

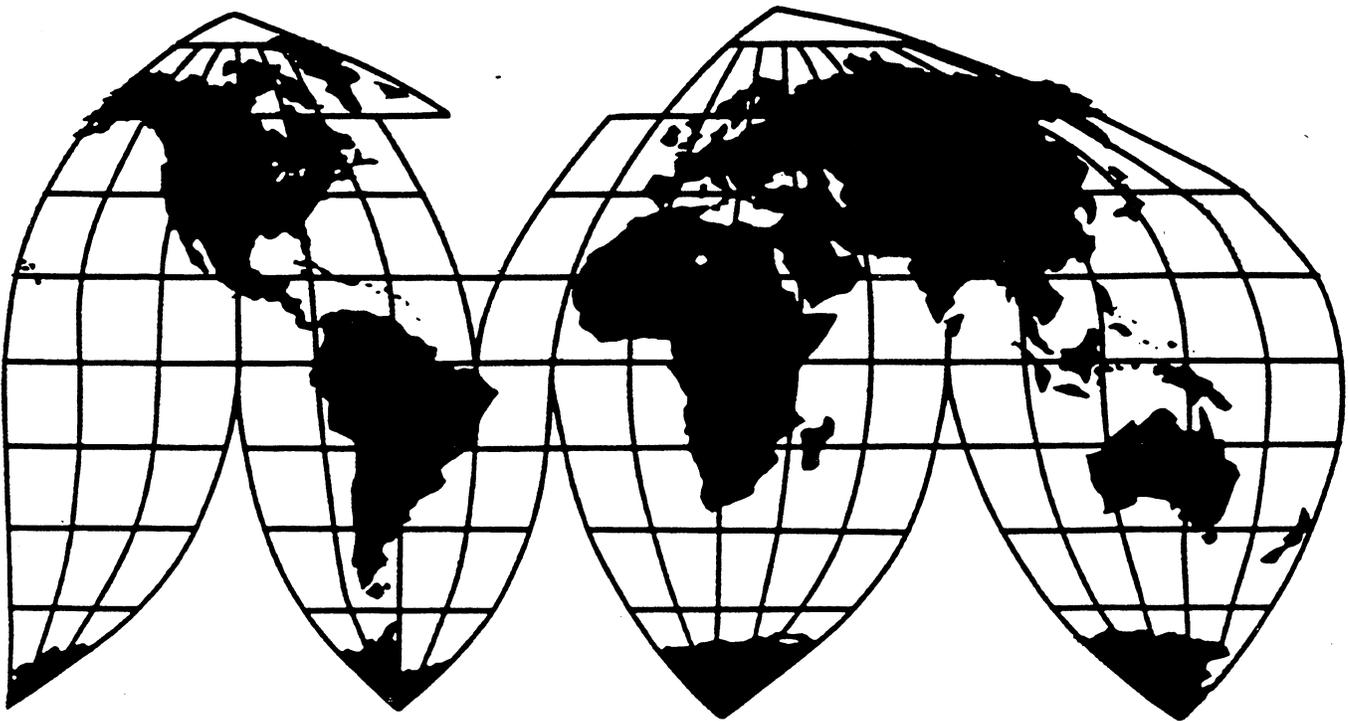
# **U.S. Trade Shifts in Selected Industries: Merchandise**

1994 Annual Report  
Investigation No. 332-345

**Publication 2924**

**September 1995**

**U.S. International Trade Commission**



# U.S. International Trade Commission

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# **U.S. International Trade Commission**

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## **U.S. Trade Shifts in Selected Industries: Merchandise**



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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 *U.S. Trade Shifts in Selected Industries: Merchandise* (September 1995), and the second entitled *U.S. Trade Shifts in Selected Industries: Services* (April 1996). 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 which the Commission has found essential in its statutory investigations and in apprising its varied customer base of global industry trends, regional developments, and competitive issues. The USITC is uniquely qualified to maintain comparable import, export, trade balance, and industry profile data (domestic consumption, production, employment, and import penetration) in recent 5-year periods for the nearly 300 major industry/commodity groups examined in this report. This capability is not replicated in the Government and reflects trade monitoring activity that is essential to maintain the expertise that enables the USITC to respond quickly to diverse inquiries from the public, the Congress, and other agencies.

The current report summarizes and provides brief analyses of the major trade shifts in 1994 occurring in industries/commodities, and with leading U.S. trading partners. This report also includes summary trade information and basic statistical profiles 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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# CHAPTER 1

## Introduction

The trade analysts of the U.S. International Trade Commission (USITC) Office of Industries and other offices routinely monitor trade developments in the services sector and in all agricultural and manufactured industries/ commodities 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 at the major industry/commodity sector level, on a bilateral basis, and at the industry/commodity group level in more detail. This series is part of USITC's recurring reports that facilitate the development of core competencies and expertise, and enables the Commission to provide objective and in-depth analysis to the public, the Congress, and other agencies related to emerging and complex trade and economic issues.

This report does not analyze U.S. trade in services, which, as noted in the *Preface*, is the subject of a forthcoming USITC report. Thus, throughout this report, references to trade balances represent only U.S. balances in merchandise trade. However, to put the U.S. merchandise trade deficit in perspective, during 1994, the United States recorded a \$59.5-billion trade surplus in private services, which, when added to the \$176.0-billion merchandise trade deficit, reduced the total trade deficit to \$116.5 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.

Chapter 2 of the report summarizes U.S. merchandise trade and exchange rate shifts that occurred in 1994, as compared to those of 1993. Coverage of the 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>2</sup>

Chapters 3 through 12 take up specific major industrial and agricultural sectors, in a general overview and in industry/commodity group specific analyses. 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 1990-94 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>2</sup> See chapter 3 of last year's 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 1994

The deficit in the U.S. merchandise trade balance climbed by \$40.4 billion in 1994, to \$176.0 billion, well above the \$135.6 billion deficit recorded in 1993 (table 2-1 and figure 2-1). The deficit grew despite a significant expansion in U.S. exports, which rose from \$439.3 billion in 1993, to \$481.9 billion in 1994, or by nearly 10 percent. Nevertheless, U.S. imports increased by more than 14 percent to \$657.9 billion in 1994, from \$574.9 billion in 1993. The absolute increase of \$83.0 billion in U.S. imports was nearly twice that of U.S. exports, which increased by \$42.6 billion. This shift caused the ratio of exports to total trade to decline from 43 to 42 percent during 1993-94.

Factors affecting trade performance in 1994 included increased consumer spending, which spurred both U.S. production and imports; changes in interest rates; investment and financial market developments; diverse economic trends in global economies; and structural impediments in key markets. The significant expansion in the U.S. trade deficit during 1994 was led by substantial increases in imports of motor vehicles and parts, computers and computer peripheral equipment, semiconductors, steel mill products, and unwrought aluminum. Import growth in these sectors was compounded by large reductions in U.S. exports of precious metals, aircraft, cereals, and petroleum products.

U.S. imports rose in every major industry/commodity sector during 1994 (figure 2-2), with nearly three-quarters of the annual increase being accounted for by electronic products (up by \$25.0 billion); transportation equipment (up by \$15.8 billion); minerals and metals (up by \$10.5 billion), and machinery (up by \$9.2 billion). Conversely, two industry/commodity sectors, energy-related products and minerals and metals, recorded export declines in 1994. Agricultural products and chemicals and related products were the only sectors in which there was improvement in the U.S. balance of trade in 1994 (\$2.0 billion and \$1.3 billion, respectively) and yearend surpluses (\$20.3 billion and \$13.5 billion, respectively).

Within the electronic products sector, the principal development driving increased import demand for these

products was a significant rise in consumer spending on personal computers and peripheral equipment, which, in turn, stimulated increased imports of semiconductor devices that are incorporated in this equipment. U.S. imports of computers, computer peripheral equipment, and parts rose by \$8.3 billion (22 percent) to \$46.2 billion in 1994, while imports of semiconductor devices climbed by \$6.6 billion (33 percent) to \$26.0 billion. Similarly, in the transportation equipment sector, strong consumer demand for motor vehicles resulted in a \$10.6 billion rise (15 percent) in imports of this equipment to \$79.2 billion and an associated increase in imports of motor-vehicle parts of \$1.4 billion (10 percent) to \$16.1 billion. With respect to the minerals and metals sector, increased economic activity in the U.S. automotive, construction, and appliance industries strengthened demand for imported steel mill products, which rose by \$3.8 billion (43 percent) to \$12.4 billion, and for unwrought aluminum, which swelled by \$1.4 billion (52 percent) to \$4.2 billion. The major factors affecting import demand for machinery sector products, imports of which rose by \$9.2 billion (21 percent) to \$52.4 billion, were the sustained growth of the U.S. automotive market and lower interest rates, which boosted capital equipment purchases and U.S. construction activity. As a result, significant increases were recorded in 1994 for imports of injection molds and molding equipment for rubber and plastics, ignition wiring harnesses, automotive air-conditioning equipment, and metal-cutting machine tools and parts.

A number of important declines 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. The most significant of these was a \$3.4 billion (7-percent) drop in U.S. exports of precious metals (primarily gold bullion) to \$28.6 billion in 1994, which was precipitated by declines in speculative transfers of gold stocks from the New York Federal Reserve Bank to accounts in European central banks. Other major declines included a \$2.1 billion (7-percent) decrease in exports of civil and military aircraft to \$28.6 billion, and \$640 million (6 and 10 percent) reductions in both cereals and petroleum products exports, respectively, to \$10.1 billion and \$6.0 billion in 1994.

Table 2-1

U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Agricultural products .....	50,824	55,350	4,526	8.9
Forest products .....	20,739	22,386	1,647	7.9
Chemicals and related products .....	49,833	57,188	7,355	14.8
Energy-related products .....	12,212	11,470	-742	-6.1
Textiles and apparel .....	11,686	13,033	1,347	11.5
Footwear .....	604	646	42	7.0
Minerals and metals .....	32,887	32,487	-400	-1.2
Machinery .....	44,417	49,850	5,433	12.2
Transportation equipment .....	98,505	104,249	5,745	5.8
Electronic products .....	94,056	109,177	15,120	16.1
Miscellaneous manufactures .....	9,573	10,769	1,196	12.5
Special provisions .....	13,960	15,283	1,323	9.5
<b>Total .....</b>	<b>439,295</b>	<b>481,887</b>	<b>42,592</b>	<b>9.7</b>
U.S. imports for consumption:				
Agricultural products .....	32,534	35,049	2,515	7.7
Forest products .....	21,394	24,037	2,643	12.4
Chemicals and related products .....	37,596	43,683	6,087	16.2
Energy-related products .....	56,098	57,344	1,246	2.2
Textiles and apparel .....	42,750	46,574	3,824	8.9
Footwear .....	11,105	11,714	609	5.5
Minerals and metals .....	46,246	56,778	10,532	22.8
Machinery .....	43,242	52,442	9,200	21.3
Transportation equipment .....	112,664	128,444	15,780	14.0
Electronic products .....	120,682	145,656	24,974	20.7
Miscellaneous manufactures .....	32,643	35,346	2,703	8.3
Special provisions .....	17,909	20,816	2,907	16.2
<b>Total .....</b>	<b>574,863</b>	<b>657,885</b>	<b>83,020</b>	<b>14.4</b>
U.S. merchandise trade balance:				
Agricultural products .....	18,290	20,301	2,011	(2)
Forest products .....	-655	-1,651	-996	(2)
Chemicals and related products .....	12,237	13,505	1,268	(2)
Energy-related products .....	-43,886	-45,874	-1,988	(2)
Textiles and apparel .....	-31,064	-33,541	-2,477	(2)
Footwear .....	-10,501	-11,068	-567	(2)
Minerals and metals .....	-13,359	-24,291	-10,932	(2)
Machinery .....	1,175	-2,592	-3,767	(2)
Transportation equipment .....	-14,159	-24,195	-10,036	(2)
Electronic products .....	-26,626	-36,479	-9,853	(2)
Miscellaneous manufactures .....	-23,070	-24,577	-1,507	(2)
Special provisions .....	-3,949	-5,533	-1,584	(2)
<b>Total .....</b>	<b>-135,568</b>	<b>-175,998</b>	<b>-40,428</b>	<b>(2)</b>

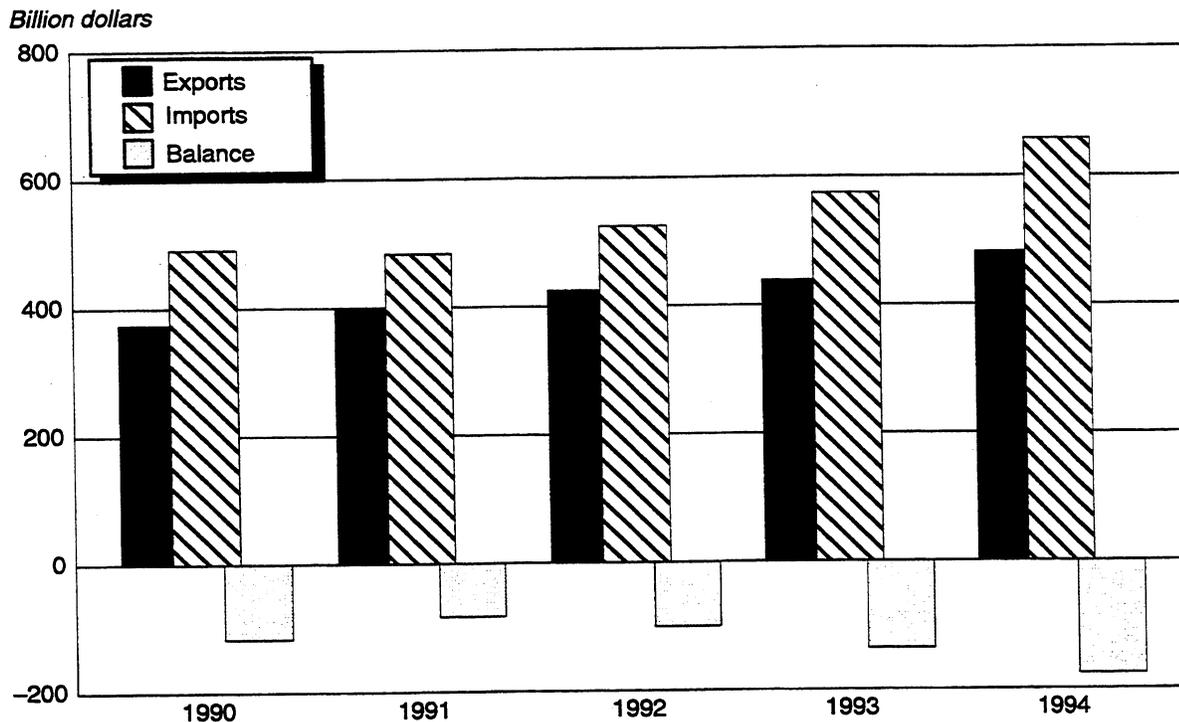
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<sup>2</sup> Not applicable.

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, 1990-94**



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

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 1994. The bilateral U.S. trade deficits with Japan of \$66.5 billion and China of \$29.4 billion accounted for over half of the total U.S. trade deficit in 1994 (table 2-2 and figure 2-3). Although the U.S. trade deficit with Canada (\$25.1 billion) nearly matched the deficit with China, U.S. exports to Canada in 1994 were 81 percent as large as U.S. imports from Canada. The comparable ratios for Japan and China were only 43 percent and 24 percent, respectively.<sup>1</sup>

While most economies in Europe were in a state of mild recovery in 1994, the U.S. economy was even stronger, leading the growth in imports from the European Union (EU) to exceed the rise in U.S. exports to the EU. Despite the resulting \$7.3 billion increase in the U.S. trade deficit with the EU in 1994, U.S. exports to the EU were still 88 percent as large as U.S. imports.

The United States recorded falling trade balances with each of its top 10 trading partners in 1994, except for the Republic of Korea (Korea), where the trade deficit fell from \$2.6 billion to \$2.0 billion, or by 22 percent (table 2-2). A contributing factor was Korea's altered fiscal

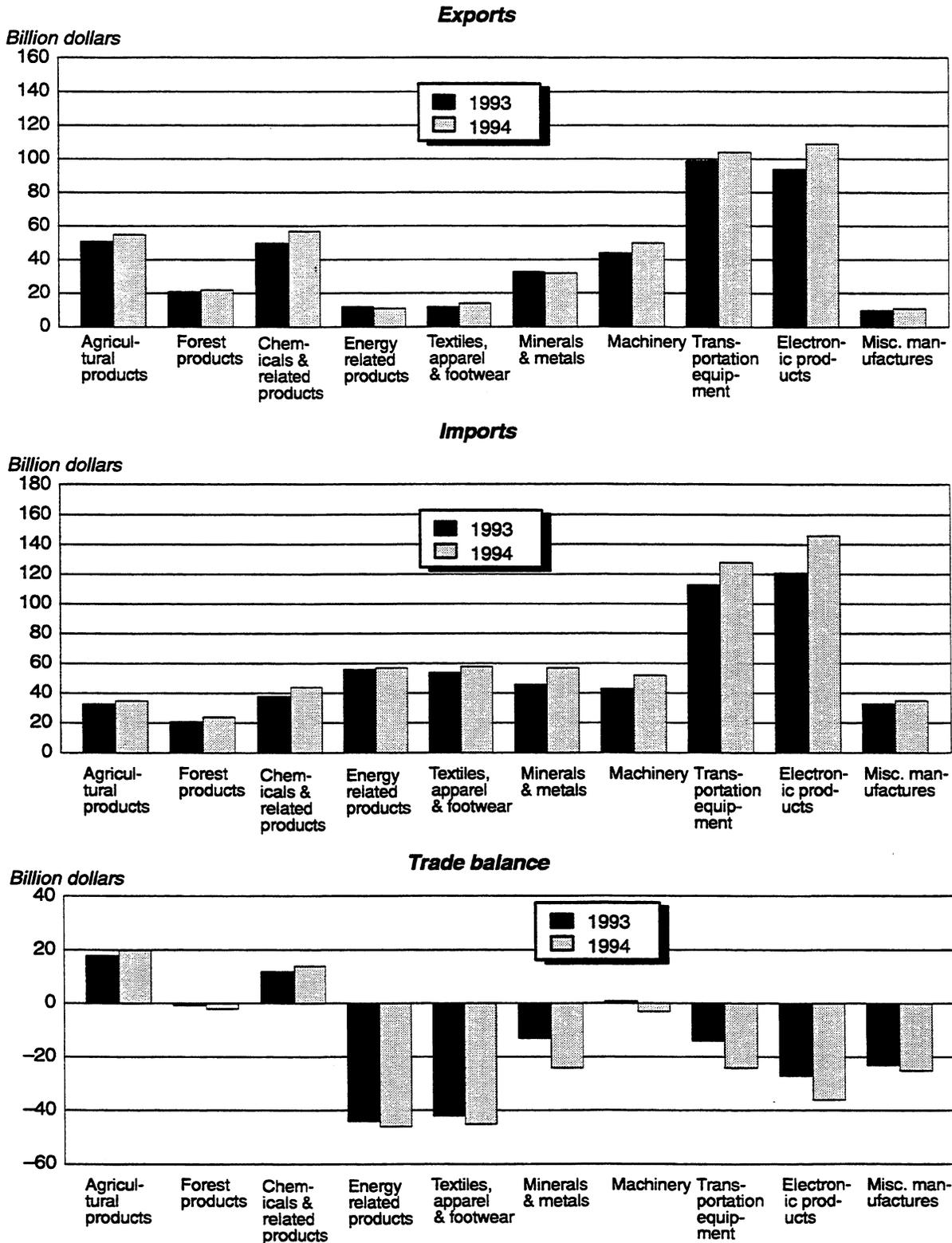
policies designed to control inflation. These tight fiscal policies had previously inhibited growth in the construction and manufacturing sectors. In turn, the reduced growth in GDP constricted U.S. exports. At yearend, U.S. trade surpluses among the top 10 trading partners were registered only with Mexico (\$531 million) and the United Kingdom (\$226 million) and with the major trading blocs of Latin America (\$2.3 billion) and Caribbean Basin Economic Recovery Act (CBERA) countries (\$1.6 billion).

In the first year since implementation of the North American Free-Trade Agreement (NAFTA), Canada and Mexico accounted for one-third (\$28.2 billion) of the total rise in U.S. imports and one-half (\$20.6 billion) of the growth in U.S. exports.<sup>2</sup> Total U.S. trade with Canada climbed by 15 percent, while trade with Mexico increased by 24 percent in 1994. Although imports from Japan expanded by \$11.4 billion in 1994, the rate of growth (from a very large base) was only 11 percent, compared with the rise in imports from all sources that year of 14 percent. Exhibiting much faster growth rates were imports from Malaysia (32 percent), China (23 percent), Thailand (20 percent), and Singapore (20

<sup>1</sup> See the writeups below on Japan and China for more details on structural impediments to imports in those markets.

<sup>2</sup> For a detailed treatment of the NAFTA first year of operation, see USITC, *Year in Trade 1994*, USITC publication 2894, July 1995, chapter 2.

**Figure 2-2**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1993 and 1994**



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

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, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada	91,866	103,643	11,777	12.8
Japan	46,045	51,061	5,016	10.9
Mexico	40,265	49,136	8,871	22.0
Germany	17,947	18,181	234	1.3
United Kingdom	24,497	24,755	258	1.1
China	8,619	9,178	559	6.5
Taiwan	15,585	16,240	655	4.2
Korea	14,359	17,499	3,141	21.9
France	12,463	12,731	269	2.2
Singapore	10,655	11,714	1,059	9.9
All other	156,994	167,749	10,756	6.9
Total	439,295	481,887	42,592	9.7
EU-12	91,245	96,538	5,293	5.8
OPEC	20,046	18,575	-1,472	-7.3
Latin America	75,307	88,654	13,348	17.7
CBERA	11,942	12,822	880	7.4
Asian Pacific Rim	125,665	140,318	14,652	11.7
ASEAN	26,574	29,856	3,282	12.3
Eastern Europe	1,999	1,660	-339	-16.9
U.S. imports for consumption:				
Canada	110,482	128,753	18,271	16.5
Japan	106,162	117,532	11,369	10.7
Mexico	38,668	48,605	9,938	25.7
Germany	28,103	31,566	3,463	12.3
United Kingdom	21,303	24,529	3,226	15.1
China	31,425	38,572	7,147	22.7
Taiwan	24,981	26,586	1,605	6.4
Korea	16,986	19,547	2,561	15.1
France	14,953	16,299	1,345	9.0
Singapore	12,744	15,287	2,543	20.0
All other	169,054	190,609	21,555	12.8
Total	574,863	657,885	83,022	14.4
EU-12	96,517	109,134	12,617	13.1
OPEC	32,756	33,281	525	1.6
Latin America	72,661	86,323	13,663	18.8
CBERA	10,094	11,200	1,106	11.0
Asian Pacific Rim	227,675	258,744	31,068	13.6
ASEAN	42,002	51,614	9,612	22.9
Eastern Europe	1,542	1,983	441	28.6
U.S. merchandise trade balance:				
Canada	-18,617	-25,110	-6,494	(2)
Japan	-60,117	-66,470	-6,353	(2)
Mexico	1,598	531	-1,067	(2)
Germany	-10,156	-13,385	-3,229	(2)
United Kingdom	3,194	226	-2,968	(2)
China	-22,806	-29,395	-6,589	(2)
Taiwan	-9,395	-10,345	-950	(2)
Korea	-2,628	-2,048	580	(2)
France	-2,491	-3,567	-1,076	(2)
Singapore	-2,089	-3,573	-1,484	(2)
All other	-12,060	-22,860	-10,800	(2)
Total	-135,568	-175,997	-40,429	(2)
EU-12	-5,272	-12,596	-7,324	(2)
OPEC	-12,709	-14,706	-1,997	(2)
Latin America	2,646	2,331	-315	(2)
CBERA	1,848	1,622	-226	(2)
Asian Pacific Rim	-102,010	-118,426	-16,416	(2)
ASEAN	-15,428	-21,758	-6,330	(2)
Eastern Europe	457	-323	-780	(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.

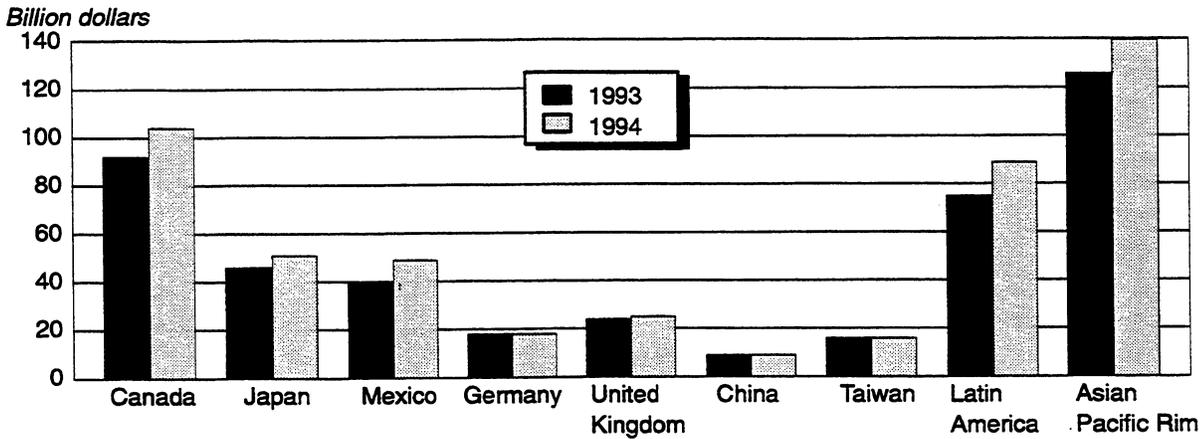
<sup>2</sup> Not meaningful for purposes of comparison.

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 1994.

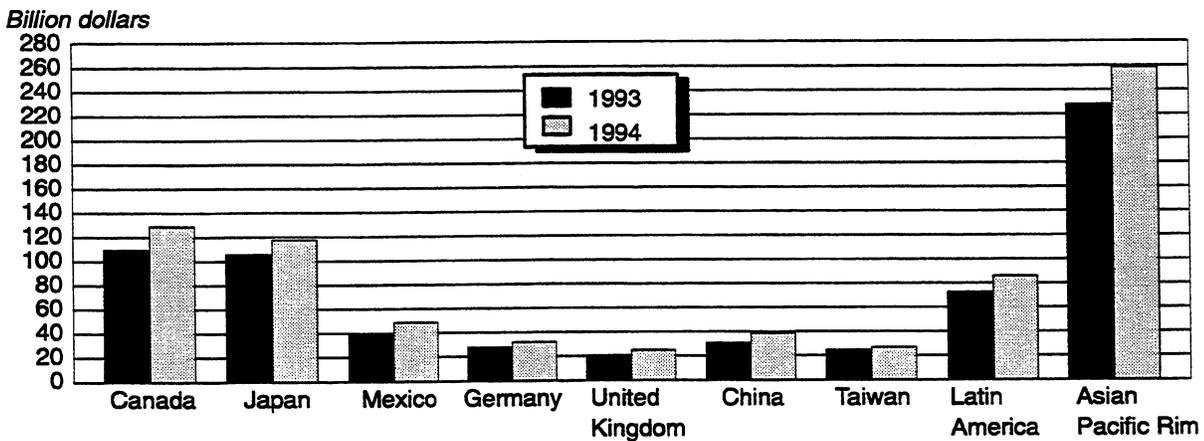
Source: Compiled from official statistics of the U.S. Department of Commerce.

**Figure 2-3**  
**U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major trading partners, 1993 and 1994**

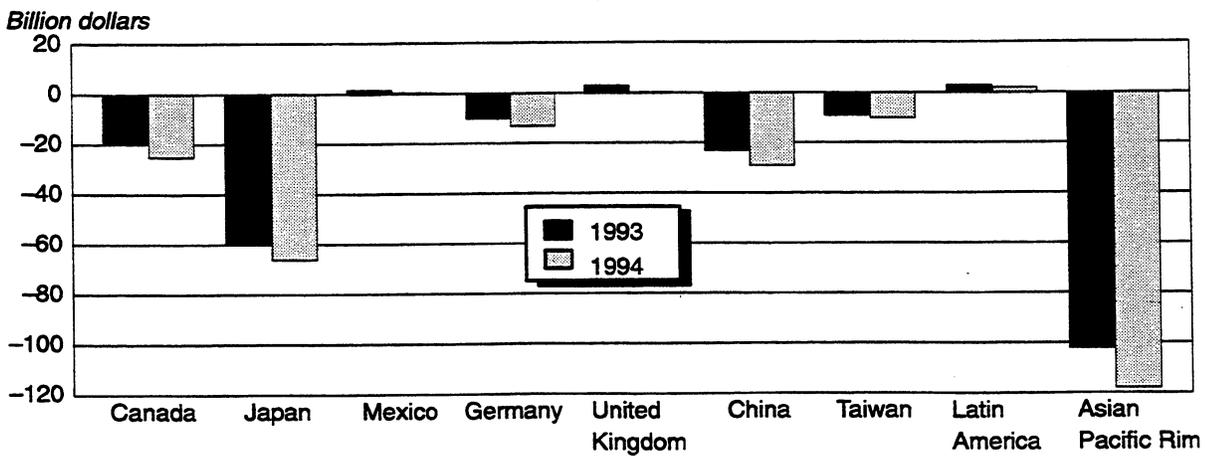
**Exports**



**Imports**



**Trade Balance**



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

percent). The combined \$14.8 billion increase from these four Asian suppliers accounted for 18 percent of the total rise in U.S. imports in 1994. The growth in imports from these countries was concentrated in labor-intensive electronic products as high relative labor costs in Japan, Korea, Taiwan, and Hong Kong encouraged new investment to seek nearby locations with lower production costs.

In absolute terms, Japan was the fastest growing market for U.S. exports outside of North America in 1994; as U.S. exports expanded by \$5.0 billion. In percentage terms, the 10.9-percent increase in exports to Japan was fractionally higher than the 9.7-percent rise to all markets. Due to economic reforms in Brazil that liberalized foreign access to that domestic market, U.S. exports to Brazil increased by one-third (\$1.9 billion) in 1994. Also, concurrent with economic recovery in Europe, U.S. exports to Belgium, a major distribution point for the rest of Europe, rose by 24 percent (\$1.9 billion). Finally, U.S. exports to Korea rose by 22 percent (\$3.1 billion), following the relaxing of fiscal policies and investment regulations in that country that had previously been implemented to curb inflation.

Furthermore, U.S. exports to Japan and China have been limited by the small degree to which U.S. firms have developed relationships with manufacturers in these two countries. This contrasts sharply with the extensive relationships that U.S. producers have developed with manufacturers in Canada and Mexico, especially in the fields of automobiles, auto parts, computers and other office equipment, and electronic components and assemblies. Consequently, intra-industry trade is much more prevalent between the United States and its NAFTA partners within these categories than it is between the United States and its Asian Pacific Rim partners. A large portion of the components used by Canadian and Mexican producers in these sectors (often subsidiaries of U.S. companies) comes from the United States and is reflected in expanding two-way trade between the United States and its NAFTA partners. Comparable industries in Japan and China tend to use parts made domestically or elsewhere in Asia.<sup>3</sup>

The significant shifts in the merchandise trade balance position 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 2.6 percent of the nominal U.S. GDP in 1994, and the bilateral deficit with Japan represented 1.0 percent of nominal U.S. GDP in 1994. Figure 2-4

<sup>3</sup> For example, U.S.-made components account for about half of the total value of motor vehicles and parts imported from Mexico and for one-quarter of such imports from Canada. By contrast, U.S. parts account for only 1 percent of the value of motor vehicles imported from Japan, Korea, and Germany.

indicates the leading U.S. exports to major markets in 1994, and figure 2-5 shows the leading U.S. imports from major sources in 1994.

## Exchange Rate Shifts

Theoretically, the "market" or "nominal" exchange rate between two freely convertible currencies is determined by the supply of and demand for each currency in the market, which reflects the supply of and demand for goods, services, and assets.<sup>4</sup> The "real" exchange rate is derived from the nominal rate with an adjustment for inflation.

Movements in exchange rates may, in turn, affect trade between countries through their effects on prices. In general, depreciation of the dollar may reduce the price foreigners pay for U.S. exports, thereby increasing the quantity of exports demanded, and increase the price of imports for U.S. consumers, thereby reducing the quantity of imports demanded. This change in the relative price of exports and imports may lead to changes in the trade balance after a time lag to allow for price and market adjustments.

Since the early 1980s, the United States has had sizable deficits in its overall current account and merchandise trade balances. These sustained deficits have been offset by net exports of financial assets because the rest of the world has been willing to purchase financial assets from the United States. 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. Although interest rates in the United States rose moderately, the interest rates in some major developed countries were still higher than those of the United States in 1994. Relatively lower U.S. interest rates probably reduced foreign demand for U.S. financial assets and, to some extent, weakened demand for the dollar.

In the view of Federal Reserve Board Chairman Alan Greenspan, the U.S. Federal budget deficits experienced by the U.S. economy have been another factor adversely effecting the foreign exchange value of the dollar.<sup>5</sup> The

<sup>4</sup> The terms market rate and nominal rate are used interchangeably in this section. The term market rate refers only to the spot market rate.

<sup>5</sup> Alan Greenspan, Chairman of the Board of Governors of the Federal Reserve System, statement before the Committee on the Budget, U.S. House of Representatives, Mar. 8, 1995, *Federal Reserve Bulletin*, vol. 81, No. 5 (May 1995), pp. 422-424, and Keith Bradsher, "Greenspan Says Weak Dollar Is Caused by Federal Deficits: Welcomes New Efforts to Balance Budget," *New York Times*, May 17, 1995, p. D2. Using basic national income accounting, in "Japan's Secret Weapon Is the Piggy Bank," *New York Times*, May 21, 1995, section 4, p. 1, Nicholas D. Kristof contended that any country that invests more than it saves will automatically have a trade deficit. This deficit occurs because the difference must be made up with imported financial assets, and vice versa, as in the case of Japan. Elimination of the

**Table 2-3**

**U.S. bilateral merchandise trade balances with major partner countries, in dollars and as a ratio to U.S. gross domestic product (GDP), 1994**

Country	GDP <sup>1</sup>	U.S. exports	U.S. imports	U.S. merchandise trade balance	Ratio of the merchandise trade balance to U.S. GDP
	<i>Billion dollars</i>	<i>Million dollars</i>			<i>Percent</i>
United States .....	6,738	481,887	657,885	-175,997	-2.61
Canada .....	548	103,643	128,753	-25,110	-0.37
Mexico .....	368	49,136	48,605	531	0.01
Japan .....	4,595	51,061	117,532	-66,470	-0.99
China .....	545	9,178	38,572	-29,395	-0.44
Korea .....	380	17,499	19,547	-2,048	-0.03
Malaysia .....	64	6,605	13,877	-7,273	-0.11
Germany .....	1,835	18,181	31,566	-13,385	-0.20
Singapore .....	66	11,714	15,287	-3,573	-0.05
United Kingdom .....	1,023	24,755	24,529	226	0.00
Belgium .....	228	10,188	6,319	3,869	0.06
Brazil .....	474	7,638	8,847	-1,209	-0.02
Thailand .....	140	4,624	10,276	-5,652	-0.08
Taiwan .....	234	16,240	26,586	-10,345	-0.15
Italy .....	1,026	6,863	14,572	-7,708	-0.11
Russia .....	<sup>2</sup> 272	2,508	3,215	-707	-0.01

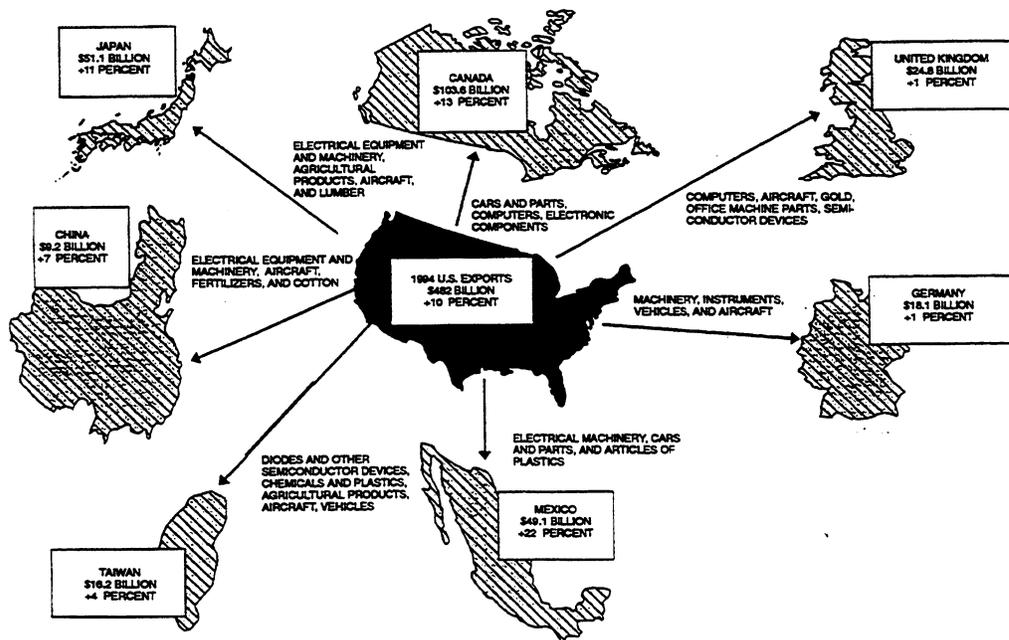
<sup>1</sup> Estimated GDP data for Mexico, Japan, Singapore, Brazil, Thailand, Taiwan, Italy, and Russia are from U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, 1995), pp. 59, 93, 97, 102, 199, 251, 334, and 392.

<sup>2</sup> Estimated from 600 trillion rubles. The rapid devaluation of the ruble in 1994 makes the determination of a meaningful figure in U.S. dollars difficult. *Ibid.*, p. 251.

Note.—The GDP data for China and Malaysia are for 1993 because the 1994 statistics consistent with International Monetary Fund data are not available yet.

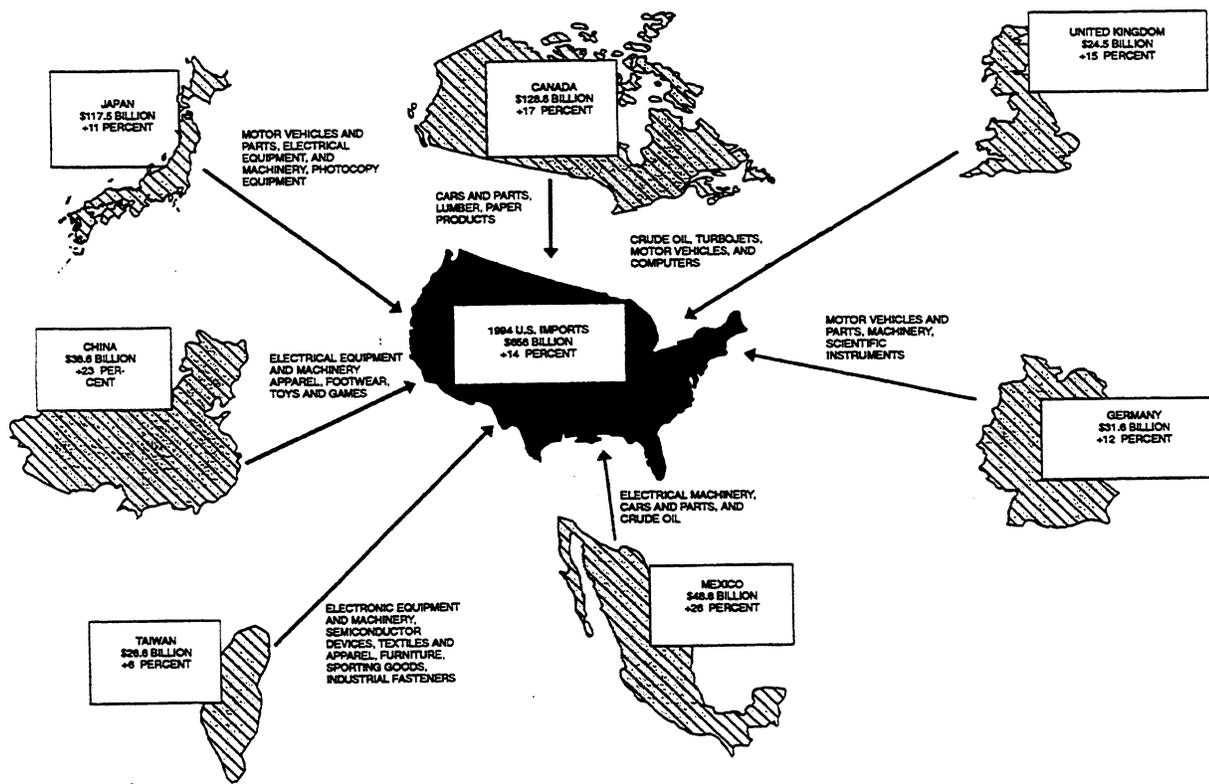
Source: U.S. trade data from official statistics of the U.S. Department of Commerce; GDP data from International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF Publications Services, June 1995), country tables, except as noted.

**Figure 2-4**  
**Leading U.S. exports, by major markets, and overall percentage change, 1993-94**



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, 1993-94**



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

accompanying need of the U.S. Government to borrow dollars to finance the deficit drains savings capital from the U.S. economy that could be used by the private sector to finance investment that would thereby increase the long-term potential for growth of the economy. It also forces borrowing savings from abroad. Weakness in the value of the dollar in early 1995 may be related to an increasing hesitancy of foreigners to continue to finance these budget deficits.

After the dramatic 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 the same, dollar appreciations should lead to a worsening of the trade balance (as imports become relatively less expensive in the U.S. market and U.S. exports become relatively more expensive abroad), and dollar depreciations should lead to an improvement in the balance of trade. But deficits are not substantial in the long-long run. However, the short-run fluctuations experienced over the past few years in the exchange rate

are not likely to be reflected in significant changes in the trade balance.

A current study argues 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 its major trading partners.<sup>6</sup> Thus, the rate at which the U.S. trade deficit widened in 1994 slowed as the average rate of growth of the major U.S. trade partners increased to nearly that of the United States. The study concludes that "because of the close historical association between U.S. imports and U.S. GDP and between U.S. exports and foreign GDP, the balance on goods and services has been closely related to deviations in the GDP ratio (of foreign to U.S.) from its trend."<sup>7</sup> The study shows that this relationship was strongest during the 1970s and the 1990s when an index of real exchange rates of certain developed and developing countries with the U.S. dollar was relatively stable. 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.

<sup>5</sup>—Continued

U.S. Government deficits would increase the amount of savings available for private investment and contribute to the elimination of the trade deficit, according to this line of reasoning.

<sup>6</sup> Charles P. Thomas, "U.S. International Transactions in 1994," *Federal Reserve Bulletin*, vol. 81, No. 5 (May 1995), pp. 408-410.

<sup>7</sup> *Ibid.*, p. 409.

In 1994, the U.S. economy continued its recovery. Both business investment and consumer spending increased as the growing U.S. economy benefited from low interest rates and low inflation. The U.S. economy grew at a 4.1-percent rate, higher than most other developed economies. This higher growth rate in the U.S. resulted in increased demand for imports. At the same time, slower economic growth rates of several major trading partners weakened overall demand in those markets, restraining U.S. export growth to, for example, Japan and Europe, despite the real depreciation of the dollar compared with the yen and a basket of European currencies. In 1994, U.S. imports grew by 14.4 percent, while exports grew by 9.7 percent, worsening the U.S. trade balance and increasing the supply of dollars in the foreign exchange market.

The average exchange rate of the U.S. dollar showed a small appreciation against world currencies in 1994 in terms of both real and nominal rates, as expressed by the trade-weighted values of the dollar prepared by the Federal Reserve Bank of Dallas.<sup>8</sup> The appreciation of the dollar was caused largely by a strong demand for U.S. financial assets and the sizable depreciation of the Canadian dollar and the Mexican peso. The total real value of the dollar with respect to all foreign currencies in 1994 increased by 1.24 percent as the total real exchange-rate index number increased from 78.27 in 1993 to 79.24 in 1994 (table 2-4). The total real value continued the upward swing from the end of 1993 through the first quarter of 1994, but declined throughout the remainder of 1994. Changes in the total nominal value of the dollar were similar to those in the real value with the total nominal value of the dollar increasing, on average, by 2.54 percent against world currencies in 1994.

The value of the dollar against currencies of individual U.S. major trade partners has shown a mixed pattern. The dollar depreciated sharply with respect to the Japanese yen. In 1994, the average nominal rate between the dollar and the yen changed from 107.62 (yen per dollar) in the first quarter to 99.05 in the third quarter, a depreciation of the dollar by 7.96 percent.<sup>9</sup> This was the first quarter that the nominal value of the dollar fell below the 100 yen level. For the same period, the nominal rate of the dollar against the German mark also depreciated sizably from 1.7242 (marks per dollar) to 1.5431, representing a

<sup>8</sup> The indexes of trade-weighted values of the dollar used in this section are provided by the Federal Reserve Bank of Dallas. This trade-weighted index may differ from those published by other institutions. The Dallas Federal Reserve Bank index numbers are revised and adjusted occasionally. At present, the first quarter of 1985 is used as the base (100) of its nominal and real exchange-rate indexes.

<sup>9</sup> All percentage change figures are calculated using the link relative formula: percentage change = (the second period figure/the first period figure - 1) x 100.

depreciation of the dollar by 10.50 percent. In 1994, the real value of the dollar with respect to the yen and mark also fell by 6.35 and 2.28 percent, respectively.<sup>10</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 annual market rate between U.S. and Canadian dollars changed from 1.2901 (Canadian dollars per U.S. dollar) in 1993 to 1.3656 in 1994, a 5.85-percent appreciation of the U.S. dollar, whereas the real value of the U.S. dollar appreciated 8.42 percent with respect to the Canadian dollar. In 1994, changes in the nominal exchange rate between the U.S. dollar and the Mexican peso were moderate until December 20, when the Mexican Government attempted to widen the exchange rate intervention band. This was followed on December 22 by a decision to let the peso float freely, resulting in a large devaluation of the peso and prompting the financial crisis in Mexico.<sup>11</sup> The market exchange rate (end period) changed rapidly from 3.4498 (pesos per dollar) in November to 5.3250 in December 1994, representing a 54.36-percent appreciation of the dollar, according to International Monetary Fund statistics.<sup>12</sup>

The devaluation of the peso and the subsequent economic restructuring in Mexico have had some adverse short-run effects on Mexican economic growth and on the U.S. balance of trade with Mexico. Forecasting the magnitude of these effects depends on assumptions and methods used for forecasting and is beyond the scope of this report.<sup>13</sup> During the first months following the

<sup>10</sup> The depreciation of the dollar against these two major currencies continued during the first 4 months of 1995—according to the Federal Reserve Board, the lowest daily market value of the dollar against the yen was recorded at 81.12 on April 19, 1995. On the same day, the market value of the dollar against the mark also reached its lowest level of 1.3656. Since then the dollar has started rebounding in relation to these two currencies. On May 15, 1995, the daily market rates of the dollar against the yen and the mark had recovered to 86.86 and 1.4445, respectively.

<sup>11</sup> The sharp decline in the value of the peso has been attributed to several factors. For instance, in 1994, the Mexican current account deficit rose from \$6.9 billion in the first quarter to \$7.4 billion in the fourth quarter; whereas, the capital account of its balance of payments changed from a surplus of \$7.9 billion to a deficit of \$2.5 billion. Mexico's international reserves dropped from \$26.3 billion on March 31 to \$6.7 billion on December 31 in the same year. The changes in the current and capital accounts and in the international reserves weakened confidence in the currency and reduced the value of the peso. For a detailed analysis of the crisis, see Annex I: "Factors Behind the Financial Crisis in Mexico," *World Economic Outlook*, (Washington, DC: International Monetary Fund, May 1995), pp. 90-97.

<sup>12</sup> The market value of the peso declined continuously until it reached its lowest point of 7.60 on March 9, 1995. The value of the peso had rebounded to 5.97 by May 15, 1995.

<sup>13</sup> Some analysts have estimated potential effects of the Mexican crisis. For instance, William R. Cline, a fellow of the Institute for International Economics, predicted a reduction in Mexico's GDP by 4.0 percent in 1995 in a looseleaf called "A Reduced-Form Current Account Model

**Table 2-4**  
**Real exchange rates: Indexes of foreign currencies or of baskets of currencies against the U.S. dollar, annual averages 1990-1994 and the first quarter averages 1995**

Year(s)	Total <sup>1</sup>	Western Hemisphere	Canada	Mexico	Europe	Germany	Japan	NICs <sup>2</sup>	Taiwan	Korea
					Indexes (First quarter 1995=100)					
1990	75.89	93.59	84.13	105.03	56.40	56.94	64.25	86.70	75.92	79.08
1991	75.63	95.43	81.54	95.73	57.51	58.94	60.35	91.04	76.27	78.07
1992	75.60	95.23	87.32	87.50	55.15	54.97	57.46	92.72	70.43	80.66
1993	78.27	92.61	94.21	82.62	61.88	57.55	51.30	96.45	74.11	81.48
1994	79.24	86.28	102.14	85.80	61.33	56.24	48.04	101.71	73.25	78.75
1995 <sup>3</sup>	79.65	76.18	105.53	137.88	57.76	51.43	45.84	98.83	72.12	76.77
					Change (Percent)					
1990-91	-0.34	1.97	-3.08	-8.85	1.97	3.51	-6.07	2.64	0.46	-1.28
1991-92	-0.04	-0.21	7.09	-8.60	-4.10	-6.74	-4.79	1.85	-7.66	3.32
1992-93	3.53	-2.75	7.89	-5.58	12.20	4.69	-10.72	4.02	5.23	1.02
1993-94	1.24	-6.84	8.42	3.85	-0.89	-2.28	-6.35	5.45	-1.16	-3.35
1994-95 <sup>3</sup>	0.52	-11.71	3.32	60.70	-5.82	-8.55	-4.58	-2.83	-1.54	-2.51

<sup>1</sup> After 1993, the Dallas Federal Reserve's index of real exchange rates weighted by U.S. bilateral trade with 99 trading partners (RX-99).

<sup>2</sup> China, Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, and Thailand.

<sup>3</sup> The first quarter of 1995.

Source: Federal Reserve Bank of Dallas.

December 1994 devaluation, the United States imported more Mexican goods, which became cheaper as a result of the devaluation; whereas, Mexico imported fewer American goods, which have become more expensive to Mexican consumers.<sup>14</sup>

The 1994 trend in the real value of the U.S. dollar against currencies of the Pacific newly industrialized countries (NICs) was irregular. The U.S. dollar appreciated in real value in relation to the basket of NIC currencies by 5.45 percent. However, the real value of the dollar depreciated with respect to two NIC currencies, the New Taiwan dollar and the Korean won, by 1.16 percent and 3.35 percent, respectively.

