</sup>**

Austria  
Belgium  
Denmark  
Finland  
France

Italy  
Luxembourg  
Netherlands  
Portugal  
Spain

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<sup>1</sup> Association of Southeast Asian Nations. Data on Vietnam not included because it did not become a full member until July 1995.

<sup>2</sup> Caribbean Basin Economic Recovery Act beneficiaries.

<sup>3</sup> European Union.

**EU-15<sup>3</sup>**

Germany  
Greece  
Ireland

Sweden  
United Kingdom

**LATIN AMERICA**

Anguilla  
Antigua and Barbuda  
Argentina  
Aruba  
Bahamas, The  
Barbados  
Belize  
Bermuda  
Bolivia  
Brazil  
British Virgin Islands  
Cayman Islands  
Chile  
Colombia  
Costa Rica  
Cuba  
Dominica Island  
Dominican Republic  
Ecuador  
El Salvador  
Falkland Islands  
French Guiana  
Grenada

Guadeloupe  
Guatemala  
Guyana  
Haiti  
Honduras  
Jamaica  
Martinique  
Mexico  
Montserrat  
Netherlands Antilles  
Nicaragua  
Panama  
Paraguay  
Peru  
St. Kitts and Nevis  
St. Lucia  
St. Pierre and Miquelon  
St. Vincent and the Grenadines  
Suriname  
Trinidad and Tobago  
Turks and Caicos Islands  
Uruguay  
Venezuela

**OPEC<sup>4</sup>**

Algeria  
Gabon  
Indonesia  
Iran  
Iraq  
Kuwait

Libya  
Nigeria  
Qatar  
Saudi Arabia  
United Arab Emirates  
Venezuela

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<sup>4</sup> Organization of Petroleum Exporting Countries

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***Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations, 1991-1994*** (Inv. 332-237, USITC Publication 2966, May 1996). This report, updated each year, assesses by industry sector the products and countries that make use of the production sharing provisions of the Harmonized Tariff Schedule of the United States, which provide reduced tariff treatment for eligible goods that are processed in foreign locations but contain U.S.-made components. This year's report also has special chapters that examine production sharing in the U.S. apparel industry and production sharing in Europe. (Also available on the ITC Internet server; see address below.)

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***Annual Report on the Impact of the Andean Trade Preference Act on U.S. Industries and Consumers and on Drug Crop Eradication and Crop Substitution*** (Inv. 332-352, USITC Publication 2995, September 1996). The Andean Trade Preference Act was signed into law in December 1991 as part of the United States' "war on drugs" to promote broad-based economic development, stimulate investment in nontraditional industries, and diversify the export base of the four countries in the Andean mountain region of South America -- Bolivia, Colombia, Ecuador, and Peru -- that cultivate the coca plants from which most of the world's cocaine is produced. ATPA reduces or eliminates tariffs for over 6,000 Andean products. This is the ITC's third annual report in this series. (Also available on the ITC Internet server; see address below.)

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