The real value of the dollar depreciated slightly (by 0.89 percent) against the European currencies in 1994. Much of the decrease came from the appreciation of the German mark, French franc, Belgian franc, and Dutch guilder. The real value of the dollar depreciated in relation to the basket of Western Hemisphere currencies by 6.84 percent.

Consistent with the findings noted above, there was no systematic relationship between small year-to-year bilateral currency movements and changes in the U.S. bilateral trade balance in 1994.<sup>15</sup> The U.S. trade balances with the countries against whose currencies the dollar rose, grew worse or stabilized. The trade deficits with both Japan and Germany worsened despite a real depreciation of the U.S. dollar against the yen and the mark. However, the U.S. trade deficit with Canada and the real value of the U.S. dollar against the Canadian dollar increased simultaneously during 1992-94. The U.S. trade surplus with Mexico diminished during 1992-93, whereas the real value of the peso appreciated.

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<sup>13</sup> *Continued—*

for the United States and Japan." Institute for International Economics, Washington, DC, July 1995, p. 41. Sherman Robinson, Mary Burfisher, and Karen Theierfelder found a virtually linear relationship between changes in the balance of trade and in the real exchange rate. A \$1 billion improvement in the Mexican trade balance requires about a percentage point depreciation of the equilibrium real exchange rate. For details on their analysis, see "The Impact of the Mexican Crisis on Trade, Agriculture, and Migration," a paper presented at the Plenary Conference of the North American Agricultural Policy Research Consortium at Stanford University, May 5-6, 1995.

<sup>14</sup> In fact, after the December devaluation, U.S. exports to Mexico dropped from \$4,115 million in December 1994 to \$3,741 million in January 1995, and to \$3,429 in February 1995, according to U.S. official trade statistics. For these 3 months, U.S. imports from Mexico rose continually from \$4,169 million to \$4,691 million and then to \$4,742 million.

<sup>15</sup> For any single-year period, the long-run relationship between depreciation and improving trade balance is obscured by demands for currencies in financial markets, differences in economic growth between countries, and the time lag between currency movements and changes in trade patterns.

The diminishing trade surplus continued in 1994, whereas the real value of the peso dropped.<sup>16</sup>

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## Summaries of Significant Commodity Shifts

Within each of the major industry/commodity sectors that have been previously noted above, significant shifts in trade occurred during 1994. 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 industry/commodity group shifts that were registered during 1993-94. 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 improvements and declines between 1993 and 1994.

## Significant Bilateral Shifts

A large percentage of the major shifts in bilateral U.S. trade during 1994 were import increases. Such increases generally reflected the more rapid expansion of the U.S. economy vis-a-vis some of the major U.S. trading partners and the continued rationalization of U.S. production operations abroad. On the other hand, the more subdued performance of exports was impacted by slower rates of economic expansion of some major trading partners, by tariff and nontariff barriers that continued to exist in certain foreign markets, and, to a lesser degree, by the declining 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 1994. The countries are ranked according to 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 1994 is also provided in the table. U.S. trade with only three of these countries, Korea, Belgium, and Brazil, had a positive impact on the U.S. trade balance in 1994. Trade with the remaining partners, especially Canada, Japan, and China, was responsible for \$35.0 billion of the \$40.4 billion growth in the U.S. trade deficit during 1994. 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.

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<sup>16</sup> In the first quarter of 1995, the real value of the dollar against the peso appreciated rapidly and the U.S. bilateral trade balance with Mexico shifted into a deficit.

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

USITC code	Industry/commodity group	U.S. exports		Change, 1994 from 1993	
		1993	1994	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 .....	13,813	18,098	4,285	31.0
ST018	Automatic data processing machines .....	25,397	29,102	3,705	14.6
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing .....	18,555	21,365	2,810	15.1
MT039	Certain motor-vehicle parts .....	18,469	20,685	2,216	12.0
MT023	Semiconductor equipment, robots, and other machinery .....	7,574	9,292	1,718	22.7
ST002	Telephone and telegraph apparatus .....	5,199	6,724	1,525	29.3
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits .....	5,224	6,471	1,247	23.9
AG064	Cotton, not carded or combed .....	1,528	2,653	1,125	73.6
AG043	Cigarettes .....	3,926	4,965	1,039	26.5
ST031	Measuring, testing, controlling, and analyzing instruments .....	9,026	10,060	1,034	11.5
CH012	Miscellaneous organic chemicals .....	4,886	5,897	1,011	20.7
CH018	Fertilizers .....	1,877	2,780	903	48.1
ST007	Radio transmission and reception apparatus, and combinations thereof .....	4,283	5,166	883	20.6
MT002	Internal combustion piston engines, other than for aircraft .....	7,450	8,288	838	11.2
AG054	Wood pulp and wastepaper .....	2,999	3,816	817	27.2
MT041	Miscellaneous vehicles and transportation-related equipment .....	2,441	3,156	715	29.3
CH039	Other plastics in primary forms .....	3,992	4,670	678	17.0
ST024	Medical goods .....	7,360	7,997	637	8.7
AG034	Edible preparations .....	2,522	3,062	540	21.4
CH047	Miscellaneous rubber or plastics products .....	2,592	3,110	518	20.0
Rank order based on change in percentage growth:					
MM008	Precious metal ores and concentrates .....	3	16	13	433.3
AG062	Ethyl alcohol for nonbeverage purposes .....	71	215	144	202.8
AG063	Wool and other animal hair .....	14	36	22	157.1
CH004	Crude petroleum .....	20	44	24	120.0
AG064	Cotton, not carded or combed .....	1,528	2,653	1,125	73.6
AG038	Malt beverages .....	202	341	139	68.8
MM002	Certain miscellaneous mineral substances .....	3	5	2	66.7
MM005	Lead ores and residues .....	14	23	9	64.3
MM007	Certain ores, concentrates, ash, and residues .....	191	301	110	57.6
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices .....	220	344	124	56.4
MM021	Primary iron products .....	8	12	4	50.0
CH018	Fertilizers .....	1,877	2,780	903	48.1
MM006	Zinc ores and residues .....	137	191	54	39.4
MM030	Wire products of iron, steel, aluminum, copper, and nickel .....	337	469	132	39.2
ST014	Television picture tubes and other cathode ray tubes .....	769	1,061	292	38.0
AG005	Poultry .....	1,229	1,691	462	37.6
CH080	Other wearing apparel .....	448	603	155	34.6
CH036	Polyvinyl chloride resins in primary forms .....	500	671	171	34.2
MM044	Table flatware and related products .....	21	28	7	33.3
CH063	Men's and boys' coats and jackets .....	102	136	34	33.3

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**

USITC code	Industry/commodity group	U.S. exports		Change, 1994 from 1993	
		1993	1994	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value decline:					
MM020	Precious metals and related articles	9,895	6,531	-3,364	-34.0
MT042	Aircraft, spacecraft, and related equipment	30,673	28,576	-2,097	-6.8
AG030	Cereals	10,728	10,088	-640	-6.0
CH005	Petroleum products	6,654	6,014	-640	-9.6
AG032	Oilseeds	4,758	4,537	-221	-4.6
AG046	Logs and rough wood products	3,134	2,963	-171	-5.5
ST028	Arms and ammunition	2,372	2,212	-160	-6.7
AG013	Animal feeds	3,616	3,482	-134	-3.7
CH003	Coal, coke, and related chemicals products	3,587	3,464	-123	-3.4
ST025	Surveying and navigational instruments	1,556	1,470	-86	-5.5
AG010	Dairy produce	655	572	-83	-12.7
MM023	Iron and steel waste and scrap	1,323	1,269	-54	-4.1
CH028	Antibiotics	1,580	1,528	-52	-3.3
AG008	Fish canned, cured, or otherwise prepared, and live fish	417	373	-44	-10.6
AG061	Printed matter	3,828	3,788	-40	-1.0
CH006	Natural gas and components	603	568	-35	-5.8
CH008	Other olefins	223	190	-33	-14.8
CH001	Electrical energy	61	30	-31	-50.8
MT017	Printing, typesetting, and bookbinding machinery and printing plates	1,125	1,094	-31	-2.8
CH068	Women's and girls' suits, skirts, and coats	283	255	-28	-9.9
Rank order based on change in percentage decline:					
CH001	Electrical energy	61	30	-31	-50.8
MM020	Precious metals and related articles	9,895	6,531	-3,364	-34.0
CH059	Sacks and bags of textile materials	30	22	-8	-26.7
AG051	Tools and tool handles of wood	20	16	-4	-20.0
CH007	Major primary olefins	148	123	-25	-16.9
CH073	Neckwear, handkerchiefs, and scarves	31	26	-5	-16.1
CH008	Other olefins	223	190	-33	-14.8
CH056	Cordage, nets, and netting	50	43	-7	-14.0
AG010	Dairy produce	655	572	-83	-12.7
MM050	Umbrellas, whips, riding crops, and canes	9	8	-1	-11.1
AG008	Fish canned, cured, or otherwise prepared, and live fish	417	373	-44	-10.6
ST030	Drawing and mathematical calculating or measuring instruments	162	145	-17	-10.5
MM035	Iron construction castings and other nonmalleable cast-iron articles	29	26	-3	-10.3
CH068	Women's and girls' suits, skirts, and coats	283	255	-28	-9.9
CH005	Petroleum products	6,654	6,014	-640	-9.6
MM022	Ferroalloys	95	87	-8	-8.4
AG050	Wooden containers	83	76	-7	-8.4
MM034	Metal and ceramic sanitary ware	165	153	-12	-7.3
MT042	Aircraft, spacecraft, and related equipment	30,673	28,576	-2,097	-6.8
ST028	Arms and ammunition	2,372	2,212	-160	-6.7

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**

USITC code	Industry/commodity group	U.S. imports		Change, 1994 from 1993	
		1993	1994	Absolute	Percent
<i>Million dollars</i>					
Rank order based on change in absolute value growth:					
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	68,607	79,240	10,633	15.5
ST018	Automatic data processing machines	37,906	46,161	8,255	21.8
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	19,466	26,020	6,554	33.7
MM025	Steel mill products, all grades	8,670	12,435	3,765	43.4
MT023	Semiconductor equipment, robots, and other machinery	6,131	8,121	1,990	32.5
MM037	Unwrought aluminum	2,774	4,221	1,447	52.2
MT039	Certain motor-vehicle parts	14,646	16,085	1,439	9.8
ST007	Radio transmission and reception apparatus, and combinations thereof	6,420	7,764	1,344	20.9
MM055	Furniture and selected furnishings	6,298	7,638	1,340	21.3
ST002	Telephone and telegraph apparatus	6,143	7,448	1,305	21.2
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators	3,564	4,810	1,246	35.0
ST031	Measuring, testing, controlling, and analyzing instruments	4,553	5,727	1,174	25.8
MT012	Construction and mining equipment	2,299	3,462	1,163	50.6
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	6,254	7,380	1,126	18.0
MT002	Internal combustion piston engines, other than for aircraft	6,340	7,424	1,084	17.1
AG047	Lumber	5,032	6,059	1,027	20.4
AG028	Coffee and tea	1,705	2,655	950	55.7
CH012	Miscellaneous organic chemicals	3,502	4,445	943	26.9
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	5,445	6,283	838	15.4
MT014	Farm and garden machinery and equipment	2,469	3,277	808	32.7
Rank order based on change in percentage growth:					
MM004	Copper ores and concentrates	42	126	84	200.0
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal	109	317	208	190.8
MM008	Precious metal ores and concentrates	20	49	29	145.0
MM021	Primary iron products	213	450	237	111.3
CH038	Saturated polyester resins	108	197	89	82.4
AG032	Oilseeds	155	268	113	72.9
MT037	Rail locomotive and rolling stock	729	1,161	432	59.3
AG028	Coffee and tea	1,705	2,655	950	55.7
CH036	Polyvinyl chloride resins in primary forms	117	182	65	55.6
MM039	Lead and related articles	97	149	52	53.6
MM037	Unwrought aluminum	2,774	4,221	1,447	52.2
MT008	Centrifuges and filtering and purifying equipment	706	1,067	361	51.1
MT012	Construction and mining equipment	2,299	3,462	1,163	50.6
CH007	Major primary olefins	193	289	96	49.7
MM030	Wire products of iron, steel, aluminum, copper, and nickel	668	984	316	47.3
AG030	Cereals	586	861	275	46.9
CH001	Electrical energy	662	960	298	45.0
MM025	Steel mill products, all grades	8,670	12,435	3,765	43.4
MT021	Machine tools for metal forming and parts thereof	644	913	269	41.8
MT019	Metal rolling mills and parts thereof	144	201	57	39.6

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**

USITC code	Industry/commodity group	U.S. imports		Change, 1994 from 1993	
		1993	1994	Absolute	Percent
----- Million dollars -----					
Rank order based on change in absolute value decline:					
MM062	Games and fairground amusements .....	3,461	2,575	-886	-25.6
AG041	Unmanufactured tobacco .....	1,370	613	-757	-55.3
CH005	Petroleum products .....	11,041	10,450	-591	-5.4
MT043	Ships, tugs, pleasure boats, and similar vessels .....	1,019	653	-366	-35.9
AG002	Cattle and beef .....	3,045	2,716	-329	-10.8
AG043	Cigarettes .....	360	73	-287	-79.7
AG057	Newsprint .....	3,593	3,333	-260	-7.2
ST020	Exposed photographic plates, film, and paper .....	156	107	-49	-31.4
ST019	Photographic supplies .....	1,702	1,675	-27	-1.6
AG007	Frozen fish .....	1,293	1,267	-26	-2.0
MM058	Prefabricated buildings .....	71	48	-23	-32.4
AG046	Logs and rough wood products .....	387	366	-21	-5.4
AG042	Cigars, and certain other manufactured tobacco .....	107	90	-17	-15.9
CH013	Selected inorganic chemicals and elements .....	1,252	1,235	-17	-1.4
MT035	Electric and gas welding and soldering equipment .....	502	486	-16	-3.2
MM054	Bicycles and certain parts .....	841	825	-16	-1.9
ST025	Surveying and navigational instruments .....	477	461	-16	-3.4
CH033	Explosives, propellant powders and related items .....	209	196	-13	-6.2
CH009	Primary aromatics .....	169	158	-11	-6.5
MT018	Textile machinery and parts .....	1,843	1,833	-10	-.5
Rank order based on change in percentage decline:					
AG043	Cigarettes .....	360	73	-287	-79.7
AG041	Unmanufactured tobacco .....	1,370	613	-757	-55.3
MT043	Ships, tugs, pleasure boats, and similar vessels .....	1,019	653	-366	-35.9
MM058	Prefabricated buildings .....	71	48	-23	-32.4
MM011	Ceramic bricks and miscellaneous ceramic construction articles .....	22	15	-7	-31.8
ST020	Exposed photographic plates, film, and paper .....	156	107	-49	-31.4
MM062	Games and fairground amusements .....	3,461	2,575	-886	-25.6
AG042	Cigars, and certain other manufactured tobacco .....	107	90	-17	-15.9
AG011	Eggs .....	35	30	-5	-14.3
AG002	Cattle and beef .....	3,045	2,716	-329	-10.8
CH023	Natural tanning and dyeing materials .....	64	58	-6	-9.4
CH048	Gelatin .....	97	90	-7	-7.2
AG057	Newsprint .....	3,593	3,333	-260	-7.2
CH009	Primary aromatics .....	169	158	-11	-6.5
CH033	Explosives, propellant powders and related items .....	209	196	-13	-6.2
CH005	Petroleum products .....	11,041	10,450	-591	-5.4
AG046	Logs and rough wood products .....	387	366	-21	-5.4
AG004	Sheep and meat of sheep .....	62	59	-3	-4.8
AG005	Poultry .....	24	23	-1	-4.2
ST025	Surveying and navigational instruments .....	477	461	-16	-3.4

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**  
*(Million dollars)*

USITC code	Industry/commodity group	U.S. balance		Absolute change,
		1993	1994	1994 from 1993
AG043	Cigarettes	3,566	4,892	1,326
AG064	Cotton, not carded or combed	1,528	2,646	1,118
MM062	Games and fairground amusements	-2,461	-1,458	1,003
MT039	Certain motor-vehicle parts	3,823	4,600	777
AG041	Unmanufactured tobacco	-64	690	754
MT041	Miscellaneous vehicles and transportation-related equipment	976	1,700	724
AG002	Cattle and beef	-1,029	-355	674
ST024	Medical goods	2,979	3,592	613
MT043	Ships, tugs, pleasure boats, and similar vessels	-17	550	567
AG005	Poultry	1,205	1,668	463
CH018	Fertilizers	277	740	463
AG054	Wood pulp and wastepaper	1,100	1,487	387
CH039	Other plastics in primary forms	2,606	2,986	380
AG034	Edible preparations	1,174	1,501	327
ST006	Records, tapes, compact discs, computer software, and other recored media	2,665	2,987	322
CH010	Benzenoid commodity chemicals	874	1,163	289
MM066	Miscellaneous articles	-3,199	-2,925	274
AG057	Newsprint	-3,097	-2,852	245
AG056	Industrial papers and paperboards	2,217	2,439	222
ST002	Telephone and telegraph apparatus	-944	-724	220
CH030	Perfumes, cosmetics, and toiletries	442	660	218
AG033	Animal or vegetable fats and oils	598	805	207
CH011	Benzenoid specialty chemicals	1,587	1,792	205
CH044	Plastic or rubber semifabricated forms	1,124	1,310	186
AG023	Deciduous fruit	450	617	167
AG062	Ethyl alcohol for nonbeverage purposes	-72	69	141
MT005	Certain industrial thermal-processing equipment and certain furnaces	738	876	138
MM032	Industrial fasteners of base metal	-900	-767	133
CH052	Boardwoven fabrics	-1,747	-1,615	132
CH025	Pesticide products and formulations	759	884	125

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**  
*(Million dollars)*

USITC code	Industry/commodity group	U.S. balance		Absolute change,
		1993	1994	1994 from 1993
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	-50,052	-57,875	-7,823
ST018	Automatic data processing machines	-12,509	-17,059	-4,550
MM025	Steel mill products, all grades	-5,859	-9,406	-3,547
MM020	Precious metals and related articles	5,901	2,498	-3,403
MT042	Aircraft, spacecraft, and related equipment	24,418	22,145	-2,273
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices	-5,653	-7,922	-2,269
MM037	Unwrought aluminum	-2,003	-3,325	-1,322
AG047	Lumber	-2,562	-3,601	-1,039
MM055	Furniture and selected furnishings	-3,357	-4,338	-981
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators	-573	-1,521	-948
AG030	Cereals	10,142	9,227	-915
AG028	Coffee and tea	-1,518	-2,424	-906
MT012	Construction and mining equipment	4,352	3,485	-867
CH006	Natural gas and components	-3,818	-4,633	-815
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players	-4,866	-5,643	-777
ST001	Office machines	-3,282	-4,004	-722
MM019	Natural and synthetic gemstones	-5,508	-6,161	-653
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	-2,197	-2,838	-641
CH066	Shirts and blouses	-9,188	-9,819	-631
AG009	Shellfish	-2,383	-2,992	-609
MT014	Farm and garden machinery and equipment	1,255	652	-603
CH082	Footwear and footwear parts	-10,501	-11,068	-567
ST009	Television receivers and video monitors and combinations including television receivers	-2,508	-3,017	-509
ST007	Radio transmission and reception apparatus, and combinations thereof	-2,137	-2,598	-461
MT028	Electric motors, generators, and related equipment	-49	-502	-453
CH027	Medicinal chemicals, except antibiotics	793	391	-402
MM047	Luggage, handbags, and flat goods	-2,385	-2,775	-390
MM063	Sporting goods	-1,019	-1,373	-354
AG032	Oilseeds	4,603	4,269	-334
MM036	Copper and related articles	-506	-838	-332

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 partner, during 1993-94**

*(Million dollars)*

Rank	Partner	Exports	Imports	Total	Change in U.S. balance
1	Canada	11,777	18,271	30,048	-6,494
2	Mexico	8,871	9,938	18,808	-1,067
3	Japan	5,016	11,369	16,385	-6,352
4	China	559	7,147	7,706	-6,589
5	Korea	3,141	2,561	5,701	580
6	Malaysia	858	3,395	4,253	-2,538
7	Germany	234	3,463	3,697	-3,229
8	Singapore	1,059	2,543	3,601	-1,484
9	United Kingdom	258	3,226	3,483	-2,968
10	Belgium	1,943	1,167	3,111	776
11	Brazil	1,927	1,085	3,011	842
12	Thailand	1,069	1,737	2,806	-668
13	Taiwan	655	1,605	2,260	-950
14	Italy	730	1,516	2,246	-785
15	Russia	-386	1,482	1,868	-1,868

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

## Canada

The U.S. trade deficit with Canada expanded by \$6.5 billion in 1994, to \$25 billion. The continuing depreciation of the Canadian real exchange rate, which has fallen by over 5.5 percent per annum over the last 3 years, has made Canadian products increasingly cost-competitive in foreign markets.<sup>17</sup> The international competitiveness of Canadian producers was further improved by a decline in unit labor costs. Unit labor costs, which represent roughly 60 percent of total production costs in the Canadian economy, fell for the fifth consecutive quarter at the end of 1994. Lower unit labor costs were the result of restrained wage growth and improvements in productivity performance.<sup>18</sup> The combination of these factors encouraged a 17-percent rise (\$18 billion) in U.S. imports from Canada to \$129 billion. U.S. exports to Canada increased by 13 percent (\$12 billion) in 1994 to \$104 billion. The rise in exports was sustained by the strong Canadian economy. Canadian GDP grew by 4.5 percent in 1994, outpacing the combined rate of growth of the G7 (3.0 percent) including the United States (4.1 percent).<sup>19</sup> The U.S.-Canadian Free-Trade Agreement (CFTA) and the NAFTA have provided U.S. producers with improved access to the Canadian markets and significant reductions in Canadian tariffs.

Canada continues to be the leading trading partner of the United States, accounting for one-fifth of total U.S. imports (\$129 billion) in 1994 and a market for a comparable share of U.S. exports (\$104 billion). The United States was both the leading market for Canadian exports (85 percent) and the principal source of imports (76 percent).<sup>20</sup> Such factors as geographical proximity, resource endowment, infrastructure, communications, media linkages, similar cultures and language promote trade between the two countries.

Motor vehicles accounted for the most significant share of U.S. trade with Canada in 1994. Reflecting continued integration of the North American motor vehicle industry,<sup>21</sup> U.S. imports of motor vehicles and parts from Canada rose by 15 percent (\$4.8 billion) in 1994, to \$38 billion; while exports of motor vehicles and parts to Canada increased by 18 percent (\$3.7 billion) to

\$25 billion. North American motor vehicle producers achieve increased economies of scale by concentrating the production of specific car models at a single location. These locations supply both the U.S. and Canadian markets. North American car manufacturers generally award contracts to the most cost-competitive manufacturers of car parts on either side of the border.

U.S. imports from Canada of magnetic readers, automatic data processing machines, personal computers, and computer parts increased by 17 percent (\$938 million) in 1994 to \$5.4 billion, while U.S. exports rose by 18 percent (\$1.4 billion) to \$9.2 billion. U.S. multinationals such as IBM, Digital Equipment, and Hewlett Packard supply assembly operations in Canada. Products made by these operations are sold throughout North America. U.S. exports of computer and related equipment and parts were further boosted by the efforts of the Canadian commercial services sector<sup>22</sup> to increase the ratio of its services exported as a percentage of merchandise trade. Canadian firms have invested in more sophisticated office automation and computer equipment in order to be more competitive in the international services marketplace. The Canadian ratio (10 percent) is significantly lower than those of the United States, Italy, and France (over 30 percent).<sup>23</sup>

Imports of furniture from Canada rose by 30 percent (\$465 million) to \$2 billion in 1994, while U.S. exports of furniture to Canada rose by 12 percent (\$151 million) to \$1.4 billion. The bulk of the increase in imports was accounted for by wood household furniture and motor vehicle seats and parts. Canadian household furniture producers provide furniture to the U.S. market at lower prices than their European competitors. Producers in Canada have ready access to lumber and significantly lower transportation costs because of proximity to the U.S. market. To a large extent, Canadian producers of electronically adjustable car seats are reliant on parts from the United States. The finished seats are used by vehicle assembly operations on both sides of the U.S.-Canada border.

U.S. imports of aluminum rose by 25 percent (\$929 million) to \$3.2 billion in 1994; while U.S. exports of aluminum rose by 24 percent (\$264 million) to \$1.4 billion. Cross border trade in these products involves processing and subsequent manufacturing into parts, particularly auto parts.

Canada's comparative advantage in the global market is based partly on its wealth of natural resources. Lumber, particle board, paper, and pulp used to make paper and corrugate boxes accounted for a significant trade shift between Canada and the United States. U.S. imports of these products rose by 20 percent (\$1.6 billion) in 1994 to \$9.7 billion. U.S. supply shortages of lumber and particle

<sup>17</sup> Ray Barrell, Nigel Pain, and Julian Morgan, "The World Economy," *National Institute Economic Review*, Nov. 1994, p. 43.

<sup>18</sup> The Economy in Brief, Department of Finance Canada, Mar. 1995, p. 3.

<sup>19</sup> Scotiabank: The Bank of Nova Scotia, *Global Economic Outlook* (Nova Scotia, Canada, May 1995), p. 3.

<sup>20</sup> U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, Feb. 1995), p. 143.

<sup>21</sup> Integration of the North American motor vehicle industry was greatly facilitated by the Automotive Products Trade Act of 1965 (APTA), which provided for free trade between the United States and Canada for most motor vehicles and parts (Public Law 89-283, 79 stat. 1016). The APTA later served as a model for the CFTA and the NAFTA.

<sup>22</sup> This sector includes firms involved in consulting, administration and management, communication, and data processing.

<sup>23</sup> National Bank of Canada, *Economic and Financial Forecast, North-American Financial Environment*, Department of Economic Analysis, Autumn 1994, p. 7.

board caused by both environmental restrictions imposed on timber harvests and an increase in U.S. domestic demand because of a robust economy provided Canadian producers with a beneficial market. Canadian pulp and paper producers were also able to capitalize on rising paper prices because of strong U.S. and world demand for printing and writing paper.

Another resource-based product that contributed significantly to the rise in U.S. imports from Canada was natural gas and hydroelectric energy, as U.S. imports of energy-related products rose by 25 percent (\$1.3 billion) in 1994, to \$6.4 billion. Canadian producers have phased in new ethylene and ethylene glycol plants. Further, low-cost ethane feedstock in West Canada gives producers in this area a competitive advantage over producers in the U.S. Gulf of Mexico region.<sup>24</sup> Development of Canada's oil sands<sup>25</sup> could fuel the growth of the petroleum sector into the next century by tripling production to as much as 1.2 million barrels a day.<sup>26</sup>

Higher levels of government debt are expected to reduce both the level of Canadian output and the share of output that is available for domestic Canadian consumption in 1995.<sup>27</sup> Net public debt in FY 1993-94 exceeded 74 percent of Canada's GDP.<sup>28</sup> To handle this debt, the Canadian Government must either raise taxes and subsequently reduce the share of output that is available for consumption, or borrow. When a government's debt-to-GDP ratio rises, as has that of the Canadian Government, interest rates usually increase because lenders demand a higher rate of return. Higher interest rates, in turn, reduce investment in new plants, equipment, and research and development.

In order to cut spending and devote more resources to lowering its debt, the Canadian Government, among other things, is implementing the following measures: (1) no longer own, operate, and subsidize large parts of its transportation system; (2) eliminate the subsidies under the Western Grain Transportation Act, the Atlantic Region Freight Assistance Act, and the Maritime Freight Rates Act as of August 1, 1995;<sup>29</sup> and (3) cut dairy subsidies by 30 percent over the next 2 years.<sup>30</sup> Further,

<sup>24</sup> Scotiabank, p. 3.

<sup>25</sup> Canadian oil sands refer to oil that is found in sedimentary rocks, such as sandstone.

<sup>26</sup> U.S. Department of State Telegram, "Canadian Policy, Economic and Financial Development for the Period: May 12-May 18, 1995," message reference No. 2553, prepared by U.S. Embassy, Ottawa, Canada, May 1995, p. 2.

<sup>27</sup> Bank of Canada Review, "Some Macroeconomic Implications of Rising Level of Government Debt," Bank of Canada Review, Winter, 1994-95, Ottawa, p. 41.

<sup>28</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 143.

<sup>29</sup> Adjustment packages of more than \$500 million Canadian dollars will be provided to operations directly effected by these measures.

<sup>30</sup> Department of Finance Canada, *Budget of Canada*, 1995, Ottawa, Canada, Feb. 1995, p. 16.

the Canadian Government is currently evaluating the efficiency of its unemployment insurance programs. A significant portion of Canadian tax revenues are devoted to this policy.<sup>31</sup>

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## Mexico

Bilateral merchandise trade between the United States and Mexico expanded by more than 20 percent in 1994, the first year following implementation of the NAFTA. Real economic growth in Mexico increased to an estimated 2.8 percent following a sluggish 0.4 percent in 1993. Mexico remained the fastest growing and the third-largest U.S. trading partner (after Canada and Japan). Despite relatively slow growth in the Mexican economy, U.S. exports to Mexico grew by 22 percent (\$9 billion) to \$49 billion in 1994. Imports from Mexico also expanded, rising by 25 percent (\$10 billion) to \$48.6 billion. As a result, the U.S. merchandise trade surplus with Mexico continued to decline, from \$1.6 billion in 1993 to \$531 million in 1994.

Implementation of the NAFTA on January 1, 1994, continued market reforms, and an accelerated influx of foreign investment all expanded the role played by foreign trade in Mexico's economy in 1994. The economic reforms of the Carlos Salinas de Gortari administration (unilateral tariff reductions, privatization, control over inflation, and opening industry sectors to foreign investment) paved the way for the NAFTA. In turn, the NAFTA has eliminated quotas in textiles and apparel; established rules and protection for investors; strengthened the protection of intellectual property; and assured market access for U.S. agricultural goods.<sup>32</sup> Because of NAFTA, U.S. exports of semiconductors and computers, telecommunications equipment, medical devices, electronic equipment, and machine tools are now eligible for zero Mexican tariffs, which has increased the competitiveness of U.S. exports in those sectors, particularly vis-a-vis other foreign suppliers to the Mexican market.

Political and social developments were also an important factor for Mexico in 1994. The January uprising of the Zapatista National Liberation Army in the Chiapas region, the kidnapping of the president of Banacci, a large private bank, and the assassination of Luis Donaldo Colosio, the Presidential candidate for the Institutional Revolutionary Party (PRI), in March, gave rise to concern about the future of Mexico. Although implementation of NAFTA inspired investor confidence, the developments following these incidents contributed to massive capital outflows. The peso had depreciated by 8 percent as of July 1994, a precursor of the peso crisis

<sup>31</sup> Miles Corak and Wendy Pyper, "The Distribution of UI Benefits and Taxes in Canada," *Canadian Economic Observer*, Statistics Canada, Dec. 1994, p. 3.1.

<sup>32</sup> U.S. Department of Commerce, "Mexico," *U.S. Global Outlook: 1995-2000*, Mar. 1995, p. 92.

that would occur in December.<sup>33</sup> Capital outflows were also exacerbated by rising U.S. interest rates that drew short-term investors away from Mexico and to the U.S. market. In addition, Mexico's foreign reserves were depleted by the Salinas administration's efforts to bolster the peso's strength.<sup>34</sup> These conditions culminated in December's peso devaluation and resultant financial crisis.<sup>35</sup>

Mexico accounted for 10 percent of total U.S. exports in 1994 and 7 percent of U.S. imports. Expanded trade with Mexico accounted for 21 percent of the increase in U.S. exports in 1994 and 12 percent of the rise in imports. Bilateral trade between the two countries is characterized by U.S. exports of capital goods, machinery, office equipment, agricultural products, and components for assembly, and Mexican exports of raw materials, petroleum, agricultural products, and goods assembled from U.S. components. Mexico's maquiladora industry (the assembly of foreign components for re-export) accounted for nearly one-quarter (\$12 billion) of U.S. exports to Mexico in 1994, and almost one-half (\$23 billion) of U.S. imports from Mexico.

The importance of the maquiladoras program as a competitive strategy for U.S. companies is further illustrated by the continued integration of the North American motor vehicle industry. U.S. exports of motor vehicles and parts to Mexico grew by \$816 million in 1994 to \$5 billion, while imports of motor vehicles and parts from Mexico rose by \$1.1 billion to \$7.1 billion. Most of this U.S.-Mexico trade in motor vehicles consists of U.S.-made components being assembled into auto parts, industry-related subassemblies, and finished vehicles. Leading examples of motor vehicle parts being assembled in Mexico are ignition wiring sets (\$2.9 billion), seat covers (\$805 million), engines (\$619 million), and catalytic converters (\$339 million). Two-way trade in finished vehicles is becoming increasingly important as trade and investment barriers continue to fall under NAFTA. U.S. imports of cars and trucks from Mexico expanded by \$1 billion in 1994 to reach \$5 billion, while U.S. vehicle exports to Mexico jumped from \$123 million to \$589 million.<sup>36</sup>

The U.S. electronics industry also employs production sharing in its competitive strategy. Their "high-tech" products typically require a certain degree of labor-intensive assembly operations. As a result, U.S. exports of electronic equipment to Mexico increased by \$1.7 billion (21 percent) in 1994 to \$9.8 billion. At the

<sup>33</sup> For more information see, USITC, "NAFTA Update: Steady U.S. Bilateral Trade Growth With Mexico Faces Mixed Prospects in 1995," *Industry Trade and Technology Review*, Mar. 1995, p.1.

<sup>34</sup> USITC, "International Trade Developments: Financial Crisis in Mexico," *International Economic Review*, Mar. 1995, p. 12.

<sup>35</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 394.

<sup>36</sup> Lawrence H. Summers, Under Secretary of the Treasury, testimony before the Senate Banking Committee, *Treasury News*, Mar. 10, 1995.

same time, imports of electronic equipment from Mexico rose by \$3.6 billion (36 percent) to \$13.6 billion. Products accounting for the largest increases in U.S. electronic equipment trade with Mexico are shown in table 2-12 below.

In terms of other important trade sectors, the United States increased its trade surplus with Mexico in agricultural products by \$763 million in 1994 to \$1.3 billion. The most important U.S. exports were cereals (\$958 million), soybeans (\$537 million), and beef (\$269 million). The United States continued to import high, relatively constant volumes of vegetables and root products (\$1 billion) and fruits and nuts (\$429 million). U.S. exports of textiles and apparel increased by \$482 million (28 percent) in 1994 to \$2.2 billion, mainly in the form of various textiles and fabrics, and shirts and blouses; while imports jumped by \$574 million (31 percent) to \$2.4 billion, mostly in men's and women's trousers, undergarments, and footwear. U.S. exports of various plastic articles expanded by \$742 million (36 percent) to \$2.8 billion, while exports of paper products increased by \$264 million (24 percent) to \$1.4 billion.

The future of the Mexican economy, and the impact that the changes may have on its trade relationship with the United States, is somewhat unclear in 1995.<sup>37</sup> However, the NAFTA will continue to confer benefits on its members through improved access, freer markets, and low to zero tariffs. Mexican President Ernesto Zedillo has committed his administration to continue to open its financial institutions to foreigners, as well as to privatize other important sectors, and to restore consumer and investor confidence in the Mexican economy.<sup>38</sup>

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## Japan

The total dollar value of the U.S. merchandise trade deficit with Japan increased again in 1994, expanding by \$6.4 billion to \$66.5 billion, continuing the trend begun in 1991.<sup>39</sup> This rise in the bilateral trade deficit in 1994

<sup>37</sup> For a more in-depth discussion of the factors contributing to the peso's collapse, see USITC, *Year in Trade 1994*, USITC publication 2894, ch. 4, "Mexico." See especially pp. 85-86.

<sup>38</sup> Since U.S.-Mexican trade in the automotive sector consists principally of applying Mexican labor to U.S.-made parts, the United States will continue to run a bilateral trade deficit in the sector to the extent that the value added by Mexican labor exceeds the value of U.S. automotive products actually consumed in Mexico.

<sup>39</sup> The Economist Intelligence Unit (EIU), *Country Report: Japan*, 4th quarter 1994 (London, 1994), p. 37, and Douglas Ostrom, "Japan's Trade Numbers Dip in First Quarter," JEI Report, No. 17B, (Washington, DC: Economic Institute, May 5, 1995), pp. 2-3.

**Table 2-12**  
**Principal U.S. exports and imports of electronic products to Mexico, absolute value increase between 1993 and 1994, and total value in 1994**

(Million dollars)

Commodity	Increase from 1993 to 1994	Total in 1994
Television receivers:		
Imports .....	683	2,217
Integrated circuits:		
Exports .....	480	912
Computers and related equipment:		
Imports .....	448	931
Exports .....	223	786
Camcorders and telephone products:		
Imports .....	419	652
Printed circuit boards:		
Exports .....	311	748
Parts for television sets (picture tubes):		
Exports .....	243	679
Electric capacitors:		
Exports .....	143	409

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

was the third-largest increase with any U.S. trading partner, only slightly behind that with China (\$6.6 billion) and Canada (\$6.5 billion). The United States accounted for about 30 percent of all Japanese merchandise exports (on a customs-clearance basis) between 1990 and 1994 and was by far Japan's largest export market. The United States was also by far the largest source of Japanese imports, supplying from 22 to 23 percent of the total during the same period.

Analysts have given a variety of explanations for the continued expansion of the U.S. trade deficit with Japan in nominal U.S. dollars, even though the average nominal value of the yen has appreciated against the U.S. dollar since 1991. One general explanation emphasizes differences between countries in year-to-year rates of growth in real GDP, noting that the U.S. economy has been expanding in recent years, while that of Japan slowed sharply during 1991-93, before gaining slightly in 1994.<sup>40</sup> Another type of explanation looks at the U.S. Federal budget deficit and disparities between savings

rates in the United States and Japan.<sup>41</sup> A third type of explanation focuses on changes in exchange rates, one aspect of which is the so-called J-curve effect where, as the yen appreciates against the U.S. dollar, U.S. customers pay more in dollars for the same volume (quantity) of Japan's exports to the United States in the short run, and Japanese customers pay less in dollars for the same volume of U.S. products.<sup>42</sup> Finally, as noted in the U.S. Department of State and USTR references, the U.S. Government has contended that Japan engages in structural practices that impede imports or result in prices not being sufficiently lower on imported products to reflect the full appreciation of the yen.

Although the rate of growth of the U.S. deficit with Japan had followed a rising trend, growth slowed in 1994 as shown in the following tabulation (in billions of dollars):

Year	Increase	Total
1991 .....	2.4	45.1
1992 .....	4.6	49.7
1993 .....	10.4	60.1
1994 .....	6.4	66.5

<sup>39</sup>—Continued

Japan's merchandise trade and current account surpluses have for many years caused Japan's major trading partners to ask it to make structural adjustments in its economy to allow increased imports. U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, Feb. 1993), pp. 107-108 (hereinafter *Country Reports*, 1993); U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, Feb. 1994), pp. 62-66 (hereinafter *Country Reports*, 1994); U.S. Department of State, *Country Reports*, Feb. 1995, pp. 61-65 (hereinafter *Country Reports*, 1995); United States Trade Representative (USTR), *1994 National Trade Estimate Report on Foreign Trade Barriers*, see especially pp. 141-146 (hereinafter *1994 National Trade*); and USTR, *1995 National Trade Estimate Report on Foreign Trade Barriers*, see especially pp. 163-172 (hereinafter *1995 National Trade*).

<sup>40</sup> See Thomas, "U.S. International Transactions," pp. 408-410, discussed in the "Exchange Rate Shifts" section.

<sup>41</sup> See Greenspan, statement before the Committee on the Budget, U.S. House of Representatives, Mar. 8, 1995, pp. 422-424; Bradsher, "Greenspan Says," p. D2; and Kristof, "Japan's Secret Weapon," section 4, p. 1, discussed more fully in the "Exchange Rate Shifts" section.

<sup>42</sup> In a fully free market, customers and suppliers adjust to changed prices and costs, and the U.S. trade deficit with Japan would decrease. However, one analyst stated, "the demand for many Japanese exports is relatively price inelastic." EIU, *Country Report: Japan*, 4th Quarter 1993 (London, 1993), p. 5. Another source showed that during the period since 1988, the volume (quantity) of Japanese imports increased substantially more than Japanese exports, and it presented evidence that Japan's import and export prices have not fully adjusted to reflect exchange rate changes. This source stated that these data led to assertions that Japanese exporters squeezed profit margins to hold on to market share and that import prices at the retail level did not fall fully to reflect the appreciation of the yen. EIU, *Country Profile: Japan, 1994-95* (London, 1994), pp. 40-41.

The trade deficit with Japan in 1994 was by far the largest bilateral deficit that the United States had with any country; China (\$29.4 billion) and Canada (\$25.1 billion) were a distant second and third. Nevertheless, when measured as a percent of the total trade deficit, Japan's share continued to slide, as shown in the following tabulation:

Year	Japan's share (Percent)	Total trade deficit (Billion dollars)
1991 .....	54	82.9
1992 .....	50	100.1
1993 .....	44	135.6
1994 .....	38	176.0

U.S. imports from Japan increased by \$11.4 billion (11 percent) to \$117.5 billion in 1994, while exports to Japan grew by \$5.0 billion (11 percent) to \$51.1 billion.<sup>43</sup> This sharp rebound in U.S. exports, followed a decline of \$294 million in 1992 and a slight rise of only \$195 million in 1993. This occurred mainly because the rate of growth of the Japanese economy began to recover in 1994 from the sharp slowdown it experienced in 1991-93, and because the yen appreciated against the U.S. dollar.<sup>44</sup> Having increased annually since 1991, U.S. imports from Japan were more than twice as large as U.S. exports in 1994.

<sup>43</sup> The value of the rise in imports was the second-largest bilateral expansion in 1994, behind the \$18.3 billion increase from Canada. Total U.S. trade with Japan equaled \$168.6 billion (15 percent of the total) in 1994, making it the second-largest trading partner behind Canada. It also ranked second behind Canada both as a market for U.S. exports and as a source of imports.

<sup>44</sup> See Thomas, "U.S. International Transactions," pp. 408-410, cited in the "Exchange Rate Shifts" section. Real GDP in Japan increased by 0.6 percent in 1994, the third-lowest increase since GDP figures began to be collected in their current form in 1970. Very low levels of capacity utilization deterred a recovery in spending on new plant and equipment, which decreased by 8.8 percent in real terms in 1994. Growth in consumer spending, housing construction, business inventories, and government spending just barely offset the decrease in plant and equipment spending and in net external demand. One source estimated that the decrease in net external demand reduced the growth rate of real GDP by 0.6 percentage point in 1994. Prior to the 1990s, Japan had never had 2 consecutive years of less than 3 percent growth in real GDP. The revised figures for 1992, 1.1 percent, and 1993, -0.2 percent, mean that Japan has now had 3 years of below 3-percent growth. EIU, *Country Report: Japan*, 4th quarter 1994, p. 9, Douglas Ostrom, "Japan's Economy Ekes Out Small Gain in 1994," *JEI Report*, No. 11B (Washington, DC: Japan Economic Institute, Mar. 24, 1995), pp. 1-3, and U.S. Department of State, *Country Reports*, Feb. 1995, pp. 60-61. For a discussion of the monetary policies pursued by Japan since 1989 that initially caused the sharp slowdown in Japan's economy and of the monetary and fiscal policies adopted to try to stimulate the economy out of recession, see *Country Reports*, 1993, pp. 107-108; *Country Reports*, 1994, pp. 62-63; and *Country Reports*, 1995, pp. 60-61.

Japan's large, persistent current account surplus with the world decreased by \$2.3 billion to \$129.1 billion (2.8 percent of Japan's GDP) in 1994, reversing the upward trend begun in 1991, but registering the second-highest surplus<sup>45</sup> following the record \$131.4 billion in 1993 (3.1 percent of GDP).<sup>46</sup> The rising current account surplus in 1991 began simultaneously with an appreciation in the value of the yen, which accelerated rapidly in nominal terms in 1994. Consistent with the J-curve theory, this appreciation contributed, for a given quantity of goods, directly to an increase in the dollar value of U.S. imports from Japan (Japanese exports) and to a decrease in the dollar value of U.S. exports (Japanese imports).

The U.S. trade deficit in the highly contentious automobile sector (\$28.0 billion) accounted for 42 percent of the total U.S. bilateral trade deficit with Japan in 1994. Although U.S. exports of passenger cars to Japan nearly doubled in 1994, rising by \$811 million to \$1.9 billion, imports of that class of vehicle from Japan climbed by \$3.2 billion (12 percent) to \$29.9 billion. The 15:1 ratio in favor of Japan in bilateral auto trade is disconcerting to U.S. trade policy makers. The sectoral trade imbalance has led to a 25-percent Japanese share of the U.S. auto market whereas U.S. car manufacturers supply only 3 percent of the Japanese market. By contrast, automobiles assembled by subsidiaries of Ford Motor Co. and General Motors supply roughly one-quarter of the European new vehicle market.

Japan's trade surplus with the United States in selected auto parts and engines widened still further in 1994, climbing \$696 million to \$5.9 billion (tables 2-13 and 2-14).

<sup>45</sup> Douglas Ostrom, "Japan's Current Account Surplus Falls Slightly in 1994," *JEI Report*, No. 7B, (Washington, DC: Japan Economic Institute, Feb. 24, 1995), p. 2, and Douglas Ostrom, "Japan's Current Account Surplus Registers Sharp Drop," *JEI Report*, No. 19B, (Washington, DC: Japan Economic Institute, May 19, 1995), p. 2. In addition to the nominal drop, the real (in 1985 prices) current account surplus fell for the second straight year, by 1.7 trillion yen to 1.9 trillion yen in 1994, after having fallen by 722 billion yen in 1993, as Japanese imports of goods and services expanded more rapidly than exports of goods and services. Douglas Ostrom, "Japan's Economy Ekes Out Slight Gain in 1993," *JEI Report*, No. 13B (Washington, DC: Japan Economic Institute, Apr. 1, 1994), pp. 2-3, and Ostrom, "Japan's Economy Ekes Out Small Gain in 1994," p. 2.

Further, although Japanese merchandise trade data are not available in real terms, the nominal yen merchandise trade surplus (customs-clearance basis) with the world continued to decline, for the second straight year, by 9,829 hundred million yen in 1994 to 123,932 hundred million yen, following a 1,088 hundred million yen drop in 1993 to 133,761 hundred million yen. Despite the dip in the nominal yen merchandise trade surplus with the world in 1993 and 1994, Japan's surplus with the United States continued upward in those years, albeit in smaller amounts, rising by 487 hundred million yen in 1994, and by 717 hundred million yen in 1993. Economic Section, Embassy of Japan, Washington, DC. See also Douglas Ostrom, "Japan's Trade," pp. 2-3.

<sup>46</sup> 1994 National Trade, p. 141.

**Table 2-13**  
**Leading increases in U.S. imports from Japan, 1993-94**

Industry/commodity	Increase in 1994—		Total value in 1994 Million dollars
	Value Million dollars	Percent	
Automobiles, trucks, and buses .....	3,400	12.2	31,241
Computers .....	2,017	15.6	14,874
Diodes and other semiconductor devices .....	1,870	32.3	7,649
Steel mill products .....	506	38.6	1,814
Motor vehicle engines .....	413	18.7	2,619
Certain motor vehicle parts .....	407	10.7	4,201
Certain machine tools .....	274	26.4	1,313
Construction and mining equipment .....	261	30.1	1,126
Farm and garden machinery and equipment .....	256	49.3	776
Semiconductor equipment, robots, and certain other industrial machinery .....	244	12.0	2,274
Primary cells and batteries and electric storage batteries .....	193	36.5	719
Measuring, testing, controlling, and analyzing instruments .....	169	14.9	1,300
Photographic camera and equipment .....	152	16.6	1,063
All other .....	1,207	2.7	46,565
<b>Total .....</b>	<b>11,369</b>	<b>10.7</b>	<b>117,532</b>

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

**Table 2-14**  
**Leading increases in U.S. exports to Japan, 1993-94**

Industry/commodity	Increase in 1994—		Total value in 1994 Million dollars
	Value Million dollars	Percent	
Automobiles, trucks, and buses .....	848	76.2	1,961
Aircraft, spacecraft, and related equipment .....	526	18.7	3,326
Computers .....	427	14.5	3,364
Radio transmission and reception apparatus .....	343	124.8	618
Diodes and other semiconductor devices .....	309	28.5	1,392
Medical goods .....	222	20.6	1,297
Semiconductor equipment, robots, and certain other industrial machinery .....	211	39.4	747
Measuring, testing, controlling, and analyzing instruments .....	211	20.4	1,242
Cigarettes, cigars, and tobacco .....	195	12.2	1,795
Certain motor vehicle parts, including engines .....	125	16.5	883
Furniture and selected furnishings <sup>1</sup> .....	121	106.8	235
Boilers, turbines, and related machinery .....	103	185.0	158
Beef .....	100	8.1	1,329
Cereals <sup>2</sup> .....	99	4.3	2,374
All other .....	1,175	4.0	30,339
<b>Total .....</b>	<b>5,016</b>	<b>10.9</b>	<b>51,061</b>

<sup>1</sup> Virtually all leather seat covers for motor-vehicles, which were reexported to the United States in finished vehicles.

<sup>2</sup> U.S. exports of rice increased by \$224 million to \$238 million, caused by a serious shortfall in domestic production. Exports of certain other cereals decreased. Japan agreed in the Uruguay Round to begin to import rice.

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

Japan exported eight times as much to the United States as the United States exported to Japan in selected auto parts and engines in 1994, with Japan's exports to the United States growing by \$820 million to \$6.8 billion while U.S. exports to Japan increased by \$125 million to \$883 million.

In aggregate, motor vehicles and selected parts (including vehicles such as trucks, buses, and motorcycles) accounted for 32 percent (\$38.1 billion) of Japan's total exports to the United States in 1994, but only 6 percent (\$2.8 billion) of U.S. exports to Japan. In addition to passenger cars and selected parts, U.S. imports of tractors, trucks, and construction vehicles also grew significantly in 1994, rising by \$636 million to \$3.1 billion.

In sharp contrast to the persistent bilateral trade deficit endured by the United States with Japan in the motor vehicles and parts sector, the United States continues to enjoy a trade surplus with Japan in aircraft, jet engines, and other aircraft parts. U.S. exports to Japan in the aircraft sector grew by \$599 million in 1994 to \$4.0 billion (8 percent of total exports to Japan), while imports from Japan rose by \$88 million to \$600 million, for a 7-to-1 U.S. trade surplus.

Two-way trade in computers and semiconductor devices continued to flourish in 1994, albeit to Japan's advantage, as the industries in each country found receptive market niches in the other country. U.S. imports grew by \$3.9 billion to \$22.5 billion, accounting for 19 percent of total U.S. imports from Japan in 1994; while U.S. exports climbed by \$736 million to \$4.8 billion, or 9 percent of total exports to Japan. Other top U.S. export performers in 1994 were manufacturing equipment, cellular telephones, medical goods, and cigarettes. Other leading export gainers from Japan to the U.S. market were manufacturing equipment, steel, batteries, and photographic equipment. For the most part, growth in U.S. imports from Japan reflects the continued strength of the U.S. economy while the typically smaller rise in U.S. exports represents the turnaround in expansion in GDP in Japan.<sup>47</sup>

There were only a limited number of significant aberrations to the trend toward expansion in U.S.-Japan trade. The most important of these was a \$1.2 billion drop (46 percent) in Japanese exports of games to the United States, to \$1.4 billion as the world video game market caught its breath prior to the next anticipated round of technological innovations and price increases. Other big

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<sup>47</sup> The United States has encouraged Japan in recent years both in the United States-Japan Framework for a New Economic Partnership and in other specific industry "Arrangements" and talks to import more U.S. products in many of the industry/commodity groups in which the United States experienced its greatest increases in exports in 1994, including wood products, motor vehicles and parts, semiconductors, medical devices, and telecommunications equipment. See *1994 National Trade*, pp. 142, 147-149, 151-152, 156-160, 176-179, and 180-183.

decreases in U.S. imports from Japan were tape, record, and compact disc players, by \$212 million (9 percent), and stereo receivers and other radio transmission and reception apparatus, by \$163 million (10 percent). The most significant reductions in U.S. exports to Japan in 1994 were petroleum, by \$205 million (37 percent), leather and hides, by \$154 million (37 percent), and oilseeds, by \$135 million (14 percent).

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## China

The U.S. merchandise trade deficit with China grew by \$6.6 billion to \$29.4 billion in 1994, compared with a \$4.6 billion expansion to \$22.8 billion in 1992, continuing the widening of the deficit with China begun in 1984.<sup>48</sup> The U.S. trade deficit with China in 1994 was surpassed only by that with Japan (\$66.5 billion).<sup>49</sup> The rate of increase in U.S. exports to China slowed notably in 1994 to 6 percent, a growth of \$559 million to \$9.2 billion, down from a 17 percent (\$1.3 billion) expansion to \$8.6 billion in 1993. In contrast, U.S. imports from China increased at the same rate as in 1993, by 23 percent (\$7.1 billion) to \$38.6 billion.<sup>50</sup> Furthermore, the value of U.S. imports from China rose from roughly 3.6 times the value of U.S. exports to China in 1993 to 4.2 times the value of U.S. exports in 1994. The slowdown in the rate of increase in U.S. exports to China was surprising since China had enjoyed three consecutive years of very high growth in real GDP: 12.8 percent in 1992; 13.4 percent in 1993; and 11.8 percent in 1994.<sup>51</sup> This rapid GDP

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<sup>48</sup> This bilateral trade deficit increase was the largest the United States had with any country in 1994. Based on Chinese data, the United States was the second-largest market, behind Hong Kong, for Chinese exports and the third-largest source, behind Hong Kong and Japan, of imports in 1993. *EIU, Country Report: China/Mongolia*, 1st quarter 1995 (London, 1995), p. 50.

<sup>49</sup> The trade deficit with China accounted for 17 percent of the \$176.0 billion total U.S. merchandise trade deficit in 1994, compared with 17 percent of the \$135.6 billion in 1993 and 18 percent of \$100.1 billion in 1992.

<sup>50</sup> China accounted for the fourth-largest bilateral increase in the value of U.S. imports in 1994 and the seventeenth-largest increase in the value of exports. It ranked fourth as a source of U.S. imports and fourteenth as a market for exports in 1994. Total U.S. trade with China amounted to \$47.8 billion in 1994, ranking it as the sixth-largest U.S. trading partner, up from its seventh-largest partner in 1993.

<sup>51</sup> Real GDP in 1980 prices. Real GDP increased from 1.44 trillion renminbi in 1993 to 1.61 trillion renminbi in 1994. "PRC State Statistical Bureau Statistical Communiqué on the 1994 National Economic and Social Development (Feb. 28, 1995)," *Daily Report: China* (Hong Kong: Foreign Broadcast Information Service (FBIS), 1995), FBIS-CHI-95-044, Mar. 7, 1995, p. 41. See also, *Country Reports*, 1995, pp. 40-41. The comparable 1994 report stated that some estimates based on a purchasing-power-parity comparison basis suggest that China has the third-largest economy in the world. Thus, it concluded, as foreign investment in China reached record levels in 1992-93, "many foreign firms see China as a key

growth was led by an even faster rise in Chinese exports, which jumped by 32 percent (\$29.2 billion) to \$121.0 billion in 1994. Meanwhile, China's imports grew at a more moderate pace, increasing by only 11 percent (\$11.9 billion) to \$115.9 billion in 1994, compared with a sharp increase of 29 percent (\$23.4 billion) to \$104.0 billion in 1993. The resulting \$5.1 billion surplus was a sharp reversal of the overall merchandise trade deficit of \$12.2 billion it experienced in 1993, China's first deficit since 1989.<sup>52</sup>

The high growth rate of total Chinese exports was attributed to two primary factors. First, prior to 1994, foreign-invested enterprises incurred a large trade deficit because of rapidly increasing investment in plant, equipment, raw materials, and semifinished products required to begin operations. The deficit shifted in 1994 as these firms began to fulfill the requirement to export 80 percent of their output that most of these firms incurred as a condition to invest in China. Such firms accounted for 37 percent (\$87.7 billion) of total Chinese trade in 1994, up 31 percent from 1993. Second, the merging of the dual exchange rate system into one on January 1, 1994, resulted in a devaluation of as much as 30 percent of the renminbi against the U.S. dollar.<sup>53</sup> However, this change occurred in early 1994, and, by the end of 1994, the renminbi had appreciated slightly, leading to speculation that the rate of increase of Chinese exports would slow in 1995.<sup>54</sup>

A number of factors may explain the lackluster rate of growth of U.S. exports to China. The significant and pervasive controls over and barriers to entry of imports maintained by the Chinese Government may provide some of the explanation. The USTR noted in 1995 that

China has made significant progress under the terms of the October 10, 1992, Memorandum of Understanding on Market Access that China signed with the United States. The memorandum committed China to dismantle 90 percent of its nontariff import restrictions over 5 years and to lower tariffs on a large number of goods.<sup>55</sup> The 1995 USTR report noted that "nonetheless, at present, China still uses an intricate system of tariff and non-tariff administrative controls to implement its industrial and trade policies."<sup>56</sup> Such controls include import licenses, a complex and sometimes arbitrary import approval process (including lack of transparent public access to it), quotas and/or restrictions (often unpublished), a general lack of transparency of its trade regime, high and "prohibitively high" tariffs, tariffs that vary for the same product, additional taxes, foreign exchange controls, the use of standards and certification requirements to ban imports or to make them less competitive with Chinese products, indirect subsidies to exports, lack of protection of intellectual property, and industrial policies aimed at protecting and fostering domestic industry. The last named practice, import substitution, directly contradicts China's claim that it had eliminated all import substitution regulations, guidance, and policies and that it would not engage in such practices in the future.<sup>57</sup> However, in July 1994, China issued the Automotive Industrial Policy, placing local content requirements on the automobile industry. Strict local-content requirements mandate that Chinese auto parts be used "whether comparable or not in quality or price."<sup>58</sup>

The rate of expansion of U.S. exports to China may also have been slowed by efforts of the Chinese Government to restrain the rate of growth of inflation. The Chinese economy experienced a sharp increase in inflation in 1993 that continued in 1994 caused by the combination of rapid growth of GDP, the freeing of some domestic prices, and the pressure to raise some domestic prices to world prices as China implemented agreements to open its economy.<sup>59</sup> The bulk of the products exported from

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<sup>51</sup>—Continued  
growth market." *Country Reports*, 1994, pp. 42-43. The USTR stated that "China is now the fastest growing major economy in the world." *1995 National Trade*, p. 47.

<sup>52</sup> "Statistical Communique of the State Statistical Bureau of the People's Republic of China on the 1993 National Economic and Social Development (Feb. 28, 1994)," *China Economic News* (Hong Kong), Supplement No. 3, Mar. 14, 1994, p. 1, and "PRC State Statistical," *Daily Report: China* (Hong Kong), p. 44. However, the USTR stated, Chinese export data "may significantly understate" the value of Chinese exports because such exports are routinely calculated using a value-added method rather than internationally accepted accounting methods. *1995 National Trade*, p. 47. This would mean that China may have an even greater trade surplus. Certain other observers have questioned the reliability of China's data on real GDP (it may have been overstated by about 4 percentage points in 1993 and 1994) and on prices. EIU, "Stagflationary Spectre," *Business China*, vol. 21, No. 8, Apr. 17, 1995, pp. 1-2, and EIU, "Everything Is Not What It Seems With China's Inflation Figures," *Business China*, vol. 21, No. 4, Feb. 20, 1995, pp. 3-4. For more detailed data on China's foreign trade in 1994, see "China's I/E Trade in 1994 Totaled US\$236.7 Billion," *China Economic News* (Hong Kong), vol. 16, No. 6, Feb. 13, 1995, p. 9.

<sup>53</sup> EIU, *Country Report*, 1st quarter 1995, p. 25.

<sup>54</sup> "A Hopeful Returning to the Foreign Trade," *China Economic News* (Hong Kong), vol. 16, No. 8, Feb. 27, 1995, p. 1.

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<sup>55</sup> 1994 National Trade, pp. 44-45; *Country Reports*, 1994, p. 45; and 1995 National Trade, p. 48.

<sup>56</sup> 1995 National Trade, pp. 47-59 and 63-64. See also, *Country Reports*, 1995, pp. 42-46.

<sup>57</sup> 1994 National Trade, pp. 48-49; *Country Reports*, 1994, pp. 43-45.

<sup>58</sup> 1995 National Trade, p. 52. See also, *Country Reports*, 1995, p. 43. The latter also stated that "in the 'Framework Industrial Policy for the 1990s,' the government announced plans to issue industrial policies for the following other sectors: telecommunications and transportation, machinery and electronics, construction, foreign trade, investment and, possibly, textiles."

<sup>59</sup> The cost of living for households increased overall by 14.7 percent in 1993 and by 24.1 percent in 1994, while that for households in 35 large and medium cities jumped by 19.6 percent and by 24.8 percent, respectively. Producers' prices of manufactured products increased by 24.0 percent in 1993 and by 19.5 percent in 1994. "Statistical Communique," *China Economic News* (Hong Kong), pp. 4-5, and "PRC State Statistical," *Daily Report: China* (Hong Kong), p. 44. In late 1993 and early 1994, observers noted that continued lack of control over fiscal and monetary policy tools threatened continued double-digit economic growth and jeopardized continued and further opening of the Chinese

China to the United States in 1994 continued to be consumer goods, many of which were made in factories that benefited from foreign investment, often in the form of joint ventures between Asian, U.S., or other foreign producers and Chinese manufacturers. Foreign investors are attracted to China both (a) to take advantage of low labor costs in the production of those goods that require labor-intensive manufacturing, quality control, or packaging operations and (b) to gain access to what is expected to become the largest consumer market in the world. These goods can be further categorized as sewn goods, electronic products, and miscellaneous low-technology products. Chief Chinese exports to the United States in the sewn goods category are footwear, apparel, luggage, handbags, and dolls. Electronic products include stereo, radio, telephone, computer equipment, lamps, and video game software. China is also a leading supplier to the U.S. market of other goods that involve low-technology manufacturing processes and fairly simple assembly such as toys, Christmas decorations, artificial flowers, and certain types of sporting goods and furniture. Table 2-15 ranks industry/commodity groups based on the leading increases in the value of U.S. imports from China in 1994.

Unlike U.S. exports to China, where large, year-to-year shifts in trade have tended to be concentrated in a few industry/commodity groups, shifts in U.S. imports from China have been spread across a broad array of groups, in part reflecting the much larger total magnitude of imports. Increased imports of these products reflects both the robust growth of the U.S. economy and the relatively low prices of goods made in China. The only industry/commodity group that recorded a major decrease in U.S. imports from China in 1994 was shirts and blouses, which dropped by \$271 million (16 percent) to \$1.5 billion.

Because of Chinese Government control over the composition of imports, U.S. exports to China tend to be goods that can be used in improving China's infrastructure (such as transportation and communications) or that can assist in enhancing production (such as machinery, components, raw materials, and chemicals). There was a significant shakeup in the composition of U.S. exports to China in 1994 with major decreases in exports of manufactured goods and significant increases in exports of certain commodities. Sharply reversing a decreasing trend begun in 1992, U.S. exports of fertilizers and cotton both jumped significantly in 1994.<sup>60</sup> Fertilizers increased by

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<sup>59</sup>—Continued

market to imports. *1994 National Trade*, p. 43; *Country Reports*, 1994, pp. 43-44. China had still not gained sufficient control over these tools in 1994. *Country Reports*, 1995, pp. 41-42.

<sup>60</sup> Fertilizers dropped by \$337 million (53 percent) to \$293 million; and cotton, by \$186 million (nearly 100 percent) to \$179,000 in 1993.

\$652 million (223 percent) to \$944 million; and cotton, by \$645 million, from \$179,000.<sup>61</sup> Soybean oil increased from only \$270,000 to \$104 million. In contrast, U.S. exports to China of cars and trucks decreased sharply in 1994, after having increased steeply in both 1992 and 1993. Exports fell in 1994, by \$424 million (68 percent) (nearly as much as they increased in 1993), to \$200 million in 1994.<sup>62</sup> U.S. exports of aircraft also dropped significantly after 2 straight years of large increases, falling much more than the 1993 increase, by \$393 million (18 percent) to \$1.8 billion.<sup>63</sup> U.S. exports of refined petroleum and wheat also fell in 1994, refined petroleum by \$185 million (74 percent) to \$65 million and wheat by \$108 million (39 percent) to \$166 million.

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## Korea

Classified as one of the ten "Big Emerging Markets" in 1994 by the U.S. Department of Commerce,<sup>64</sup> Korean merchandise trade with the United States increased in a number of sectors that same year. Korean economic policies in the postwar era have used government intervention to spur rapid export-led development and maintain protection of domestic industries. Recently, however, pressure from the international trading community, including the United States,<sup>65</sup> has encouraged efforts to liberalize the trade and investment regime in this traditionally agrarian yet aggressively entrepreneurial society. President Kim Young-Sam announced a 5-year economic plan in July 1993 for a "New Economy" that envisions wide-ranging economic deregulation and liberalized domestic economic and international trade policies. Even though the implementation of key market reforms is not scheduled until 1996 and 1997, moderate efforts to date to reduce trade barriers, liberalize the tax structure, encourage foreign investment, and increase consumer spending, are reflected in the growing merchandise trade volume between the United States and Korea. Korea is the sixth-largest market for U.S. exports, and the eighth-largest supplier of goods to the U.S. market.

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<sup>61</sup> See articles on fertilizers and cotton later in this report for a discussion of factors affecting demand for these products in China.

<sup>62</sup> Such imports rose by \$474 million (315 percent) to \$624 million in 1993. See the discussion above in this section of China's import substitution policy on the automobile industry announced in July 1994.

<sup>63</sup> Such exports increased by \$263 million (13 percent) to \$2.6 billion in 1993.

<sup>64</sup> The other nine Big Emerging Markets are Argentina, Brazil, the Chinese Economic Area (including Hong Kong and Taiwan), India, Indonesia, Mexico, Poland, Turkey, and South Africa.

<sup>65</sup> The major U.S. trade consultation mechanism with Korea for discussing economic issues is the Dialogue for Economic Cooperation (DEC). The DEC was announced by President Clinton and President Kim during the U.S.-Korea summit in July 1993.

**Table 2-15**  
**Leading increases in U.S. imports from China, 1993-94**

Industry/commodity	Increase in 1994—		Total value in 1994 Million dollars
	Value	Percent	
	Million dollars		
Footwear .....	749	16.6	5,254
Computers .....	525	72.9	1,245
Radio transmission and reception apparatus .....	507	53.6	1,455
Telephone and telegraph apparatus .....	396	58.9	1,068
Tape recorders, tape players, video cassette recorders, turntables, and compact disc players .....	393	140.2	673
Toys and models .....	342	14.1	2,760
Leather apparel and accessories .....	258	55.9	720
Furniture and selected furnishings .....	251	50.4	748
Luggage, handbags, and flat goods .....	242	18.5	1,552
Sporting goods .....	235	60.6	623
Lamps and lighting fittings .....	234	38.7	840
Miscellaneous rubber or plastics products .....	232	27.3	1,080
Games .....	209	60.2	556
Miscellaneous articles .....	185	18.4	1,191
Office machines .....	126	59.3	337
Microphones, loudspeakers, and audio amplifiers .....	112	70.3	271
Dolls .....	103	18.5	655
Apparatus for making, breaking, protecting, or connecting electrical circuits .....	102	52.2	296
All other .....	2,387	14.5	18,807
<b>Total .....</b>	<b>7,147</b>	<b>22.7</b>	<b>38,572</b>

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

The Korea Development Bank (KDB) reports that worldwide economic recovery in 1994 contributed to brisk economic activity in Korea and boosted its GNP growth rate to 8.2 percent, up from 5.8 percent in 1993. According to the KDB, after stagnating in 1993 because of government policies designed to cool inflation, facility investments, which Korea considers essential for invigorating international competitiveness and expanding the economy's growth potential, rose by 23 percent in 1994. Aggressive facility investments in electrical equipment and electronics, motor vehicles, and shipbuilding led the investment surge.<sup>66</sup> The increasing growth rates also helped buoy demand for U.S. products, as well as narrow the U.S. merchandise trade deficit slightly, to \$2.0 billion in 1994, from \$2.6 billion in 1993.

Korea's main imports are machinery, electronics and electrical equipment, oil, steel, transport equipment, and organic chemicals. Japan, the United States, and the EU provide the majority of Korea's total imports (26, 24, and 15 percent, respectively).<sup>67</sup> Total U.S. exports to Korea were valued at \$17.5 billion in 1994, up 22 percent from 1993 (\$14.4 billion). Machinery and parts comprised the bulk of the increase, totaling \$3.2 billion in 1994, up 37 percent from the 1993 total of \$2.4 billion. Driving the boost in exports was a sharp rise in machinery used in manufacturing and related activities. Table 2-16 shows other notable increases in U.S. exports to Korea in 1994.

<sup>66</sup> The Korea Development Bank, *KDB in the World: The Korean Development Bank 1994 Annual Report*, (Seoul: Korea Development Bank, Mar. 1995), pp. 8-9.

<sup>67</sup> U.S. Central Intelligence Agency, *World Factbook*, 1994.

A number of infrastructure projects have helped spur demand for imports in Korea. For example, for the period 1994-2004, the government has allocated \$20 billion to expand its superhighways, \$12.5 billion for new port construction and expansion, and \$15 billion to build a new international airport in Seoul. In the telecommunications field, there is a \$1.4 billion cellular project, as well as a \$500 million cable TV project. The government also plans to spend an additional \$50 billion on nuclear, coal, and combined cycle power projects by the end of the decade. Environmental projects include \$3.8 billion for incineration plants, \$8.1 billion for waste water treatment plants, and \$230 million for the Kimpo landfill construction project. In the oil and petrochemical field, projects include a \$20.5 billion expansion of the existing domestic natural gas pipeline system and \$20.4 billion for new oil refineries.<sup>68</sup>

The main exports of Korea include electronics and electrical equipment, machinery, steel, automobiles, ships, and textiles. Its major export markets are the United States, Japan, and the EU accounting for 26, 17, and 15 percent of total exports, respectively.<sup>69</sup> Total U.S. imports from Korea increased from \$17 billion in 1993 to \$19.5 billion in 1994 (15 percent).

The largest import category, integrated circuits, microassemblies, and other electronic parts, which constituted 20 percent (\$3.9 billion) of the total, experienced a 59-percent increase, from \$2.4 billion to \$3.9 billion. Automobile imports nearly doubled,

<sup>68</sup> William R. Golike, Korean desk officer, U.S. Department of Commerce, "South Korea—This Big Emerging Market," *Business America*, Mar. 1994.

<sup>69</sup> Central Intelligence Agency, *World Fact Book*, 1994.

**Table 2-16**  
**Leading increases in U.S. exports to Korea, 1993-94**

Product	Increase in 1994		Total value in 1994
	Value	Percent	
	Million dollars		Million dollars
Cellular telephones and other telephone equipment .....	383	115	715
Aircraft engines and other parts .....	351	67	873
Integrated circuits and microassemblies .....	309	35	1,186
Wood pulp .....	132	44	431
Corn .....	200	377	253
Meat products .....	86	46	272
Computers and peripherals .....	123	34	487
All other .....	1,292	11	13,284
<b>Total .....</b>	<b>3,141</b>	<b>22</b>	<b>17,499</b>

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

jumping by \$729 million to \$1.5 billion. Korea became the fifth-largest motor vehicle manufacturer in the world in 1994, yet it imported less than 0.3 percent of the cars sold in its national market.<sup>70</sup> Imports of parts of computers and other office machines also took off in 1994, increasing by \$456 million (61 percent) to \$1.2 billion, as Korea asserted itself as a player in the world market for high-tech products.

By contrast, Korea's exports of low-technology, labor-intensive products dropped off in 1994 reflecting the continuing re-orientation of Korean industry. For example, U.S. imports of footwear from Korea dropped by \$345 million (33 percent) in 1994 to \$689 million. Imports of leather apparel fell by \$220 million (43 percent) to \$292 million. In both sectors, some Korean producers have shifted production to China and Indonesia where labor costs are significantly lower.

Korea has taken steps to expand foreign trade. A number of Korea's policies are aimed specifically at promoting exports. New export promotion policies and financial support programs were announced in 1993 and 1994 to support existing programs of tax breaks, duty rebates, loans, and special depreciation allowances intended to support Korea's export industries. The government has offered development loans with below-market rates and attractive payment plans in order to stimulate and fund technology development among small and medium-size firms.<sup>71</sup>

On the import side of the trade equation, a 5-year tariff reduction plan that ended in January 1994, achieved its objective of an average 7.9-percent tariff rate. The initial average rate was 12 percent. Korea also ratified the Uruguay Round Agreement (URA), and as such is committed to further reducing tariffs on over 30 agricultural products of primary export interest to the United States, such as vegetable oils and meals, processed potatoes, mixed feeds, feed corn, fruits, nuts, popcorn, frozen french fries and breakfast cereals.<sup>72</sup>

Effective January 1995, Korea began phasing out tariffs on most or all products in the paper, toys, steel, semiconductor and pharmaceuticals sectors in compliance with the URA.<sup>73</sup> Also in 1995, Korea was to begin allowing rice imports of up to 1 percent of domestic consumption.

Although formal barriers to imports have been reduced, according to the U.S. Department of State, Korea has raised more subtle secondary barriers that effectively prevent the widespread liberalization that was envisioned under major trade initiatives of the late 1980s. Korea maintains more than 18 "individual laws" that allow relevant ministries to make certain products subject to a "recommendation" that can result in a quota or a ban. Its URA ratification has committed Korea to phasing out these laws. Still, the U.S. Department of State noted, Korean safeguard regulations permit the government to impose special "emergency tariffs" of up to 100 percent on imported goods to protect the domestic industry. The State Department also reported that restricting the ability to import on credit is one of the most pervasive remaining formal barriers for U.S. exports to Korea. U.S. firms estimate that they could increase exports by up to one-third if Korean firms were allowed to buy on credit.<sup>74</sup> The State Department commented that "the government has done little to educate a public accustomed to a closed domestic market on the benefits of imports, particularly to consumers. Most Koreans have been taught that imports are, by definition, luxury goods. The government has encouraged regular 'frugality campaigns' against over-consumption that hit consumer imports particularly hard." Furthermore, domestic industry often pressures the government to restrict the activities of foreign firms.<sup>75</sup> The Korean

<sup>73</sup> Korea became a founding member of the World Trade Organization on January 1, 1995.

<sup>74</sup> U.S. Department of State, *Country Reports*, Feb. 1995, pp. 68-69.

<sup>75</sup> *Ibid.*, pp. 69-70.

<sup>70</sup> USTR, *1995 National Trade Estimate*, pp. 215-216.

<sup>71</sup> *Ibid.*

<sup>72</sup> *Ibid.*

Government hopes that progression on this track will facilitate its eventual admission to the Organization for Economic Cooperation and Development.

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## Malaysia

The U.S. merchandise trade deficit with Malaysia widened markedly in 1994, rising by \$2.5 billion to a new high of \$7.3 billion. The increase was substantially greater than the increase in 1993 of just under \$600 million, or that in 1992 of \$1.8 billion. The deficit worsened in 1994 because of a sharp increase in imports, mainly in electronic and electrical products, and a slowdown in export growth, largely due to a big decline in aircraft sales. U.S. imports grew by \$3.4 billion (32 percent) to a total of almost \$13.9 billion, after rising by \$2.3 billion (28 percent) in 1993. U.S. exports expanded by \$858 million (15 percent) to a level of \$6.6 billion in 1994, after advancing by \$1.7 billion (42 percent) a year earlier.

The United States is one of Malaysia's most important trading partners. In 1994, the United States supplied 17 percent of Malaysia's imports, second only to Japan with 27 percent of the total. The United States also continued to be the largest market for Malaysian exports, accounting for more than 21 percent of the exports, followed by Singapore with just under 21 percent and Japan, a distant third at 12 percent.<sup>76</sup>

Exports have contributed significantly to the economic growth that has taken place in Malaysia in the years following the 1985-86 recession. They accounted for 80 percent of the Malaysia GDP, which grew by 8.7 percent in real terms in 1994, after having expanded by an average annual rate of 8.3 percent in 1987-93.<sup>77</sup> Malaysia's exports in 1994 rose by 26 percent to an estimated \$59 billion (f.o.b.), bringing the average annual growth in postrecession exports to 18.6 percent. Malaysia's imports posted an even greater gain, rising by 31 percent to about \$60 billion (c.i.f.), with postrecession growth averaging 24 percent a year.<sup>78</sup> Three-fourths of the 1994 exports came from the manufacturing sector, a substantial portion of which is controlled by multinational firms. U.S. and Japanese companies dominate the production of electronic and electrical products, which accounted for roughly one-half of

Malaysia's exports in 1994. Capital and intermediate goods accounted for 85 percent of the imports that year. This investment spending is of particular importance for U.S. exports because capital goods have become an increasingly important component of U.S. exports.

The pace of economic growth in Malaysia has, however, led to an increasingly tight labor market and rising labor costs. With manufacturing wages rising by 13 percent in 1993, Malaysia's competitive advantage of relatively low labor costs is becoming more difficult to maintain. To sharpen its competitive edge, Malaysia has increased government funding of higher education and industrial training in an effort to upgrade labor skills. Malaysia's ability to sustain strong export growth in the future will depend not only on the level of global economic activity, but more importantly on its success in attracting new foreign investment and shifting the manufacturing base to higher technology and value-added products.<sup>79</sup>

The growth in U.S. imports from Malaysia in 1994 was largely in electronic and electrical products, which rose by \$1.8 billion (30 percent) to \$8 billion. A large part of these imported products, (57 percent of total imports from Malaysia) consisted of intracompany trade among U.S. firms with assembly facilities there. Within the electronic sector, the major import increases were in integrated circuits and microassemblies, up \$658 million (27 percent) to \$3.1 billion; reception apparatus for radio telephony, up \$319 million (32 percent) to \$1.3 billion; television receivers, up \$142 million (49 percent) to \$432 million; video recording and reproduction apparatus, up \$109 million (18 percent) to \$727 million; and semiconductor devices, up \$58 million (16 percent) to \$411 million.

Once again, intense price competition in the United States for computer equipment was the most important factor contributing to a large, \$781 million (63 percent) increase in U.S. imports of computer equipment from Malaysia. A substantial part of this growth is attributed to rapid increases in imports of disk storage devices, which rose by \$259 million (48 percent) to \$802 million; and personal computers, including peripheral devices, which nearly doubled to \$553 million. Other imports showing significant gains included parts of computers and other office machines, which rose by \$161 million (76 percent) to \$372 million, and apparel products of vulcanized rubber, primarily surgical and medical gloves of latex rubber, which, after growing by 43 percent annually during 1990-93, increased by only 14 percent (\$48 million) to \$402 million in 1994. Imports of all apparel from Malaysia, including these surgical and medical gloves, totaled just over \$1 billion in 1994.

The 1994 slowdown in export growth to Malaysia was concentrated in aircraft. U.S. exports of aircraft, mainly large civilian aircraft, declined by \$565 million (40 percent) to \$841 million after having grown by 59

<sup>76</sup> The information in this paragraph is from U.S. Department of State telegram, "Bank Negara 1994 Report: Malaysia's Economy Continues to Glow," message reference No. 002292, May 4, 1995.

<sup>77</sup> Data for 1994 from U.S. State Dept., "Bank Negara 1994 Report;" other data from The World Bank, *Trends in Developing Economies - 1994*, Washington, DC, p. 304.

<sup>78</sup> Trade data for 1994 based on estimated data in "Bank Negara 1994 Report." Growth rates for 1987-93 based on trade data in United Nations, *Monthly Bulletin of Statistics*, Mar. 1995, p. 116.

<sup>79</sup> U.S. Department of Commerce, International Trade Administration, "Malaysia: Economic Trends and Outlook," National Trade Data Bank—The Export Connection, Dec. 26, 1994.

percent a year in 1990-93. However, U.S. exports of all other goods to Malaysia continued their strong growth, increasing by 33 percent (\$1.4 billion) to almost \$5.7 billion. U.S. exports of electronic products jumped 42 percent, gaining \$1.0 billion to \$3.4 billion. A large part of these exports was destined for U.S. multinational corporations, where value was added, and then re-exported, often back to the United States. Within the electronic sector, U.S. exports of integrated circuits and microassemblies rose by \$817 million (47 percent) to \$2.6 billion; electric generating sets and rotary converters more than doubled to \$113 million; and semiconductor devices rose by \$31 million (13 percent) to \$285 million. Other significant increases in U.S. exports to Malaysia in 1994 included parts of computers and other office machines, up \$100 million (91 percent) to \$211 million; and computers and peripherals, up \$30 million (42 percent) to \$102 million.

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## Germany

The German economy is the largest in Europe, with an estimated annual GDP of \$1.9 trillion in 1994, accounting for nearly 30 percent of total EU production of goods and services. Germany's economy exhibited signs of a vigorous recovery in 1994. The country's GDP grew by 3 percent in 1994, compared with a 1-percent decline in 1993.<sup>80</sup> This reversal signaled the end of a steep recession (1990-93), during which investment in research and development dropped sharply and public consumption stagnated. The recession was largely attributable to the \$100 billion annual cost associated with the reconstruction of Eastern Germany. The reconstruction expense was largely financed by transfers from the western part of the country, which was heavily burdened by this resource drain.<sup>81</sup>

Despite clear manifestations of a growing economy in 1994, certain structural weaknesses in Germany remained, such as relatively high unemployment, which has been fueled by high wages and restrictive labor practices. Studies have shown that wages and benefits in German manufacturing industries are, on the average, more than 50 percent higher (in dollar terms) than wages and benefits in the United States.<sup>82</sup> In addition, as an

<sup>80</sup> "The Economic Situation in the Federal Republic of Germany," *Monatsbericht*, Jan. 1995, p. 1.

<sup>81</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, May 11, 1995.

<sup>82</sup> Average hourly compensation costs for manufacturing employees in 1993 was \$25.71 in Germany, compared with \$16.73 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, 1991-93*, Nov. 1994.

economy that has been relying mainly on traditional manufacturing industries, Germany is regarded as having been somewhat slow in moving to high-technology industries, such as microelectronics and biotechnology. As a result, competitiveness in high-technology processes and equipment has become a major issue for German industry and government.<sup>83</sup>

Germany is the world's second-largest exporting country, behind the United States. Total exports exceeded \$400 billion in 1994, and are expected to rise to \$450 billion in 1995.<sup>84</sup> The United States has recorded trade deficits with Germany during the past 10 years. Despite an approximately 15-percent drop in the exchange value of the U.S. dollar vis-a-vis the German mark in 1994, increased U.S. demand for German-made goods and services promoted the widening of the longstanding U.S. merchandise trade deficit with Germany between 1993 and 1994 by an additional \$3.2 billion to \$13.4 billion. A \$3.5 billion (12-percent) rise in U.S. imports to \$31.6 billion in 1994 overwhelmed a smaller increase in U.S. exports to Germany that year.

The increase in U.S. imports from Germany was led by entries of motor vehicles and parts, which together accounted for nearly 22 percent of the annual total from Germany in 1994. U.S. imports of motor vehicles from Germany increased because of stronger sales of automobiles in the U.S. market. German automakers (particularly Volkswagen) also introduced new model lines that were able to attract both traditional and new U.S. consumers.

The largest percentage increase in U.S. imports for all product groups in the transportation sector was recorded in aircraft and related products, which rose by \$152 million in 1994 (594 percent) to \$178 million. The increase reflected shipments of about a dozen commuter aircraft manufactured by Dornier that were ordered by U.S. airlines. U.S. imports of aircraft parts from Germany also increased, rising by \$124 million (37 percent) in 1994 to \$457 million. A large portion of these imports were spare parts associated with the above mentioned commuter aircraft.

Expanded two-way trade in computer and electronic products reflected globalization in these industries and was further stimulated by reduced trade barriers. For example, U.S. imports of office machine parts (mostly parts of personal computers and word processors) from Germany rose by \$93 million (46 percent) in 1994 to \$298 million, while U.S. exports of these products to Germany also increased, advancing by \$122 million (13 percent) in the same year to \$1.1 billion. Similarly, U.S. imports of integrated circuits and other microelectronic components increased by \$146 million (67 percent) in 1994 to \$365 million, while U.S. exports of these products rose by \$60 million (19 percent) to \$374 million in the same year. The growth in exports of integrated

<sup>83</sup> U.S. Department of Commerce, *U.S. Global Trade Outlook: 1995-2000*, Mar. 1995, p. 39.

<sup>84</sup> *Ibid.*, p. 40.

circuits reflected continued pent-up demand in Germany for these items. Globalization also resulted in an increase in U.S. imports of pharmaceutical products from Germany by \$88 million (53 percent) in 1994 to \$255 million, as German drug companies expanded shipments to their U.S. subsidiaries.

Despite the recovering German economy and a sharp decline in the value of the U.S. dollar against the German mark, U.S. exports to Germany were up only slightly in 1994, advancing by \$234 million (1 percent). Among the leading commodities exported, the largest increases were recorded in aircraft parts (e.g., engines and gas turbines) and precious metals (particularly gold bullion), which rose by 18 percent and 37 percent, respectively. U.S. exporters of these goods were able to take advantage of easing German trade barriers as a result of EU consolidation of trade policies.

At the same time, the rollback of U.S. defense commitments in Germany and reduced German Government procurement inhibited U.S. exports of aircraft and related equipment (both civilian and military), which declined by \$257 million (35 percent) to \$472 million in 1994. In addition, the softening of the increasingly crowded European automobile market caused U.S. exports of automobiles to decrease by \$153 million (18 percent) to \$682 million in 1994. Conversely, U.S. exports of vehicle parts increased slightly (5 percent) to \$622 million, almost exclusively for cars manufactured by the European subsidiaries of General Motors and Ford in Germany.

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## **Singapore**

In order to survive and grow in global markets after gaining independence in 1965, the Republic of Singapore, an island city-state, has been a model of open-market policies that encourage trade and investment. Today, Singapore's open-market economy, based on political stability, corruption-free and pro-business environment, tax concessions for foreign investors, a skilled and disciplined labor force, and well-developed communications and transportation infrastructures, has attracted multinational investment from the United States and other countries.<sup>85</sup> Despite its lack of natural resources and small domestic market, Singapore's real GDP has been growing since its independence.<sup>86</sup> In addition, Singapore has a compulsory national savings program and has maintained a budget surplus since the 1970s, building large capital reserves. Singapore's monetary policies

favor a strong currency in order to control inflation.<sup>87</sup> In addition, Singapore imports most of its production inputs, and the strong currency attracts competitively priced products. During 1994, Singapore's currency appreciated by 10 percent against the U.S. dollar. Trade policies allow almost all imports to enter Singapore free of duty,<sup>88</sup> and the government actively encourages but does not subsidize exports.

For over a decade prior to 1994, the United States was the second largest importer of Singapore's products, behind Malaysia. Although Singapore was the 10th-largest export market for the United States in 1994, the U.S. bilateral trade deficit with Singapore rose by almost \$1.5 billion between 1993 and 1994, according to official statistics of the U.S. Department of Commerce. The United States exported \$11.7 billion worth of goods and services to Singapore in 1994, an increase of 10 percent. Exports of semifinished data processing equipment and components and other electronic products comprised \$3.0 billion (25 percent) of total U.S. exports to Singapore in 1994. According to Singapore's Economic Development Board, the electronics sector in Singapore accounted for 42 percent of its total manufacturing value added and 12 percent of nominal GDP in 1994.<sup>89</sup> Of the \$3.0 billion worth of electronic goods exported to Singapore, integrated circuits, microassemblies, and components totaled \$1.8 billion in 1994. Exports of computer equipment and components rose by over 31 percent in 1994 to \$0.7 billion. This includes items such as data storage devices (disk drives, for example), computer keyboards, monitors, printer units, and data input devices (optical scanners, for example). U.S. exports of other parts and accessories<sup>90</sup> for specific office machines accounted for \$0.5 billion of total exports to Singapore, an increase of 7 percent between 1993 and 1994.

Singapore's rapid growth in the aerospace industry, partly due to booming Asian-Pacific economies, has attracted foreign investment flows, making Singapore the hub for aircraft maintenance and repair in the region. The value of civilian and military aircraft, such as helicopters and fighter jets, and parts thereof that the United States exported to Singapore in 1994 exceeded

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<sup>87</sup> In order to reduce taxes on earnings in the long run, the government has lowered income taxes but has imposed a 3-percent consumption-based tax on most domestic and imported goods and services, effective April 1, 1994. The tax has contributed to Singapore's reaching its highest inflation rate of 3.5 percent since 1991. First quarter financial reports for 1995 indicate that the inflation rate has dropped to 2.5 percent, however.

<sup>88</sup> Singapore maintains substantial duties on cigarettes, alcoholic beverages, automobiles, and gasoline.

<sup>89</sup> U.S. Department of State telegram, "1995 Singapore Economic Trends Report," message reference No. 3767, prepared by the U.S. Embassy, Singapore, July 11, 1995.

<sup>90</sup> According to the explanatory notes of the *Harmonized Tariff Schedule (HTS)*, this includes form feed devices, automatic spacing devices, listing devices, auxiliary printing devices, etc. for typewriters, accounting machines, etc.

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<sup>85</sup> U.S. Department of State, *Country Reports*, Feb. 1995, pp. 93-94.

<sup>86</sup> According to the U.S. Department of State, Singapore's economy experienced over 10 percent growth in real GDP in 1994.

\$1.5 billion, almost 13 percent of total U.S. exports to Singapore during the year. U.S. multinational corporations in Singapore dominate the aerospace sector, and firms in the United States additionally supply most of Singapore's military hardware. Singapore's Ministry of Defense wants to develop indigenous defense capabilities to maximum capacity; and Singapore's defense spending equals about 6 percent of its GDP.<sup>91</sup> The country has been upgrading its existing military hardware and has announced intentions to purchase F-16 fighters from General Dynamics. Singapore has also shown interest in purchasing other military equipment and technology.

Other U.S. exports of goods and services to Singapore were varied in 1994. Exports of mineral fuels, precision instruments used for scientific, specialized technical, and medical purposes, plastics and plastic articles, photographic and cinematographic goods, and tobacco totaled \$1.7 billion, almost 14.5 percent of total exports to Singapore in 1994. Exports of all other individual commodities were less than 1 percent of the total U.S. exports to Singapore.

Between 1993 and 1994, the value of U.S. imports from Singapore rose by 20 percent to \$15.3 billion. Imports of components and electronic products accounted for the largest share of total imports. Imported electronic goods totaled \$10.5 billion in 1994, almost 69 percent of total imports from Singapore. Of this \$10.5 billion, the United States imported \$6.0 billion worth of automatic data processing machines and parts, an increase of 13 percent from 1994. Multinational corporations dominate Singapore's industrial sector, and inter-plant transfers between countries account for nearly 75 percent of Singapore's export production.<sup>92</sup> For example, U.S. companies in Singapore virtually monopolize disk-drive manufacturing in Singapore,<sup>93</sup> producing nearly half of the world's disk-drive output and typically re-exporting the finished merchandise to the United States. U.S. imports of other parts and accessories for office machines totaled \$2.5 billion, rising by 60 percent between 1993 and 1994. Electronic integrated circuits, micro-assemblies, and parts totaled \$2.0 billion, an increase of \$0.6 billion (45 percent) from 1993 import levels. The United States also imported miscellaneous other commodities from Singapore in 1994. Imports of precision instruments and organic chemicals totaled almost \$1 billion, or nearly 6 percent of total imports

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<sup>91</sup> U.S. Department of State telegram, "FY95 Strategic Commercial Plan - Singapore," message reference No. 7830, prepared by U.S. Embassy, Singapore, Dec. 1994.

<sup>92</sup> U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* "Economic Policy and Trade Practices: Singapore," reprinted in NTDB—the Export Connection, St. Ecopol Singapore, Dec. 26, 1994.

<sup>93</sup> In late 1993, a Taiwan manufacturer of disk drives in Singapore ceased operations, creating a monopoly for U.S. multinational firms. A Japanese producer, Matsushita, broke the 2-month monopoly in March 1994 when it announced a \$25.6 million-investment in a Singapore plant.

from Singapore. Imports of any other individual commodity comprised less than 1 percent.

Singapore is expected to remain an important trading partner with the United States. The Singapore Government is targeting several areas as priorities for development. The dearth of local skilled labor has been forcing wages upward, raising costs for labor-intensive industries, such as textiles. As a result, incentives exist for companies to automate operations and move into "high-tech," high-value areas, such as biotechnology and information technology. In order to reduce its dependence on unskilled labor from abroad, now accounting for about 18 percent of its workforce,<sup>94</sup> the government limits the percentage of foreign workers that an industry may employ and imposes a monthly levy for each foreign worker. Plans for Singapore include developing partnerships with U.S. companies to pursue infrastructure projects in the region, inducing reluctant environmental companies from the United States to export their highly regarded technologies to Asia, and becoming an "intelligent island" by making information technologies widely pervasive in government and defense.

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## **United Kingdom**

The United Kingdom was the fifth-largest U.S. trading partner in 1994, and the second-largest in Europe, after Germany. Also after Germany, the United States is the largest British trading partner. Trade between the United States and the United Kingdom is facilitated by a common language, similar legal systems, and strong cultural ties. Another bond is that each country is a major source of foreign investment to the other. Increased U.S. imports from the United Kingdom in 1994 and relatively stable exports there caused the U.S. trade surplus with the United Kingdom to shrink from \$3.2 billion in 1993 to \$226 million in 1994. U.S. imports from the United Kingdom in 1994 were \$24.5 billion, up by 15 percent from 1993. Exports to the United Kingdom were up by just 1 percent, to \$24.8 billion.

In mid-1993 the British economy began to recover, after bottoming out of a recession that had begun in 1990. The British GDP rose by 2 percent for all of 1993 and by 3.5 percent in 1994. Although employment gains were small, improving productivity led to increased output. As other European countries recover from the recession, it is expected that the United Kingdom will increase its trade with other EU members.

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<sup>94</sup> U.S. Department of State telegram, "Singapore - Economic News," message reference No. IMI941205 prepared by the U.S. Embassy, Singapore, reprinted in NTDB - The Export Connection, IT Market 111088735, drawing on U.S. Department of Commerce, International Trade Administration, Mar. 1, 1995.

For U.S. exports to the United Kingdom, the most notable development in 1994 was the 64-percent drop in gold shipments to \$1.4 billion. However, rather than reflecting sharp changes in financial markets, this reflected a movement to more typical levels of trade for gold from a sharp increase in 1993. That year U.S. exports of gold to the United Kingdom increased nearly fourfold, from \$960 million to \$3.8 billion. Countering this sharp decline in gold exports in 1994 were increased exports of several products. Shipments to the United Kingdom of data processing machines rose by \$374 million, to \$1.9 billion, and shipments of integrated circuits increased by \$295 million, to \$990 million. Both of these gains were largely stimulated by increased capital investment as British firms recovered from the recession. Exports of automobiles to the United Kingdom from the United States nearly tripled from \$152 million to \$451 million, also largely reflecting the improving British economy.

U.S. imports from the United Kingdom are dominated by crude petroleum shipments from the North Sea reserves. In 1994, these imports rose by 37 percent, to \$2.7 billion. Imports of refined petroleum products also increased significantly, by 40 percent to \$471 million. Other products contributing to the import increase were automobiles, up 32 percent to \$1.0 billion; certain pharmaceuticals, up 29 percent to \$659 million; and parts for office machines, up 53 percent to \$403 million.

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## **Belgium**

Belgium is the ninth-largest trading nation in the world. It ranked 20th in terms of global suppliers of imported U.S. goods in 1994, and 12th in terms of global purchasers of U.S. merchandise exports in 1994.<sup>95</sup> Belgium has traditionally maintained an open economy, and has a long history of reliance on imported inputs and international trade for its well-being. Imports and exports are each equivalent to nearly 70 percent of GDP, making Belgium one of the highest per capita exporters in the world. About 75 percent of Belgium's trade is with other EU countries. Belgium has an outstanding network of ports, airports, rail, highways, and canals that provide cost-effective transportation and make Belgium one of the top entrepot and distribution centers in the world.

Only Germany among the EU member states had a worse recession than Belgium in 1993. Belgium's economic condition is highly vulnerable to declines in economic activity in Germany, France, and the Netherlands, which together account for 55 percent of Belgium's exports. In 1994, Belgium emerged from its recession and realized positive GDP growth of over 1 percent. Most of the growth came from exports; Belgium's total exports

<sup>95</sup> These rankings apply to Belgium and Luxembourg as one market.

increased by 4 percent in 1994 to \$115.6 billion, and total imports increased by 3 percent to \$117.5 billion. Of these imports, nearly \$100 billion were manufactured products.

U.S. trade with Belgium increased considerably in 1994; U.S. exports to Belgium jumped by 24 percent, and U.S. imports rose by 23 percent. The U.S. trade surplus increased as well, from \$3.1 billion in 1993 to \$3.9 billion in 1994.

U.S. exports of cigars and cigarettes grew by \$697 million (73 percent) in 1994 and accounted for over one-third of the total increase in U.S. exports to Belgium that year. Reflecting the role of Belgium as a distribution point for Western Europe, cigars and cigarettes accounted for 16 percent of total exports to Belgium in 1994.

Many U.S. companies with production facilities in Europe ship parts and other supplies from the United States to Belgian ports for distribution to their European affiliates. Exports of parts for construction machinery to Belgium rose by \$144 million (52 percent) to \$418 million in 1994 and exports of auto parts increased by \$104 million (35 percent) to \$400 million. These two categories made up 12 percent of the growth in U.S. exports to Belgium in 1994 and 8 percent of total exports that year.

Exports of aircraft to Belgium also rose sharply in 1994, from \$6 million in 1993 to \$95 million in 1994. Soybeans led U.S. export declines in 1994, falling by \$56 million (31 percent) to \$123 million.

Automobiles and excavating vehicles led U.S. import growth from Belgium in 1994, with imports of autos climbing \$233 million (33 percent) to \$950 million and imports of excavating vehicles jumping from \$100 million in 1993 to \$321 million in 1994. These two categories accounted for 39 percent of the growth in U.S. imports from Belgium in 1994 and 20 percent of total imports that year. Diamonds remained by far the leading import from Belgium. At \$1.44 billion, diamonds accounted for nearly one-quarter of total U.S. imports in 1994.

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## **Brazil**

A consumer-led economic boom in Brazil, brought about by a government monetary and fiscal stabilization plan, sharply increased imports into Brazil, including imports of U.S. products. During 1994, Brazil's real GDP grew by 4 percent, and its rate of inflation declined by 57 percent.<sup>96</sup> Brazil's trade regime significantly reduced

<sup>96</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 334, U.S. Department of Commerce, *U.S. Global Trade Outlook*, p. 69.

tariffs and nontariff barriers, and Brazilian imports (ranging from industrial and agricultural products to consumer goods) increased. Tariffs were lowered in Brazil (from a ceiling of 110 percent to the current maximum of 35 percent); quotas on products were abolished; and import licensing was simplified.<sup>97</sup>

In July 1994, Brazil introduced its new currency, the "real." The new currency together with lower government expenditures, stricter monetary policy, and privatization of state-run industries, succeeded in reducing the annual rate of inflation in Brazil from nearly 5,000 percent at the end of 1993, to a monthly rate in September 1994 of 1.5 percent.<sup>98</sup> In line with reducing inflation, the Government loosened import restrictions to provide price discipline to domestic industries as well as to supply increased consumer purchases made possible by the end of hyperinflation. The higher number of consumer purchases taxed the capacity of many consumer goods industries in Brazil, including durable goods and automobile industries. Sales of Brazilian autos set a record high in late 1994.<sup>99</sup>

When the government introduced the real, it initially established exchange rate parity with the dollar—1 real per U.S. dollar. However, with a strong trade surplus (\$13 billion in 1994), and a continuing inflow of foreign capital into Brazil, the real appreciated. By September 1994, the real had reached 0.85 per dollar, and the Brazilian Central Bank intervened to deflate the currency.<sup>100</sup>

The United States remained Brazil's largest foreign supplier in 1994, accounting for 29 percent of Brazil's total imports of \$28 billion.<sup>101</sup> Brazil is the third-largest market for U.S. exports in the Western Hemisphere, after Canada and Mexico. The United States is the largest single country market for Brazilian exports although EU countries together purchase more. Of Brazil's total 1994 exports of \$42 billion, the U.S. market purchased 21 percent, and the EU countries, 26 percent.<sup>102</sup>

Two-way trade between the two countries increased by 22 percent from \$13.5 billion to \$16.5 billion during 1993-94. Brazil's bilateral trade surplus with the United States fell from \$2.1 billion in 1993 to \$1.2 billion in 1994. Brazil's surging domestic market brought in a higher volume of both U.S. intermediate and consumer goods in 1994; meanwhile, appreciation of the Brazilian currency handicapped the competitiveness of many

<sup>97</sup> U.S. Department of Commerce, *U.S. Global Trade Outlook*, p. 71.

<sup>98</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 335.

<sup>99</sup> U.S. Department of State, "Sao Paulo Economic Highlights," message reference No. 000803Z, prepared by the U.S. Consulate, Sao Paulo, Mar. 28, 1995.

<sup>100</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 336.

<sup>101</sup> U.S. Department of Commerce, *U.S. Global Trade Outlook*, p. 69.

<sup>102</sup> U.S. Department of Commerce, *U.S. Global Trade Outlook*, p. 70.

leading Brazilian exports: footwear, industrial equipment, and iron and steel products.

In 1994, U.S. exports to Brazil rose by \$1.9 billion (34 percent) to \$7.6 billion, led by increased sales of computers and electronic equipment; industrial and heavy machinery (such as boilers, machinery, engines, turbojets, gas turbines, and parts); electrical machinery and equipment; automobiles and auto parts; and other consumer goods. U.S. exports of automobiles to Brazil rose by nearly \$138 million in 1994. U.S. exports of ethyl alcohol (used in Brazil for fuel), soybeans, and rice also registered sharp increases.

U.S. imports from Brazil increased by 14 percent (\$1.1 billion) in 1994 to \$8.8 billion. The bulk of the increase was attributable to growth in imports of coffee, production-sharing goods (under *Harmonized System* subheading 9801), pig iron, flat-rolled steel, aluminum, and wood pulp. Brazil's leading export to the U.S. market, footwear, with \$1.3 billion in sales (14 percent of total imports from Brazil), registered a drop of \$142 million, reflecting the effects of the stronger "real," and competition from lower priced Chinese footwear.

Iron and steel exports from Brazil, representing \$0.9 billion of total U.S. imports from that country in 1994, accounted for 36 percent of the \$1.1 billion increase in Brazilian exports to the United States. Aluminum exports, which rose by \$139 million in 1994, accounted for about 13 percent of the total increase. Owing to the Brazilian frost-damaged harvest, rising coffee prices boosted the value of U.S. coffee imports from Brazil by \$218 million; coffee imports were responsible for 20 percent of the total import increase in 1994.

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## Thailand

The continued U.S. trade deficit with Thailand, rising by \$668 million to almost \$5.7 billion in 1994, has largely been the result of Thailand's pursuit of an export-oriented, free market economy. The Royal Thai Government has begun to address infrastructure bottlenecks, environmental degradation, shortages of skilled labor, and lagging rural development (where the majority of the Thai labor force is engaged in agricultural production) that have come with the country's rising industrialization, so that these problems will not hinder Thailand's export competitiveness.<sup>103</sup>

U.S. imports from Thailand rose by 20 percent (\$1.7 billion) to \$10.3 billion in 1994. Electronic products accounted for most of the import increase, followed by imports of fish and crustaceans, and optic, photo, and medical instruments. Within the electronic products grouping, imports of computers showed the largest

<sup>103</sup> U.S. Department of State, *Country Reports*, Feb. 1995, p. 99.

growth, rising by 42 percent (\$415 million), to \$1.4 billion, followed by imports of integrated circuits, which rose by 43 percent (\$200 million), to \$664 million. Imports of video tape recorders jumped by 75 percent (\$100 million), to \$235 million. Strong U.S. demand for computers and home electronic equipment contributed to the acceleration of imports from Thailand.

U.S. imports from Thailand of fish and crustaceans, fresh or frozen, rose by 41 percent (\$243 million), to \$835 million, and preserved fish and crustacean imports rose by 27 percent (\$53 million), to \$251 million. Entries of optic, photo, and medical instruments also climbed by 58 percent (\$93 million), to \$254 million, with most of the increase concentrated in photocopy apparatus that rose by 88 percent (\$62 million), to \$135 million. Imports of only a few items fell, principally tobacco by 55 percent (\$43 million),<sup>104</sup> to \$35 million; and prepared vegetables, fruit, nuts, or other plant products, by 15 percent (\$33 million), to \$183 million.

U.S. exports to Thailand advanced by 30 percent (\$1.1 billion) to \$4.6 billion in 1994. The major contributors to the rise in exports were electronic products, articles of iron or steel, cotton, and miscellaneous chemicals. U.S. exports of electronics were concentrated in integrated circuits and microassemblies, which rose by \$162 million; blank tapes for recording music, increased by \$50 million; parts of computers and other office machines rose by \$34 million; and cellular telephones and other telephone equipment increased by \$47 million. U.S. exports of electronic products were principally due to intracompany trade from U.S. firms with assembly facilities in Thailand. These firms in turn exported electronic assemblies to Malaysia, Singapore, or the United States for further processing.

U.S. exports of articles of iron or steel to Thailand jumped by \$147 million to \$168 million, and were principally tubes and pipes of steel for oil exploration (\$88 million), and springs (\$43 million). Exports of cotton nearly tripled, increasing by \$71 million to \$115 million as supplies of cotton from China to the world market were greatly reduced in 1994. Exports of only a few articles declined in 1994, the only significant decrease being a \$67-million (30 percent) fall in exports of aircraft to \$155 million.

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## Taiwan

U.S. imports from Taiwan rose by \$1.6 billion from \$25.0 billion in 1993 to \$26.6 billion in 1994, while U.S.

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<sup>104</sup> U.S. imports of tobacco from most countries were greatly reduced in 1994 because of new U.S. regulations requiring that cigarettes produced in the United States consist of at least 75 percent U.S.-grown tobacco. See the industry/commodity article on tobacco later in this report.

exports to Taiwan expanded by \$655 million from \$15.6 billion to \$16.2 billion. Consequently, the U.S. trade deficit with Taiwan increased from \$9.4 billion in 1993 to \$10.3 billion in 1994. Taiwan was the sixth-largest supplier of foreign goods to the United States and the seventh-largest export market for U.S. exporters in 1994. Computers, parts of computers and office machines, and integrated circuits and microassemblies accounted for 29 percent (\$7.6 billion) of total U.S. imports from Taiwan in 1994. Other electronic products imported from Taiwan in 1994 included electronic circuit control devices (\$619 million), telephone and telegraph apparatus (\$297 million), audio amplifiers (\$283 million), and radio transmission and reception apparatus (\$225 million). Imports from Taiwan of textiles, apparel, and footwear were second only to electronics in terms of the value of imports for a product sector. In 1994, these imports amounted to \$3.4 billion. The largest product groupings imported from Taiwan in this sector in 1994 were shirts and blouses (\$658 million) and footwear (\$456 million). Significant U.S. imports from other product sectors in 1994 included furniture and selected furnishings (\$1.2 billion), sporting goods (\$741 million), metal industrial fasteners (\$622 million), bicycles and parts (\$452 million), lamps and lighting fittings (\$427 million), and air-conditioning equipment and parts (\$400 million).

In 1994, U.S. exports to Taiwan of products related to the electronic technology sector amounted to 24 percent (\$4.0 billion) of total exports to Taiwan. Semiconductor solid-state devices contributed about half the value of these exports. U.S. exports of aircraft (\$1.5 billion); automotive vehicles (\$1.1 billion); chemicals and plastics (\$2.4 billion); precious metals (\$421 million); machinery (\$1.4 billion) and agricultural products (\$2.3 billion), especially cereals (\$723 million) and soybeans (\$442 million), accounted for most of the remaining exports to Taiwan.

A \$1.2-billion increase in the value of U.S. imports of parts and accessories for computers and other office machines, electronic integrated circuits, and microassemblies accounted for about 75 percent of the \$1.6 billion growth in the value of U.S. imports from Taiwan during 1993-94. In many cases, the products imported incorporate microprocessors and high-density memory chips from the United States that are attached to printed circuit boards in Taiwan for subsequent export to the United States and other countries. The increased value of these imports reflect the surge in U.S. demand for electronic components for use in personal computers, telecommunications apparatus, and other electronic equipment. Higher prices, especially for dynamic random access memories, Taiwan's main semiconductor export to the United States, also played a role. The remainder of the increase was primarily accounted for by a rise in imports of sporting goods (an increase of \$84 million), steel mill products (\$81 million), industrial metal fasteners (\$78 million), and television and video apparatus (\$62 million).

The increased value of U.S. imports of electronic products from Taiwan reflected both the shift in the Taiwan economy to the production of capital-intensive and high-technology products for domestic consumption and for export, as well as continued production of electronic products such as electronic integrated circuits and microassemblies that use processes that are labor-intensive and low-value-added and as such, are no longer produced en masse in the United States. Currently, exports from Taiwan account for about 39 percent of the Taiwan GNP.<sup>105</sup> The Taiwan economy has been export-oriented for many years; however, in the past, most Taiwan exports consisted of relatively low-technology labor-intensive items such as toys, apparel, and footwear. U.S. imports of some of these products from Taiwan declined significantly during 1993-94, particularly footwear, which declined by \$128 million. Investment in Taiwan has recently been concentrated in such high technology areas as aerospace, biotechnology, semiconductors, computer hardware and software, precision machining, and environmental protection.<sup>106</sup> Overall, U.S. and world exports to Taiwan have grown, buoyed by a strong annual economic growth rate in Taiwan (about 6 percent in 1994 based on real GNP), increased domestic and foreign investments, and a rise in private consumption. A \$383 million increase in U.S. exports to Taiwan of parts for electronic integrated circuits and microassemblies accounted for about 58 percent of the \$655 million growth in the value of U.S. exports to Taiwan during 1993-94.

U.S. exports to Taiwan during 1993-94 also increased for other product groupings including organic chemicals (an increase of \$247 million), parts for aircraft (\$73 million), and certain raw hides and skins (\$56 million). Partially offsetting these increases, U.S. exports of aircraft fell by \$504 million during 1993-94,<sup>107</sup> and U.S. exports of soybeans and rail locomotive and rolling stock fell by \$113 million and \$104 million, respectively.

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## Italy

The U.S. merchandise trade deficit with Italy grew for the third consecutive year in 1994, expanding by \$786 million to \$7.7 billion in 1994, following a \$3.1 billion increase in 1993 and a \$358 million increase in 1992. The

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<sup>105</sup> U.S. Department of Commerce, International Trade Administration, Taiwan: "Commercial Overview," reprinted in National Trade Data Bank (NTDB)—The Export Connection; program, Country Commercial Guides; item, ID IT CCG Taiwan 01, Dec. 26, 1994.

<sup>106</sup> Ibid.

<sup>107</sup> According to an industry observer, in 1993, nine Boeing 747s were delivered from the United States to Taiwan. In 1994, this source indicated that deliveries from the United States to Taiwan consisted of 10 smaller planes (Boeing 757s and MD82s) that were significantly less expensive than the Boeing 747s.

increase in the volume of U.S. imports from Italy exceeded the increase in the volume of U.S. exports to Italy, largely reflecting a relatively faster economic growth rate experienced by the U.S. economy than by the Italian economy in 1994, and a modest strengthening of the U.S. dollar vis-a-vis the Italian lira. At the same time, the increase in the U.S. trade deficit in 1994 was significantly less than the increase in the deficit during 1993. This reflected Italian economic recovery from recessionary levels in 1993, stronger consumer demand in Italy, and a greater stability in the value of the Italian lira vis-a-vis the U.S. dollar in 1994.<sup>108</sup> Italy experienced moderate economic expansion in 1994 with real GDP growing at a rate of 2.2 percent compared to a real decline of 0.7 percent in 1993. Industrial production<sup>109</sup> also grew strongly, particularly in the textiles, leather, and machinery and equipment sectors of the economy.<sup>110</sup> Italy's industrial performance was aided by falling interest rates, low inflation, and rising business confidence. At the same time, brighter employment prospects, together with a favorable inflation outlook, raised consumer confidence levels and increased consumer demand.

U.S. imports from Italy increased by \$1.5 billion (11 percent) in 1994, to \$14.6 billion, with significant growth in a variety of products. The largest dollar volume increases occurred among imports of furniture, which grew by \$129 million (30 percent) to \$554 million; footwear, which increased by \$108 million (17 percent) to \$736 million; and selected motor vehicle parts, up by \$107 million (40 percent) to \$375 million. A significant increase was also registered in imports of computers and related equipment, which rose by \$84 million (91 percent) to \$176 million; and in parts of computers and other office machines, up \$94 million (56 percent) to \$262 million. Partially offsetting the net increase in U.S. imports was a decline in imports of refined petroleum, down \$132 million (41 percent) to \$205 million.

U.S. exports to Italy increased by \$730 million (12 percent) in 1994 to \$6.9 billion. Over half of this growth was accounted for by a \$445 million rise in exports of aircraft and jet engines. These exports more than doubled in 1994 to \$765 million, or 11 percent of total U.S. exports to Italy for that year. This expansion is in sharp contrast to the large decline of \$566 million (68 percent) in exports of aircraft to Italy in 1993. The Italian aviation industry maintains strong ties with U.S. aircraft manufacturers and U.S. advanced technology is widely used in Italian airborne and ground avionics systems. Italian carriers are presently beginning an extensive upgrading of these systems.<sup>111</sup> The next largest source of

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<sup>108</sup> The U.S. dollar appreciated by an average of nearly 2 percent against the lira during 1994, compared to an average appreciation of 27 percent vis-a-vis the lira in 1993.

<sup>109</sup> Italian industrial production grew at a real annual rate of 4.3 percent in 1994, following declines in the 2 previous years.

<sup>110</sup> OECD Economic Outlook: Italy, Dec. 1994, p. 73.

<sup>111</sup> U.S. Department of Commerce, *U.S. Global Trade Outlook*, p. 48.

U.S. export growth to Italy in 1994 was in chemical wood pulp, up \$53 million (37 percent) to \$194 million. The most significant decline in U.S. exports to Italy occurred in soybeans, which fell by \$54 million (31 percent) to \$122 million. This was in contrast with 1993, when soybean exports increased by 24 percent and accounted for the largest dollar increase in U.S. exports to Italy.

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## Russian Federation

Economic conditions continued to deteriorate in Russia during 1994, the fourth year of restructuring following the breakup of the Soviet Union. However, the nature of Russia's economic crisis has changed. Price liberalization, the disruption of industry linkages (caused by breakup of the Soviet system of central planning and distribution), and tight fiscal and monetary policies were primary causes of economic disruption during 1992 and 1993. However, a lack of domestic demand and continuing inflation (caused mostly by expansion of the money supply) accounted for most of the economic difficulties in 1994. Aggregate demand fell because of several factors, most notably the country's payments crisis. This crisis was precipitated by the accumulation of accounts receivable,<sup>112</sup> as customers' failure to pay bills led to a massive debt chain that resulted in delays in payment of wages and taxes, hindered investment, and reduced national and local budget revenues. A rapid increase in the money supply in 1994 in response to lower tax revenues, resulted in a rate of inflation, estimated at 300 percent in 1994. Much of the inflation increase accrued during the last 5 months of the year, as Russia's GDP declined for the third year in a row in 1994, reflecting the decline in industrial output.<sup>113</sup>

<sup>112</sup> Intercompany debt accounted for approximately 60 percent of total company debt and represented 14 percent of Russian gross domestic product in 1994. According to Russian Economics Ministry personnel, 52 percent of company accounts payable (worth 81.4 trillion rubles) were in arrears as of Nov. 1, 1994, and company solvency has deteriorated since the end of 1993 amid reduced demand for products. *Interfax, Trade and Investment Report*, Dec. 30, 1994-Jan. 6, 1995, p. 2. On the national level, Russia's foreign debt increased from about \$79 billion in 1992 to \$103 billion in 1994. Because this is roughly twice the value of Russia's exports, it has given rise to concerns about Russia's ability to repay its debt.

<sup>113</sup> Russia's GDP fell by 15 percent in 1994 from the 1993 level, and was down 39 percent from 1991; industrial output in 1994 was 79 percent of 1993, and 56 percent of the level in 1991. Russian State Statistics Committee data quoted in *Interfax Weekly Business Report*, Mar. 17-24, 1995, p. 3. Also, *Interfax, Trade and Investment Report*, Dec. 30, 1994-Jan. 6, 1995, p. 2. Industrial output declined most in light industry (generally, textiles and apparel), machine-building, chemicals and petrochemicals, and the timber and pulp industries.

Foreign trade has become a more important component of Russian GDP, in part reflecting the economy's increasing capitalist nature, but also underlining some of the economy's difficulties. Russian exports increased between 1993 and 1994 at a faster rate than imports, and trade (particularly exports) continued to be redirected toward the convertible-currency countries. Exports and their associated hard currency revenues have become more attractive for a number of reasons, not the least of which is that companies with access to foreign markets increasingly have relied on exports to maintain production and pay their work force. Rapid depreciation of the Russian ruble enhanced the value of export sales made in convertible currency,<sup>114</sup> overcoming concerns about losing competitiveness because of rising transportation, energy, raw materials, and labor costs. Exports also received a boost when government regulations covering export activity were relaxed between 1992 and 1993, and again during 1994. Russian export duties and limitations imposed by export quotas and licensing were reduced or eliminated, and the Russian Central Bank rescinded regulations that required the sale of a portion (around 40 percent) of hard currency export earnings.<sup>115</sup> Investment, another component of GDP, has declined by an estimated 50 percent since 1991, reflecting a reduction in the government's share of investment from 95 percent of total investment to less than 20 percent during 1991-94.<sup>116</sup> Foreign investment in Russia has been discouraged by concerns regarding property rights, political turmoil (including the rule by presidential decree and high turnover of personnel in key government posts), a growing crime rate, increasing foreign debt of the Russian Government, and changing business legislation among other things.<sup>117</sup> Russia's

<sup>114</sup> The exchange value of the ruble fell from Rb 414.5 per \$1 on Dec. 31, 1992 to Rb 1,247 per \$1 on Dec. 28, 1993, thereafter, declining to Rb 1,810 per \$1 on Apr. 21, 1994, and to Rb 3,550 per \$1 at the end of 1994. As of the Mar. 17, 1995, auction on the Moscow Interbank Currency Exchange, the exchange value was Rb 4,824 per \$1. Also, private sector purchases of foreign currency (used to hedge against a decline in the value of ruble-based assets) increased to 6 trillion rubles in August 1994, from a total of 1.9 trillion during January through June 1994. The Russian Ministry of Economics, quoted in *Interfax, Trade and Investment Report*, Jan. 20-27, 1995, p. 3.

<sup>115</sup> B.G. Fedorov, Russian Ministry of Finance, *Russian Finances in 1993*, Moscow, Jan. 1994. Also, *Interfax, Trade and Investment Report*, Aug. 20-27, 1994, pp. 3-4.

<sup>116</sup> *Interfax, Trade and Investment Report*, Jan. 13-20, 1995, p. 8.

<sup>117</sup> Negotiations began between the Russian Ministry of Finance and the World Bank, International Monetary Fund, London Club, and Paris Club to renegotiate terms of repayment of Russia's debt (including debt incurred during the Soviet era) in 1994-95. This debt burden, social tension, government intervention in the economy, restrictions on the movement of capital, and other difficulties make Russia a high-risk country for foreign investment. The current investment law dates from July 1991 and explicitly allows assets held by foreigners to be nationalized; it also restricts foreign participation in a number of key sectors by declaring them government monopolies. Privatization laws hinder foreign investment in manufacturing, construction, transportation, and mining by giving local and national

domestic political and economic crises have also stimulated capital flight, estimated to have exceeded \$100 billion during 1991-94.<sup>118</sup>

Reflecting factors discussed earlier that made Russia's exports more competitive in world markets and which restricted Russia's ability to pay for imports, the U.S. merchandise trade balance with Russia slipped from a \$1.2 billion surplus in 1993 to a \$707 million deficit in 1994, representing a net change of nearly \$1.9 billion. U.S. exports to Russia declined by \$386 million (13 percent), while U.S. imports from Russia increased by nearly \$1.5 billion (86 percent) to \$3.2 billion.

The fastest-rising U.S. imports from Russia were raw materials and commodities, where price is the leading factor of competition, and quality of the production process is not as important as it is for higher level manufactured goods. Such import gains were recorded across a broad range of products, including forestry and marine products, minerals, metals (including scrap), petroleum, petrochemicals, and fertilizer. The most significant increases in U.S. imports from Russia in 1994 are shown in the following tabulation (values in millions of dollars, customs value):

Production description	Value of increase in 1994	Value of U.S. imports in 1994
Steel .....	\$494	\$591
Aluminum .....	478	960
Uranium .....	177	300
Diamonds, platinum, and gold coins .....	144	420
Arms and ammunition .....	42	51
Fish and crab .....	39	113

U.S. imports of oil (including crude petroleum) declined most, falling by \$85 million (34 percent) to \$165 million, mainly because of export licensing (which restricted the

117—Continued

governments veto powers over equity partners. For example, see Lev Makarevich, "Russia Remains a Highest-Risk Country: Factors Curbing an Influx of Bank Investment in the Economy Are Analyzed," Moscow, *Izvestiya (Finansovyye Izvestiya)*, translated in FBIS-SOV-95-085-Sa, May 3, 1995, pp. 12-15.

<sup>118</sup> Estimates of the amount of money held by Russians abroad varies from the \$10 to \$20 billion estimated for 1992-93, to over \$130 billion cumulatively during the post-Soviet era. For example, see "Rybkin on Funds Accumulated Illegally Abroad," Moscow, *Ekonomika i Zhizn*, translated in FBIS-SOV-95-075, Apr. 19, 1995, p. 1. The system of monitoring exports and their associated foreign exchange earnings began in earnest only from Jan. 1, 1994. Russian experts estimate that during 1994 about 12.5 percent of export earnings remained abroad (equivalent to about \$6 billion in 1994 alone), but the percentage of foreign exchange earnings retained abroad has fallen significantly. Reportedly, some import transactions also are phony. Ivan Zhagel, "Exporters Secrete One Dollar in Eight Abroad, But that Is Only Half as Much as a Year Ago," Moscow, *Izvestiya*, translated in FBIS-SOV-95-060-S, Mar. 29, 1995, p. 10.

number of exporters) and excise taxes imposed by Russian authorities in 1994. U.S. imports of art and antiques from Russia also declined, by nearly \$72 million (91 percent) to \$7.5 million in 1994.

The most significant increases in U.S. exports to Russia in 1994 are shown in the following tabulation (values in millions of dollars, f.a.s. value):

Production description	Value of increase in 1994	Value of U.S. imports in 1994
Aircraft (passenger) ...	\$340	\$343
Meat, sausage, and poultry .....	225	336
Tobacco products .....	66	181
Lubricating oils .....	29	34
Fishing vessels .....	28	29
Instruments .....	20	144

Increased Russian import tariffs and reduced consumer subsidies led to reduced U.S. exports of corn, soybeans and soybean meal, and wheat, which together declined by \$735 million to \$90 million in 1994. U.S. exports of these items to Russia also fell between 1992 and 1993. U.S. exports of butter also declined by \$57 million (69 percent) to \$26 million. Russia's trade with countries outside the former Soviet Union increased by more than 7 percent in value to \$76.2 billion between 1993 and 1994. The increase in exports, which rose by 8 percent to \$48 billion, more than compensated for the 5-percent increase in imports (to \$28.2 billion) as Russia netted a merchandise trade surplus of nearly \$20 billion.<sup>119</sup> Trade with industrially developed countries accounted for the bulk of both exports and imports (67 and 69 percent, respectively) in 1994, increasing in volume and as a share of total trade between 1993 and 1994.<sup>120</sup> Russia's trade with developing countries and with former members of the Council for Mutual Economic Assistance (CMEA) declined in volume and as a percent of Russia's total trade.<sup>121</sup>

Fastest rising exports included pig iron, rolled steel, ferroalloys, and nonferrous metals (such as copper, nickel, and aluminum), chemicals, and timber. Exports of crude petroleum, natural gas, and petroleum products (which accounted for some 44 percent of exports) remained about the same, while exports of coal and

<sup>119</sup> Calculated from data published by the Russian Ministry of Economics, published in *Interfax Trade and Investment Report*, Jan. 13-20, 1995, p. 7.

<sup>120</sup> These data show that Germany was Russia's largest trading partner, accounting for 13 percent of Russia's total trade with countries outside the former Soviet Union, followed by the United States (7 percent), United Kingdom (6 percent), Italy (6 percent), China (5 percent), and the Netherlands, Finland, Switzerland, and Japan, each accounting for 4 to 5 percent.

<sup>121</sup> Data show that Russia's exports to industrially developed countries and imports from these countries increased by 22 and 20 percent, respectively between 1993 and 1994. Exports to developing countries and to former CMEA members declined by 5 and 20 percent, respectively, while Russia's imports from these two groups declined by 20 and by 17 percent, respectively.

manufactured goods declined between 1993 and 1994. Falling world prices for the majority of raw material exports forced Russian exporters to boost volumes in order to maintain revenues. Also impeding exports, certain Russian exports have been subject to antidumping duties in the markets of major trading partners, including the United States and EU. Russia has not acceded to the General Agreement on Tariffs and Trade (GATT) or to its successor, the World Trade Organization, which might lead to reduced restrictions on exports. The interim trade agreement between Russia and the EU, needed prior to EU acceptance of Russia's partnership status, was postponed until mid-1995. Imports of certain food items, such as meat, poultry, butter, and manufactured goods increased in 1994, while centralized purchases of grain and sugar (i.e., subsidized state purchases of imports) were reduced.<sup>122</sup>

Russia's total trade with the former Soviet republics (excluding the three Baltic countries) declined by 51 percent to \$26.2 billion in current dollars in 1994, after falling by 22 percent in 1993.<sup>123</sup> Russia's exports to

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<sup>122</sup> Import duties are slated to increase from current levels of about 10 percent to approximately 15 percent ad valorem on July 1, 1995.

<sup>123</sup> Reasons for the decline in trade include the disruption of many intra- and interindustry links following the breakup of the Soviet Union, the raising of new customs and financial barriers, and the use of new national currencies following collapse of the ruble zone (the newly independent countries used the ruble for trade until the Russian government canceled ruble accounts held abroad and ceased supplying currency to the former Soviet republics). The absence of a clearing mechanism has complicated exchange arrangements as has the scarcity of hard currency foreign exchange. The amount of total debt and growing arrears in

these countries were reported at Rb 31.5 trillion (\$13.9 billion), with imports from these countries totaling Rb 27.8 trillion (\$12.3 billion). Trade with these countries accounted for about 26 percent of Russian foreign trade in 1994 (approximately 30 percent of imports into Russia and 23 percent of exports from Russia).<sup>124</sup> Within the CIS, Ukraine is Russia's largest trading partner, accounting for approximately 50 percent of Russia's exports to, and 40 percent of Russia's imports from, CIS countries.

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<sup>123</sup>—*Continued*

payments, particularly for energy, owed by the other CIS countries to Russia poses an obstacle to trade expansion. In order to maintain some intra-CIS trade, the Russian Government has concluded bilateral trade and economic agreements with other CIS governments under which each contracting state assumes the delivery obligations of a narrow list of products and settlement of accounts is accomplished on a clearing basis. However, these contracts were unfulfilled to a large extent during 1994. See, Konstantin Levin, "In the Morning—Debt Payment, in the Evening—Trade and Economic Agreement," *Moscow Kommersant-Daily*, translated as "Problems of Trade, Economic Cooperation in CIS Framework Viewed," FBIS-SOV-94-239-S (Dec. 13, 1994), p. 5.

<sup>124</sup> Calculated from data reported in The Economist Intelligence Unit, *Russia: EIU Country Report*, 1st Quarter 1995, p. 38. Whereas Russia's foreign trade with countries outside the CIS is estimated to grow by about 4 percent between 1994 and 1995, trade with CIS countries is estimated to decline by 20 to 30 percent, to \$16 to \$18 billion during the same period. "Foreign Economic Activity of Russia in 1995," Moscow, *Ekonomika i Zhizn*, translated in FBIS-SOV-95-075-S, Apr. 19, 1995, p. 2.

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## CHAPTER 3

# Agricultural Products

The U.S. trade surplus in agricultural products increased by \$2.0 billion in 1994 and now stands at \$20.3 billion (table 3-1). Both exports and imports rose strongly, with total sector trade increasing by 8 percent from \$83.4 billion in 1993 to \$90.4 billion in 1994. U.S. exports grew by 9 percent from \$50.8 billion in 1993 to \$55.4 billion in 1994, while imports rose by 8 percent from \$32.5 billion in 1993 to \$35.0 billion in 1994.

Cereals accounted for one-sixth (\$10.1 billion) of total U.S. agricultural exports in 1994. Another one-third was accounted for by cigarettes, oilseeds, animal feed, edible preparations, and cotton; exports of these products amounted to \$5.0 billion, \$4.5 billion, \$3.5 billion, \$3.1 billion, and \$2.7 billion, respectively. Cotton and cigarette exports increased by \$1.1 billion and \$1.0 billion, respectively. Large value and percentage increases in cigarette exports to Belgium, Cyprus, Lebanon, and Russia, all of which also serve as transshipment centers, reflect the growing demand for U.S. cigarettes in Central Europe, the former Soviet Union (FSU) countries, and the Middle East. Exports of cotton, not carded or combed, increased significantly as reduced Chinese production led to a large price increase for cotton in world markets. U.S. exports of edible preparations, which consist of many food items that require little or no time for preparation before consumption, rose by \$540 million in response to increasing consumption worldwide of these prepackaged food products. Poultry exports rose by \$462 million in 1994, with expanded shipments to Russia accounting for roughly half of the total increase. The rise in poultry exports to Russia, which consisted mainly of chicken leg quarters, resulted from Russian domestic production problems, public perception of superior U.S. quality, and market privatization that prompted Russian trading firms to obtain foreign poultry supplies. U.S. exports of animal and vegetable fats and oils also increased by \$397 million to \$1.9 billion in 1994. These exports, while relatively stable in volume terms, increased as a result of higher world prices. Additional fats and oils exports went to Southeast Asia as the result of a production short-

fall of palm oil in Malaysia, a traditional supplier to the region. Meanwhile, the overall value of U.S. exports of cereals, oilseeds, and animal feeds were down in the range from 4 to 6 percent, corresponding to lower levels of U.S. production and exportable supplies. The exports of most other commodity groupings increased.

The leading U.S. agricultural import groupings were shellfish (\$3.9 billion); cattle and beef (\$2.7 billion); coffee and tea (\$2.7 billion); edible preparations (\$1.6 billion); distilled spirits (\$1.6 billion); fresh, chilled, and frozen vegetables (\$1.4 billion); cocoa, chocolate, and confectionery (\$1.3 billion); frozen fish (\$1.3 billion); and tropical fruit (\$1.3 billion). These nine agricultural commodity groupings represented one-half of all agricultural imports during 1994. The value of U.S. imports of coffee and tea increased by \$950 million in 1994, largely as a result of substantially higher world prices for coffee that were prompted by weather-related events in Brazil, the leading world producer. Shellfish imports, of which shrimp accounts for the majority, rose strongly by \$653 million as the result of both increased demand for the physical product as well as a 14-percent increase in the unit value price of shellfish. A decline in imports of unmanufactured tobacco, which fell by \$757 million in 1994, was largely attributable to U.S. legislation that increased the domestic content of U.S. manufactured cigarettes to 75 percent U.S. tobacco. Ample U.S. production and lower U.S. market prices helped to reduce the value of U.S. imports of cattle and beef by \$329 million in 1994.

Large export increases during 1994 significantly increased the trade surpluses in the cotton and poultry sectors. The cigarette and cattle and beef sectors also experienced increased trade surpluses as a result of both increased exports and diminished imports. Deficits in the shellfish and coffee trade sectors were increased primarily by rising imports. Meanwhile, the \$915-million decline in the cereals trade surplus resulted from a combination of decreased exports and rising imports stemming from high U.S. market prices relative to world prices.

Table 3-1

**Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>**

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Japan .....	12,189	12,819	630	5.2
Canada .....	5,648	5,929	282	5.0
Mexico .....	3,725	4,724	999	26.8
Netherlands .....	1,776	1,854	78	4.4
Korea .....	2,197	2,612	415	18.9
Taiwan .....	2,211	2,331	121	5.5
Thailand .....	372	457	85	22.8
Belgium .....	1,444	2,182	738	51.1
Brazil .....	218	642	424	194.3
United Kingdom .....	1,045	1,034	-11	-1.1
All other .....	20,001	20,767	766	3.8
Total .....	50,824	55,350	4,526	8.9
EU-12 .....	8,363	9,083	719	8.6
OPEC .....	2,687	2,747	61	2.3
Latin America .....	7,304	8,742	1,438	19.7
CBERA .....	1,919	1,912	-7	-0.4
Asian Pacific Rim .....	20,111	22,761	2,650	13.2
ASEAN .....	1,781	2,207	425	23.9
Eastern Europe .....	408	295	-113	-27.7
U.S. imports for consumption:				
Japan .....	389	408	19	4.8
Canada .....	6,514	6,908	394	6.0
Mexico .....	3,130	3,366	236	7.6
Netherlands .....	885	991	107	12.0
Korea .....	179	173	-6	-3.2
Taiwan .....	325	339	15	4.5
Thailand .....	1,591	1,853	263	16.5
Belgium .....	113	120	7	5.9
Brazil .....	1,514	1,435	-79	-5.2
United Kingdom .....	833	875	42	5.0
All other .....	17,062	18,580	1,518	8.9
Total .....	32,534	35,049	2,515	7.7
EU-12 .....	5,825	6,345	521	8.9
OPEC .....	1,480	1,918	438	29.6
Latin America .....	10,266	11,261	996	9.7
CBERA .....	2,335	2,523	188	8.1
Asian Pacific Rim .....	5,187	5,259	73	1.4
ASEAN .....	2,858	3,328	469	16.4
Eastern Europe .....	274	197	-77	-28.2
U.S. merchandise trade balance:				
Japan .....	11,799	12,411	611	(2)
Canada .....	-866	-978	-112	(2)
Mexico .....	595	1,357	763	(2)
Netherlands .....	892	863	-28	(2)
Korea .....	2,018	2,438	421	(2)
Taiwan .....	1,886	1,992	106	(2)
Thailand .....	-1,219	-1,397	-178	(2)
Belgium .....	1,331	2,063	732	(2)
Brazil .....	-1,296	-793	502	(2)
United Kingdom .....	212	159	-53	(2)
All other .....	2,939	2,186	-753	(2)
Total .....	18,290	20,301	2,011	(2)
EU-12 .....	2,539	2,738	199	(2)
OPEC .....	1,207	829	-377	(2)
Latin America .....	-2,961	-2,519	443	(2)
CBERA .....	-415	-611	-195	(2)
Asian Pacific Rim .....	14,924	17,502	2,578	(2)
ASEAN .....	-1,077	-1,121	-44	(2)
Eastern Europe .....	133	98	-36	(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 1994.

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

# U.S. Bilateral Trade

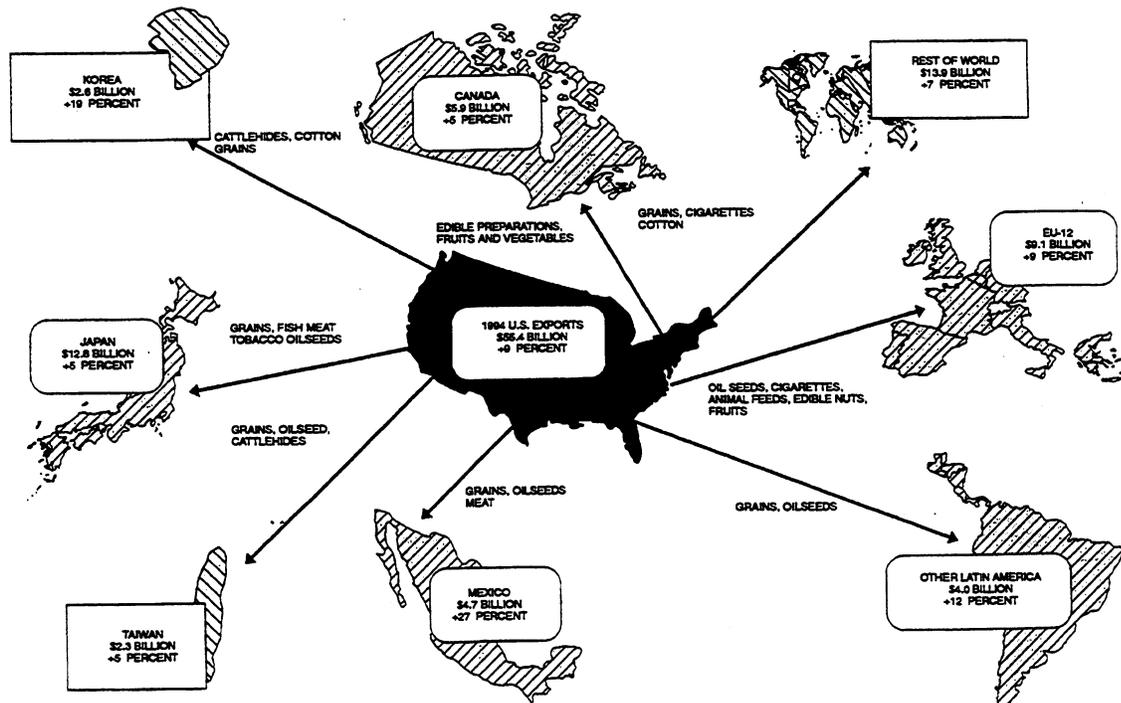
The major U.S. trading partners in agricultural products during 1994 were the EU-12, Japan, Canada, and Mexico, which together accounted for \$49.6 billion, or 55 percent of total U.S. foreign trade in 1994 (figures 3-1 and 3-2). The leading U.S. exports to Japan, which is the single largest U.S. agricultural product export market, included cigarettes, cereals, beef, and frozen fish, while U.S. imports from Japan were relatively minor. Principal exports to the European Union (EU) were cigarettes, oilseeds, and animal feeds, while spirits, wine, and beer were the leading U.S. imports from the EU. Leading export categories to Canada included fruits, vegetables, and edible preparations; while live cattle, meat, fish, and spirits were the largest import categories. Oilseeds, cereals, and meat exports from the United States to Mexico represented the largest export commodity groups, whereas live cattle, coffee, vegetables, and fruit were the leading commodity imports from Mexico.

U.S. exports to Mexico rose by \$999 million in 1994, or 27 percent, to \$4.7 billion. U.S. corn

exports to Mexico rose by \$297 million because of new tariff-rate quotas established by the NAFTA. U.S. exports to the EU rose by \$719 million in 1994 to \$9.1 billion, led by a \$701-million increase in cigarette exports. Significant increases in U.S. exports of rice, cigarettes, and beef to Japan helped to offset large decreases in U.S. exports of corn and soybeans and lift U.S. agricultural exports to Japan by \$630 million to \$12.8 billion.

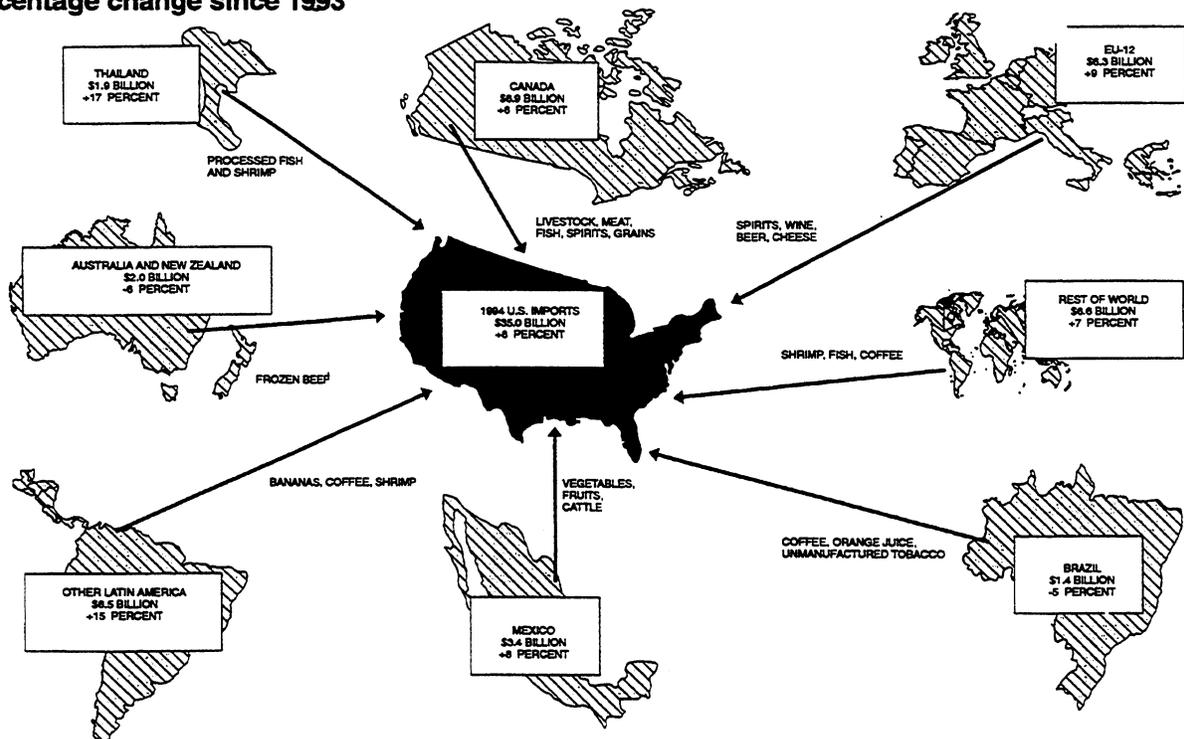
U.S. imports from the EU in 1994 were \$6.4 billion, an increase of \$521 million, or 9 percent. Increased U.S. imports of alcoholic beverages, leather, and pasta products more than offset the decline of unmanufactured tobacco imports. U.S. imports from Canada rose \$394 million, or 6 percent, to \$6.9 billion in 1994. Increased imports in oilseed, fats and oils, and cereals from Canada countered large declines in cigarettes and live cattle. U.S. imports from Mexico rose \$236 million, or 8 percent, to \$3.4 billion in 1994. Growth in imports of coffee, shrimp, and vegetables offset declines in live cattle and bananas. U.S. imports from Thailand totaled \$1.9 billion in 1994, a rise of \$263 million, or 17 percent. This expansion in imports was mainly attributable to shrimp.

**Figure 3-1**  
**U.S. agricultural sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

**Figure 3-2**  
**U.S. agricultural sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

## Commodity Analysis

### Cigarettes

The U.S. trade surplus in cigarettes increased by \$1.3 billion in 1994 to nearly \$4.9 billion as cigarette imports declined substantially and cigarette exports hit record levels. U.S. exports increased by over \$1 billion, with shipments to Belgium and Japan accounting for over \$3 billion, or nearly 62 percent of the total. A number of the leading destinations for U.S. exports, such as Belgium, Cyprus, Lebanon, and Hong Kong, are transshipment points. The rise in cigarette exports to Cyprus, Lebanon, and Belgium suggests strong growth potential for U.S. cigarettes in Central Europe and the FSU countries, and may support the business strategies of the large multinational firms to establish their presence in these emerging markets. Exports to Russia alone increased by 57 percent over 1993 totals. On the other hand, exports to Hong Kong declined in 1994. Competition from exports of Chinese manufactured cigarettes to neighboring countries, as well as the closing of the Chinese do-

mestic and duty-free markets on January 1, 1994, contributed to the decline.

Although relatively small in comparison to exports, U.S. imports of cigarettes decreased dramatically by nearly 80 percent from 1993 levels. The turnaround can be almost entirely attributed to Canada's decision in February 1994 to roll back domestic excise taxes by \$3.80 per carton, while imposing an export tax of \$6.00 a carton. In addition to the Federal tax cuts, the Government offered to match cuts by Provincial Governments, providing as much as a \$20 break per carton for Canadian consumers. These actions closed the price gap between legal and illegal cigarettes and effectively put smugglers along the border out of business. Before February 1994, internal taxes made Canadian cigarettes among the most expensive in the world. This situation fostered the widespread importation of Canadian cigarettes by U.S. traders, who in turn sold them on Mohawk Indian reservations that straddle the U.S.-Canadian border. Once within the sovereign, tax-free territory of the Mohawk, the cigarettes could be smuggled into Canadian commerce at bargain rates.

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## Cotton

Exports of U.S. cotton, not carded or combed (raw cotton), increased by nearly 75 percent, from \$1.5 billion in calendar year 1993 to \$2.7 billion in 1994. This increase, attributable to sharply decreased production in areas such as China and Pakistan, reversed a 3-year trend. U.S. exports of "all types"<sup>1</sup> of cotton during crop year 1994/95<sup>2</sup> are estimated by the U.S. Department of Agriculture (USDA)<sup>3</sup> to be 7.2 million bales, or 1.6 million metric tons (mmt), up by nearly 5 percent from the previous year (6.9 million bales, or 1.5 mmt).<sup>4</sup>

Between 1990/91 and 1994/95, U.S. cotton has accounted for an average of 45 percent of Japanese cotton imports and 84 percent of Mexican cotton imports. During the same period, U.S. cotton exports accounted for an average of about 25 percent of the worldwide cotton trade. U.S. cotton exports in 1994/95 constituted an estimated 27 percent of the world cotton trade.

Between 1993 and 1994, U.S. imports rose sharply in value from \$413,000 to \$6.8 million, which, despite the increase, still equaled only 0.3 percent of the value of 1994 U.S. cotton exports. Much of this increase in U.S. cotton imports was of extra-long staple (ELS) cotton from Egypt and Sudan. The increase in imports was at least partially in response to two developments. First, the U.S. ELS cotton crop of 355,000 bales was the lowest since 1988. The USDA attributed the production decline to lower acreage being planted to ELS cotton.<sup>5</sup> Second, 1994 domestic mill consumption of ELS cotton was 50 percent above 1993 levels resulting from continued weak relative prices<sup>6</sup> and adequate supplies.

"All cotton" production for 1994 was at a record high of 19.7 million bales (4.3 mmt), 22 percent larger than 1993. Production increased because of favorable growing conditions and yields, increased acreage, and diminished abandonment of planted area. Yield reached 710 pounds (322.1 kg) per harvested acre, 4 pounds (almost 2 kg) above the previous record set in 1987, and 104 pounds (47.2 kg) above that of last year. The upland cotton yield was also at a record high, 707 pounds (320.1 kg), 5 pounds (2.3 kg) higher than the 1987 yield, the previous record.<sup>7</sup> The 1994 average ELS

cotton yield was calculated by the USDA at 982 pounds (445.4 kg) per harvested acre, up 44 pounds (20 kg) from the previous year. Total U.S. cotton acreage in 1994 was 14.1 million acres (5.7 million hectares), up 4.3 percent from 13.5 million acres (5.5 million hectares) the previous year.<sup>8</sup>

Major markets for U.S. cotton, not carded or combed, in 1994, were China (\$360 million), Japan (\$323 million), Korea (\$317 million), Indonesia (\$238 million), Mexico (\$193 million), Hong Kong (\$119 million), and Thailand (\$115 million). Sales to China were particularly notable given that 1993 U.S. exports of cotton to that nation amounted to only \$179,000. The increase in exports to China was largely attributable to a sharp decline in production of cotton in China. Chinese cotton production declined by 34 percent from 26.1 million bales (5.7 mmt) in 1991/92 to 17.2 million bales (3.7 mmt) in 1993/94, because of poor weather and a bollworm infestation. In 1994/95, cotton production in China rebounded to the levels of 1992/93, 20.7 million bales (4.5 mmt).<sup>9</sup>

While exports of cotton for the current 1994/95 marketing year are projected by the USDA to remain strong, export demand for next season appears more volatile. According to the USDA, foreign demand is improving and production problems in several major cotton-producing nations have led to a decline in foreign cotton stocks, which is a positive indication for the U.S. cotton trade. However, foreign producers, especially in areas such as Egypt, India, China, and Pakistan, are expected to once again expand cotton acreage and production, which could provide excess supplies to compete with U.S. cotton exports. Thus, in 1995/96, exports of U.S. cotton will depend on the overseas balance between declining stocks and increased acreage.<sup>10</sup>

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## Coffee

As the world's largest producer and exporter of green coffee beans, Brazil plays a large role in global coffee trade.<sup>11</sup> The rare combination of a severe frost in late June 1994 and a drought that lingered into September 1994 lowered Brazilian production estimates for 1995/96 by about 40 percent. Although these adverse conditions did not significantly affect 1994 production totals, New York spot prices for Brazilian arabica coffee responded quickly to the anticipated impact of the frost and drought on the size and quality of the 1995/96 harvests, by sending shock waves through the entire market. Coffee prices moderated on the

<sup>8</sup> USDA, ERS, *Cotton and Wool*.

<sup>9</sup> *Ibid.*

<sup>10</sup> *Ibid.*

<sup>1</sup> The phrase "all types" refers to both extra-long staple (ELS) and upland cotton.

<sup>2</sup> The crop year for cotton runs from Aug. 1 to July 31.

<sup>3</sup> USDA, Economic Research Service, (ERS), *Cotton and Wool Situation & Outlook Report* (CWS-78; Nov. 1994).

<sup>4</sup> The standard weight of a bale of cotton is 480 pounds.

<sup>5</sup> USDA, ERS, *Cotton and Wool*.

<sup>6</sup> Based on the ratio of Pima to Upland cotton prices.

<sup>7</sup> Annual Crops Report, obtained electronically from the USDA-ERS bulletin board. This report was approved on January 12, 1995, by the Acting Secretary of Agriculture and the National Agricultural Statistics Service's Agricultural Statistics Board.

world market in September 1994 as rains came to the drought-stricken states of Paraná and Minas Gerais and new coffee crops were picked; but not before prices climbed to record, 8-year high levels—nearly three times as high as in September 1993.

With prices for all classes of coffee rising in response to the Brazilian forecasts, U.S. importers and roasters drew down existing stocks hoping that prices would fall. Consequently, U.S. imports of green coffee declined by over 16 percent to about 1.1 million metric tons in 1994, while U.S. coffee stocks were reduced by over 50 percent.<sup>12</sup> Reflecting substantially higher market prices for green coffee; however, the value of U.S. imports rose in 1994 by nearly 56 percent. Perhaps reflecting the increased value of U.S. roaster and processor stocks, the value of U.S. exports increased by about 23 percent. Half of the \$240 million U.S. export trade in coffee during 1994 went to our largest trading partner, Canada.<sup>13</sup>

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## ***Cereals (food and feed grains)***

The U.S. trade surplus in food and feed grains declined by \$0.9 billion in 1994 to \$9.2 billion as exports declined and imports rose. Food and feed grain exports fell by 6 percent (or by \$0.6 billion) to \$10.1 billion in 1994. On a volume basis, U.S. food and feed grain exports experienced an even sharper decline of 11 percent to 77 million metric tons in 1994. Meanwhile, U.S. imports of grain rose by 46 percent to \$0.9 billion in 1994 as Canadian grain entered the U.S. market in larger volumes.

Diminished U.S. grain exports in 1994 to Russia, to other FSU countries, and to a diverse group of smaller countries more than offset rising exports to Japan, Mexico, Egypt, and Korea. Grain sales to Russia alone fell by \$627 million in 1994. Sharply higher U.S. prices, in part related to reduced U.S. production because of the floods in the United States in 1993, and lower foreign demand for U.S. grain dampened U.S. exports in 1994.

<sup>11</sup> Brazilian exportable production for 1994/95 is expected to reach about 18 million (60 kilogram) bags, out of a world total of 73 million bags.

<sup>12</sup> Includes Exchange and non-Exchange stock statistics compiled by the Green Coffee Association of New York City, Inc. but does not reflect business proprietary information on coffee bean stock holdings of roasters and processors.

<sup>13</sup> These data principally reflect U.S. coffee bean imports that are processed and then exported with value added. U.S. domestic production of green coffee is modest and generally consumed domestically.

Wheat, corn, rice, and sorghum accounted for nearly all of the \$10 billion in U.S. grain exports in 1994: corn accounted for 41 percent; wheat, 40 percent; rice, 10 percent; and sorghum, 7 percent. U.S. wheat exports declined in 1994 by 13 percent in value from 1993, with lower exports to the FSU, China, and India. Corn exports fell in 1994 by 6 percent in value as higher corn prices and plentiful third-country exports (particularly from China) undercut U.S. corn sales. Offsetting the downturn in exports of wheat and corn, U.S. rice exports rose by a strong 30 percent in value in 1994 largely on the strength of an extraordinary \$224-million increase in Japanese purchases of U.S. rice to help offset a domestic crop failure.<sup>14</sup>

Among the leading foreign markets in 1994, Mexico was the fastest growing market for U.S. grain, with its purchases (mostly of corn) rising in 1994 by nearly \$288 million above the 1993 level. Egypt, a traditionally important U.S. market for wheat, purchased an additional \$245 million in U.S. grain in 1994. Korea, another important U.S. market for feed grain, increased its purchases of U.S. corn and sorghum, with its total grain purchases rising by \$200 million.

Offsetting these export gains, U.S. sales to a large number of foreign markets declined. In particular, sales to the FSU countries declined as these countries imported less feed grain to support their shrinking livestock sectors.<sup>15</sup> Russian purchases of U.S. grain fell from \$680 million in 1993 to \$55 million in 1994. Taiwan, China, Venezuela, and Saudi Arabia also purchased less U.S. grain in 1994.

An additional contribution to the smaller U.S. trade surplus in grain in 1994 came in the form of increased imports from Canada. Since 1993, total U.S. imports of grain from all countries has risen by 47 percent to \$861 million; imports from Canada alone rose by 55 percent to \$630 million. Imports of Canadian barley and wheat rose by \$131 million and \$70 million, respectively, the result of both higher U.S. prices and lower domestic supplies of wheat and feed grains. In September 1994, the United States imposed, under section 22 of the Agricultural Adjustment Act, tariff-rate quotas that restricted U.S. imports of wheat for a period of 1 year because of their effects on U.S. farm programs.<sup>16</sup> Canada was the foreign supplier.

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<sup>14</sup> Japanese rice production fell by nearly 25 percent (3.2 million metric tons) from crop year 1992/93 to 1993/94. In 1994/95, Japanese production is projected to rise by over 4 million tons back to average historic levels. USDA, ERS, *Rice Situation and Outlook Report*, Oct. 1994, p. 32.

<sup>15</sup> USDA, ERS, *Foreign Agricultural Trade of the United States*, Nov.-Dec. 1994, p. 2.

<sup>16</sup> The President took the action following receipt of a report in July 1994 from the U.S. International Trade Commission. See USITC, *Wheat, Wheat Flour, and Semolina*

## Unmanufactured tobacco

For the fifth year in a row, the United States continued to be the largest single country import market in the world for unmanufactured tobacco despite a 55- and 47-percent decrease in value and quantity, respectively, of U.S. imports in 1994. The drop in imports from \$1.4 billion in 1993 to \$613 million in 1994 can be largely attributed to the effects of U.S. legislation requiring 75-percent domestic content for U.S. manufactured cigarettes (the Ford Amendment<sup>17</sup>) and general uncertainty surrounding the direction of U.S. domestic content regulations.<sup>18</sup> Assessments that were to be newly applied to imported tobacco as of January 1, 1994, provided an added incentive for importers to "load up" on imported unmanufactured tobacco in December 1993. December 1993 imports of over 116,000 metric tons were nearly three times those of December 1994. Imports subsequently fell to only 9,480 metric tons in January 1994 as Ford Amendment provisions came into force. Although imports from Turkey, the leading U.S. supplier by value, were down by about 34 percent in 1994, the percentage drop was smaller than the overall decrease in imports, because oriental tobacco from Turkey cannot generally be substituted in U.S. cigarette blends.

The United States remained the second-largest exporter of unmanufactured tobacco behind Brazil, exporting 196,792 metric tons in calendar year 1994, valued at \$1.3 billion. This was a decrease of 5 percent in quantity but virtually unchanged in value from 1993. Flat sales for U.S. tobacco leaf exports in 1994 were mainly attributable to oversupply in world markets. Exports to Turkey, the fourth-leading market for U.S. leaf behind Japan, Germany, and the Netherlands, continued to fall significantly, down by nearly 90 percent since 1992. According to industry sources, increased competition in the Turkish market and a new

<sup>16</sup>—Continued

(investigation No. 22-54), USITC publication 2794, July 1994.

<sup>17</sup> Omnibus Budget Reconciliation Act of 1993, sec. 1106, Public Law 103-66, 107 Stat. 318, Aug. 10, 1993. "Proposed Rule" of Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture (USDA)" 59 *F.R.* 7, Jan. 11, 1994. "Interim Rule" of Commodity Credit Corporation, USDA," 58 *F.R.* 245, Dec. 23, 1993 ("Interim Rule" correction: 59 *F.R.* 6, Jan. 10, 1994).

<sup>18</sup> The Domestic Marketing Assessment (DMA), which went into effect on January 1, 1994, requires U.S. cigarette manufacturers that utilize more than 25 percent foreign tobacco in the manufacture of cigarettes in the United States to pay assessments equal to the difference between domestic and imported tobacco prices and to purchase unmanufactured tobacco from CCC stocks equal to the amount of imported tobacco used in excess of 25 percent. Prior to the DMA, cigarette manufacturers in the United States were utilizing nearly 40 percent foreign tobaccos, much of it going into discount brands.

Turkish cigarette brand, which uses less U.S. flue cured and burley tobacco, have adversely affected U.S. exports. Industry sources also assert that a significant share of the decline can be traced to concerns expressed by officials of the Turkish tobacco monopoly (TEKEL) about the negative effects of U.S. domestic content legislation on Turkish exports.

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## Cattle and beef

The U.S. trade deficit in cattle and beef narrowed to \$355 million in 1994, down by \$674 million, from the previous year's deficit of \$1.0 billion. The improvement was registered as exports increased by \$355 million and imports declined by \$329 million. Developments in the domestic market generally strengthened the competitive position of the U.S. cattle and beef sector. Beef production in the United States in 1994, at 24.3 billion pounds, was 6 percent above the 1993 level and producer prices were about 10 percent below year-earlier levels.<sup>19</sup>

U.S. exports of cattle and beef increased from \$2.0 billion in 1993 to \$2.4 billion in 1994. Exports to all major markets increased, with sales to Mexico rising by \$127 million, Japan by \$100 million, Korea by \$76 million, and Canada by \$38 million.

The USDA has reported that exports of boxed beef to Mexico increased because of the NAFTA—imports of such beef received a rate of duty of zero effective January 1, 1994.<sup>20</sup> USDA also indicated that some Mexican cattlemen rebuilt their cattle herds in 1994, consequently reducing the number of head available for slaughter. As a result, U.S. exports of live cattle to Mexico increased.<sup>21</sup> In addition, Mexico imposed a 45.74-percent ad valorem countervailing duty on imports of frozen beef from the EU effective June 3, 1994.<sup>22</sup>

Contamination concerns associated with Australian beef (Australia is the leading U.S. competitor in the Japanese market) may have contributed to increased U.S. exports to Japan. Major supermarket chains in Japan suspended sales of Australian beef in the fourth quarter of 1994 because of the possible presence of a chemical contaminant, chlorofluazuron.<sup>23</sup>

<sup>19</sup> USDA, ERS, *Livestock, Dairy and Poultry Situation and Outlook* (LDP-M-15), (Mar. 23, 1995).

<sup>20</sup> USDA Foreign Agricultural Service (FAS) *Livestock Annual* (MX4053) Aug. 1, 1994, p. 3.

<sup>21</sup> USDA, ERS, *Livestock, Dairy and Poultry Situation and Outlook* (LDP-M-12) Dec. 21, 1994.

<sup>22</sup> USDA, FAS, *Dairy, Livestock, and Poultry: U.S. Trade and Prospects* (FDLP 6-94), Aug. 1994, p. 4.

<sup>23</sup> USDA, FAS, *Australian Marketing Efforts in Japan* (AS5008), Jan. 27, 1995.

The Australian beef contamination concern also may have contributed to increased exports of beef to Korea. During 1994, Canadian imports of boneless beef, except from the United States, were subject to a tariff-rate quota (TRQ). The TRQ resulted from a finding by the Canadian International Trade Tribunal that imports from non-US suppliers threaten the Canadian beef industry with serious injury.<sup>24</sup> U.S. exports of beef to Canada were likely larger because of the TRQ.

U.S. imports of cattle and beef decreased from \$3.0 billion in 1993 to \$2.7 billion in 1994, or by 11 percent. Imports from all major suppliers decreased, with purchases from Canada declining by \$101 million, Australia by \$82 million, Mexico by \$77 million, and New Zealand by \$45 million. Good pasture conditions in Western Canada in the fall of 1994 temporarily reduced marketings of feeder cattle.<sup>25</sup> Conversely, drought in parts of Northern Mexico resulted in lighter, less valuable feeder cattle with lower per animal values.<sup>26</sup> The total value of U.S. imports of beef from Australia declined by 11 percent, while unit values declined by 9 percent. Relatively low prices in the U.S. market caused exporters of Australian beef to reduce their shipments.<sup>27</sup> Also, Australian beef was in demand in the Japanese market in the first half of 1994 (prior to the contamination concerns) and exports to Canada increased in the first half of the year in anticipation of the TRQ.<sup>28</sup> The total value of U.S. imports of beef from New Zealand declined by 10 percent while unit values declined by 4 percent. Voluntary restraint agreements (VRAs) with the United States reportedly shifted New Zealand beef to other markets such as Korea and Japan.<sup>29</sup> In addition, generally low prices in the U.S. market, and associated relatively low unit values, contributed to a decline in the total value of imports.

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## Shellfish

The United States traditionally runs a deficit in shellfish trade, as the domestic industry generally is unable to satisfy domestic demand. U.S. imports and exports of shellfish both increased in 1994 compared with the previous year. However, the

<sup>24</sup> USDA, FAS, *Boneless Beef Surtax Removed* (CA4065), Oct. 18, 1994.

<sup>25</sup> USDA, FAS, *Livestock* (CA5001) Jan. 31, 1995, p. 5.

<sup>26</sup> MX4053, p. 3.

<sup>27</sup> USDA, FAS, *Red Meat Exports to the U.S.* (AS4042), Aug. 2, 1994, pp. 1-2.

<sup>28</sup> *Ibid.*

<sup>29</sup> USDA, FAS, *Livestock Annual Report* (NZ4025), Aug. 1, 1994, p. 1.

U.S. trade deficit in shellfish increased by \$609 million in 1994, to \$3 billion. The deficit worsened primarily as a result of an increase in the average import unit value of 14 percent between the periods, compared with a decline in the average export unit value of 4 percent. Total U.S. shellfish imports rose by 6 percent in quantity to about 440 thousand metric tons and by 20 percent in value to about \$3.9 billion in 1994. Exports, on the other hand, rose by 10 percent in quantity to about 148 thousand metric tons and by 5 percent in value to about \$904 million in 1994.

The primary U.S. shellfish import item was shrimp, which accounted for 68 percent of the total value in 1994. Major import sources in 1994 included Thailand (26 percent of the total value), Canada (13 percent), Ecuador (12 percent), Mexico (12 percent), and China (5 percent). The value of U.S. imports from most major sources rose significantly in 1994, with the exception of China. Increases in both the quantity imported and in the average import unit values from major sources resulted, in large part, from strong demand for shellfish in the U.S. market during the period under review. According to industry sources, disease problems in Chinese shrimp aquaculture operations and a decline in unit value contributed to an 18-percent decline in total value of U.S. imports from that country.

The 4-percent drop in the average unit value of U.S. shellfish exports in 1994 was the result of changes in product mix, market destination, market prices, and exchange rates. The major U.S. shellfish export items in 1994 were crabs, which accounted for 39 percent of the total value, and lobsters (15 percent). Japan led all U.S. shellfish export destinations in 1994, accounting for 54 percent of the annual value total. Canada was a distant second (17 percent), and the remaining markets were scattered, mainly throughout Asia and Europe. While exports to Japan declined by 5 percent in 1994, those to most other major markets increased, both in terms of quantity and value. The largest relative increase (129 percent to \$20 million) occurred in exports to Spain, which consisted mainly of squid.

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## Edible preparations

U.S. trade in edible preparations continues to experience growth in nearly all of the diverse products covered by this category. Products classified in this category include, drink mixes, baby food, pasta, mixes and doughs for pastries and puddings, fortified juices, breads, cakes, cookies, pizza, herb teas, and condiments such as hot sauces, ketchup, mayonnaise, and mustards. Many of the items within

this category, at either the retail or wholesale level, are food items that require little or no time for preparation before consumption. Increasing consumption worldwide of these high-valued prepackaged food products is reflected in the continuing trade flow increases.

The United States imported a total of \$1.6 billion of edible food preparations in 1994, up 16 percent over the 1993 total of \$1.3 billion. Canada, at \$513 million, accounted for nearly one-third of the total. Imports of edible preparations from Mexico and Japan accounted for a combined total of \$233 million, with a 15-percent import market share. Imports from Italy increased by 37 percent (\$44 million) to \$163 million, with a range of pasta products accounting for 75 percent (\$124 million) of Italy's exports of edible preparations to the United States.

U.S. exports of edible preparations more than doubled in value since 1990, climbing from \$1.3

billion in 1990 to \$3.1 billion in 1994. Canada, Mexico, and Japan accounted for 99 percent of U.S. exports of edible preparations in 1994. U.S. exports to Japan grew by 41 percent in 1994, while U.S. exports to NAFTA partners Canada and Mexico each increased by 31 percent. Canada accounted for 64 percent of U.S. exports of edible preparations in 1994. Baked products were the leading export to the Canadian market. U.S. exports of edible preparations to Mexico reached \$270 million, an increase of 31 percent (\$63 million) over 1993. The dominant exports to Mexico included prepared cereals and communion wafers. Japanese imports of U.S. edible products climbed by \$76 million in 1994 to \$260 million. Leading U.S. export categories to Japan included ice cream, sauces, soups, corn chips, and beverage mixes.

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**Table 3-2**  
**Agricultural products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
AG001	Certain miscellaneous live animals, meat, offals, and animal products:				
	Exports .....	1,456	1,521	65	4.5
	Imports .....	914	1,010	96	10.5
	Trade balance .....	542	511	-31	-5.7
AG002	Cattle and beef:				
	Exports .....	2,016	2,361	345	17.1
	Imports .....	3,045	2,716	-329	-10.8
	Trade balance .....	-1,029	-355	674	65.5
AG003	Swine and pork:				
	Exports .....	438	486	48	11.0
	Imports .....	501	503	2	0.4
	Trade balance .....	-63	-17	46	73.0
AG004	Sheep and meat of sheep:				
	Exports .....	39	37	-2	-5.1
	Imports .....	62	59	-3	-4.8
	Trade balance .....	-23	-22	1	4.3
AG005	Poultry:				
	Exports .....	1,229	1,691	462	37.6
	Imports .....	24	23	-1	-4.2
	Trade balance .....	1,205	1,668	463	38.4
AG006	Fresh or chilled fish:				
	Exports .....	196	217	21	10.7
	Imports .....	652	744	92	14.1
	Trade balance .....	-456	-527	-71	-15.6
AG007	Frozen fish:				
	Exports .....	1,526	1,556	30	2.0
	Imports .....	1,293	1,267	-26	-2.0
	Trade balance .....	233	289	56	24.0
AG008	Fish canned, cured, or otherwise prepared, and live fish:				
	Exports .....	417	373	-44	-10.6
	Imports .....	617	685	68	11.0
	Trade balance .....	-200	-312	-112	-56.0
AG009	Shellfish:				
	Exports .....	860	904	44	5.1
	Imports .....	3,243	3,896	653	20.1
	Trade balance .....	-2,383	-2,992	-609	-25.6
AG010	Dairy produce:				
	Exports .....	655	572	-83	-12.7
	Imports .....	836	922	86	10.3
	Trade balance .....	-181	-350	-169	-93.4
AG011	Eggs:				
	Exports .....	133	158	25	18.8
	Imports .....	35	30	-5	-14.3
	Trade balance .....	98	128	30	30.6
AG012	Sugar and other sweeteners:				
	Exports .....	269	303	34	12.6
	Imports .....	812	844	32	3.9
	Trade balance .....	-543	-541	2	0.4
AG013	Animal feeds:				
	Exports .....	3,616	3,482	-134	-3.7
	Imports .....	543	613	70	12.9
	Trade balance .....	3,073	2,869	-204	-6.6
AG014	Live plants:				
	Exports .....	94	99	5	5.3
	Imports .....	216	238	22	10.2
	Trade balance .....	-122	-139	-17	-13.9
AG015	Seeds:				
	Exports .....	319	340	21	6.6
	Imports .....	156	155	-1	-0.6
	Trade balance .....	163	185	22	13.5
AG016	Cut flowers:				
	Exports .....	39	38	-1	-2.6
	Imports .....	382	420	38	9.9
	Trade balance .....	-343	-382	-39	-11.4
AG017	Miscellaneous vegetable substances:				
	Exports .....	436	433	-3	-0.7
	Imports .....	568	623	55	9.7
	Trade balance .....	-132	-190	-58	-43.9

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. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
Million dollars					
AG018	Fresh, chilled, or frozen vegetables:				
	Exports .....	1,058	1,122	64	6.0
	Imports .....	1,253	1,364	111	8.9
	Trade balance .....	-195	-242	-47	-24.1
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports .....	1,075	1,290	215	20.0
	Imports .....	777	909	132	17.0
	Trade balance .....	298	381	83	27.9
AG020	Edible nuts:				
	Exports .....	1,224	1,318	94	7.7
	Imports .....	460	497	37	8.0
	Trade balance .....	764	821	57	7.5
AG021	Tropical fruit:				
	Exports .....	69	70	1	1.4
	Imports .....	1,217	1,253	36	3.0
	Trade balance .....	-1,148	-1,183	-35	-3.0
AG022	Citrus fruit:				
	Exports .....	647	674	27	4.2
	Imports .....	119	129	10	8.4
	Trade balance .....	528	545	17	3.2
AG023	Deciduous fruit:				
	Exports .....	596	774	178	29.9
	Imports .....	146	157	11	7.5
	Trade balance .....	450	617	167	37.1
AG024	Other fresh fruit:				
	Exports .....	437	482	45	10.3
	Imports .....	473	528	55	11.6
	Trade balance .....	-36	-46	-10	-27.8
AG025	Dried fruit other than tropical:				
	Exports .....	360	369	9	2.5
	Imports .....	42	46	4	9.5
	Trade balance .....	318	323	5	1.6
AG026	Frozen fruit:				
	Exports .....	58	71	13	22.4
	Imports .....	63	64	1	1.6
	Trade balance .....	-5	7	12	( <sup>3</sup> )
AG027	Prepared or preserved fruit:				
	Exports .....	166	157	-9	-5.4
	Imports .....	421	414	-7	-1.7
	Trade balance .....	-255	-257	-2	-0.8
AG028	Coffee and tea:				
	Exports .....	187	231	44	23.5
	Imports .....	1,705	2,655	950	55.7
	Trade balance .....	-1,518	-2,424	-906	-59.7
AG029	Spices:				
	Exports .....	51	52	1	2.0
	Imports .....	223	272	49	22.0
	Trade balance .....	-172	-220	-48	-27.9
AG030	Cereals:				
	Exports .....	10,728	10,088	-640	-6.0
	Imports .....	586	861	275	46.9
	Trade balance .....	10,142	9,227	-915	-9.0
AG031	Milled grains, malts, and starches:				
	Exports .....	445	464	19	4.3
	Imports .....	96	132	36	37.5
	Trade balance .....	349	332	-17	-4.9
AG032	Oilseeds:				
	Exports .....	4,758	4,537	-221	-4.6
	Imports .....	155	268	113	72.9
	Trade balance .....	4,603	4,269	-334	-7.3
AG033	Animal or vegetable fats and oils:				
	Exports .....	1,454	1,851	397	27.3
	Imports .....	856	1,046	190	22.2
	Trade balance .....	598	805	207	34.6
AG034	Edible preparations:				
	Exports .....	2,522	3,062	540	21.4
	Imports .....	1,348	1,561	213	15.8
	Trade balance .....	1,174	1,501	327	27.9

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. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
AG035	Cocoa, chocolate, and confectionery:				
	Exports .....	560	545	-15	-2.7
	Imports .....	1,299	1,299	0	0
	Trade balance .....	-739	-754	-15	-2.0
AG036	Fruit and vegetable juices:				
	Exports .....	470	539	69	14.7
	Imports .....	653	663	10	1.5
	Trade balance .....	-183	-124	59	32.2
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports .....	220	344	124	56.4
	Imports .....	277	349	72	26.0
	Trade balance .....	-57	-5	52	91.2
AG038	Malt beverages:				
	Exports .....	202	341	139	68.8
	Imports .....	929	1,038	109	11.7
	Trade balance .....	-727	-697	30	4.1
AG039	Wine and certain other fermented beverages:				
	Exports .....	177	192	15	8.5
	Imports .....	984	1,044	60	6.1
	Trade balance .....	-807	-852	-45	-5.6
AG040	Distilled spirits:				
	Exports .....	344	356	12	3.5
	Imports .....	1,442	1,552	110	7.6
	Trade balance .....	-1,098	-1,196	-98	-8.9
AG041	Unmanufactured tobacco:				
	Exports .....	1,306	1,303	-3	-0.2
	Imports .....	1,370	613	-757	-55.3
	Trade balance .....	-64	690	754	( <sup>3</sup> )
AG042	Cigars, and certain other manufactured tobacco:				
	Exports .....	327	402	75	22.9
	Imports .....	107	90	-17	-15.9
	Trade balance .....	220	312	92	41.8
AG043	Cigarettes:				
	Exports .....	3,926	4,965	1,039	26.5
	Imports .....	360	73	-287	-79.7
	Trade balance .....	3,566	4,892	1,326	37.2
AG044	Hides, skins, and leather:				
	Exports .....	1,977	2,108	131	6.6
	Imports .....	868	995	127	14.6
	Trade balance .....	1,109	1,113	4	0.4
AG045	Furskins:				
	Exports .....	128	167	39	30.5
	Imports .....	83	109	26	31.3
	Trade balance .....	45	58	13	28.9
AG062	Ethyl alcohol for nonbeverage purposes:				
	Exports .....	71	215	144	202.8
	Imports .....	143	146	3	2.1
	Trade balance .....	-72	69	141	( <sup>3</sup> )
AG063	Wool and other animal hair:				
	Exports .....	14	36	22	157.1
	Imports .....	175	173	-2	-1.1
	Trade balance .....	-161	-137	24	14.9
AG064	Cotton, not carded or combed:				
	Exports .....	1,528	2,653	1,125	73.6
	Imports .....	( <sup>4</sup> )	7	6	1,544.2
	Trade balance .....	1,528	2,646	1,118	73.2

<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.<sup>4</sup> Less than \$500,000.

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

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# CHAPTER 4

## Forest Products

The trade deficit in forest products<sup>1</sup> increased from \$655 million in 1993 to \$1.7 billion in 1994 (table 4-1). Total trade rose by 10 percent to \$46.4 billion in 1994, as both imports and exports expanded. The value of U.S. imports of forest products grew by 12 percent, rising from \$21.4 billion to \$24.0 billion in 1994. Likewise, U.S. forest product exports rose by 8 percent, from \$20.7 billion in 1993, to \$22.4 billion in 1994. For many forest product groups, the increased trade level can primarily be attributable to improved commodity prices, which recovered in 1994 from the depressed levels of 1993.

U.S. exports of pulp, waste paper, and printing/writing papers each grew by over 20 percent in 1994, in value terms, from levels posted in 1993. Traditionally, pulp and waste paper, printed matter, industrial papers—including kraft linerboard, logs and rough wood products, and lumber account for three-quarters of all forest product exports (table 4-2 and figure 4-1), whereas newsprint, lumber, printing/writing papers, pulp, printed matter, and structural panels account for three quarters of the value of all forest product imports (table 4-3). U.S. imports of lumber increased by \$1.1 billion in 1994, rising by 20 percent and accounting for three-fifths of the total growth in imports of forest products in 1994.

### U.S. Bilateral Trade

Bilateral trade in forest products amounted to \$46.4 billion in 1994. Imports from Canada, valued at \$16.4 billion (up by \$1.8 billion from 1993) accounted for over two-thirds of all U.S. forest product imports, and slightly more than one-third of all bilateral trade. The leading commodities imported from Canada were newsprint, lumber, pulp, and

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<sup>1</sup> Included here are products classified in sections IX and X of the *Harmonized Tariff Schedules of the United States (HTS)*. This group includes wood, wood products, cork, manufacturers of straw, papermaking pulp, waste paper, paper and paperboard, articles made from paper and paperboard, and printed material.

printing/writing papers. The Asian Pacific Rim supplied 12 percent (\$2.9 billion, \$243 million more than in 1993) of all U.S. forest product imports in 1994, while the European Union (EU)-12 supplied 8 percent (\$2.0 billion, \$209 million more than in 1993).

Collectively, about three-quarters of all U.S. forest product exports went to Canada, Japan, the EU-12, and Mexico in 1994 (figure 4-2). U.S. exports to Canada amounted to \$5.3 billion in 1994, \$473 million more than in 1993. Exports to Japan amounted to \$4.5 billion, \$92 million below 1993 shipments, while exports to the EU-12 totaled \$3.9 billion, up by \$297 million over the 1993 figure. Exports to Mexico grew by \$371 million (18 percent) to \$2.5 billion. The United States has had a significant trade deficit with Canada in forest products, but usually maintains bilateral surpluses with other leading trading partners.

### Commodity Analysis

#### Lumber

The U.S. trade deficit in lumber widened from \$2.6 billion in 1993, to \$3.6 billion in 1994, as exports stagnated and imports continued to grow. U.S. lumber imports rose by \$1.0 billion (20 percent) in 1994 to \$6.1 billion. The bulk of the rise was accounted for by imports from Canada, by far the leading import supplier. Increases in U.S. lumber imports were also registered from most other sources including Brazil (up 56 percent), Chile (up 36 percent), and New Zealand (up 40 percent). Softwood lumber accounted for about 95 percent of total lumber imports in 1994. According to U.S. industry sources, domestic supply shortages in 1993, caused by a reduction in sales of timber from U.S. Government lands, and rising domestic demand, fueled by a general economic recovery and continued low interest rates, contributed to record-high U.S. lumber prices and import levels.

Table 4-1

**Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>**

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada .....	4,833	5,306	473	9.8
Japan .....	4,634	4,542	-91	-2.0
Mexico .....	2,081	2,452	371	17.8
United Kingdom .....	950	995	44	4.7
Germany .....	815	823	7	0.9
Korea .....	817	932	114	14.0
Taiwan .....	564	646	82	14.6
China .....	276	313	36	13.1
Italy .....	449	570	121	27.0
Brazil .....	125	169	44	35.3
All other .....	5,194	5,639	445	8.6
<b>Total .....</b>	<b>20,739</b>	<b>22,386</b>	<b>1,647</b>	<b>7.9</b>
EU-12 .....	3,648	3,945	297	8.1
OPEC .....	553	610	57	10.4
Latin America .....	3,434	3,978	543	15.8
CBERA .....	688	754	66	9.7
Asian Pacific Rim .....	7,695	8,018	323	4.2
ASEAN .....	636	785	150	23.5
Eastern Europe .....	24	22	-2	-7.1
U.S. imports for consumption:				
Canada .....	14,542	16,373	1,831	12.6
Japan .....	392	427	34	8.8
Mexico .....	516	565	49	9.6
United Kingdom .....	548	635	87	15.9
Germany .....	435	480	45	10.4
Korea .....	120	137	16	13.5
Taiwan .....	315	293	-21	-6.8
China .....	493	621	128	25.9
Italy .....	217	242	25	11.6
Brazil .....	480	625	145	30.1
All other .....	3,336	3,640	304	9.1
<b>Total .....</b>	<b>21,394</b>	<b>24,037</b>	<b>2,644</b>	<b>12.4</b>
EU-12 .....	1,827	2,036	210	11.5
OPEC .....	523	549	26	4.9
Latin America .....	1,281	1,563	282	22.0
CBERA .....	66	80	14	20.9
Asian Pacific Rim .....	2,617	2,860	243	9.3
ASEAN .....	1,038	1,116	78	7.5
Eastern Europe .....	13	16	4	29.0
U.S. merchandise trade balance:				
Canada .....	-9,708	-11,067	-1,358	(2)
Japan .....	4,241	4,116	-126	(2)
Mexico .....	1,565	1,887	322	(2)
United Kingdom .....	402	359	-43	(2)
Germany .....	381	343	-38	(2)
Korea .....	697	795	98	(2)
Taiwan .....	250	353	104	(2)
China .....	-217	-309	-92	(2)
Italy .....	232	328	96	(2)
Brazil .....	-355	-456	-101	(2)
All other .....	1,858	1,999	141	(2)
<b>Total .....</b>	<b>-655</b>	<b>-1,652</b>	<b>-997</b>	<b>(2)</b>
EU-12 .....	1,821	1,909	87	(2)
OPEC .....	30	61	32	(2)
Latin America .....	2,153	2,415	261	(2)
CBERA .....	622	674	53	(2)
Asian Pacific Rim .....	5,078	5,159	80	(2)
ASEAN .....	-402	-330	72	(2)
Eastern Europe .....	11	6	-5	(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 1994.

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

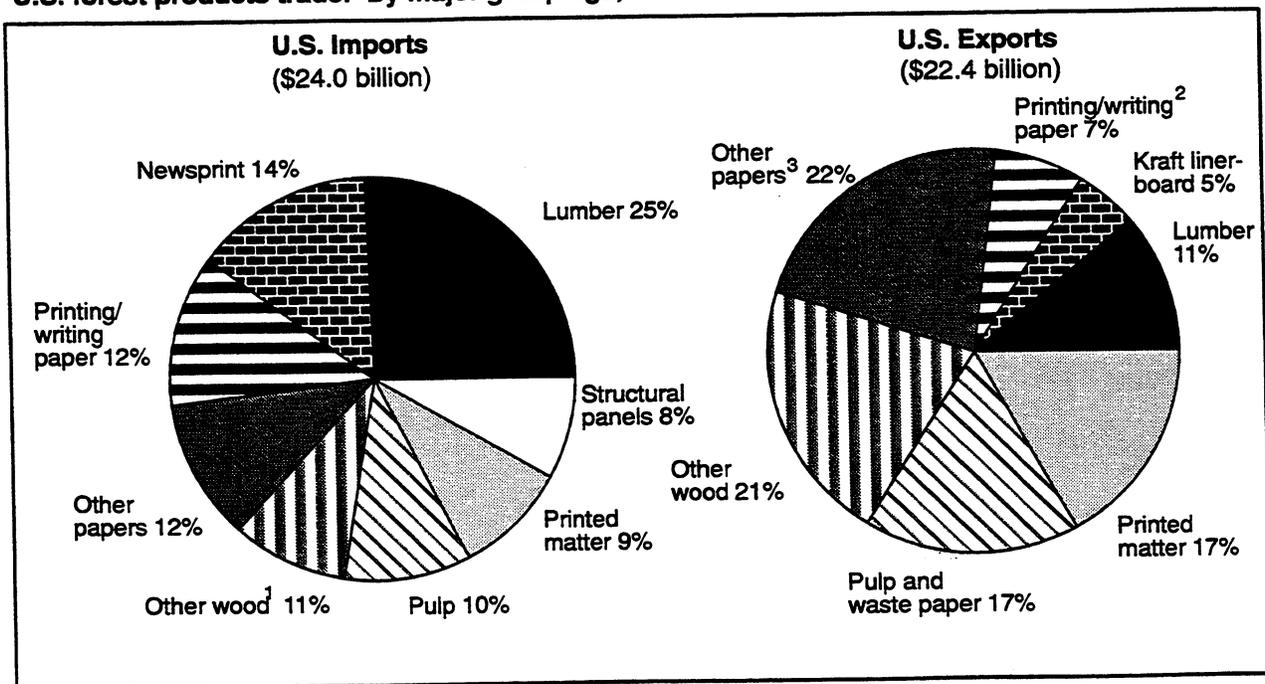
**Table 4-2**  
**Changes in U.S. exports of forest products in 1993-94**

Industry/Commodity	Change in 1994		Total value in 1994
	Value	Percent	
	Million dollars		Billion dollars
Pulp and waste paper .....	817	27	3.8
Printed matter .....	-39	-1	3.8
Industrial papers .....	496	15	3.8
Logs and rough wood products .....	-171	-5	3.0
Lumber .....	-12	( <sup>1</sup> )	2.5
Other .....	557	11	5.5
<b>Total .....</b>	<b>1,647</b>	<b>8</b>	<b>22.4</b>

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

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

**Figure 4-1**  
**U.S. forest products trade: By major groupings, 1994**



<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.

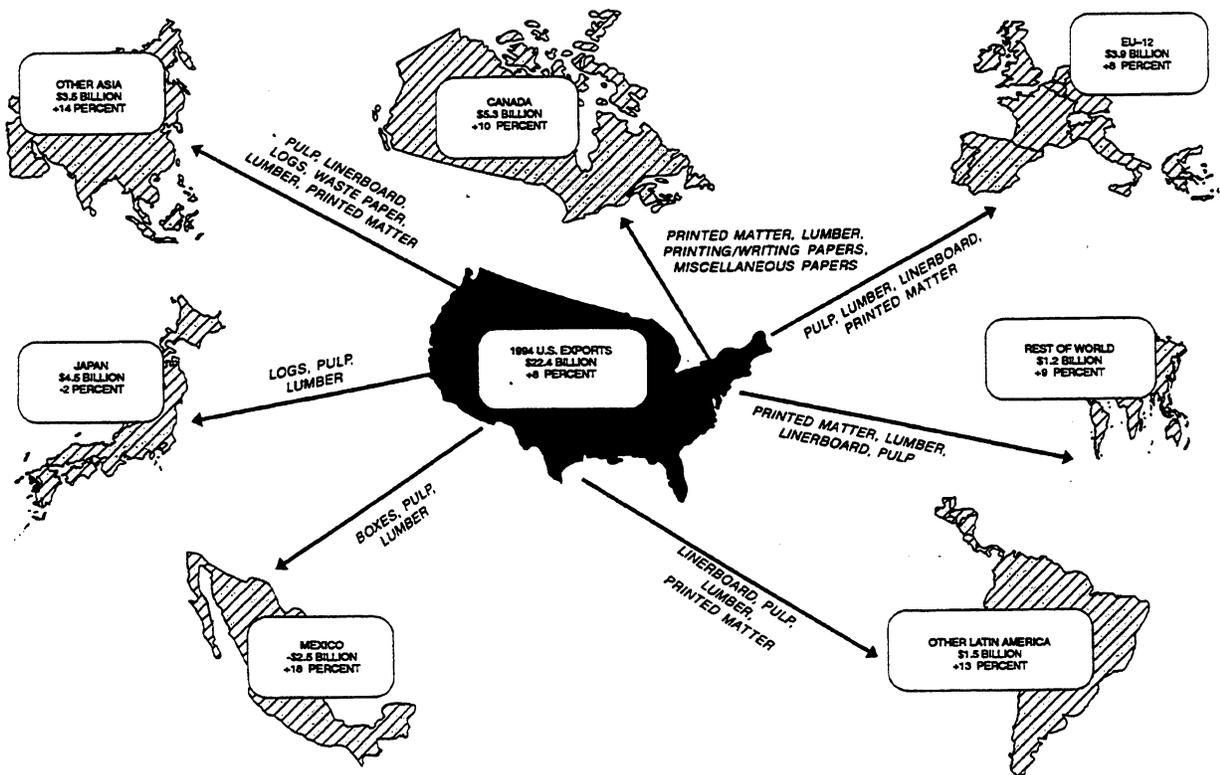
Source: Derived from official statistics of the U.S. Department of Commerce.

**Table 4-3**  
**Changes in U.S. imports of forest products in 1993-94**

Industry/Commodity	Change in 1994		Total value in 1994
	Value	Percent	
	Million dollars		Billion dollars
Lumber .....	1,027	20	6.1
Printing and writing paper .....	197	7	2.8
Printed matter .....	184	9	2.1
Pulp .....	430	23	2.3
Structural panel products .....	305	20	1.8
Newsprint .....	-261	-7	3.3
Other .....	760	16	5.5
<b>Total .....</b>	<b>2,643</b>	<b>12</b>	<b>24.0</b>

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

**Figure 4-2**  
**U.S. forest products sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

U.S. lumber exports declined by \$12 million in 1994 to \$2.5 billion. Exports to Japan declined by 0.5 percent to \$761 million, while exports to Canada increased 5.5 percent to \$389 million. Together these two countries accounted for 47 percent of U.S. lumber exports. Exports to major EU markets increased slightly generally reflecting the EU emergence from a prolonged recession. The United States exports substantial amounts of both softwood and hardwood lumber.<sup>2</sup> U.S. softwood lumber exports declined in quantity from 5.4 million cubic meters in 1993 to 5.1 million cubic meters in 1994, or by 5 percent. The value of such exports declined by about 4 percent to \$1.3 billion. Strong U.S. demand, which elevated domestic prices, contributed to the decline.

Exports of hardwood lumber rose slightly from 2.3 million cubic meters in 1993 to 2.4 million cubic meters in 1994; the value rose by 4 percent to \$1.1 billion in 1994. The primary markets for hardwood lumber were Canada (23 percent of the total value of exports in 1994) and Japan (12 percent). The value of hardwood lumber exports to Canada increased by 7 percent to \$300 million. Hardwood lumber exports to other principal markets were mixed. Exports to Japan, Germany, and Belgium (the 2nd-, 3rd-, and 4th-ranked markets) declined by a combined \$30 million in 1994, as compared with the 1993 figure. However, exports to Mexico, South Korea, and Italy increased by a total of \$46 million.

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## ***Wood pulp and wastepaper***

The value of U.S. trade in wood pulp and wastepaper increased significantly between 1993 and 1994. This was primarily due to an improvement in global prices in 1994, following a year of depressed prices in 1993. Pulp producers, especially, experience wide price fluctuations. Slight imbalances between global supply and demand have contributed greatly to these cycles.

Pulp imports rose by 23 percent in 1994 to \$2.3 billion. This increase consisted of a 17-percent increase in average unit value—from \$379 per metric ton to \$444 per metric ton, and an overall 6-percent quantity growth—from 4.9 million metric tons to 5.1 million metric tons. The leading import

grade of pulp, bleached softwood kraft, actually experienced a 2-percent decline in tonnage to 3.2 million metric tons. However, the import unit value for bleached softwood kraft pulp increased by 18 percent, reaching \$444 per metric ton in 1994. Canada supplied 98 percent of all bleached softwood kraft pulp imports in 1994. The second leading grade of imported pulp, bleached hardwood kraft, experienced a 33-percent growth in tonnage to 1.0 million metric tons and a 24-percent rise in unit value to \$452 per metric ton in 1994. Brazil edged out Canada as the leading source for U.S. imports of bleached hardwood kraft pulp in 1994, supplying 514,321 tons (up from 397,485 tons in 1993) to Canada's 486,115 tons (354,211 tons in 1993).

The value of pulp and wastepaper exports increased by 27 percent to \$3.8 billion in 1994. Pulp exports alone grew by 19 percent, on a value basis, to \$2.9 billion. The increase in pulp exports resulted from a 15-percent increase in average unit value to \$471 per metric ton and an overall 3-percent quantity rise to 6.2 million metric tons. Similar to U.S. imports, the leading and second-leading grades for U.S. pulp exports are bleached softwood kraft and bleached hardwood kraft pulps. Bleached softwood kraft exports grew by 12 percent, in unit value terms, to \$463 per metric ton and 7 percent, in quantity terms, to 2.8 million metric tons in 1994. U.S. exports of bleached hardwood kraft increased by 30 percent in unit value to \$409 per metric ton, although the quantity actually declined by 4 percent to 2.0 million metric tons in 1994. U.S. exports of both bleached hardwood and softwood kraft are shipped to numerous global markets, with no single market accounting for a dominant share of exports.

The value of wastepaper exports increased by 64 percent in 1994, as the result of an overall 31-percent growth in tonnage to 7.0 million metric tons, and an average 25-percent rise in unit value to \$125 per metric ton. The largest component of wastepaper exports, accounting for slightly under one-half of all wastepaper exports, was unbleached kraft paper. The primary component of unbleached kraft paper exports is old corrugated containers. Traditionally, four markets—Canada, Mexico, South Korea, and Taiwan—have collectively accounted for about two-thirds of all U.S. wastepaper exports. In 1994, Canada accounted for 23 percent (by quantity) of these exports and the other three countries each accounted for about 15 percent.

<sup>2</sup> Softwood lumber is used primarily for construction, while hardwood lumber is used primarily for furniture.

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**Table 4-4**  
**Forest products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan.**  
**1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
AG046	Logs and rough wood products:				
	Exports .....	3,134	2,963	-171	-5.5
	Imports .....	387	366	-21	-5.4
	Trade balance .....	2,747	2,597	-150	-5.5
AG047	Lumber:				
	Exports .....	2,470	2,458	-12	-0.5
	Imports .....	5,032	6,059	1,027	20.4
	Trade balance .....	-2,562	-3,601	-1,039	-40.6
AG048	Moldings, millwork, and joinery:				
	Exports .....	458	443	-15	-3.3
	Imports .....	812	959	147	18.1
	Trade balance .....	-354	-516	-162	-45.8
AG049	Structural panel products:				
	Exports .....	921	962	41	4.5
	Imports .....	1,515	1,820	305	20.1
	Trade balance .....	-594	-858	-264	-44.4
AG050	Wooden containers:				
	Exports .....	83	76	-7	-8.4
	Imports .....	174	197	23	13.2
	Trade balance .....	-91	-121	-30	-33.0
AG051	Tools and tool handles of wood:				
	Exports .....	20	16	-4	-20.0
	Imports .....	94	109	15	16.0
	Trade balance .....	-74	-93	-19	-25.7
AG052	Miscellaneous articles of wood:				
	Exports .....	155	177	22	14.2
	Imports .....	465	540	75	16.1
	Trade balance .....	-310	-363	-53	-17.1
AG053	Cork and rattan:				
	Exports .....	44	50	6	13.6
	Imports .....	354	360	6	1.7
	Trade balance .....	-310	-310	0	0
AG054	Wood pulp and wastepaper:				
	Exports .....	2,999	3,816	817	27.2
	Imports .....	1,899	2,329	430	22.6
	Trade balance .....	1,100	1,487	387	35.2
AG055	Paper boxes and bags:				
	Exports .....	752	871	119	15.8
	Imports .....	358	451	93	26.0
	Trade balance .....	394	420	26	6.6
AG056	Industrial papers and paperboards:				
	Exports .....	3,331	3,827	496	14.9
	Imports .....	1,114	1,388	274	24.6
	Trade balance .....	2,217	2,439	222	10.0
AG057	Newsprint:				
	Exports .....	496	481	-15	-3.0
	Imports .....	3,593	3,333	-260	-7.2
	Trade balance .....	-3,097	-2,852	245	7.9
AG058	Printing and writing papers:				
	Exports .....	911	1,146	235	25.8
	Imports .....	2,634	2,831	197	7.5
	Trade balance .....	-1,723	-1,685	38	2.2
AG059	Certain specialty papers:				
	Exports .....	432	530	98	22.7
	Imports .....	512	568	56	10.9
	Trade balance .....	-80	-38	42	52.5
AG060	Miscellaneous paper products:				
	Exports .....	706	781	75	10.6
	Imports .....	489	583	94	19.2
	Trade balance .....	217	198	-19	-8.8
AG061	Printed matter:				
	Exports .....	3,828	3,788	-40	-1.0
	Imports .....	1,962	2,146	184	9.4
	Trade balance .....	1,866	1,642	-224	-12.0

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

<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

The U.S. trade surplus in chemicals and related products increased by \$1.3 billion in 1994 over 1993 to \$13.5 billion (table 5-1). As shown in table 5-2, both exports and imports increased in every major type of chemical product. The trade surplus grew in general organic chemicals because of a general increase in the world economy, especially in Asia and Latin America. The trade surplus in plastic resins and elastomers also rose substantially because of high export sales of specialty plastic resins made by leading domestic firms. The growth in the surplus in agricultural chemicals was caused principally by a large increase in exports of fertilizer products to China.

### U.S. Bilateral Trade

Country and regional trade in chemicals and allied products is shown in table 5-1 and figures 5-1 and 5-2. Canada remains the largest U.S. trading partner for chemical products, with increases in both exports and imports of about \$1.5 billion, producing a slight decline of \$180 million in the U.S. bilateral trade surplus with Canada. Japan is the second-largest U.S. two-way trading partner for chemical products, accounting for approximately \$5 billion in U.S. exports and \$6 billion in imports, producing a \$518-million decline in the U.S. trade deficit. Mexico received U.S. chemical exports worth nearly \$6 billion, about a 30-percent increase over 1993, providing a growth in the trade surplus of slightly more than \$1 billion. Germany showed an expansion in both chemical exports and imports, increasing the U.S. bilateral trade deficit by \$190 million.

The largest U.S. regional trade surplus in 1994 was with Latin America. The \$8.8 billion surplus in 1994 was an increase of \$1.7 billion over 1993. The Asian Pacific Rim countries, as a group, and the European Union (EU) were the largest U.S. trading partners and were roughly equal in terms of total trade with the United States. Chemicals and allied products are principally used as producers' goods in manufacturing other products, for example, synthetic fibers, dyes, pipes, and tubing. The

large quantity of U.S. trade in both directions with the previously noted regions reflects trade with industrialized countries, specialization of production, and the availability of low-cost ocean transportation systems. There is a considerable degree of multinational integration in many chemical products, contributing to the high two-way flow between related parties.

### Commodity Analysis

#### *Benzenoid commodity chemicals*

The U.S. trade surplus in benzenoid commodity chemicals increased from \$874 million in 1993 to \$1,163 million in 1994 because of the increase in U.S. exports of monomers used to make plastic 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.

Exports of styrene, the total value of which were \$725 million in 1994, accounted for 81 percent of the increase (\$343 million) in U.S. exports of benzenoid commodity chemicals over 1993-94. The principal 1994 export markets for styrene were Taiwan (\$324 million) and the Netherlands (\$111 million). Several factors led styrene exports to increase, including severe drought conditions in the Asia/Pacific region in 1994 that caused problems with hydroelectric generating facilities, which in turn reduced regional production of styrene, as well as other commodity chemicals. In addition, chemical plant fires in Taiwan, a major consuming country for plastics monomers, as well as other production problems at chemical plants throughout the region, necessitated an increase in imports of intermediate chemicals from other world producers, principally the United States. European producers also encountered styrene production problems during 1994.

According to reports in trade journals, the Asia/Pacific region accounted for 37 percent of world con-

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, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Canada .....	10,588	12,022	1,434	13.5
Japan .....	4,590	4,954	364	7.9
Mexico .....	4,612	5,979	1,367	29.6
Germany .....	1,951	2,215	264	13.5
United Kingdom .....	1,968	2,204	236	12.0
Taiwan .....	2,028	2,399	371	18.3
France .....	1,272	1,463	191	15.0
China .....	842	1,524	682	81.0
Belgium .....	2,305	2,698	393	17.0
Netherlands .....	2,304	2,530	226	9.8
All other .....	17,372	19,200	1,828	10.5
Total .....	49,833	57,188	7,355	14.8
EU-12 .....	11,854	13,186	1,332	11.2
OPEC .....	1,811	1,817	6	0.3
Latin America .....	9,788	12,040	2,252	23.0
CBERA .....	1,237	1,363	127	10.2
Asian Pacific Rim .....	13,521	15,564	2,042	15.1
ASEAN .....	2,307	2,647	340	14.7
Eastern Europe .....	112	115	3	2.3
U.S. imports for consumption:				
Canada .....	7,197	8,812	1,615	22.4
Japan .....	5,442	6,324	882	16.2
Mexico .....	1,124	1,461	337	30.0
Germany .....	3,656	4,111	454	12.4
United Kingdom .....	2,862	3,216	353	12.3
Taiwan .....	1,276	1,269	-6	-0.5
France .....	1,994	2,180	185	9.3
China .....	1,591	2,039	448	28.2
Belgium .....	711	785	73	10.3
Netherlands .....	733	797	64	8.8
All other .....	11,009	12,690	1,681	15.3
Total .....	37,596	43,683	6,087	16.2
EU-12 .....	12,495	13,824	1,329	10.6
OPEC .....	860	1,225	365	42.4
Latin America .....	2,691	3,256	565	21.0
CBERA .....	527	604	76	14.5
Asian Pacific Rim .....	11,257	12,805	1,549	13.8
ASEAN .....	1,858	2,129	271	14.6
Eastern Europe .....	159	263	104	65.1
U.S. merchandise trade balance:				
Canada .....	3,391	3,210	-181	(2)
Japan .....	-852	-1,370	-518	(2)
Mexico .....	3,489	4,518	1,030	(2)
Germany .....	-1,706	-1,896	-190	(2)
United Kingdom .....	-895	-1,012	-118	(2)
Taiwan .....	753	1,129	377	(2)
France .....	-722	-716	6	(2)
China .....	-749	-515	234	(2)
Belgium .....	1,594	1,913	319	(2)
Netherlands .....	1,571	1,733	162	(2)
All other .....	6,363	6,509	147	(2)
Total .....	12,237	13,505	1,268	(2)
EU-12 .....	-640	-638	2	(2)
OPEC .....	951	592	-359	(2)
Latin America .....	7,097	8,784	1,687	(2)
CBERA .....	709	760	50	(2)
Asian Pacific Rim .....	2,265	2,758	493	(2)
ASEAN .....	449	518	69	(2)
Eastern Europe .....	-47	-148	-101	(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 1994.

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, 1993 and 1994**

Product grouping	1993	1994	Increase	Change
	Million dollars			Percent
<b>U.S. exports:</b>				
Tires, rubber, and plastic articles .....	9,055	10,486	1,431	15.8
General organic chemicals .....	11,854	13,647	1,793	15.1
Pharmaceuticals, incl. antibiotics .....	7,270	7,607	337	4.6
Plastic resins and elastomers .....	8,225	9,657	1,432	17.4
Consumer and industrial products .....	4,293	4,996	703	16.4
General inorganic chemicals .....	3,887	4,203	316	8.1
Agricultural chemicals .....	3,461	4,516	1,055	30.5
Dyes, pigments, paints, inks .....	1,788	2,076	288	16.1
<b>Total .....</b>	<b>49,833</b>	<b>57,188</b>	<b>7,355</b>	<b>14.8</b>
<b>U.S. imports:</b>				
Tires, rubber, and plastic articles .....	10,142	11,639	1,497	14.8
General organic chemicals .....	7,591	8,988	1,397	18.4
Pharmaceuticals, incl. antibiotics .....	6,123	6,968	845	13.8
Plastic resins and elastomers .....	3,941	4,894	953	24.2
Consumer and industrial products .....	2,958	3,305	347	11.7
General inorganic chemicals .....	3,372	3,791	419	12.4
Agricultural chemicals .....	2,425	2,892	467	19.3
Dyes, pigments, paints, inks .....	1,044	1,206	162	15.5
<b>Total .....</b>	<b>37,596</b>	<b>43,683</b>	<b>6,087</b>	<b>16.2</b>
<b>Balance of trade:</b>				
Tires, rubber, and plastic articles .....	-1,087	-1,153	-66	( <sup>1</sup> )
General organic chemicals .....	4,263	4,659	396	( <sup>1</sup> )
Pharmaceuticals, incl. antibiotics .....	1,147	639	-508	( <sup>1</sup> )
Plastic resins and elastomers .....	4,284	4,763	479	( <sup>1</sup> )
Consumer and industrial products .....	1,335	1,691	356	( <sup>1</sup> )
General inorganic chemicals .....	515	412	-103	( <sup>1</sup> )
Agricultural chemicals .....	1,036	1,624	588	( <sup>1</sup> )
Dyes, pigments, paints, inks .....	744	870	126	( <sup>1</sup> )
<b>Total .....</b>	<b>12,237</b>	<b>13,505</b>	<b>1,268</b>	<b>(<sup>1</sup>)</b>

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

Note.—Because of rounding, figures may not add to the totals shown. The product lines shown are arranged in decreasing order of total trade flow (imports + exports) in these products in 1994.

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

sumption of styrene monomer in 1994 (compared with 29 percent for North America and 30 percent for Western and Eastern Europe). The United States, with approximately 39 percent of world styrene production capacity, operated at an overall capacity utilization rate of 89 percent in 1994 and produced a total of about 11 billion pounds of this chemical.

U.S. exports of terephthalic acid (PTA), an intermediate chemical used in the production of polyester resins, and of phenol and p-xylene also increased over 1993-94. Like styrene, PTA and phenol are utilized as monomers in the manufacture of plastics resins, while p-xylene is the chemical feedstock for the manufacture of PTA. Exports of these chemicals increased for the same reasons that styrene exports increased.

Imports of benzenoid commodity chemicals increased slightly in 1994, from \$339 million in 1993 to \$392 million in 1994. However, such imports represented only 3 percent of apparent U.S. consumption of these chemicals in 1994. Canada was the largest source, and represented the greatest increase in imports of these chemicals during 1994,

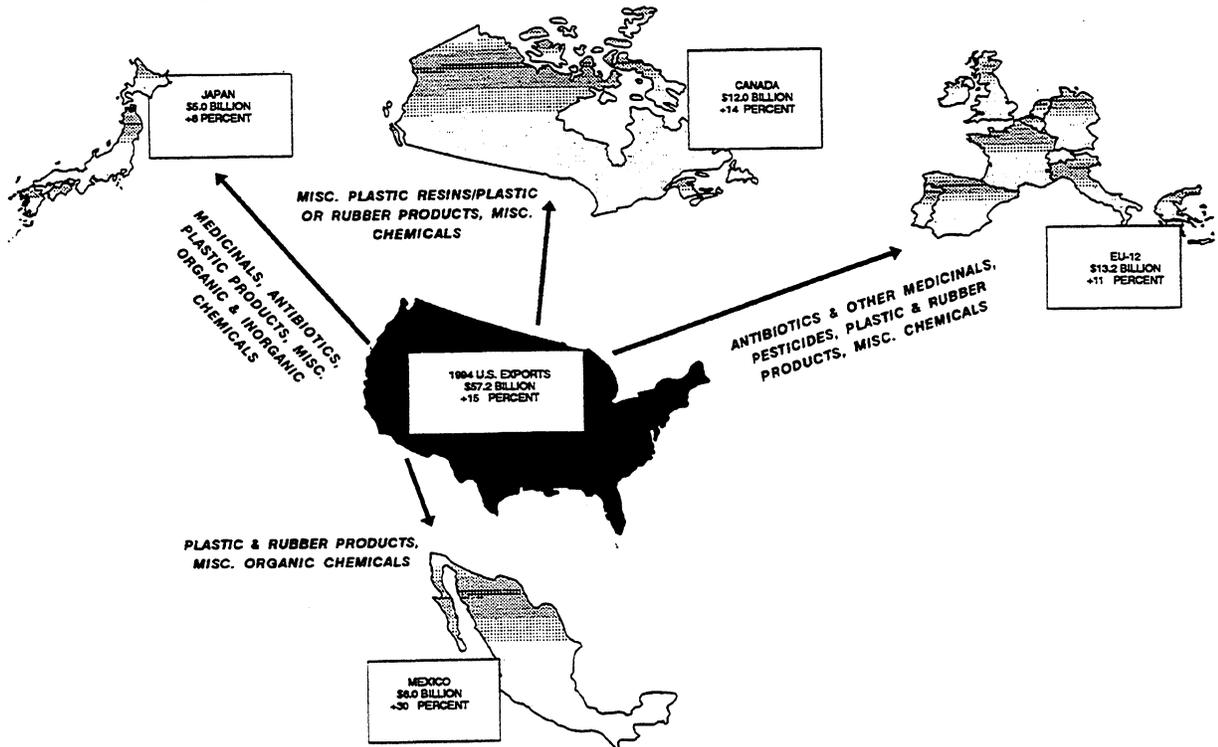
accounting for 47 percent of the value of total imports. The principal product imported from Canada in 1994 was styrene, valued at \$160 million. Virtually all styrene imported from Canada entered under the provisions of the North American Free Trade Agreement (NAFTA). Total NAFTA imports of this group of chemicals was \$188 million in 1994, with Canada and Mexico accounting for 89 percent and 11 percent respectively of the total value of these products.

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## Fertilizers

A small increase in U.S. imports, combined with a significant export increase, yielded a \$463-million increase in the U.S. trade surplus in fertilizers, to \$740 million in 1994. U.S. fertilizer exports increased by \$903 million (48 percent) to \$2.8 billion due to significant export increases to China (223 percent) and Brazil (94 percent). The Chinese increase is characteristic of their purchasing patterns, which frequently exhibit significant annual changes.

**Figure 5-1**  
**U.S. chemical and related products sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

China is a major export market for U.S. nitrogenous and phosphatic fertilizers. Although China tends to purchase fertilizers from foreign suppliers during periods when the country has ample hard currency to pay for these products and when prices are as low as they were during 1994, other nonfiscal factors may take precedence in procurement decisions. For example, significant lag time in fertilizer distribution to end users in the Chinese market, caused by a lack of modern infrastructure, often disrupts procurement and can result in major shifts in fertilizer exports to China. Brazil, on the other hand, is a major market for U.S. potash. The fertilizer export increase to Brazil was largely attributed to the recapture of market share that was lost to lower priced potash originating from Russia and Belarus during 1993.

U.S. imports of fertilizers increased by \$440 million (28 percent) in 1994 to \$2.0 billion. This increase was due primarily to nitrogenous and potassic fertilizers, particularly ammonia. The United States has sustained import reliance in nitrogenous fertilizers for many years. Reported increased pur-

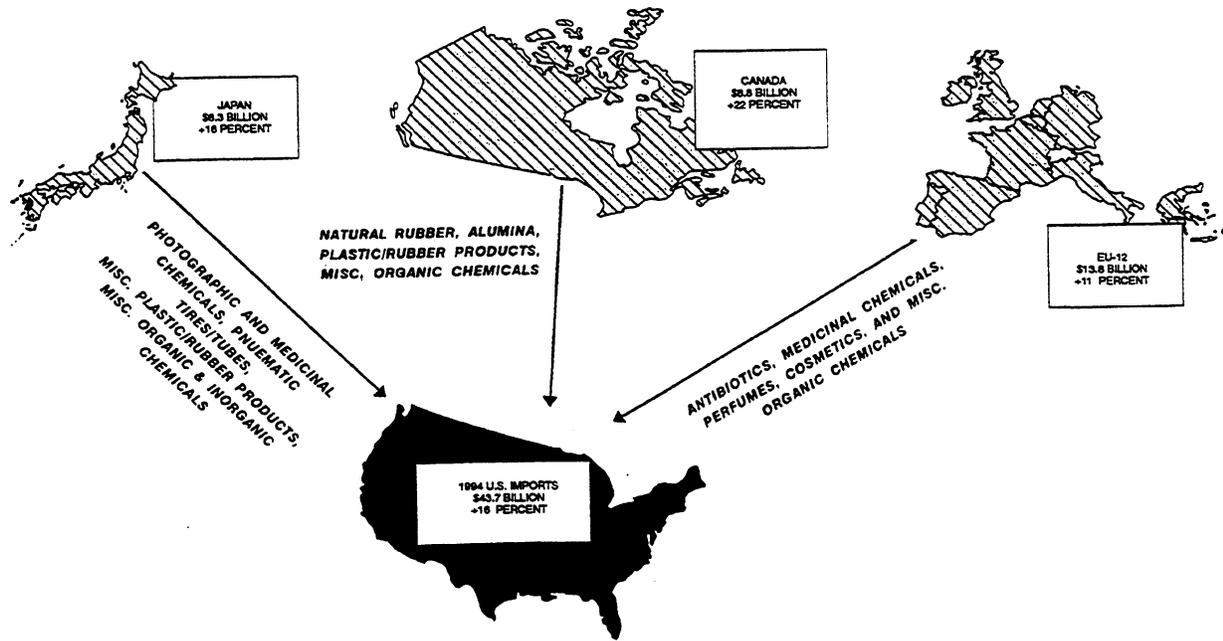
chases of ammonia from Trinidad and Tobago, Mexico, and Saudi Arabia; urea from Canada, Bulgaria, and Mexico; and ammonium nitrate from Russia were the major contributors to the rise in the total value of fertilizer imports in 1994.

According to U.S. Government sources, imports of nitrogenous fertilizers increased in 1994 because the domestic nitrogenous fertilizer industry was unable to satisfy domestic demand, despite operating its plants at 100-percent capacity. This situation was largely due to increased Chinese demand for downstream nitrogenous and phosphatic fertilizers, which require ammonia as a production input.<sup>1</sup> The domestic potassic fertilizer industry lacks the natural resource base to satisfy domestic demand and therefore, U.S. consumers must rely on imported material, primarily from Canada.

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<sup>1</sup> Raymond L. Cantrell, "Nitrogen Compounds," draft article to be published in *Mining Engineering*, p. 1-3.

**Figure 5-2**  
**U.S. chemical and related products sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

### **Medicinal chemicals, except antibiotics**

The U.S. pharmaceutical industry has traditionally maintained a positive balance of trade. The size of the surplus, however, has fluctuated over the years. In 1994, the U.S. trade surplus in all medicinal chemicals except antibiotics declined by \$402 million to \$391 million. Although U.S. exports of these products increased by 7 percent to \$6.1 billion during 1993-94, U.S. imports increased by 16 percent (or \$791 million) to \$5.7 billion. The three largest sources of such imports in 1994, by value, were the United Kingdom (21 percent), Germany (12 percent), and Japan (10 percent). The largest increase by value in imports during 1993-94, how-

ever, occurred with two countries: Canada (53 percent) and Sweden (48 percent).

The increase in pharmaceutical imports, particularly from Sweden, is attributable to related party trade, in which the importer is often either the patent holder or the U.S. licensee. The increase can also be partially 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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Table 5-3

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
CH008	Other olefins:				
	Exports .....	223	190	-33	-14.8
	Imports .....	35	38	3	8.6
	Trade balance .....	188	152	-36	-19.1
CH009	Primary aromatics:				
	Exports .....	145	138	-7	-4.8
	Imports .....	169	158	-11	-6.5
	Trade balance .....	-24	-20	4	16.7
CH010	Benzenoid commodity chemicals:				
	Exports .....	1,213	1,555	342	28.2
	Imports .....	339	392	53	15.6
	Trade balance .....	874	1,163	289	33.1
CH011	Benzenoid specialty chemicals:				
	Exports .....	3,650	4,073	423	11.6
	Imports .....	2,063	2,281	218	10.6
	Trade balance .....	1,587	1,792	205	12.9
CH012	Miscellaneous organic chemicals:				
	Exports .....	4,886	5,897	1,011	20.7
	Imports .....	3,502	4,445	943	26.9
	Trade balance .....	1,384	1,452	68	4.9
CH013	Selected inorganic chemicals and elements:				
	Exports .....	781	790	9	1.2
	Imports .....	1,252	1,235	-17	-1.4
	Trade balance .....	-471	-445	26	5.5
CH014	Inorganic acids:				
	Exports .....	157	160	3	1.9
	Imports .....	144	199	55	38.2
	Trade balance .....	13	-39	-52	-400.0
CH015	Salts and other inorganic chemicals:				
	Exports .....	2,222	2,487	265	11.9
	Imports .....	1,812	2,166	354	19.5
	Trade balance .....	410	321	-89	-21.7
CH016	Chlor-alkali chemicals:				
	Exports .....	598	594	-4	-0.7
	Imports .....	125	149	24	19.2
	Trade balance .....	473	445	-28	-5.9
CH017	Industrial gases:				
	Exports .....	99	105	6	6.1
	Imports .....	39	42	3	7.7
	Trade balance .....	60	63	3	5.0
CH018	Fertilizers:				
	Exports .....	1,877	2,780	903	48.1
	Imports .....	1,600	2,040	440	27.5
	Trade balance .....	277	740	463	167.1
CH019	Paints, inks, and related items, and certain components thereof:				
	Exports .....	1,772	2,057	285	16.1
	Imports .....	980	1,148	168	17.1
	Trade balance .....	792	909	117	14.8
CH020	Synthetic organic pigments:				
	Exports .....	267	299	32	12.0
	Imports .....	294	339	45	15.3
	Trade balance .....	-27	-40	-13	-48.1
CH021	Synthetic dyes and azoic couplers:				
	Exports .....	200	227	27	13.5
	Imports .....	583	595	12	2.1
	Trade balance .....	-383	-368	15	3.9
CH022	Synthetics tanning agents:				
	Exports .....	10	11	1	10.0
	Imports .....	6	6	0	0
	Trade balance .....	4	5	1	25.0
CH023	Natural tanning and dyeing materials:				
	Exports .....	16	19	3	18.8
	Imports .....	64	58	-6	-9.4
	Trade balance .....	-48	-39	9	18.8
CH024	Photographic chemicals and preparations:				
	Exports .....	331	383	52	15.7
	Imports .....	554	650	96	17.3
	Trade balance .....	-223	-267	-44	-19.7

See footnotes at end of table.

**Table 5-3—Continued**  
**Chemicals and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
CH025	Pesticide products and formulations:				
	Exports .....	1,584	1,736	152	9.6
	Imports .....	825	852	27	3.3
	Trade balance .....	759	884	125	16.5
CH026	Adhesives and glues:				
	Exports .....	256	308	52	20.3
	Imports .....	118	134	16	13.6
	Trade balance .....	138	174	36	26.1
CH027	Medicinal chemicals, except antibiotics:				
	Exports .....	5,690	6,079	389	6.8
	Imports .....	4,897	5,688	791	16.2
	Trade balance .....	793	391	-402	-50.7
CH028	Antibiotics:				
	Exports .....	1,580	1,528	-52	-3.3
	Imports .....	1,226	1,280	54	4.4
	Trade balance .....	354	248	-106	-29.9
CH029	Essential oils and other flavoring materials:				
	Exports .....	734	848	114	15.5
	Imports .....	557	624	67	12.0
	Trade balance .....	177	224	47	26.6
CH030	Perfumes, cosmetics, and toiletries:				
	Exports .....	1,415	1,715	300	21.2
	Imports .....	973	1,055	82	8.4
	Trade balance .....	442	660	218	49.3
CH031	Soaps, detergents, and surface-active agents:				
	Exports .....	1,263	1,454	191	15.1
	Imports .....	450	556	106	23.6
	Trade balance .....	813	898	85	10.5
CH032	Miscellaneous chemicals and specialties:				
	Exports .....	1,289	1,371	82	6.4
	Imports .....	603	733	130	21.6
	Trade balance .....	686	638	-48	-7.0
CH033	Explosives, propellant powders and related items:				
	Exports .....	259	252	-7	-2.7
	Imports .....	209	196	-13	-6.2
	Trade balance .....	50	56	6	12.0
CH034	Polyethylene resins in primary forms:				
	Exports .....	1,260	1,459	199	15.8
	Imports .....	571	783	212	37.1
	Trade balance .....	689	676	-13	-1.9
CH035	Polypropylene resins in primary forms:				
	Exports .....	432	449	17	3.9
	Imports .....	116	155	39	33.6
	Trade balance .....	316	294	-22	-7.0
CH036	Polyvinyl chloride resins in primary forms:				
	Exports .....	500	671	171	34.2
	Imports .....	117	182	65	55.6
	Trade balance .....	383	489	106	27.7
CH037	Styrene polymers in primary forms:				
	Exports .....	600	662	62	10.3
	Imports .....	235	300	65	27.7
	Trade balance .....	365	362	-3	-0.8
CH038	Saturated polyester resins:				
	Exports .....	390	491	101	25.9
	Imports .....	108	197	89	82.4
	Trade balance .....	282	294	12	4.3
CH039	Other plastics in primary forms:				
	Exports .....	3,992	4,670	678	17.0
	Imports .....	1,386	1,684	298	21.5
	Trade balance .....	2,606	2,986	380	14.6
CH040	Styrene-butadiene rubber in primary forms:				
	Exports .....	255	298	43	16.9
	Imports .....	111	137	26	23.4
	Trade balance .....	144	161	17	11.8
CH041	Other synthetic rubber:				
	Exports .....	769	874	105	13.7
	Imports .....	445	491	46	10.3
	Trade balance .....	324	383	59	18.2

See footnotes at end of table.

Table 5-3—Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
CH042	Pneumatic tires and tubes (new)				
	Exports .....	1,464	1,614	150	10.2
	Imports .....	2,661	2,960	299	11.2
	Trade balance .....	-1,197	-1,346	-149	-12.4
CH043	Other tires:				
	Exports .....	66	79	13	19.7
	Imports .....	107	114	7	6.5
	Trade balance .....	-41	-35	6	14.6
CH044	Plastic or rubber semifabricated forms:				
	Exports .....	3,139	3,596	457	14.6
	Imports .....	2,015	2,286	271	13.4
	Trade balance .....	1,124	1,310	186	16.5
CH045	Plastic containers and closures:				
	Exports .....	914	1,060	146	16.0
	Imports .....	845	968	123	14.6
	Trade balance .....	69	92	23	33.3
CH046	Hose, belting and plastic pipe:				
	Exports .....	880	1,027	147	16.7
	Imports .....	699	855	156	22.3
	Trade balance .....	181	172	-9	-5.0
CH047	Miscellaneous rubber or plastics products:				
	Exports .....	2,592	3,110	518	20.0
	Imports .....	3,815	4,456	641	16.8
	Trade balance .....	-1,223	-1,346	-123	-10.1
CH048	Gelatin:				
	Exports .....	35	36	1	2.9
	Imports .....	97	90	-7	-7.2
	Trade balance .....	-62	-54	8	12.9
CH049	Natural rubber:				
	Exports .....	27	33	6	22.2
	Imports .....	852	965	113	13.3
	Trade balance .....	-825	-932	-107	-13.0

<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.<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 6

## Energy-Related Products

The overall U.S. trade deficit in terms of energy-related products increased by \$2 billion in 1994, to \$45.9 billion (table 6-1). Historically, the United States has maintained a trade deficit in the energy-related products sector primarily because of its heavy reliance on imported crude petroleum.

The primary sources of U.S. imports of energy-related products are Canada, Saudi Arabia, and Venezuela (figure 6-1). Canadian sources are connected to the U.S. mainland by a sophisticated and intricate system of pipelines that carry natural gas, crude petroleum, and refined petroleum products, and by an intricate system of electricity interconnection grids. The largest bilateral increase in the U.S. energy trade deficit was registered with Canada, rising from \$10.5 billion in 1993 to \$11.4 billion in 1994, primarily as a result of increased imports and decreased exports of electricity.

Saudi Arabia and Venezuela are also major sources of crude petroleum and refined petroleum products for the U.S. market. Because of a decline in the per-barrel price of crude petroleum on the world market, the value of the U.S. trade deficit with Saudi Arabia and Venezuela in particular (which are members of the Organization of Petroleum Exporting Countries (OPEC)), as well as with all of the OPEC nations combined, declined by \$1.3 billion. However, the actual trend in U.S. dependence on OPEC petroleum is just the opposite; in terms of quantity, U.S. imports of both crude petroleum and refined petroleum products from OPEC increased from 4.1 million barrels per day in 1993 to 4.5 million barrels per day in 1994.

The U.S. trade deficit with the EU in energy-related products increased by \$1.4 billion in 1994 because of a decline in U.S. exports of coal, which have decreased because of a plentiful supply of relatively inexpensive crude petroleum, the preferred energy source, on the world market. The U.S. energy-related products trade surplus with Japan decreased by \$367 million to \$1.5 billion in 1994 because of a decrease in U.S. exports of coke to that market.

### Commodity Analysis

#### *Electrical energy*

Most U.S. utilities do not depend on foreign sources to provide major portions of their electricity supply; nevertheless, electricity trade plays a varying role from region to region, and it fluctuates from year to year as a result of changing hydroelectric conditions. Canada is the primary U.S. electricity trading partner because trade in electricity is conducted over the existing interconnected transmission systems. Trade with Quebec uses direct current lines; the Provinces of New Brunswick, Ontario, Manitoba, and Saskatchewan are interconnected with the United States in an alternating current grid and are synchronized with utilities in the Eastern U.S. power grid. Alberta and British Columbia are synchronized with U.S. utilities operating in the Western power grid and sell electricity to the Western portion of the United States.

The value of U.S. imports of electricity increased from \$662 million in 1993 to \$960 million in 1994. U.S. exports decreased from \$61 million in 1993 to \$30 million in 1994.

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#### *Coal, coke, and related chemical products*

The United States is one of the world's largest suppliers of coal and is a net exporter. However, in 1994, a slight decrease in exports combined with an increase in imports resulted in a \$319 million deterioration in the trade surplus to \$2.7 billion. U.S. exports of coal, coke, and related products decreased from \$3.6 billion in 1993 to \$3.5 billion in 1994. This decrease was primarily attributable to reduced demand for coal after relatively inexpensive crude petroleum (the preferred energy source) became abundant on the world market. The major markets for U.S. exports of these products contin-

**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, 1993 and 1994<sup>1</sup>**

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
<b>U.S. exports of domestic merchandise:</b>				
Canada .....	1,463	1,527	64	4.4
Saudi Arabia .....	32	30	-2	-6.6
Venezuela .....	105	137	32	30.7
Mexico .....	1,114	1,089	-26	-2.3
Nigeria .....	37	3	-34	-92.5
United Kingdom .....	295	295	0	-0.1
Angola .....	1	1	0	-24.2
Japan .....	2,019	1,695	-324	-16.1
Algeria .....	19	16	-2	-12.5
Kuwait .....	2	3	1	55.0
All other .....	7,123	6,673	-450	-6.3
<b>Total .....</b>	<b>12,212</b>	<b>11,470</b>	<b>-742</b>	<b>-6.1</b>
EU-12 .....	2,685	2,470	-215	-8.0
OPEC .....	361	312	-48	-13.4
Latin America .....	2,756	2,773	17	0.6
CBERA .....	760	716	-44	-5.8
Asian Pacific Rim .....	4,385	3,821	-564	-12.9
ASEAN .....	707	769	62	8.8
Eastern Europe .....	92	117	24	26.5
<b>U.S. imports for consumption:</b>				
Canada .....	12,012	12,975	963	8.0
Saudi Arabia .....	7,577	7,420	-157	-2.1
Venezuela .....	6,835	6,541	-294	-4.3
Mexico .....	4,751	5,027	276	5.8
Nigeria .....	5,231	4,530	-701	-13.4
United Kingdom .....	2,557	3,399	842	32.9
Angola .....	2,093	2,067	-25	-1.2
Japan .....	170	212	42	25.0
Algeria .....	1,583	1,539	-44	-2.8
Kuwait .....	1,758	1,472	-287	-16.3
All other .....	11,532	12,162	629	5.5
<b>Total .....</b>	<b>56,098</b>	<b>57,344</b>	<b>1,245</b>	<b>2.2</b>
EU-12 .....	4,226	5,391	1,166	27.6
OPEC .....	25,408	24,109	-1,300	-5.1
Latin America .....	15,330	15,186	-143	-0.9
CBERA .....	1,295	1,242	-53	-4.1
Asian Pacific Rim .....	1,671	2,001	331	19.8
ASEAN .....	779	971	193	24.7
Eastern Europe .....	5	76	71	1,329.9
<b>U.S. merchandise trade balance:</b>				
Canada .....	-10,549	-11,448	-899	(2)
Saudi Arabia .....	-7,544	-7,389	155	(2)
Venezuela .....	-6,730	-6,404	326	(2)
Mexico .....	-3,637	-3,939	-302	(2)
Nigeria .....	-5,194	-4,527	667	(2)
United Kingdom .....	-2,262	-3,104	-842	(2)
Angola .....	-2,091	-2,066	25	(2)
Japan .....	1,850	1,483	-367	(2)
Algeria .....	-1,564	-1,523	41	(2)
Kuwait .....	-1,756	-1,469	288	(2)
All other .....	-4,409	-5,488	-1,079	(2)
<b>Total .....</b>	<b>-43,886</b>	<b>-45,874</b>	<b>-1,988</b>	<b>(2)</b>
EU-12 .....	-1,541	-2,921	-1,380	(2)
OPEC .....	-25,048	-23,796	1,251	(2)
Latin America .....	-12,573	-12,413	160	(2)
CBERA .....	-535	-526	9	(2)
Asian Pacific Rim .....	2,714	1,819	-895	(2)
ASEAN .....	-72	-202	-130	(2)
Eastern Europe .....	87	40	-47	(2)

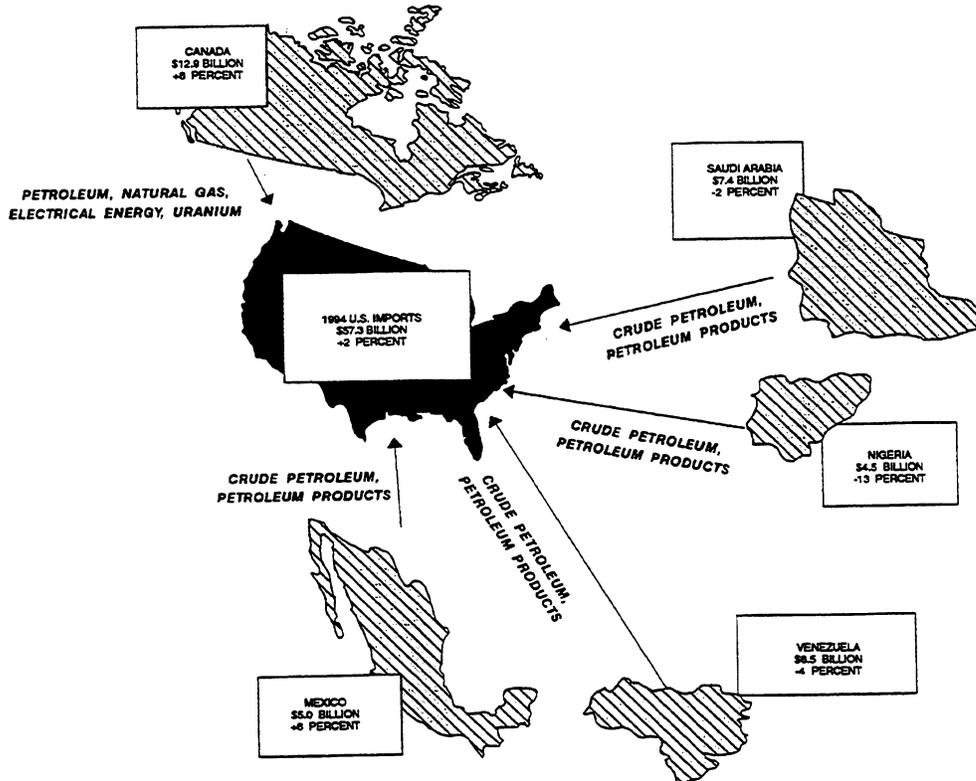
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 6-1**  
**U.S. energy-related products sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

ued to be Canada and Japan. U.S. exports of bituminous and lignite coals accounted for about 90 percent of total exports. These are high-quality, low-sulfur coals used primarily for the generation of electricity. The United States, which leads the world in total reserves and production of coal, is viewed as a secure source of coal on the world market.

U.S. imports of coal, coke, and related chemical products increased from \$603 million in 1993 to \$799 million in 1994. 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. In the past, Japan has imported metallurgical coal from several nations, including the United States, to produce coke, which is used in the production of steel. However, according to industry sources, a decline in Japanese steel production has led to excess coke production (since coke ovens cannot be shut down despite lack of demand) in Japan, which was being exported at low prices.

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## Crude petroleum

U.S. imports of crude petroleum, which accounted for \$38.5 billion of the total U.S. trade deficit in 1994, accounted for more than 50 percent of domestic consumption of crude petroleum in 1994. U.S. imports began to increase in late 1985, when crude petroleum prices plummeted because of an oversupply on the world market. The price decreases resulted in the reduced profitability of high-cost U.S. stripper wells, many of which were then shut down. Consequently, U.S. production declined steadily.

The quantity of U.S. imports of crude petroleum increased from 2.5 billion barrels (valued at \$38.2 billion) in 1993 to 2.7 billion barrels (valued at \$38.5 billion) in 1994. Saudi Arabia, Canada, Venezuela, and Mexico were 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 1994.

U.S. exports of crude petroleum do little to ease the total U.S. trade deficit, which is so significantly affected by U.S. imports of crude petroleum. U.S. exports of crude petroleum are prohibited, except as

approved by the U.S. Government. Canada has been the only consistent market for these exports as part of a commercial exchange agreement between U.S. and Canadian refiners, and approved by the 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 increased from 1.1 million barrels (valued at \$20 million) in 1993 to 2.2 million barrels (valued at \$44 million) in 1994. Canada accounted for 93 percent of these exports, with the remaining exports slated for Korea.

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## ***Petroleum products***

The value of U.S. imports of petroleum products decreased from \$11.0 billion in 1993 to \$10.5 billion in 1994. Canada, Venezuela, and Algeria were the leading import sources of petroleum products. In general, the quantity of each individual petroleum product increased, but, because of the decline in the per-barrel price of crude petroleum, the value of imports decreased. U.S. refineries are currently operating at over 90 percent of capacity in order to supply more of the domestic demand for petroleum products; imports account for any remaining demand, which has been increasing steadily since the late 1980s.

The United States is not a major exporter of petroleum products. The value of U.S. exports of petroleum products decreased from \$6.7 billion in 1993 to \$6 billion in 1994. Canada and Mexico were the major U.S. markets for these exports.

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## ***Natural gas and components***

The value of imports of natural gas and components increased from \$4.4 billion in 1993 to \$5.2 billion in 1994, or by 18 percent, primarily due to increased imports from Canada. The major individual product contributing to the growth in imports from Canada was pipeline natural gas, which rose in value from \$3.2 billion in 1993 to \$3.9 billion in 1994, or by nearly 21 percent. As such, Canada remained the United States' primary import source of natural gas and natural gas components in 1994, accounting for more than 90 percent of all imports.

The trade deficit in natural gas and its components grew by \$815 million in 1994. While imports from Canada increased, exports of natural gas to Mexico declined, due both to greater emphasis on utilization of domestic resources and diminished purchasing ability by the Mexican industry.

Total U.S. exports of natural gas and components dropped from \$603 million in 1993 to \$568 million in 1994. Exports to Mexico, which is the primary export market for these commodities and accounted for more than 90 percent of all U.S. exports in 1994, fell significantly. Exports of natural gas and components to Mexico declined by 15 percent during 1993-94, to a value of \$184 million; while exports of pipeline natural gas to Mexico shrank by 45 percent, from \$80 million in 1993 to \$44 million in 1994.

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**Table 6-2**  
**Energy-related products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
CH001	Electrical energy:				
	Exports .....	61	30	-31	-50.8
	Imports .....	662	960	298	45.0
	Trade balance .....	-601	-930	-329	-54.7
CH002	Nuclear materials:				
	Exports .....	1,139	1,226	87	7.6
	Imports .....	930	1,114	184	19.8
	Trade balance .....	209	112	-97	-46.4
CH003	Coal, coke, and related chemicals products:				
	Exports .....	3,587	3,464	-123	-3.4
	Imports .....	603	799	196	32.5
	Trade balance .....	2,984	2,665	-319	-10.7
CH004	Crude petroleum:				
	Exports .....	20	44	24	120.0
	Imports .....	38,248	38,530	282	0.7
	Trade balance .....	-38,228	-38,486	-258	-0.7
CH005	Petroleum products:				
	Exports .....	6,654	6,014	-640	-9.6
	Imports .....	11,041	10,450	-591	-5.4
	Trade balance .....	-4,387	-4,436	-49	-1.1
CH006	Natural gas and components:				
	Exports .....	603	568	-35	-5.8
	Imports .....	4,421	5,201	780	17.6
	Trade balance .....	-3,818	-4,633	-815	-21.3
CH007	Major primary olefins:				
	Exports .....	148	123	-25	-16.9
	Imports .....	193	289	96	49.7
	Trade balance .....	-45	-166	-121	-268.9

<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.

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 1994, increasing by almost \$2.5 billion over the 1993 level to a record \$33.5 billion (table 7-1). The increase in the deficit was slightly more than that posted in 1993 and, as in other recent years, resulted from greater imports. Both exports and imports reached new highs in 1994, as exports grew by \$1.3 billion, to \$13.0 billion, and imports recorded an even larger gain, rising by \$3.8 billion, to \$46.6 billion. In percentage terms, exports increased by 11.5 percent and imports, by 8.9 percent.

The import advance in 1994 partly reflected a marked pickup in U.S. consumer spending on apparel, which accounted for 80 percent of sector imports and for 94 percent of the sector deficit. Real growth in consumer expenditures on clothing more than doubled to 6.0 percent from only 2.7 percent in 1993. The strong demand for apparel also partly spurred the growth in sector exports. Some 60 percent of the 1994 export gain went to Latin America, a major portion of which consisted of garment parts for assembly and reexport for sale in the United States.

Almost \$40 billion of sector imports in 1994 consisted of goods covered by the international Multi-fiber Arrangement (MFA) system of quotas.<sup>2</sup> The United States has quotas on MFA products from some 45 countries that supply about 80 percent of these imports. The structure of U.S. sector trade will become less restrictive as a result of the 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 MFA and calls for the phaseout of textile and apparel quotas for WTO member countries over a 10-year period. In recognition of the quota phaseout, the United States agreed to cut textile and apparel tariffs by an average of 11.5 percent, compared with 34 percent for all merchandise.

Trade liberalization under the WTO closely follows the implementation of the North American Free-Trade Agreement (NAFTA) on January 1, 1994, by the United States, Canada, and Mexico.<sup>3</sup> Of particular importance to the sector is the NAFTA provision that grants Mexico duty-free and quota-free access to the U.S. market for goods assembled there from fabric that was both "formed and cut" in the United States. In 1994, U.S. imports of such goods from Mexico that entered free of duty and quota under the newly created 9802.00.90 tariff provision totaled \$1.5 billion, 70 percent of which represented the value of the U.S. components. These imports accounted for 63 percent of sector imports from Mexico.

### U.S. Bilateral Trade

The geographical composition of U.S. sector trade has been changing in recent years, with Mexico and countries by the Caribbean Basin Economic Recovery Act (CBERA) assuming a large and rapidly growing role. Between 1989 and 1994, sector imports from Mexico and CBERA countries rose by 170 percent, compared with just 40 percent for those from all other countries (figure 7-1). Similarly, sector exports to the region climbed by 139 percent and those to all other countries, by only 72 percent. As a result, the region expanded its share of sector trade by roughly 7 percentage points to 15 percent of the imports and 37 percent of the exports in 1994.

The introduction in the late 1980s of the Special Access Program for CBERA countries and the Special Regime for Mexico contributed to the trade growth.<sup>4</sup> Both programs provided for greater access to the U.S. market for apparel assembled of U.S. formed and cut fabric. The current textile agreements with Costa Rica, the Dominican Republic, El Salvador, Guatemala, and Jamaica contain

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

<sup>2</sup> The MFA covered products of cotton, other vegetable fibers, wool, manmade fibers, and silk blends; it did not cover goods chiefly of silk or of leather, fur, rubber, or plastics.

<sup>3</sup> The duty phaseout schedule of the United States-Canada Free Trade Agreement (CFTA), which came into force in 1989, was incorporated and continued under NAFTA.

<sup>4</sup> The special regime with Mexico had been in effect for the 5 years before 1994, when NAFTA entered into force.

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, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	127	152	26	20.3
Hong Kong	296	356	60	20.4
Mexico	1,755	2,237	482	27.5
Canada	2,113	2,348	235	11.1
Korea	161	200	38	23.8
Taiwan	98	126	27	28.0
Dominican Republic	785	902	117	14.9
Japan	1,020	1,076	56	5.5
India	23	36	12	52.7
Italy	124	134	11	8.5
All other	5,184	5,467	282	5.4
Total	11,686	13,033	1,347	11.5
EU-12	1,639	1,739	99	6.1
OPEC	554	478	-75	-13.6
Latin America	4,730	5,550	820	17.3
CBERA	2,300	2,588	288	12.5
Asian Pacific Rim	2,167	2,395	228	10.5
ASEAN	306	314	9	2.8
Eastern Europe	30	28	-2	-5.6
U.S. imports for consumption:				
China	7,164	7,349	185	2.6
Hong Kong	4,210	4,606	396	9.4
Mexico	1,857	2,431	574	30.9
Canada	1,342	1,689	346	25.8
Korea	3,200	2,934	-266	-8.3
Taiwan	2,990	2,924	-66	-2.2
Dominican Republic	1,465	1,623	158	10.8
Japan	808	809	1	0.1
India	1,539	1,798	259	16.8
Italy	1,378	1,634	256	18.6
All other	16,797	18,778	1,981	11.8
Total	42,750	46,574	3,823	8.9
EU-12	3,510	3,940	430	12.2
OPEC	1,532	1,620	88	5.7
Latin America	6,929	8,134	1,205	17.4
CBERA	4,108	4,639	531	12.9
Asian Pacific Rim	23,191	23,795	604	2.6
ASEAN	5,399	5,654	254	4.7
Eastern Europe	275	292	17	6.3
U.S. merchandise trade balance:				
China	-7,038	-7,197	-159	(2)
Hong Kong	-3,914	-4,250	-336	(2)
Mexico	-102	-194	-92	(2)
Canada	771	659	-112	(2)
Korea	-3,039	-2,734	305	(2)
Taiwan	-2,892	-2,798	94	(2)
Dominican Republic	-680	-721	-41	(2)
Japan	212	267	55	(2)
India	-1,516	-1,763	-247	(2)
Italy	-1,254	-1,500	-246	(2)
All other	-11,613	-13,311	-1,698	(2)
Total	-31,064	-33,541	-2,476	(2)
EU-12	-1,871	-2,201	-330	(2)
OPEC	-979	-1,142	-163	(2)
Latin America	-2,199	-2,584	-385	(2)
CBERA	-1,808	-2,051	-243	(2)
Asian Pacific Rim	-21,024	-21,400	-376	(2)
ASEAN	-5,094	-5,339	-246	(2)
Eastern Europe	-245	-264	-19	(2)

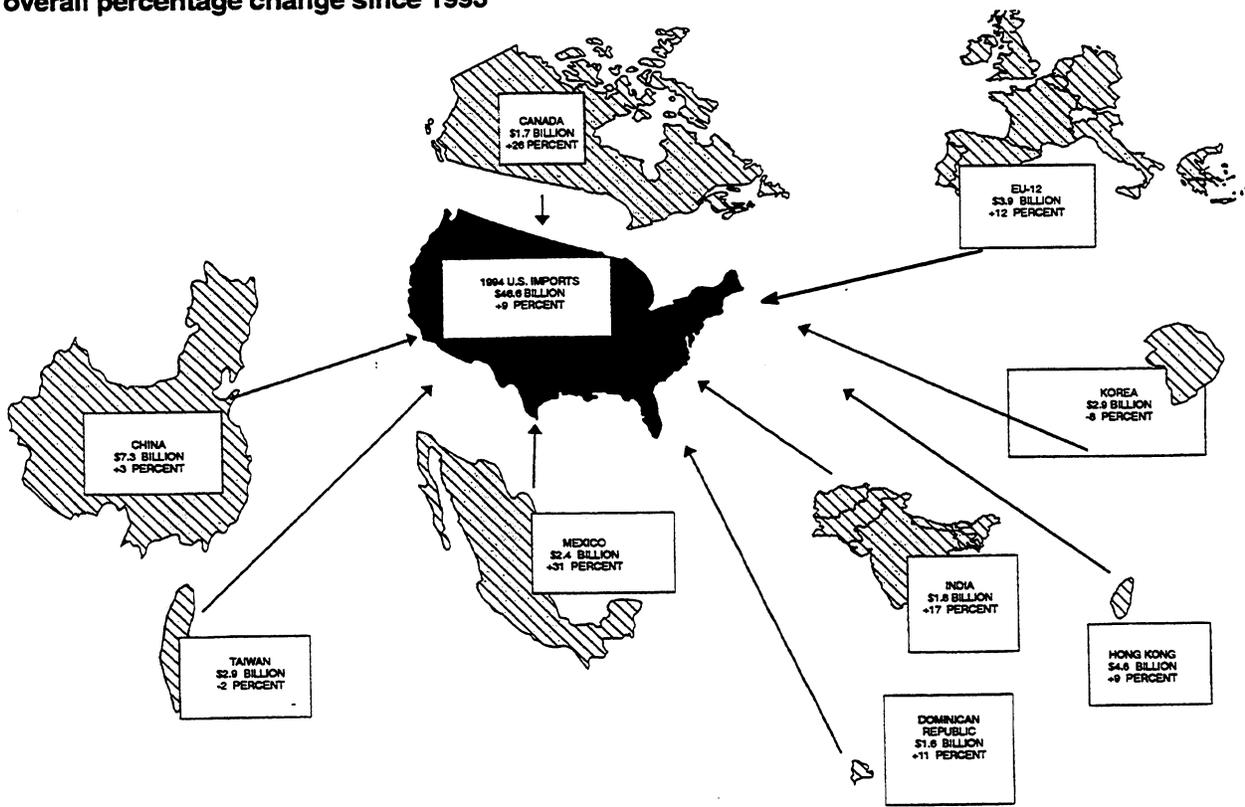
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 7-1**  
**U.S. textiles and apparel sector imports, 1994: Leading U.S. imports by major sources, and overall percentage change since 1993**



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

so-called guaranteed access levels (GALs) that permit them virtually unlimited access to the U.S. market for qualifying apparel exports. U.S. apparel producers have expanded their use of production-sharing activity in the region in order to compete effectively in their home market and to sustain domestic operations by having labor-intensive assembly tasks occur offshore. They ship apparel parts to the region for assembly and reimport the finished garments under the "807" tariff provision (now "9802"), which requires importers to pay duty on only the value added offshore.

In the first year that NAFTA was in effect, Mexico was the fastest-growing trading partner of the United States in the sector. U.S. textile and apparel exports to Mexico rose by \$482 million, or by 27 percent, to \$2.2 billion and imports from Mexico grew by \$574 million, or by 31 percent, to \$2.4 billion. The gains solidified Mexico's position as the second-largest export market after Canada and the fifth-largest import supplier after China and the traditional Big Three Asian suppliers, Hong Kong, South Korea, and Taiwan. About one-half of the exports to Mexico were garment parts for assembly and reexport to the United States.

Growth in sector imports from CBERA countries in 1994, although still quite rapid, was slower than that in recent years. CBERA shipments rose by 12 percent to \$4.6 billion. The growth is down from an average annual rate of 22 percent during 1987-93, following the inception of the GAL program in 1986. The slowdown likely stemmed from a diversion of new apparel production from CBERA countries to Mexico due to NAFTA. Whereas products assembled in Mexico from U.S. formed and cut fabric are now eligible to enter duty-free, such goods from CBERA countries continue to be dutiable at an effective rate of about 6 percent ad valorem. In addition, imports of certain garments from several CBERA countries are subject to quota. Legislation introduced in the 104th Congress, the Caribbean Basin Trade Security Act (H.R. 553 and S. 529), would temporarily provide CBERA countries tariff and quota treatment equivalent to that given to products from Mexico under NAFTA.

The sector trade deficit is driven mainly by trade with low-labor-cost countries in Asia. China and the traditional Big Three Asian suppliers generated just over 50 percent of the deficit in 1994. Another 24 percent stemmed from trade with India, Paki-

stan, and the Association of South East Asian Nations (ASEAN), which includes Brunei, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. During the Uruguay Round trade negotiations, the United States sought market access commitments from WTO members that are significant exporters of textiles and apparel to the domestic market. The United States reached agreements providing the basis for increased U.S. export opportunities in textiles and apparel with Korea, Egypt, Singapore, Malaysia, the Philippines, Argentina, Brazil, Colombia, Japan, India, and Pakistan.<sup>5</sup>

China remained the largest supplier of sector goods by far, with 15.8 percent of sector imports in 1994. Imports from China grew considerably slower last year, by just 2.6 percent, after having climbed by 20 percent in 1993 and by 32 percent in 1992. The 3-year textile agreement currently in force with China provided for no quota growth in 1994 and for 1-percent growth in 1995 and 1996. In addition, a new and separate agreement with China signed in 1994 brought chiefly silk apparel under quota for the first time. Imports from China of such silk garments, which were not covered by the MFA and which had accounted for a major portion of the recent growth in Chinese shipments, totaled \$1.9 billion in 1994.

The Big Three Asian suppliers continued to decline in relative importance. Their shipments in 1994 rose by less than 1 percent to almost \$10.5 billion. The Big Three supplied just 22.5 percent of the imports in 1994, down from 37.4 percent 5 years earlier. Textile and apparel firms in the Big Three economies face rising operating costs, labor shortages, and growing competition from lower cost countries. As such, exporters in the Big Three have shifted their product mix to higher value-added goods, thereby earning more revenue without enlarging their export volume of products under quota.<sup>6</sup> They had also moved production of basic garments for export to lower cost locations such as China and the ASEAN countries, which (with the exception of Brunei) are highly export-oriented and subject to extensive quotas in the United States.

The growth in sector imports from the ASEAN countries slowed again last year. Their shipments rose by about 5 percent, to almost \$5.7 billion, after having grown by 8 percent in 1993 and by 28 percent in 1992. The slowdown partly reflected an 8-percent decline in imports from Singapore, whose shipments have decreased since 1992 when they peaked at \$652 million. Declining competitiveness has encouraged the sector in Singapore to move

low-end production to neighboring nations and to develop into a service and trading center for the regional industry.

Among the industrial countries, U.S. sector trade with Canada continued to grow rapidly, having more than doubled since the adoption of the CFTA in 1989. The trade surplus with Canada narrowed by \$112 million in 1994, to \$659 million, but it still was the largest of any trading partner by far. Exports to Canada, the principal market for sector exports, rose by \$235 million, or by 11 percent, to \$2.3 billion; imports from Canada rose by \$346 million, or by 26 percent, to \$1.7 billion. Textiles dominate sector trade with Canada, accounting for 58 percent (\$972 million) of the imports and 81 percent (\$1,902 million) of the exports in 1994. Canada trailed only China as the largest supplier of textiles in 1994, supplying 10.1 percent of the imports versus 10.5 percent for China. A major portion of the textile trade with Canada is intracompany trade (i.e., cross-border trade between the separate operations of individual firms). Apparel trade with Canada has also grown considerably in importance in the past 5 years; imports rose by 175 percent to \$715 million and exports grew by almost 300 percent to \$432 million.

## Commodity Analysis

### Textiles<sup>7</sup>

The increase in the U.S. textile trade deficit slowed considerably in 1994, widening by only \$160 million to \$2.1 billion. The deficit had expanded by \$646 million in 1992 and by \$484 million in 1993. Both exports and imports grew by about 10 percent to new highs in 1994, with the former rising by \$689 million, to \$7.5 billion, and the latter advancing by \$849 million, to \$9.6 billion. With U.S. producers' textile shipments growing by an estimated 5.5 percent in 1994, to \$74 billion, imports' share of the U.S. textile market remained at just under 10 percent. Import penetration is much higher in some textile segments, especially cotton broadwoven fabric, where imports supplied just over 30 percent of domestic sales.

The deterioration of the textile trade balance in 1994 largely reflected an increased bilateral deficit with the European Union (EU), the principal U.S. trading partner in textiles. The textile deficit with the EU reached \$981 million, an increase of \$117 million over the 1993 level and more than double

<sup>5</sup> Office of the United States Trade Representative, *1995 Trade Policy Agenda and 1994 Annual Report*, p. 105.

<sup>6</sup> The quotas are based on quantity, and not value.

<sup>7</sup> Textiles includes manmade fibers, yarns, fabrics, home furnishings, carpets, and industrial textiles, such as belting and cordage. These articles are covered in commodity groups CH050 to CH061 and nonwoven fabric in CH079.

the deficits posted in 1990-91. With EU economic activity improving in 1994, exports bounced back from a decline in 1993, rising by \$119 million to nearly \$1.3 billion. However, they remained slightly below 1991-92 levels. Textile imports from the EU rose by twice as much as textile exports, or by \$237 million, to more than \$2.2 billion.

The largest bilateral textile trade deficit in 1994 on an individual country basis was with China, the largest supplier, accounting for 10.5 percent of U.S. imports. The bilateral deficit with China widened by just \$7 million to \$861 million that year, the smallest increase so far in the 1990s. It had risen by \$223 million in 1992 and by \$90 million in 1993. Contributing to the small increase in the 1994 deficit was a slowdown in U.S. textile imports from China, which rose by \$33 million, or by 3 percent, to exceed the \$1 billion level for the first time. U.S. exports to China, which totaled a much smaller \$144 million, grew by \$25 million, or by 21 percent.

The largest bilateral textile trade surpluses in 1994 were with the NAFTA trading partners, which accounted for about half the 1994 gain in textile exports. The textile trade surplus with Canada narrowed slightly, by \$16 million, to \$930 million in 1994, whereas that with Mexico expanded by almost \$76 million to \$520 million. Textile trade with Canada continued to reach new highs in 1994, as exports grew by \$177 million, or by 10 percent, to \$1.9 billion and U.S. imports rose by \$194 million, or by 25 percent, to almost \$1.0 billion. Canada trailed only China as the largest source of imported textiles in 1994, supplying mostly manmade-fiber filament yarns and specialty fabrics. U.S. textile exports to Mexico rose by \$175 million, or by 20 percent, to just over \$1 billion, and U.S. imports of Mexican textiles grew by \$100 million, or by 23 percent, to \$540 million.

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## Apparel<sup>8</sup>

The U.S. trade deficit in apparel widened markedly in 1994, increasing by \$2.3 billion to a new high of \$31.5 billion. The deficit had increased by \$2.0 billion in 1993. The growth in apparel trade continued at a similar pace as in 1993 as imports rose by 9 percent to \$36.9 billion and exports grew by 14 percent to \$5.4 billion. In 1993, imports had similarly grown by 9 percent and exports by 18 percent. The share of the domestic apparel market supplied by imports increased to an estimated 48 percent as consumption grew by 5 percent and

production by an estimated 1 percent. Shirts and blouses remained the largest apparel item traded, accounting for 29 percent of imports and 19 percent of exports in 1994. These products, along with trousers and men's and boys' coats and jackets, accounted for just over one-half of the increase in imports and exports in 1994.

Mexico was the fastest growing supplier of apparel to the United States in 1994. Its apparel shipments climbed by \$474 million, or by 33 percent, to \$1.9 billion. The growth in these shipments enabled Mexico to surpass the Dominican Republic to become the fifth-largest supplier by value after China, Hong Kong, South Korea, and Taiwan. Three-fourths of the apparel imports from Mexico were assembled from U.S. formed and cut fabric and entered free of duty and quota under the 9802.00.90 tariff provision.

U.S. imports of apparel from the CBERA countries in 1994 totaled \$4.5 billion, representing an increase of 13 percent over the 1993 level. The gain was down from growth of 22 percent in 1993, 30 percent in 1992, and 28 percent in 1991. As stated above, the smaller gain in 1994 likely reflected a slowdown in expansion of production-sharing activity in CBERA countries, as U.S. apparel producers await the outcome of pending U.S. legislation that would grant CBERA countries NAFTA-equivalent benefits. About 80 percent of the value of CBERA imports in 1994 consisted of apparel assembled from U.S. components. Such CBERA apparel is dutiable at an effective rate of about 6 percent ad valorem; garments assembled in Mexico from U.S. formed and cut fabric now enter duty-free.

China remained the largest foreign supplier of apparel to the United States in 1994, accounting for 17 percent of the imports. U.S. apparel imports from China rose by just 2 percent in 1994, to \$6.3 billion, after growing by 22 percent a year earlier. However, the volume of MFA apparel imports from China declined for the first time since 1988, falling by 3 percent. As noted earlier, the current textile agreement with China provided for no quota growth in 1994 and, for the first time, a separate agreement was reached with China that set quotas on chiefly silk apparel. Imports of such silk apparel, which totaled \$1.9 billion in 1994 and consisted mainly of shirts and blouses, accounted for much of the apparel import growth from China in 1993.

The traditional Big Three Asian suppliers continued to decline in relative importance in apparel trade. Their apparel shipments edged up by less than 1 percent in 1994 to \$8.9 billion, after a 7-percent decline in 1993. Hong Kong generated all of the 1994 increase as the value of its shipments rose by 9 percent, while those from South Korea and Taiwan decreased by 11 and 4 percent, respectively. The Big Three supplied 24 percent of apparel imports in 1994, down from 43 percent in 1989.

<sup>8</sup> These articles are covered in commodity groups CH062 through CH080, excluding the nonwoven fabrics in CH079.

The growth in apparel imports from ASEAN countries slowed for the second consecutive year in 1994, when their shipments rose by just 5 percent to \$5.2 billion. Their shipments had increased by 8 percent in 1993 and by 27 percent in 1992. The growth in the value of imports from India and Pakistan picked up in 1994, by 21 percent and 15 percent, respectively. This compares with 1993 gains of 19 percent for India and 11 percent for Pakistan.

The apparel trade deficit with Canada, the leading industrial country supplier to the United States, widened further in 1994, rising by \$96 million to \$283 million. Apparel imports from Canada, led by men's wool suits and men's and women's trousers and knit shirts, were up by 27 percent to \$715 million in 1994. This increase was a continuation of the strong gains in apparel imports from Canada since the inception of the CFTA in 1989 and also reflected a receptive U.S. market. U.S. apparel exports to Canada rose by 15 percent to \$432 million in 1994. The gain was less than the increases of 22 percent in 1993 and 26 percent in 1992, as benefits of the ongoing tariff reductions under NAFTA were partially offset by changes in exchange rates.

The U.S. apparel trade surplus with Japan rose by only 7 percent to \$642 million in 1994, after having increased by 69 percent in 1993. The growth in U.S. apparel exports to Japan slowed substantially to 3 percent in 1994, compared with annual growth of 47 percent in 1993. Sluggish economic activity in Japan reduced demand for U.S. apparel exports.

The U.S. apparel trade deficit with the EU increased by 21 percent, reaching \$1.2 billion in 1994, after steadily declining since at least 1989. Increased U.S. imports from the EU were responsible for the rising deficit. They rose for the first time since 1991—by 13 percent—to \$1.7 billion.

Rising imports of apparel from Italy contributed to the increased imports. Men's and boys' suits and sports coats from Italy rose by 22 percent; sweaters from Italy rose by 21 percent; and women's and girls' suits, skirts, and coats from Italy rose by 7 percent. U.S. exports to the EU declined for the second year in a row; however, the rate of the decline slowed to 3 percent in 1994, compared with 11 percent in 1993. The most significant declines by product areas were U.S. exports of shirts and blouses to Belgium, which declined by 35 percent, exports of men's trousers to France, which declined by 20 percent, and exports of sweaters to the United Kingdom, which declined by 30 percent.

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## **Footwear**

A sluggish U.S. footwear market limited import growth to 6 percent in 1994, but the 1994 trade deficit in footwear widened by \$567 million over the 1993 level to a record high of \$11.1 billion (table 7-2). Although both imports and exports increased in 1994, the growth in imports of \$609 million far exceeded that of exports of \$42 million. The widening of the footwear trade deficit resulted almost entirely from an increased bilateral deficit with China, which accounted for 47 percent of the total footwear trade deficit in 1994.

U.S. consumption of footwear registered a modest 3-percent gain to \$34.1 billion at retail, largely reflecting sluggish demand for athletic shoes, which accounted for nearly 40 percent of the U.S. footwear market in 1994. Nevertheless, imports continued to expand their already dominant share of the U.S. market, accounting for 88 percent of shoes sold by quantity in 1994, compared with 86 percent in 1993.

China was by far the leading supplier of footwear and also the largest contributor to the footwear deficit (figure 7-2). The footwear trade deficit with China grew by \$746 million in 1994 to \$5.2 billion as imports from China rose by 17 percent to \$5.3 billion. China's competitive advantages stem from its extremely low production costs in labor, material, and energy.

Favorable exchange rates for Spain and Italy contributed to a 22-percent import growth from the EU to \$1.6 billion in 1994. The 1994 footwear deficit with the EU widened by \$274 million to \$1.4 billion. Italy and Spain, which together supplied 80 percent of these imports and accounted for over 85 percent of the EU footwear trade deficit, increased their shipments by a combined 24 percent to \$1.2 billion in 1994.

The footwear trade deficit with Indonesia and Thailand combined showed a modest \$76 million growth in 1994 as imports mainly of low-priced athletic footwear from these countries increased by 7 percent, to \$1.3 billion in 1994. The slowdown in shipments from these countries compared to earlier years reflected their diminishing importance in the U.S. market caused by weak demand for athletic footwear that they had supplied in large quantities in the past. The slowdown in imports from Thailand also is attributable to its inadequate infrastructure and higher production costs compared with those of China and Indonesia.

By contrast, the footwear trade deficit with Brazil, Korea, and Taiwan declined in 1994. Imports from Brazil, the second leading supplier of mostly low-to medium-priced women's leather footwear, declined by 10 percent to \$1.3 billion, which brought down the deficit with Brazil by \$145 million to \$1.3 billion. The decline in Brazilian shipments occurred in the second half of the year following

Table 7-2

Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	4	8	4	87.1
Brazil	3	6	2	67.0
Italy	24	16	-8	-33.5
Indonesia	3	6	3	85.5
Korea	23	18	-4	-19.0
Taiwan	10	12	2	19.4
Thailand	3	3	1	18.9
Spain	7	6	(2)	-4.8
Dominican Republic	32	35	3	9.6
Mexico	100	96	-4	-4.0
All other	395	440	44	11.2
Total	604	646	42	7.0
EU-12	131	133	2	1.8
OPEC	19	24	5	24.8
Latin America	192	198	5	2.8
CBERA	65	65	(2)	0.2
Asian Pacific Rim	134	167	33	24.5
ASEAN	15	18	3	20.7
Eastern Europe	5	4	-1	-12.1
U.S. imports for consumption:				
China	4,505	5,254	749	16.6
Brazil	1,408	1,266	-143	-10.1
Italy	759	887	128	16.9
Indonesia	829	885	56	6.7
Korea	1,033	689	-345	-33.4
Taiwan	584	456	-128	-21.9
Thailand	353	377	24	6.8
Spain	246	359	113	45.8
Dominican Republic	220	285	65	29.6
Mexico	215	206	-9	-4.1
All other	952	1,050	97	10.2
Total	11,105	11,714	609	5.5
EU-12	1,279	1,555	276	21.6
OPEC	833	889	55	6.6
Latin America	1,954	1,869	-85	-4.4
CBERA	241	321	80	33.4
Asian Pacific Rim	7,174	7,518	344	4.8
ASEAN	1,259	1,350	91	7.2
Eastern Europe	87	118	31	35.2
U.S. merchandise trade balance:				
China	-4,501	-5,247	-746	(3)
Brazil	-1,405	-1,260	145	(3)
Italy	-735	-872	-136	(3)
Indonesia	-826	-879	-53	(3)
Korea	-1,011	-670	340	(3)
Taiwan	-573	-443	130	(3)
Thailand	-350	-373	-23	(3)
Spain	-240	-353	-113	(3)
Dominican Republic	-188	-250	-62	(3)
Mexico	-115	-110	5	(3)
All other	-557	-610	-53	(3)
Total	-10,501	-11,068	-566	(3)
EU-12	-1,148	-1,422	-274	(3)
OPEC	-815	-865	-51	(3)
Latin America	-1,762	-1,671	91	(3)
CBERA	-176	-256	-80	(3)
Asian Pacific Rim	-7,040	-7,351	-311	(3)
ASEAN	-1,245	-1,333	-88	(3)
Eastern Europe	-82	-114	-31	(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.

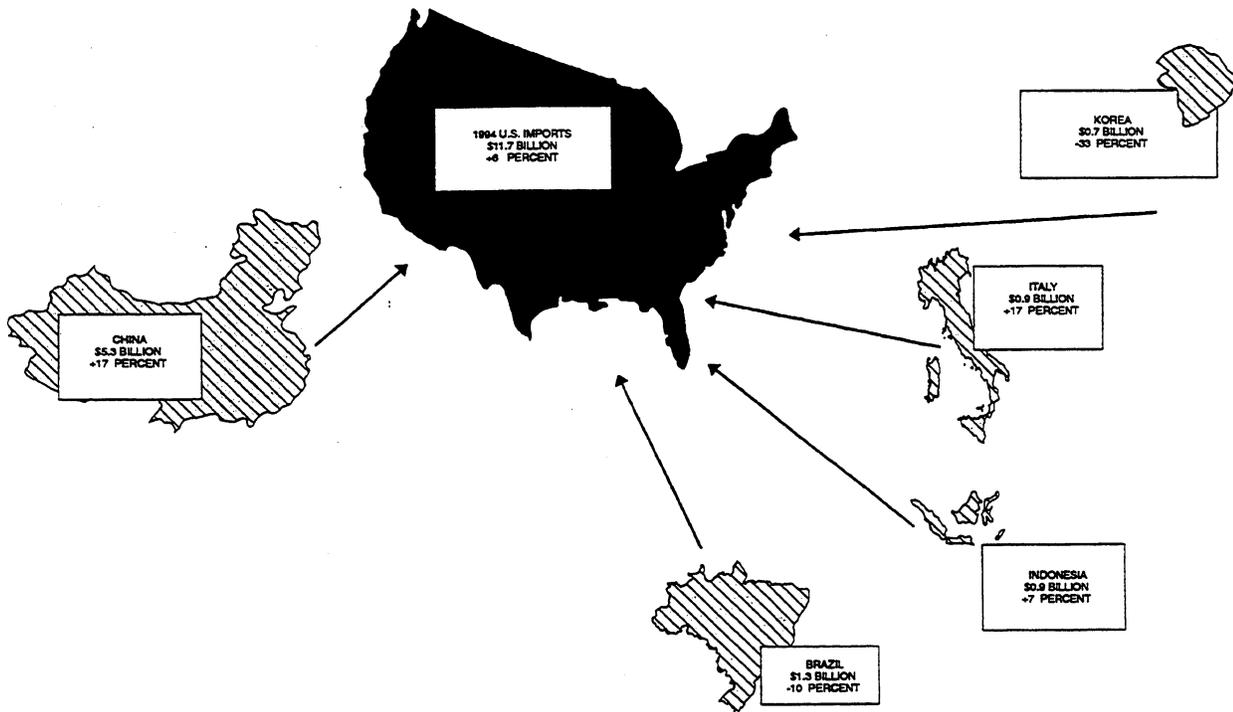
<sup>2</sup> Less than 0.5 million.

<sup>3</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 1994.

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

**Figure 7-2**  
**U.S. footwear sector imports, 1994: Leading U.S. imports by major sources, and overall percentage change since 1993**



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

the introduction of Brazil's new exchange rate pegged to the dollar in July 1994. The Brazilian currency subsequently appreciated against the dollar in 1994, which made its products more expensive in the U.S. market. The footwear trade deficits with Korea and Taiwan, once the dominant suppliers, declined by \$340 million and \$130 million, respectively, in 1994 as these countries, hit by mounting operating costs at home, have continued to shift their production to low-wage countries such as China. The combined imports from Korea and Taiwan decreased by 29 percent to \$1.1 billion in 1994.

Imports from the Dominican Republic, the ninth-largest supplier, increased by 30 percent to \$285 million. Roughly 85 percent of these imports consisted of footwear uppers and parts that entered duty-free under the CBERA (footwear is not eligible for duty-free treatment under the CBERA). The growth in imports from the Dominican Republic was facilitated by section 222 of the CBERA of 1990,<sup>9</sup> which extends duty-free treatment to prod-

ucts, other than textiles and apparel and petroleum and petroleum products, which are processed or assembled wholly from U.S. fabricated components or materials in a beneficiary CBERA country.

Although China continued to remain the dominant supplier of low- to medium-priced footwear (in 1994 China supplied 876 million pairs or 72 percent of total footwear imports, priced less than \$16 per pair), the bulk of the import growth from China occurred in higher priced shoes at the expense of Korea and Taiwan. In 1994, imports of footwear from Korea and Taiwan, priced over \$16 per pair, declined by 19 million pairs, while those from China increased by 16 million to 24 million pairs. In 1994, China supplied 20 percent of imports, priced over \$16 per pair, compared with only 6 percent in 1993. China has also continued to increase its shipments of leather footwear. In 1994, China accounted for 45 percent by quantity, and 37 percent by value, of total leather footwear imports, compared with a year-earlier level of 40 percent and 31 percent, respectively.

<sup>9</sup> Customs and Trade Act of 1990, Public Law 101-382, Title II, 104 Stat. 629, 19 U.S.C. 2101 note.

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**Table 7-3**  
**Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
CH050	Manmade fibers and filament yarns:				
	Exports .....	1,393	1,585	192	13.8
	Imports .....	1,126	1,299	173	15.4
	Trade balance .....	267	286	19	7.1
CH051	Spun yarns and miscellaneous yarns:				
	Exports .....	347	458	111	32.0
	Imports .....	497	594	97	19.5
	Trade balance .....	-150	-136	14	9.3
CH052	Boardwoven fabrics:				
	Exports .....	1,592	1,747	155	9.7
	Imports .....	3,339	3,362	23	0.7
	Trade balance .....	-1,747	-1,615	132	7.6
CH053	Knit fabrics:				
	Exports .....	322	344	22	6.8
	Imports .....	286	336	50	17.5
	Trade balance .....	36	8	-28	-77.8
CH054	Miscellaneous fabrics:				
	Exports .....	199	234	35	17.6
	Imports .....	105	130	25	23.8
	Trade balance .....	94	104	10	10.6
CH055	Coated, covered, impregnated, or laminated textile fabrics:				
	Exports .....	370	450	80	21.6
	Imports .....	206	227	21	10.2
	Trade balance .....	164	223	59	36.0
CH056	Cordage, nets, and netting:				
	Exports .....	50	43	-7	-14.0
	Imports .....	123	147	24	19.5
	Trade balance .....	-73	-104	-31	-42.5
CH057	Certain textile articles and fabrics suitable for industrial use:				
	Exports .....	277	282	5	1.8
	Imports .....	177	202	25	14.1
	Trade balance .....	100	80	-20	-20.0
CH058	Miscellaneous textiles and articles:				
	Exports .....	793	848	55	6.9
	Imports .....	983	1,179	196	19.9
	Trade balance .....	-190	-331	-141	-74.2
CH059	Sacks and bags of textile materials:				
	Exports .....	30	22	-8	-26.7
	Imports .....	50	52	2	4.0
	Trade balance .....	-20	-30	-10	-50.0
CH060	Carpets and rugs:				
	Exports .....	730	713	-17	-2.3
	Imports .....	671	748	77	11.5
	Trade balance .....	59	-35	-94	-159.3
CH061	Home furnishings:				
	Exports .....	253	261	8	3.2
	Imports .....	939	1,075	136	14.5
	Trade balance .....	-686	-814	-128	-18.7
CH062	Men's and boys' suits and sports coats:				
	Exports .....	125	148	23	18.4
	Imports .....	664	748	84	12.7
	Trade balance .....	-539	-600	-61	-11.3
CH063	Men's and boys' coats and jackets:				
	Exports .....	102	136	34	33.3
	Imports .....	1,563	1,773	210	13.4
	Trade balance .....	-1,461	-1,637	-176	-12.0
CH064	Men's and boy's trousers:				
	Exports .....	975	1,050	75	7.7
	Imports .....	2,797	3,145	348	12.4
	Trade balance .....	-1,822	-2,095	-273	-15.0
CH065	Women's and girls' trousers:				
	Exports .....	325	409	84	25.8
	Imports .....	3,354	3,583	229	6.8
	Trade balance .....	-3,029	-3,174	-145	-4.8
CH066	Shirts and blouses:				
	Exports .....	854	1,021	167	19.6
	Imports .....	10,042	10,840	798	7.9
	Trade balance .....	-9,188	-9,819	-631	-6.9

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. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
		<i>Million dollars</i>			
CH067	Sweaters:				
	Exports .....	32	30	-2	-6.3
	Imports .....	1,961	2,052	91	4.6
	Trade balance .....	-1,929	-2,022	-93	-4.8
CH068	Women's and girls' suits, skirts, and coats:				
	Exports .....	283	255	-28	-9.9
	Imports .....	3,244	3,261	17	0.5
	Trade balance .....	-2,961	-3,006	-45	-1.5
CH069	Women's and girls' dresses:				
	Exports .....	105	103	-2	-1.9
	Imports .....	1,082	1,260	178	16.5
	Trade balance .....	-977	-1,157	-180	-18.4
CH070	Robes, nightwear, and underwear:				
	Exports .....	512	569	57	11.1
	Imports .....	1,909	2,197	288	15.1
	Trade balance .....	-1,397	-1,628	-231	-16.5
CH071	Hosiery:				
	Exports .....	206	220	14	6.8
	Imports .....	231	291	60	26.0
	Trade balance .....	-25	-71	-46	-184.0
CH072	Body-supporting garments:				
	Exports .....	316	344	28	8.9
	Imports .....	639	751	112	17.5
	Trade balance .....	-323	-407	-84	-26.0
CH073	Neckwear, handkerchiefs, and scarves:				
	Exports .....	31	26	-5	-16.1
	Imports .....	322	336	14	4.3
	Trade balance .....	-291	-310	-19	-6.5
CH074	Gloves, including gloves for sports:				
	Exports .....	157	168	11	7.0
	Imports .....	1,349	1,499	150	11.1
	Trade balance .....	-1,192	-1,331	-139	-11.7
CH075	Headwear:				
	Exports .....	109	112	3	2.8
	Imports .....	778	821	43	5.5
	Trade balance .....	-669	-709	-40	-6.0
CH076	Leather apparel and accessories:				
	Exports .....	97	93	-4	-4.1
	Imports .....	1,418	1,456	38	2.7
	Trade balance .....	-1,321	-1,363	-42	-3.2
CH077	Fur apparel and other fur articles:				
	Exports .....	55	58	3	5.5
	Imports .....	173	187	14	8.1
	Trade balance .....	-118	-129	-11	-9.3
CH078	Rubber, plastic, and coated-fabric apparel:				
	Exports .....	70	87	17	24.3
	Imports .....	160	172	12	7.5
	Trade balance .....	-90	-85	5	5.6
CH079	Nonwoven and related products:				
	Exports .....	447	526	79	17.7
	Imports .....	435	437	2	0.5
	Trade balance .....	12	89	77	641.7
CH080	Other wearing apparel:				
	Exports .....	448	603	155	34.6
	Imports .....	2,006	2,292	286	14.3
	Trade balance .....	-1,558	-1,689	-131	-8.4
CH081	Apparel fasteners:				
	Exports .....	81	88	7	8.6
	Imports .....	122	122	0	0
	Trade balance .....	-41	-34	7	17.1
CH082	Footwear and footwear parts:				
	Exports .....	604	646	42	7.0
	Imports .....	11,105	11,714	609	5.5
	Trade balance .....	-10,501	-11,068	-567	-5.4

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

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

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## CHAPTER 8

# Minerals and Metals

The U.S. minerals and metals sector experienced an 81-percent increase in its trade deficit in 1994, to \$24.3 billion, as strong industrial growth in the United States caused a surge in U.S. sector imports (table 8-1). This follows an improvement in the trade balance of 4 percent in 1993. The \$10.9 billion deficit increase in 1994 was almost entirely attributable to a 23-percent increase in U.S. imports, which rose by \$10.5 billion to \$56.8 billion, as U.S. exports during this period were essentially unchanged, declining 1 percent (\$400 million) to \$32.5 billion.

The increase in the trade deficit for the U.S. minerals and metals sector in 1994 was largely attributable to an increase in imports of steel mill products of 43 percent (\$3.7 billion) to \$12.4 billion and a decline in U.S. exports of precious metals and related articles (gold bullion) of 34 percent (\$3.4 billion) to \$6.5 billion. Steel mill product imports were buoyed by strong automotive industry demand as U.S. vehicle sales neared historical peaks in 1994. The decline in precious metals exports largely resulted from the cessation of transaction activities by certain Latin American and European central banks. In 1993, certain foreign central banks transferred large portions of their gold stocks from the New York Federal Reserve Bank to accounts in European central banks (particularly in London) to take advantage of income-producing transactions, permitted by European regulatory authorities, on these gold deposits. Most of this speculative transfer of gold bullion ceased in early 1994. Also contributing to the rise in the U.S. trade deficit in 1994 was an increase of 50 percent (\$1.4 billion) in U.S. imports of unwrought aluminum to \$4.2 billion, and an increase in imports of natural and synthetic gemstones of 12 percent (\$690 million), to \$6.4 billion. Increased imports of minerals and metals largely reflected higher economic and industrial growth rates in the United States as major European and Asian industrial markets continued to experience the lingering effects of economic recession. Increased economic activity in the U.S. automotive, construction, and appliance industries created strong demand for imported steel mill and aluminum products. In response, foreign products traditionally sold in European and Asian markets were diverted into the stronger U.S. market.

In contrast to this sector's general trade pattern, at least one product segment experienced an improved trade position in 1994. The trade deficit in industrial fasteners of base metal declined by 15 percent (\$133 million) in 1994 to \$767 million, as U.S. exports increased by 18 percent (\$136 million) to \$879 million and U.S. imports remained essentially unchanged. U.S. exports of these products to Mexico increased by 71 percent (\$105 million) due to strong growth in certain industrial sectors of the Mexican economy and lower Mexican tariffs. In addition, significant export increases occurred in wire products of iron, steel, aluminum, copper, and nickel, which rose by 39 percent (\$132 million) to \$469 million and in certain ores, concentrates, ash, and residues, which rose by 58 percent (\$110 million) to \$301 million.

## U.S. Bilateral Trade

The principal U.S. trading partners in the minerals and metals sector were Canada, Mexico, Japan, the United Kingdom, Germany, and Taiwan (figures 8-1 and 8-2). Aggregate U.S. imports from these countries accounted for 50 percent of total sector imports, and U.S. exports to these countries accounted for 65 percent of total sector exports. The U.S. trade deficit with these principal trading partners increased from \$2.9 billion during 1993 to \$7.5 billion during 1994, principally due to a 77-percent (\$2.5 billion) decline in the U.S. trade surplus with the United Kingdom. Total U.S. exports to the United Kingdom declined by 46 percent (\$2.2 billion), primarily due to a decline of \$2.4 billion in U.S. export shipments of precious metals and related products (gold bullion). The U.S. trade deficit with Canada rose by 50 percent (\$1.1 billion), largely due to an increase of \$593 million in imports of unwrought aluminum and of \$140 million in imports of unwrought copper and copper alloys; total U.S. imports from Canada increased by 18 percent (\$2.0 billion). The trade deficit with Japan grew by 26 percent (\$527 million), prompted by a \$506-million increase in U.S. imports of steel mill products from Japan.

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, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	8,913	9,795	882	9.9
Japan	2,184	2,337	153	7.0
Mexico	3,272	4,111	839	25.6
United Kingdom	4,818	2,609	-2,209	-45.9
Germany	850	1,031	181	21.3
Taiwan	1,120	1,118	-3	-0.2
Belgium	398	572	174	43.7
France	621	811	190	30.6
China	407	385	-22	-5.4
Korea	1,055	1,094	39	3.7
All other	9,248	8,624	-625	-6.8
Total	32,887	32,487	-400	-1.2
EU-12	7,669	5,978	-1,690	-22.0
OPEC	848	856	8	0.9
Latin America	4,883	5,825	942	19.3
CBERA	612	565	-47	-7.6
Asian Pacific Rim	6,566	7,283	717	10.9
ASEAN	910	1,092	182	20.0
Eastern Europe	35	38	3	9.8
U.S. imports for consumption:				
Canada	11,064	13,061	1,997	18.0
Japan	4,236	4,916	680	16.1
Mexico	2,322	3,067	745	32.1
United Kingdom	1,615	1,868	253	15.7
Germany	2,401	2,898	498	20.7
Taiwan	2,467	2,697	231	9.4
Belgium	1,874	2,114	240	12.8
France	1,304	1,606	302	23.2
China	1,529	1,986	458	29.9
Korea	984	1,217	234	23.7
All other	16,449	21,344	4,895	29.8
Total	46,246	56,778	10,533	22.8
EU-12	10,071	12,118	2,047	20.3
OPEC	732	1,066	334	45.7
Latin America	5,405	7,353	1,948	36.0
CBERA	375	423	48	12.9
Asian Pacific Rim	10,513	12,282	1,769	16.8
ASEAN	879	1,077	199	22.6
Eastern Europe	238	413	174	73.0
U.S. merchandise trade balance:				
Canada	-2,151	-3,266	-1,115	(2)
Japan	-2,052	-2,579	-527	(2)
Mexico	949	1,043	94	(2)
United Kingdom	3,203	740	-2,463	(2)
Germany	-1,551	-1,867	-317	(2)
Taiwan	-1,347	-1,580	-233	(2)
Belgium	-1,476	-1,542	-66	(2)
France	-683	-795	-112	(2)
China	-1,122	-1,602	-479	(2)
Korea	71	-123	-194	(2)
All other	-7,201	-12,721	-5,520	(2)
Total	-13,359	-24,292	-10,933	(2)
EU-12	-2,402	-6,139	-3,737	(2)
OPEC	116	-210	-326	(2)
Latin America	-522	-1,528	-1,006	(2)
CBERA	237	142	-95	(2)
Asian Pacific Rim	-3,947	-5,000	-1,052	(2)
ASEAN	32	15	-17	(2)
Eastern Europe	-204	-375	-171	(2)

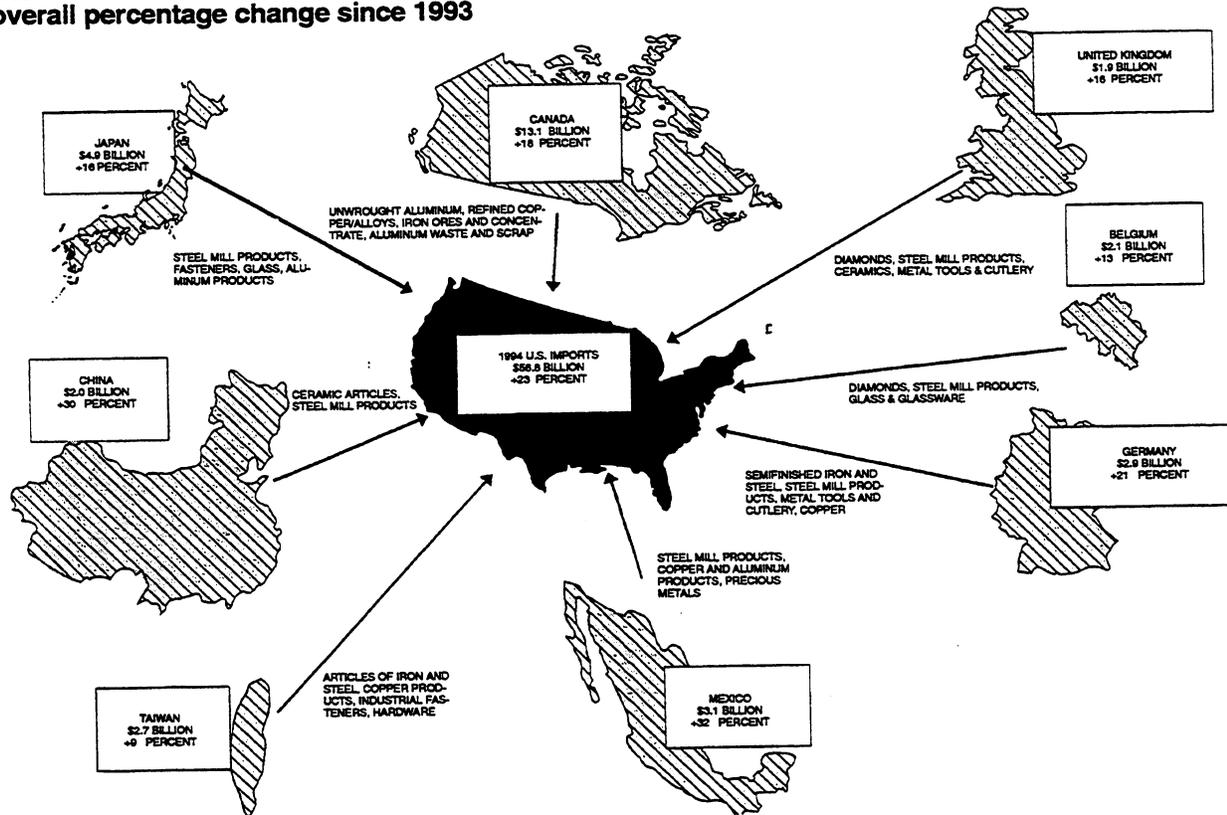
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 8-1**  
**U.S. minerals and metals sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

U.S. imports of minerals and metals from Russia increased significantly in 1994, continuing the pattern established in 1993, which has added to a growing U.S. trade deficit in this sector. Russian producers accelerated the export of mineral and metal assets in an effort to increase the nation's hard currency foreign exchange reserves. U.S. imports of unwrought aluminum from Russia increased 31 percent (\$412 million) to \$863 million in 1994, following a \$435 million increase in 1993. Other significant import increases from Russia in 1994 included flat-rolled iron and steel products (by \$302 million to \$332 million); diamonds, not mounted or set (by \$97 million to \$156 million), and unwrought platinum (by \$45 million to \$250 million).

The only selected nation with which the United States experienced an improvement in its trade position in the minerals and metals sector in 1994 was Mexico. The U.S. trade surplus with Mexico increased by a modest 10 percent (\$94 million) in 1994 as U.S. exports to Mexico advanced by 26 percent (\$839 million), while U.S. imports from Mexico increased by 32 percent (\$745 million). The increase in trade with Mexico reflected strong economic growth for both nations in 1994 and the effects of the North American Free-Trade Agree-

ment (NAFTA) in lowering trade barriers between both nations. The export increase to Mexico largely consisted of articles of iron or steel, up 56 percent (\$394 million) to \$1.1 billion; aluminum and articles thereof, up 27 percent (\$128 million) to \$603 million; and copper and articles thereof, up 24 percent (\$62 million) to \$323 million.

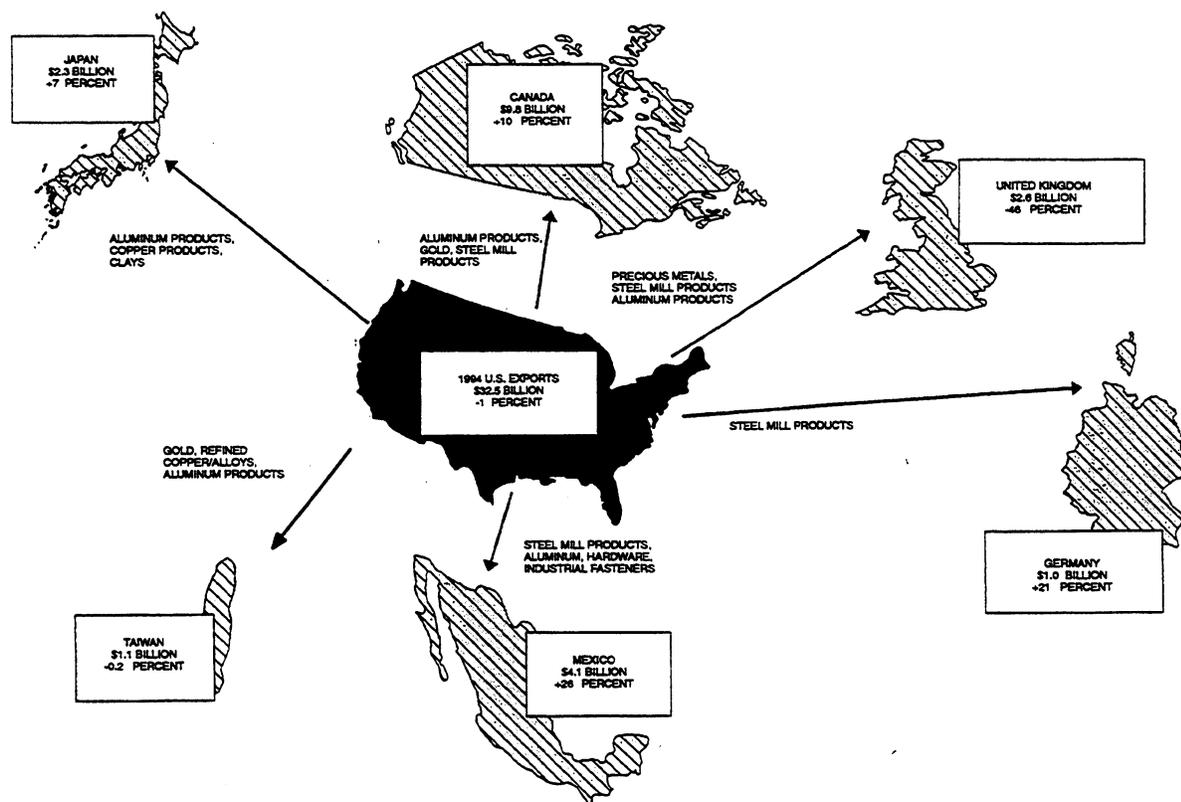
## Commodity Analysis

### Steel mill products<sup>1</sup>

U.S. imports of steel mill products totaled a record \$12.4 billion in 1994, supplying much of the increase in domestic consumption and increasing by 43 percent over the 1993 level of \$8.7 billion. Total U.S. exports continued to increase in 1994, but by a lesser amount and from a much lower level than imports, rising by 8 percent (\$218 million) to \$3.0 billion. As a result, the trade deficit

<sup>1</sup> For additional detail on imports and industry conditions see USITC, *Steel Semiannual Monitoring Report* (investigation No. 332-327), USITC publication 2878, Apr. 1995.

**Figure 8-2**  
**U.S. minerals and metals sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

in steel mill products increased by 61 percent (\$3.5 billion) to \$9.4 billion, while the level of import penetration rose from 14 percent in 1993 to 18 percent in 1994, in value terms. The deficit increase was the third-largest experienced by any commodity group.

Strong domestic demand, fueled by strength in the U.S. automotive industry, concurrent with relatively weaker demand for imported steel in foreign markets early in 1994, contributed to increased U.S. imports during 1994. U.S. demand by end-users, steelmakers, and converters contributed to a 39-percent increase (to \$1.8 billion) in U.S. imports from Japan, which remained the second-leading foreign steel supplier to the United States in 1994. Imports from Canada, the leading foreign steel supplier with 18 percent of the total, increased by 6 percent (\$136 million) to \$2.3 billion in 1994. Imports from Russia increased substantially, rising more than 10-fold from a low base to \$463 million in 1994, making Russia the 10th-largest foreign steel supplier, by value.

Imports in all product categories increased during 1994, with the greatest increases occurring in flat-rolled products and semifinished steel products (primarily slabs which are rolled into flat products).

Flat-rolled products are typically consumed by the automotive industry, which experienced large increases in demand for its products in 1994.

Imports of flat-rolled plate, sheet, and strip rose by 55 percent to \$6.2 billion in 1994 and imports of semifinished steel products (chiefly, slab and billet) surged 67 percent to \$1.9 billion from the already high levels of 1993.<sup>2</sup> A combination of strong demand, production cutbacks to enable scheduled equipment modernization, and high utilization levels on remaining capacity imposed constraints on the ability of domestic producers to satisfy orders. As a result, much of the import increase in flat-rolled and semifinished products resulted from imports by U.S. steel producers and converters. In addition, increased Chinese steel production for domestic consumption and the subsequent reduction of Chinese steel imports, and slower economic growth in East Asia and the European Union (EU)-12 compared with growth in the United States contributed to a trade shift to the U.S. market.

Canada and Mexico remain the primary destinations for U.S. exports of steel mill products, together accounting for 68 percent of the total. U.S. exports

<sup>2</sup> U.S. imports of semifinished steel more than doubled to \$1.2 billion between 1992 and 1993.

of steel mill products to Canada increased by 16 percent to \$1.4 billion, while exports to Mexico increased by less than 1 percent to \$640 million. Because the automotive and machinery industries in the United States and Canada are integrated to a great extent, U.S. exports benefit 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 production in an effort to serve markets that have been traditionally supplied by U.S. exporters.

On a product basis, the most significant changes in 1994 occurred in exports of carbon steel pipes and tubes which rose by 36 percent to \$839 million and accounted for 26 percent of U.S. exports of steel mill products. Increased U.S. pipe exports resulted primarily from increased use of pipe in crude petroleum exploration and oil well development projects in East Asia (Thailand, in particular) and Canada.

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## ***Precious metals and related articles***

The U.S. trade surplus in precious metals and related articles dropped by \$3.4 billion to \$2.5 billion in 1994. Although U.S. imports of precious metals and related articles showed no appreciable change, U.S. exports declined significantly, from \$9.9 billion in 1993 to \$6.5 billion in 1994. Virtually all the change was a result of declining gold bullion exports to the United Kingdom and Switzerland.

The activities of certain Latin American and European central banks have caused large variations in U.S. exports since 1993. These foreign banks in the past had stored gold at the New York Federal Reserve Bank. However, in 1993 and the first part of 1994, transfers of some gold stocks to accounts in central banks in the United Kingdom and Switzerland occurred because these banks allow income-producing transactions, such as interest-bearing accounts, on gold deposits whereas Federal Reserve deposits are only custodial. During 1993, foreign stocks of gold bullion at the New York Federal Reserve dropped from approximately 9,750 metric tons to 9,075 metric tons, according to Gold Fields Mineral Services. During the same period, U.S. trade statistics showed 545 metric tons of gold bullion exported to the United Kingdom and Switzerland. Foreign gold stocks at the Federal Reserve declined to 8,900 metric tons in early 1994 and remained at about that level for the rest of the year.

The top import suppliers in 1994 were Canada, South Africa, and Russia, which together accounted

for 68 percent of the total value of U.S. imports. Russia continued to supply an increasing share of U.S. imports of platinum-group metals, up from 5 percent in 1993 to over 6 percent (\$258 million) in 1994. As recently as 1991, Russia had not supplied precious metals to the U.S. market. Unwrought gold and precious metal waste and scrap accounted for almost 90 percent of the total value of exports. Europe, Canada, and Hong Kong were the most important markets for U.S. exports in 1994.

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## ***Unwrought aluminum<sup>3</sup>***

The U.S. trade deficit in unwrought aluminum increased by 66 percent to \$3.3 billion from 1993 to 1994, as increased imports supplied all the increase in U.S. apparent open market consumption. This deficit has continued to grow since 1991; the 1994 increase was the seventh-largest experienced by any commodity group.

U.S. imports of unwrought aluminum rose by 52 percent (\$1.4 billion) to \$4.2 billion in 1994, reflecting an increase in average price of nearly 57 percent and a 34-percent rise in the volume of imports of primary aluminum and aluminum scrap to 2.9 million metric tons. Increased imports of these items occurred largely in response to reduced domestic production of primary aluminum, due to relatively low prices and rising costs coupled with increased demand by downstream consuming industries in the United States, including beverage can and automobile parts manufacturers. Canada and Russia, two of the world's largest aluminum-producing countries, accounted for three-quarters of the increase in U.S. imports. Imports increased from Canada because of cross-border ties between Canadian suppliers and their U.S. automotive customers; included in this increase are imports into Canada from Russia that were processed and exported to the United States. U.S. imports of aluminum metal from Russia continued to increase as Russian exporters sought hard-currency foreign exchange reserves in response to economic difficulties. In addition, tariff quotas imposed by the European Union on aluminum imports from Russia contributed to diversion of some aluminum to the U.S. market. Increases also occurred in U.S. imports of aluminum metal from Brazil and Venezuela which together accounted for nearly 16 percent (\$227 million) of the total increase in U.S. imports.

U.S. exports of unwrought aluminum increased by 16 percent (\$125 million) to \$896 million during 1994, reflecting the combined effects of an increase

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<sup>3</sup> Aluminum that has not been worked by mechanical means, such as by rolling, extruding, or forging. This commodity group includes aluminum-containing ores (bauxite and alumina) and scrap in addition to aluminum metal.

in average unit value (up 12 percent) and a higher-volume of exports (up 4 percent to 778,000 metric tons). Increased exports of aluminum scrap (up 69 percent to \$285 million and up 49 percent to 262,000 metric tons) accounted for most of the overall increase. Exports increased largely because of declining U.S. dollar exchange rates vis-a-vis major trading partners, relatively low aluminum prices, and increased economic activity abroad in industries manufacturing aluminum and steel products. U.S. aluminum scrap exports increased to nearly all major market destinations in 1994 with the largest increases occurring in exports to Taiwan, South Korea, Hong Kong, China, and Mexico, where aluminum scrap was consumed in steel refining (steel production increased in South East Asia in 1994) and in the production of aluminum castings and forgings (principally of automobile parts).

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## **Natural and synthetic gemstones**

The trade deficit for this product sector expanded by about 12 percent (\$653 million) to \$6.2 billion. As in the past several years, rising discretionary income continued to fuel domestic demand for natural and synthetic gemstones (principally, cut diamonds), causing imports to increase by 12 percent to \$6.4 billion. The combined value of U.S. imports from Israel, Belgium, and India—major diamond-cutting and trading centers—increased by 11 percent (\$473 million) to \$4.7 billion. These countries continue to account for the bulk of imports, representing 74 percent of the import value of natural and synthetic gemstones in 1994.<sup>4</sup>

An increased demand for better quality diamonds was reflected in a 24-percent increase in the average unit price of U.S. diamond exports, contributing to a 16-percent (\$37 million) increase in exports to \$268 million.<sup>5</sup> U.S. exports to most of the major markets improved during 1994. Exports to Switzerland, Canada, Hong Kong, France, Japan, and India, which together accounted for 82 percent (\$219 million) of total U.S. exports of natural and synthetic gemstones in 1994, grew by 24 percent. With the exception of Canada and France, these countries are established jewelry-manufacturing and diamond markets. Exports to Canada consisted primarily of smaller (not over one-half carat), lower quality cut diamonds and unsorted diamonds that

<sup>4</sup> Russia recorded the largest increase in gemstone sales to the United States, from \$60 million in 1993 to \$160 million in 1994. Russia was reportedly selling more than their agreed amount outside the DeBeers network during this time in an effort to collect much needed foreign-exchange revenue.

<sup>5</sup> While the average unit price and the total value of diamond exports (up by nearly 20 percent to \$183 million) increased in 1994, the quantity of diamonds exported decreased by 3 percent to 378,106 carats.

are thought to be derived from subsidiary gold mining operations in the United States. Exports to France increased by 104 percent to \$16 million and consisted primarily of larger (over one-half carat), higher quality cut diamonds.<sup>6</sup> U.S. exports of larger cut diamonds to more traditional markets decreased for the second year, from \$4 million to \$1 million for Israel and from \$3 million to \$1 million for the United Kingdom.

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## **Copper and related articles**

Strong U.S. copper demand, especially in the transportation and construction sectors, caused U.S. imports of copper and related articles to increase by 28 percent to \$2.7 billion in 1994. The growth in imports was offset partially by a \$255-million increase in exports, resulting in a \$332-million (66 percent) increase in the trade deficit.

Both the transportation and construction sectors are major consumers of copper and copper alloys for electrical/electronic systems, heat exchange applications, and builders' hardware. In 1994, motor vehicles and parts production increased by 14 percent and new private housing starts increased by 13 percent over 1993 levels. Wire and brass mills, the principal producers of copper and copper alloy semifabricates, were reportedly operating at close to full capacity levels during 1994.

Quantity and price changes contributed to the increase in import value. Positive developments in the U.S. market combined with a modest expansion in European and Japanese consumption contributed to an increase in the world price of copper. The London Metals Exchange settlement price for copper rose from an average of \$0.87 per pound in 1993 to over \$1.00 per pound in 1994.

Refined copper products accounted for 70 percent of the change in import levels in 1994, although there were also significant increases in imports of certain semifabricated products (brass bars and rods, copper tubes, and copper wire). Increased imports from Canada, Chile, Mexico, and Germany accounted for most of the change in total imports. Waste and scrap articles accounted for most of the increase in 1994 exports levels.

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<sup>6</sup> Although a smaller market than the six listed countries, exports to Taiwan increased by 123 percent to \$6.8 million, of which cut diamonds account for 44 percent (\$3.0 million) and piezo-electric quartz account for 43 percent (\$2.9 million). Piezo-electric quartz is used primarily for electronics.

**Table 8-2**  
**Minerals and metals sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:				
	Exports .....	855	950	95	11.1
	Imports .....	125	153	28	22.4
	Trade balance .....	730	797	67	9.2
MM002	Certain miscellaneous mineral substances:				
	Exports .....	3	5	2	66.7
	Imports .....	33	34	1	3.0
	Trade balance .....	-30	-29	1	3.3
MM003	Iron ores and concentrates:				
	Exports .....	167	162	-5	-3.0
	Imports .....	415	510	95	22.9
	Trade balance .....	-248	-348	-100	-40.3
MM004	Copper ores and concentrates:				
	Exports .....	342	393	51	14.9
	Imports .....	42	126	84	200.0
	Trade balance .....	300	267	-33	-11.0
MM005	Lead ores and residues:				
	Exports .....	14	23	9	64.3
	Imports .....	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	-37.2
	Trade balance .....	14	23	9	64.3
MM006	Zinc ores and residues:				
	Exports .....	137	191	54	39.4
	Imports .....	18	18	0	0
	Trade balance .....	119	173	54	45.4
MM007	Certain ores, concentrates, ash, and residues:				
	Exports .....	191	301	110	57.6
	Imports .....	476	508	32	6.7
	Trade balance .....	-285	-207	78	27.4
MM008	Precious metal ores and concentrates:				
	Exports .....	3	16	13	433.3
	Imports .....	20	49	29	145.0
	Trade balance .....	-17	-33	-16	-94.1
MM009	Certain nonmetallic minerals and articles:				
	Exports .....	861	944	83	9.6
	Imports .....	1,438	1,820	382	26.6
	Trade balance .....	-577	-876	-299	-51.8
MM010	Industrial ceramics:				
	Exports .....	387	411	24	6.2
	Imports .....	330	356	26	7.9
	Trade balance .....	57	55	-2	-3.5
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Exports .....	17	19	2	11.8
	Imports .....	22	15	-7	-31.8
	Trade balance .....	-5	4	9	180.0
MM012	Ceramic floor and wall tiles:				
	Exports .....	23	24	1	4.3
	Imports .....	472	519	47	10.0
	Trade balance .....	-449	-495	-46	-10.2
MM013	Ceramic household articles:				
	Exports .....	110	105	-5	-4.5
	Imports .....	1,426	1,563	137	9.6
	Trade balance .....	-1,316	-1,458	-142	-10.8
MM014	Flat glass and certain flat glass products:				
	Exports .....	951	1,031	80	8.4
	Imports .....	698	864	166	23.8
	Trade balance .....	253	167	-86	-34.0
MM015	Glass containers:				
	Exports .....	133	127	-6	-4.5
	Imports .....	265	323	58	21.9
	Trade balance .....	-132	-196	-64	-48.5
MM016	Household glassware:				
	Exports .....	167	192	25	15.0
	Imports .....	568	643	75	13.2
	Trade balance .....	-401	-451	-50	-12.5
MM017	Certain glass and glass products:				
	Exports .....	387	437	50	12.9
	Imports .....	408	518	110	27.0
	Trade balance .....	-21	-81	-60	-285.7

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. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MM018	Fiber glass products:				
	Exports .....	387	448	61	15.8
	Imports .....	200	255	55	27.5
	Trade balance .....	187	193	6	3.2
MM019	Natural and synthetic gemstones:				
	Exports .....	231	268	37	16.0
	Imports .....	5,739	6,429	690	12.0
	Trade balance .....	-5,508	-6,161	-653	-11.9
MM020	Precious metals and related articles:				
	Exports .....	9,895	6,531	-3,364	-34.0
	Imports .....	3,994	4,033	39	1.0
	Trade balance .....	5,901	2,498	-3,403	-57.7
MM021	Primary iron products:				
	Exports .....	8	12	4	50.0
	Imports .....	213	450	237	111.3
	Trade balance .....	-205	-438	-233	-113.7
MM022	Ferroalloys:				
	Exports .....	95	87	-8	-8.4
	Imports .....	760	777	17	2.2
	Trade balance .....	-665	-690	-25	-3.8
MM023	Iron and steel waste and scrap:				
	Exports .....	1,323	1,269	-54	-4.1
	Imports .....	182	238	56	30.8
	Trade balance .....	1,141	1,031	-110	-9.6
MM024	Abrasive and ferrous powders:				
	Exports .....	398	432	34	8.5
	Imports .....	545	595	50	9.2
	Trade balance .....	-147	-163	-16	-10.9
MM025	Steel mill products, all grades:				
	Exports .....	2,811	3,029	218	7.8
	Imports .....	8,670	12,435	3,765	43.4
	Trade balance .....	-5,859	-9,406	-3,547	-60.5
MM026	Steel pipe and tube fittings, and certain cast products:				
	Exports .....	484	484	0	0
	Imports .....	310	367	57	18.4
	Trade balance .....	174	117	-57	-32.8
MM027	Fabricated structurals:				
	Exports .....	117	122	5	4.3
	Imports .....	85	109	24	28.2
	Trade balance .....	32	13	-19	-59.4
MM028	Metal construction components:				
	Exports .....	407	453	46	11.3
	Imports .....	138	181	43	31.2
	Trade balance .....	269	272	3	1.1
MM029	Metallic containers:				
	Exports .....	635	642	7	1.1
	Imports .....	282	324	42	14.9
	Trade balance .....	353	318	-35	-9.9
MM030	Wire products of iron, steel, aluminum, copper, and nickel:				
	Exports .....	337	469	132	39.2
	Imports .....	668	984	316	47.3
	Trade balance .....	-331	-515	-184	-55.6
MM031	Chain:				
	Exports .....	326	401	75	23.0
	Imports .....	556	651	95	17.1
	Trade balance .....	-230	-250	-20	-8.7
MM032	Industrial fasteners of base metal:				
	Exports .....	743	879	136	18.3
	Imports .....	1,643	1,646	3	0.2
	Trade balance .....	-900	-767	133	14.8
MM033	Cooking and kitchen ware:				
	Exports .....	216	233	17	7.9
	Imports .....	881	1,001	120	13.6
	Trade balance .....	-665	-768	-103	-15.5
MM034	Metal and ceramic sanitary ware:				
	Exports .....	165	153	-12	-7.3
	Imports .....	204	249	45	22.1
	Trade balance .....	-39	-96	-57	-146.2

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. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MM035	Iron construction castings and other nonmalleable cast-iron articles:				
	Exports .....	29	26	-3	-10.3
	Imports .....	57	72	15	26.3
	Trade balance .....	-28	-46	-18	-64.3
MM036	Copper and related articles:				
	Exports .....	1,562	1,817	255	16.3
	Imports .....	2,068	2,655	587	28.4
	Trade balance .....	-506	-838	-332	-65.6
MM037	Unwrought aluminum:				
	Exports .....	771	896	125	16.2
	Imports .....	2,774	4,221	1,447	52.2
	Trade balance .....	-2,003	-3,325	-1,322	-66.0
MM038	Aluminum mill products:				
	Exports .....	1,728	2,177	449	26.0
	Imports .....	1,096	1,446	350	31.9
	Trade balance .....	632	731	99	15.7
MM039	Lead and related articles:				
	Exports .....	64	70	6	9.4
	Imports .....	97	149	52	53.6
	Trade balance .....	-33	-79	-46	-139.4
MM040	Zinc and related articles:				
	Exports .....	58	67	9	15.5
	Imports .....	746	813	67	9.0
	Trade balance .....	-688	-746	-58	-8.4
MM041	Certain base metals and chemical elements:				
	Exports .....	808	923	115	14.2
	Imports .....	1,472	1,720	248	16.8
	Trade balance .....	-664	-797	-133	-20.0
MM042	Nonpowered handtools:				
	Exports .....	1,315	1,455	140	10.6
	Imports .....	1,789	1,939	150	8.4
	Trade balance .....	-474	-484	-10	-2.1
MM043	Cutlery other than tableware, certain sewing implements, and related products:				
	Exports .....	308	385	77	25.0
	Imports .....	525	585	60	11.4
	Trade balance .....	-217	-200	17	7.8
MM044	Table flatware and related products:				
	Exports .....	21	28	7	33.3
	Imports .....	209	224	15	7.2
	Trade balance .....	-188	-196	-8	-4.3
MM045	Certain builders' hardware:				
	Exports .....	553	620	67	12.1
	Imports .....	646	709	63	9.8
	Trade balance .....	-93	-89	4	4.3
MM046	Miscellaneous products of base metal:				
	Exports .....	2,344	2,776	432	18.4
	Imports .....	2,936	3,502	566	19.3
	Trade balance .....	-592	-726	-134	-22.6

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

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



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# Chapter 9

## Machinery

A \$9.2 billion increase in U.S. imports of machinery in 1994 more than offset the \$5.4 billion rise in U.S. exports of these products and turned a U.S. trade surplus of \$1.2 billion into a \$2.6 billion deficit (table 9-1). The 12-percent rise in U.S. exports from \$44.4 billion in 1993 to \$49.9 billion in 1994, was countered by the 21-percent upturn in imports that amounted to \$52.4 billion in 1994. The import surge was led by strong U.S. demand for injection molds and molding machinery for rubber and plastics, semiconductor-manufacturing equipment, ignition wiring harnesses for motor vehicles, tractors and other farm and garden equipment, automotive air-conditioning and household refrigeration equipment and parts, and metal-cutting machine tools and parts. The sustained growth of the U.S. automotive market and lower interest rates, which boosted capital equipment purchases and U.S. construction activity, were principal contributors to the robust U.S. demand for this equipment in 1994.

The relatively slower expansion in U.S. exports of machinery was concentrated in shipments to Canada and Mexico, which accounted for nearly one-half of the total annual increase during 1994. The implementation of the North American Free-Trade Agreement (NAFTA) was a major impetus to increased U.S. machinery shipments to Mexico, despite the devaluation of the Mexican peso in July 1994.<sup>1</sup> The more significant devaluation of the peso on December 10, 1994, is expected to substantially impact U.S. shipments of certain automobile parts and electrical machinery products to Mexico in 1995.<sup>2</sup> The fact that some product categories experienced strong increases in both imports and exports in 1994, reflects growth in two-way trade

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<sup>1</sup> For a more detailed explanation of the fluctuation of the peso in 1994, see "Exchange Rate Shifts" on p. 2-7 and the country profile on "Mexico" on p. 2-20.

<sup>2</sup> This impact is expected to be somewhat mitigated by efforts of the Mexican Government to attract foreign capital into export-oriented industries (notably the maquiladora industry). See Ruben Mata, "NAFTA update: Steady U.S. bilateral trade growth with Mexico faces mixed prospects in 1995," *Industry, Trade, and Technology Review* (Washington, DC: U.S. International Trade Commission (USITC) Mar. 1995), pp. 1-4.

commensurate with reciprocal reductions in trade barriers, market-opening policies in several newly industrialized countries, and continued globalization of industries.

### U.S. Bilateral Trade

Canada, Mexico, Japan, and the European Union (EU)-12 (most notably Germany and the United Kingdom) accounted for the vast majority of U.S. trade in machinery during 1994 (figures 9-1 and 9-2). Together, these U.S. trading partners were responsible for 60 percent of total U.S. exports; 76 percent of U.S. imports; 75 and 76 percent of the change in U.S. exports and imports, respectively; and 78 percent of the increase in the U.S. trade deficit.

Canada was the leading U.S. export market for machinery in 1994, and the fourth-leading source of U.S. imports. U.S. exports to Canada rose by \$1.6 billion (15 percent) in 1994 to \$12.3 billion, or 25 percent of the annual U.S. total. U.S. imports of this equipment from Canada, on the other hand, surged by 41 percent (\$1.8 billion) to \$6.4 billion, thereby lowering the U.S. trade surplus with Canada by \$216 million to \$5.9 billion. Canadian demand was driven principally by an upturn in Canadian automotive production and rising farm income, as reflected by the major products contributing to the increase in U.S. exports: automotive air-conditioning equipment, farm and garden equipment, insulated electrical wire and cable, and metal-cutting machine tools. The major factors driving U.S. demand for these products in 1994 was 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 1994 were injection and compression molds for rubber and plastic automotive parts; taps, cocks, and valves; and tractors and commercial and residential lawn and garden equipment.

An upturn of \$1.8 billion (34 percent) in U.S. imports of machinery from Mexico pushed the annual total to \$7.1 billion in 1994 and reversed the U.S.

Table 9-1

**Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>**

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Canada .....	10,676	12,308	1,631	15.3
Mexico .....	5,871	6,861	989	16.9
Japan .....	2,154	2,582	428	19.9
Germany .....	1,626	1,665	39	2.4
United Kingdom .....	1,804	2,050	246	13.6
Taiwan .....	1,347	1,437	90	6.7
China .....	1,381	1,433	51	3.7
Korea .....	1,786	2,361	575	32.2
Italy .....	545	650	105	19.2
France .....	1,176	1,380	204	17.4
All other .....	16,050	17,124	1,074	6.7
<b>Total .....</b>	<b>44,417</b>	<b>49,850</b>	<b>5,433</b>	<b>12.2</b>
EU-12 .....	7,294	8,294	1,000	13.7
OPEC .....	2,908	2,585	-323	-11.1
Latin America .....	10,147	11,483	1,336	13.2
CBERA .....	1,125	1,266	141	12.6
Asian Pacific Rim .....	10,643	12,320	1,677	15.8
ASEAN .....	2,644	3,138	494	18.7
Eastern Europe .....	175	187	12	7.1
U.S. imports for consumption:				
Canada .....	4,512	6,360	1,848	40.9
Mexico .....	5,278	7,080	1,802	34.1
Japan .....	10,034	11,117	1,082	10.8
Germany .....	6,221	7,085	864	13.9
United Kingdom .....	2,085	2,488	403	19.3
Taiwan .....	2,220	2,472	252	11.4
China .....	1,918	2,390	473	24.6
Korea .....	827	1,035	208	25.1
Italy .....	1,971	2,472	501	25.4
France .....	1,053	1,245	192	18.2
All other .....	7,121	8,698	1,577	22.1
<b>Total .....</b>	<b>43,242</b>	<b>52,442</b>	<b>9,200</b>	<b>21.3</b>
EU-12 .....	12,795	15,046	2,251	17.6
OPEC .....	62	87	26	41.5
Latin America .....	5,926	7,899	1,973	33.3
CBERA .....	85	97	11	13.2
Asian Pacific Rim .....	16,301	18,566	2,265	13.9
ASEAN .....	1,396	1,690	295	21.1
Eastern Europe .....	187	244	58	31.0
U.S. merchandise trade balance:				
Canada .....	6,164	5,948	-216	(2)
Mexico .....	593	-219	-812	(2)
Japan .....	-7,881	-8,534	-654	(2)
Germany .....	-4,595	-5,420	-825	(2)
United Kingdom .....	-281	-438	-158	(2)
Taiwan .....	-873	-1,036	-163	(2)
China .....	-536	-957	-421	(2)
Korea .....	959	1,326	367	(2)
Italy .....	-1,426	-1,822	-396	(2)
France .....	123	135	13	(2)
All other .....	8,929	8,426	-503	(2)
<b>Total .....</b>	<b>1,175</b>	<b>-2,592</b>	<b>-3,767</b>	<b>(2)</b>
EU-12 .....	-5,501	-6,752	-1,251	(2)
OPEC .....	2,846	2,498	-349	(2)
Latin America .....	4,221	3,585	-637	(2)
CBERA .....	1,039	1,169	130	(2)
Asian Pacific Rim .....	-5,658	-6,246	-587	(2)
ASEAN .....	1,248	1,447	199	(2)
Eastern Europe .....	-12	-57	-46	(2)

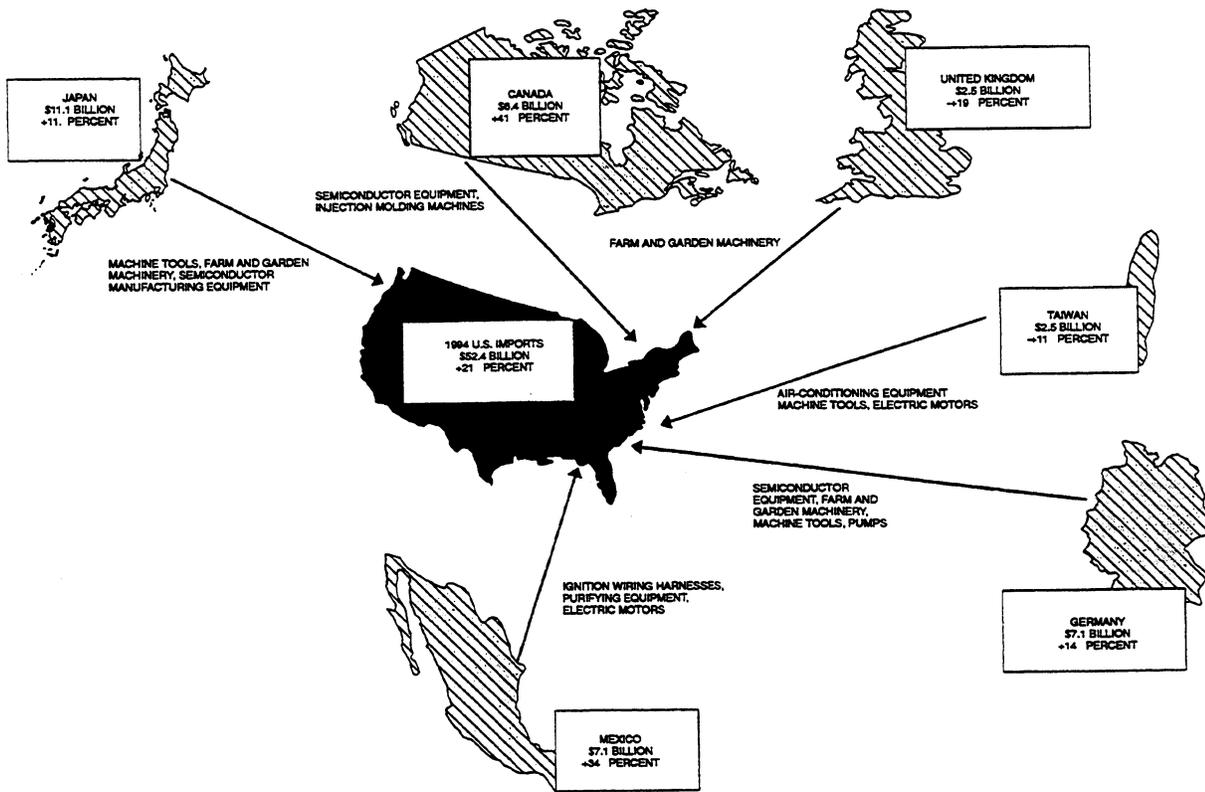
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 9-1**  
**U.S. machinery sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

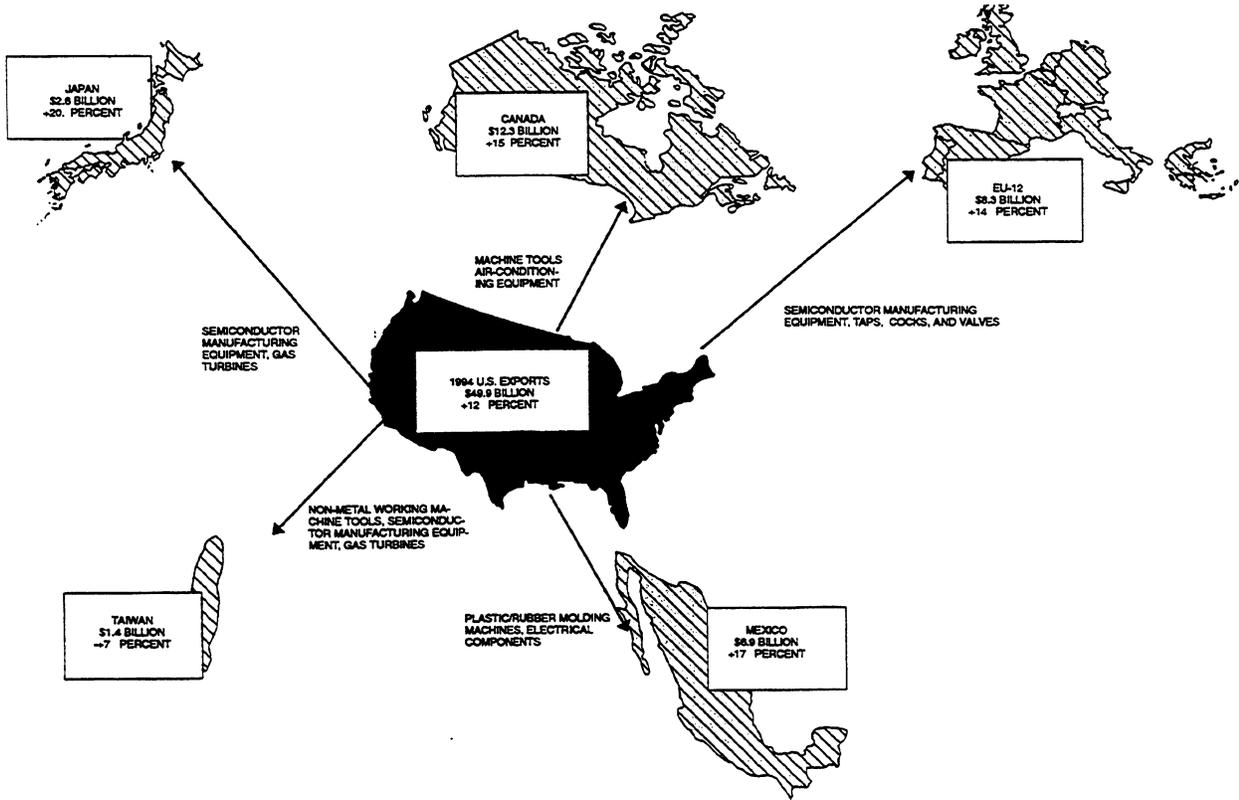
trade balance with Mexico from a surplus of \$593 million in 1993 to a deficit of \$219 million in 1994. This development occurred in spite of a 17-percent rise in U.S. exports to Mexico, which reached \$6.9 billion in 1994. The major sources of increased U.S. imports from Mexico were ignition wiring harnesses for motor vehicles, electric motors, and catalytic converters, 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>3</sup> The increase in wiring harnesses alone, which are the focus of substantial maquiladora assembly operations by U.S.-based suppliers, was approximately \$800 million in 1994. Rising U.S. demand for these products was largely attributable to strong

domestic sales of motor vehicles and consumer electrical appliances in 1994.

U.S. bilateral trade with Japan in machinery was dominated by imports, which rose by 11 percent in 1994 to \$11.1 billion, and accounted for 21 percent of the annual U.S. total. In spite of a 20-percent increase in exports to Japan, which brought the 1994 total to \$2.6 billion, the trade deficit in these products grew by \$654 million to \$8.5 billion in 1994. The \$1.1 billion growth in imports from Japan, which remained 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>3</sup> For further discussion of these and other similar assembly operations see USITC, *Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations, 1990-1993*, USITC publication 2886, May 1995.

**Figure 9-2**  
**U.S. machinery sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

U.S. trade in machinery with members of the EU-12 was generally not favorable during 1994, as the trade deficit with this bloc of countries increased by \$1.3 billion to \$6.8 billion, on U.S. imports of \$15.0 billion and U.S. exports of \$8.3 billion. Germany was by far the leading contributor to this trend, as U.S. imports from this source rose by 14 percent to \$7.1 billion and U.S. exports to Germany posted only a 2-percent gain to \$1.7 billion. The resulting trade deficit with Germany of \$5.4 billion represented 80 percent of the total deficit with the EU-12 in machinery during 1994. The leading German imports during 1994 were 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.

## Commodity Analysis

### ***Semiconductor manufacturing equipment, injection and compression molds and machinery<sup>4</sup>***

The trade surplus in this broad grouping of products decreased by 19 percent to \$1.2 billion in 1994, as a 33-percent increase (\$2 billion) in imports to \$8.1 billion surpassed a more modest 23-percent increase (\$1.7 billion) in exports to \$9.3 billion.

<sup>4</sup> The major product groups in this category are industrial robots, semiconductor-manufacturing machinery, injection and compression molds, and other miscellaneous machinery and equipment.

This significant increase in trade was spurred by activity in two major product categories: injection and compression molding machinery, and equipment used to manufacture semiconductors.

Most import growth occurred in injection and compression molds for rubber and plastics from Canada. Imports of these products from Canada increased by 222 percent (\$722 million), to \$1 billion in 1994. Increased demand for Canadian molds resulted from expanded use of large specialized molds by the U.S. automotive industry, which continued to experience solid growth in demand for its products in 1994. Canadian manufactures of this equipment also gained a price advantage in the U.S. market because of the decline in the value of the Canadian dollar vis-a-vis the U.S. dollar.<sup>5</sup> Japan remained the largest source for U.S. imports of all goods within the broader category; machinery and mechanical appliances and related parts, specialized machinery for semiconductor manufacturing, and industrial vibrators spurred a 15-percent increase in U.S. imports from Japan during 1994 (up \$300 million to \$2.3 billion).

Export growth in this category was concentrated in machinery for the production and assembly of semiconductors and related parts (\$720 million), which constituted 42 percent<sup>6</sup> of the total increase in exports. France, Japan, Korea, and Taiwan were the leading U.S. markets for these types of equipment. U.S. manufacturers have reportedly benefited from the boom in construction of semiconductor fabrication plants because of the growing demand for semiconductors worldwide. For example, Taiwan reportedly plans to invest \$8 billion in 10 new fabrication plants between 1995 and 1998.<sup>7</sup> Much of the recent growth in Southeast Asia is attributed to offshore investment by Japanese firms.

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## ***Insulated electrical wire and cable and related products***

Reflecting 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 \$3.6 billion in 1993 to \$4.8 billion in 1994, or by 35 percent, totally eclipsing the 10-percent (\$298 million) increase in U.S. exports of

<sup>5</sup> The U.S. dollar strengthened by an average of 5 percent vis-a-vis the Canadian dollar in 1994.

<sup>6</sup> Excluding a significant increase in exports of parts of construction equipment (\$250 million) included in this group of products, this percentage would increase to 50 percent.

<sup>7</sup> Telephone conversation with industry official on May 11, 1995.

these products that reached \$3.3 billion in 1994. The resulting U.S. trade deficit in these products increased to \$1.5 billion, considerably greater than the \$573 million deficit registered in 1993, and generally reflecting the strong U.S. markets during 1994 for bulk (wire and cable w/o 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 \$1.25 billion-increase in U.S. imports of these products (\$933 million, or 75 percent) was the result of accelerated entries from Mexico, which accounted for 62 percent (\$3.0 billion) of the U.S. total in 1994, up from 57 percent in 1993. The vast majority (\$2.5 billion) of imports from Mexico consisted of wiring harnesses for motor vehicles supplied by established U.S.-owned assembly operations using U.S. components to take advantage of lower Mexican wages. The labor-intensive production operations typically performed 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, adding to the annual influx. U.S. demand for these components was also heightened by strong U.S. sales of motor vehicles during 1994.

The Philippines, Canada, and China, the next three leading import suppliers in 1994, each recorded significant increases of 42 percent (to \$323 million), 27 percent (to \$282 million), and 53 percent (to \$249 million), respectively. Imports from the Philippines were almost exclusively of ignition wiring harnesses for motor vehicles for use 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 1994, 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 1994, each major product category of wire and cable imports recorded double-digit increases. The largest absolute and percentage increase by far was in ignition wiring harnesses, which rose from approximately \$2.3 billion in 1993 to over \$3.3 billion in 1994, or by 46 percent. This product category accounted for nearly 70 percent of total U.S. imports of all insulated electrical conductors during 1994, up from 64 percent in 1993. Imports in the

next leading category, miscellaneous wire and cable rated at between 81 to 1,000 volts and fwc, increased by 13 percent during 1994 to \$549 million, and represented 11 percent of the 1994 total.

The growth in exports of insulated electrical conductors was principally the result of an 11-percent rise (\$83 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 1994 were the United Kingdom (up by 33 percent to \$94 million), Korea (88 percent higher at \$59 million), and Thailand (expanding by 151 percent to \$54 million). Exports of insulated electrical conductors to Mexico, the leading U.S. market, were up only slightly in 1994, by 2 percent to \$1.3 billion. The three leading U.S. export categories in 1994, principally for use in Mexican maquiladora assembly operations of U.S. auto part suppliers, were ignition wiring harnesses (including parts), which accounted for \$1.4 billion, or 43 percent of the annual total; coaxial wire and cable (\$401 million, or 12 percent); and low-voltage wire nfwc (\$310 million, or 9 percent).

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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 21 percent, from \$897 million in 1993 to almost \$1.1 billion in 1994. U.S. demand for these products has remained strong because of increased retooling for new models by motor vehicle and related equipment industries and lower borrowing costs that spurred capital investments in the general machinery industries to raise manufacturing productivity. The trade deficit may have been moderated since demand for new machines by the aerospace and oil-drilling machinery industries continued to be weak in 1994.

U.S. imports increased by 25 percent (\$546 million) to \$2.7 billion in 1994. Half of the increase was attributable to imports from Japan, which rose by 26 percent (\$274 million) to \$1.3 billion. Imports from Switzerland and Taiwan also rose significantly. Because of weak demand in European and Japanese markets during 1993-94, foreign metal-cutting machine tool builders exported to the United States at low prices to counter the lack of orders in their home markets. Over half the increase in imports from Japan and Taiwan occurred in metal-cutting

<sup>8</sup> Work-holders, tool-holders, and dividing heads.

machine tools that had been covered by voluntary restraint agreements between these countries and the United States that expired at the end of 1993.

U.S. exports of metal-cutting machine tools, parts, and accessories rose by 28 percent (\$361 million), to almost \$1.7 billion in 1994. About 80 percent of the increase in exports was to Canada and principally attributable to retooling by motor vehicle and related equipment industries. U.S. exports of metal-cutting machine tools, parts, and accessories to China rose by 10 percent (\$37 million) in 1994. Exports to Mexico declined by 24 percent (\$35 million) to \$113 million in 1994 because of financial instability in Mexico. Exports to Venezuela fell by 47 percent (\$31 million) to \$35 million in 1994 as large one-time orders were filled in 1993.

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## ***Farm and garden machinery and equipment***

The U.S. trade surplus in agricultural and garden machinery fell by 48 percent (\$603 million) to \$652 million in 1994, due principally to a 33-percent increase in such imports to nearly \$3.3 billion in 1994. Growing domestic demand for agricultural machinery stems from steadily rising farm income reflecting higher commodity prices in 1993 and expanded crop acreage in 1994. Demand for farm and garden machinery was tempered somewhat by droughts in the Southeast and flooding in the Midwest in 1993. Rising consumer incomes also increased demand for residential lawn and garden equipment. Demand for commercial lawn equipment rose as the number of golf courses increased. About one-third of the increase in imports was from Japan, followed by Canada, the United Kingdom, Germany, and Italy. More than one-half of the increase in imports was of tractors and parts.

U.S. exports of farm and garden machinery rose by almost 6 percent (\$205 million) to \$3.9 billion in 1994. Exports to Canada, Mexico, Australia, Argentina, and Russia rose significantly. However, export gains were partially offset by declines in exports to Saudi Arabia, the United Arab Emirates, China, and Iran. Exports to Canada rose because of rising Canadian net farm income. Exports to Mexico rose in part because of agricultural land reform measures launched by the Government of Mexico and because of Government efforts to mechanize agricultural production. Mexican tariffs on most farm machinery were eliminated in March 1993 to facilitate Mexican imports. Exports to Saudi Arabia fell because the Government of Saudi Arabia reduced its demand for grains from large

commercial farms that purchased imported tractors and combines.

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## ***Air-conditioning equipment and parts***

Increased construction activity in the United States helped boost U.S. imports of air-conditioning equipment and parts by 20 percent (\$611 million) to \$3.7 billion in 1994. With imports expanding faster than the moderate rise in U.S. exports, which were sustained by gradual economic growth in major foreign markets, the U.S. trade surplus in air-conditioning equipment and parts declined by \$229 million in 1994, to \$4.1 billion. A significant expansion in residential construction, home renovation and improvements, and institutional building (for example, correction facilities) in 1994 occurred largely because of a decline in U.S. interest rates.

Rising imports of these products were attributable to a rebounding U.S. market for air-conditioning equipment and parts and to brisk import competition in select market niches. In 1994, the leading foreign sources of air-conditioning equipment and parts imports was Japan, followed by Mexico, Taiwan, China, and Germany. Imports from Japan increased by 9 percent (\$75 million) to \$873 million in 1994, largely consisting of automotive air-conditioners and refrigeration compressors (less than 1-horsepower) for use in major household appliances and air-conditioning equipment. Imports from Mexico increased by 45 percent (\$153 million) to \$490 million in 1994. According to U.S. industry sources, various leading producers of air-conditioning equipment in Canada and the United States increased production capacity in Mexico in anticipation of NAFTA implementation. This increase in production capacity resulted in the significant level of these imports from Mexico in 1994. The largest category of this equipment from Mexico consisted of window or wall air-conditioners and

component parts, such as compressors, for use in heat pumps and supermarket display cases.

U.S. exports of air-conditioning equipment and parts increased moderately, from \$3.7 billion in 1993 to \$4.1 billion in 1994. According to industry sources, implementation of the NAFTA in January 1994 led to substantial growth in U.S. exports to Canada and Mexico, which each grew by 16 percent, to \$1.3 billion and \$433 million, respectively. The bulk of the trade is in automotive air-conditioners and compressors conducted between parent corporations based primarily in the United States and subsidiary companies in Northern Mexico and Southern Canada.

Saudi Arabia and Korea were also important markets in 1994. While exports to Saudi Arabia were relatively flat (4 percent growth to \$216 million), exports to Korea rose by 35 percent (\$49 million) to \$189 million. An official Government of Korea campaign to boost energy efficiency in the air-conditioning equipment market, in conjunction with rapidly increasing per-capita income, resulted in brisk demand for these products. Principal exports of these products to Korea consisted of household condensing units with stand-alone or cabinet-type compressors, window or wall type air-conditioners, and dehumidifiers.

Other notable increases in U.S. exports of air-conditioning equipment and parts in 1994 were to China and Thailand. U.S. exports to China increased by 61 percent (\$49 million) to \$127 million in 1994. A significant amount of these U.S. exports consisted of refrigeration component parts (for example, compressors) for the institutional markets (hotels and factories) in China. During the same period, U.S. exports to Thailand increased by 43 percent (\$35 million) to \$117 million. Rapid economic growth and significant construction activity in Thailand resulted in a surge in U.S. exports of all types of unitary equipment and of rotary compressors.

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**Table 9-2**  
**Machinery sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-**  
**Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MT003	Pumps for liquids:				
	Exports .....	2,043	2,222	179	8.8
	Imports .....	1,477	1,777	300	20.3
	Trade balance .....	566	445	-121	-21.4
MT004	Air-conditioning equipment and parts:				
	Exports .....	3,739	4,121	382	10.2
	Imports .....	3,055	3,666	611	20.0
	Trade balance .....	684	455	-229	-33.5
MT005	Certain industrial thermal-processing equipment and certain furnaces:				
	Exports .....	1,532	1,879	347	22.7
	Imports .....	794	1,003	209	26.3
	Trade balance .....	738	876	138	18.7
MT006	Commercial machinery:				
	Exports .....	1,870	2,031	161	8.6
	Imports .....	964	1,082	118	12.2
	Trade balance .....	906	949	43	4.7
MT007	Electrical household appliances and certain heating equipment:				
	Exports .....	2,277	2,348	71	3.1
	Imports .....	3,570	3,858	288	8.1
	Trade balance .....	-1,293	-1,510	-217	-16.8
MT008	Centrifuges and filtering and purifying equipment:				
	Exports .....	1,728	1,902	174	10.1
	Imports .....	706	1,067	361	51.1
	Trade balance .....	1,022	835	-187	-18.3
MT009	Wrapping, packaging, and can-sealing machinery:				
	Exports .....	672	792	120	17.9
	Imports .....	719	843	124	17.2
	Trade balance .....	-47	-51	-4	-8.5
MT010	Scales and weighing machinery:				
	Exports .....	108	120	12	11.1
	Imports .....	162	183	21	13.0
	Trade balance .....	-54	-63	-9	-16.7
MT013	Mineral processing machinery:				
	Exports .....	539	569	30	5.6
	Imports .....	236	260	24	10.2
	Trade balance .....	303	309	6	2.0
MT014	Farm and garden machinery and equipment:				
	Exports .....	3,724	3,929	205	5.5
	Imports .....	2,469	3,277	808	32.7
	Trade balance .....	1,255	652	-603	-48.0
MT015	Industrial food-processing and related machinery:				
	Exports .....	609	641	32	5.3
	Imports .....	411	439	28	6.8
	Trade balance .....	198	202	4	2.0
MT016	Pulp, paper, and paperboard machinery:				
	Exports .....	655	644	-11	-1.7
	Imports .....	709	893	184	26.0
	Trade balance .....	-54	-249	-195	-361.1
MT017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Exports .....	1,125	1,094	-31	-2.8
	Imports .....	1,366	1,574	208	15.2
	Trade balance .....	-241	-480	-239	-99.2
MT018	Textile machinery and parts:				
	Exports .....	657	687	30	4.6
	Imports .....	1,843	1,833	-10	-0.5
	Trade balance .....	-1,186	-1,146	40	3.4
MT019	Metal rolling mills and parts thereof:				
	Exports .....	265	287	22	8.3
	Imports .....	144	201	57	39.6
	Trade balance .....	121	86	-35	-28.9
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:				
	Exports .....	1,292	1,653	361	27.9
	Imports .....	2,188	2,735	547	25.0
	Trade balance .....	-896	-1,082	-186	-20.8

See footnotes at end of table.

**Table 9-2—Continued**  
**Machinery sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993- Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MT021	Machine tools for metal forming and parts thereof:				
	Exports .....	737	778	41	5.6
	Imports .....	644	913	269	41.8
	Trade balance .....	93	-135	-228	-245.2
MT022	Non-metalworking machine tools and parts thereof:				
	Exports .....	665	861	196	29.5
	Imports .....	681	818	137	20.1
	Trade balance .....	-16	43	59	368.8
MT023	Semiconductor equipment, robots, and other machinery:				
	Exports .....	7,574	9,292	1,718	22.7
	Imports .....	6,131	8,121	1,990	32.5
	Trade balance .....	1,443	1,171	-272	-18.9
MT024	Taps, cocks, valves, and similar devices:				
	Exports .....	1,665	1,909	244	14.7
	Imports .....	2,175	2,600	425	19.5
	Trade balance .....	-510	-691	-181	-35.5
MT026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:				
	Exports .....	652	764	112	17.2
	Imports .....	1,102	1,412	310	28.1
	Trade balance .....	-450	-648	-198	-44.0
MT027	Boilers, turbines, and related machinery:				
	Exports .....	1,134	1,231	97	8.6
	Imports .....	306	348	42	13.7
	Trade balance .....	828	883	55	6.6
MT028	Electric motors, generators, and related equipment:				
	Exports .....	2,925	2,955	30	1.0
	Imports .....	2,974	3,457	483	16.2
	Trade balance .....	-49	-502	-453	-924.5
MT029	Electrical transformers, static converters, and inductors:				
	Exports .....	1,421	1,750	329	23.2
	Imports .....	2,467	2,713	246	10.0
	Trade balance .....	-1,046	-963	83	7.9
MT031	Portable electric handtools:				
	Exports .....	323	357	34	10.5
	Imports .....	370	423	53	14.3
	Trade balance .....	-47	-66	-19	-40.4
MT032	Nonelectrically powered hand tools and parts thereof:				
	Exports .....	378	474	96	25.4
	Imports .....	550	619	69	12.5
	Trade balance .....	-172	-145	27	15.7
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:				
	Exports .....	712	811	99	13.9
	Imports .....	965	1,030	65	6.7
	Trade balance .....	-253	-219	34	13.4
MT035	Electric and gas welding and soldering equipment:				
	Exports .....	405	460	55	13.6
	Imports .....	502	486	-16	-3.2
	Trade balance .....	-97	-26	71	73.2
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:				
	Exports .....	2,991	3,289	298	10.0
	Imports .....	3,564	4,810	1,246	35.0
	Trade balance .....	-573	-1,521	-948	-165.4

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

<sup>2</sup> This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

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



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# CHAPTER 10

## Transportation Equipment

The U.S. trade deficit in transportation equipment widened significantly in 1994 to \$24.2 billion, compared with a deficit of \$14.2 billion in 1993 (table 10-1). Despite solid export growth of 6 percent—fueled in part by improving economic conditions in Canada and Western Europe—the sectoral deficit worsened as a result of a \$15.8 billion increase in imports over 1993. This represented an annual import growth rate of 14 percent. A large increase in the U.S. motor-vehicle trade deficit and a decline in the U.S. aircraft surplus were the primary factors leading to the sharp decline in the overall transportation equipment trade position.

The rise in 1994 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, as well as bodies and chassis of these vehicles, grew by \$10.6 billion in 1994 to \$79.2 billion. Motor-vehicle imports alone accounted for 62 percent of all U.S. transportation equipment imports in 1994. Strong growth in sales of motor vehicles and motor-vehicle parts in the U.S. market helped fuel large increases in imports, especially from Japan and Canada. Although substantial export growth occurred during 1994 for both motor vehicles (15-percent increase) and motor-vehicle parts (12-percent increase), these gains were not large enough to offset the sizable increase in motor-vehicle imports.

The size of the sectoral deficit was magnified by a substantial decline in sales of U.S. large civil aircraft (LCA) in key foreign markets. Continuing cutbacks in purchases of aircraft by world airlines, coupled with an ongoing contraction of military spending, pushed U.S. exports of aircraft, spacecraft, and parts down to \$28.6 billion, a 7-percent decline from the corresponding 1993 figure. U.S. sales of aircraft to China and Taiwan were particularly hard-hit in 1994, declining by 18 and 20 percent, respectively.

Significant import growth was also apparent in 1994 for construction and mining equipment. Strong U.S. demand for excavating equipment from Japan and Belgium helped reduce the U.S.

construction and mining equipment trade surplus from \$4.4 billion in 1993 to \$3.5 billion in 1994. Similarly, U.S. imports of internal combustion engines grew by 17 percent in 1994, driving the motor-vehicle engine trade surplus down to \$864 million. This import increase reflected the impact of a sharp upturn in U.S.-based automobile and truck production by U.S. and Japanese automakers. On the positive side of the sectoral trade balance picture, however, the U.S. surplus in miscellaneous vehicles (including tanks and other armored vehicles) grew by \$724 million in 1994 to \$1.7 billion, largely as a result of a sizable increase in U.S. tank exports to Saudi Arabia.

### U.S. Bilateral Trade

The largest U.S. trading partners in the transportation equipment sector during 1994 were Canada, Japan, Mexico, Germany, and the United Kingdom. Canada remained the largest single export market for U.S. transportation equipment, accounting for 32 percent of 1994 U.S. exports in the sector (figures 10-1 and 10-2). Canada also emerged as the leading U.S. transportation equipment import supplier in 1994, surpassing Japan. Together, Canada and Japan accounted for \$87.7 billion in U.S. transportation equipment imports in 1994—68 percent of total sectoral imports. The principal traded goods in this sector are motor vehicles, motor-vehicle parts, and aircraft, which together represented 74 percent of combined U.S. imports and exports during 1994.

The \$13.4 billion increase in U.S. imports of automobiles, trucks, and buses from Japan represented the single largest 1994 bilateral shift in the sector. Although U.S. exports of motor vehicles increased to \$21.4 billion in 1994, large increases in imports from Japan and Canada easily offset this positive change. Moreover, a decline in orders for U.S. aircraft from China, Taiwan, and Malaysia pushed U.S. aircraft exports down by \$2.1 billion in 1994, lowering the aircraft trade surplus to \$22.1 billion.

Table 10-1

**Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>**

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Canada .....	28,884	33,452	4,568	15.8
Japan .....	5,704	7,345	1,640	28.8
Mexico .....	7,005	8,169	1,164	16.6
Germany .....	3,550	3,286	-264	-7.4
United Kingdom .....	4,714	5,183	469	10.0
France .....	3,703	3,237	-466	-12.6
Korea .....	2,196	2,675	479	21.8
Taiwan .....	3,557	2,980	-577	-16.2
Netherlands .....	1,689	2,276	587	34.8
China .....	3,337	2,558	-779	-23.4
All other .....	34,166	33,088	-1,078	-3.2
<b>Total .....</b>	<b>98,505</b>	<b>104,249</b>	<b>5,745</b>	<b>5.8</b>
EU-12 .....	17,291	18,285	994	5.7
OPEC .....	7,012	6,039	-973	-13.9
Latin America .....	13,144	14,814	1,669	12.7
CBERA .....	1,214	1,352	138	11.4
Asian Pacific Rim .....	23,740	23,981	241	1.0
ASEAN .....	6,238	5,324	-914	-14.7
Eastern Europe .....	548	347	-201	-36.7
U.S. imports for consumption:				
Canada .....	38,297	44,081	5,783	15.1
Japan .....	38,361	43,581	5,221	13.6
Mexico .....	8,047	9,837	1,790	22.2
Germany .....	8,069	9,221	1,153	14.3
United Kingdom .....	4,296	4,867	571	13.3
France .....	5,291	5,128	-162	-3.1
Korea .....	1,298	2,063	765	59.0
Taiwan .....	681	779	98	14.4
Netherlands .....	830	671	-159	-19.2
China .....	282	358	76	27.1
All other .....	7,213	7,858	646	9.0
<b>Total .....</b>	<b>112,664</b>	<b>128,444</b>	<b>15,781</b>	<b>14.0</b>
EU-12 .....	21,318	22,826	1,508	7.1
OPEC .....	111	164	53	48.1
Latin America .....	9,071	10,960	1,890	20.8
CBERA .....	14	19	5	35.3
Asian Pacific Rim .....	41,399	47,653	6,254	15.1
ASEAN .....	439	532	93	21.2
Eastern Europe .....	127	168	41	32.4
U.S. merchandise trade balance:				
Canada .....	-9,413	-10,629	-1,215	(2)
Japan .....	-32,656	-36,237	-3,580	(2)
Mexico .....	-1,042	-1,667	-626	(2)
Germany .....	-4,519	-5,935	-1,416	(2)
United Kingdom .....	417	316	-102	(2)
France .....	-1,588	-1,891	-303	(2)
Korea .....	898	612	-286	(2)
Taiwan .....	2,876	2,201	-675	(2)
Netherlands .....	859	1,605	746	(2)
China .....	3,056	2,200	-856	(2)
All other .....	26,953	25,230	-1,723	(2)
<b>Total .....</b>	<b>-14,159</b>	<b>-24,195</b>	<b>-10,036</b>	<b>(2)</b>
EU-12 .....	-4,027	-4,541	-514	(2)
OPEC .....	6,902	5,875	-1,027	(2)
Latin America .....	4,074	3,853	-220	(2)
CBERA .....	1,199	1,333	133	(2)
Asian Pacific Rim .....	-17,659	-23,672	-6,013	(2)
ASEAN .....	5,800	4,792	-1,008	(2)
Eastern Europe .....	421	179	-242	(2)

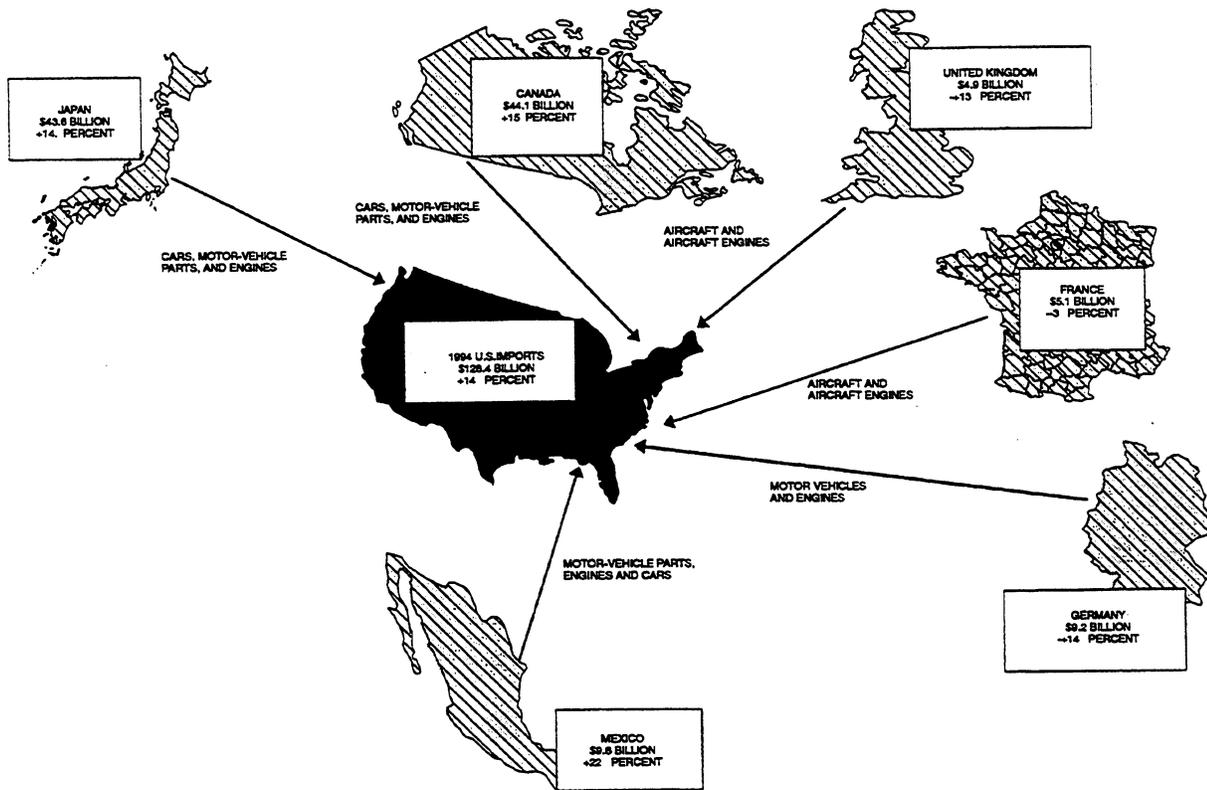
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 10-1**  
**U.S. transportation equipment sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

## Commodity Analysis

### ***Automobiles, trucks, buses, and bodies and chassis***

The U.S. trade deficit in automobiles, trucks, buses, and bodies and chassis increased by \$7.8 billion to \$57.9 billion in 1994. The U.S. deficit with Japan and Canada accounted for 51 percent (\$29.3 billion) and 33 percent (\$19.3 billion), respectively, of the total U.S. trade deficit for the sector. The deficits with Japan and Canada increased by \$2.6 billion and \$2.3 billion, respectively, despite increased U.S. exports to both countries.

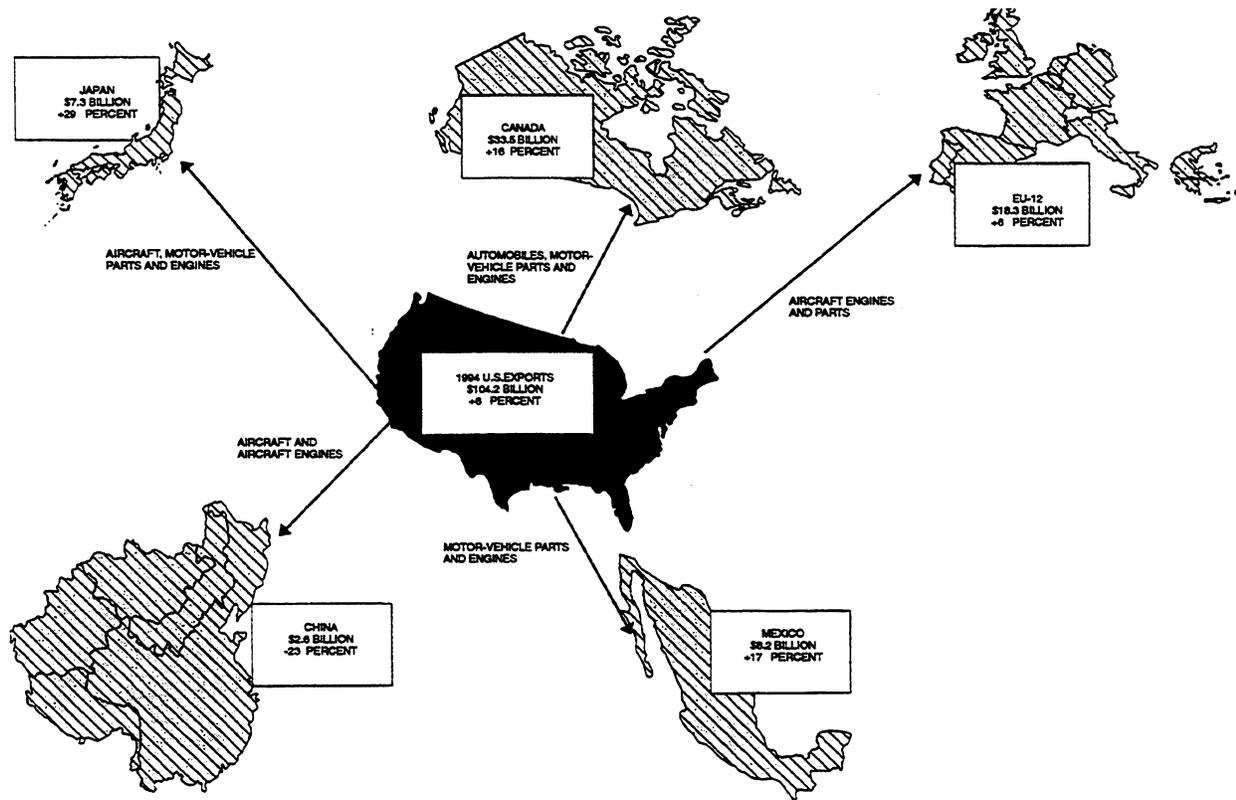
U.S. imports of automobiles, trucks, buses, and bodies and chassis totaled \$79.2 billion in 1994, representing an increase of \$10.6 billion (16 percent) from 1993. Imports from Japan and Canada each accounted for 39 percent (\$31.2 billion and \$30.7

billion, respectively) of total U.S. imports. Japan and Canada accounted for about 41 percent and 33 percent, respectively, of the rise in U.S. imports. These increases were attributable to the continuing recovery of the U.S. automobile market in 1994. While the value of U.S. imports from Japan increased, the number of vehicles imported did not, in part reflecting price increases that followed the appreciation in the value of the yen during 1994. Japanese producers did not increase the prices of their U.S.-marketed vehicles proportionately to increases in the value of the yen.<sup>1</sup>

U.S. exports increased by \$2.8 billion (15 percent) in 1994, to \$21.4 billion. The largest rise (\$2.1 billion) was to Canada, which received 53 percent, or \$11.4 billion of the 1994 total. U.S.-owned General Motors, Ford, and Chrysler increased their share of the Canadian market, primarily at the expense of Japanese-owned automakers. U.S.-owned

<sup>1</sup> John K. Teahen, Jr., "Japanese Prices Far Behind Yen Rise," *Automotive News*, May 15, 1995, p. 1.

**Figure 10-2**  
**U.S. transportation equipment sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

automakers used their diverse product line of light-duty trucks to take advantage of strong growth in that segment of the Canadian market. U.S. firms have also increased their competitiveness vis-a-vis Japanese automakers, all of which have raised the prices of vehicles they sell in North America following the appreciation in the value of the yen.

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### ***Certain motor-vehicle parts<sup>2</sup>***

The U.S. trade surplus in motor-vehicle parts grew by nearly \$778 million to \$4.6 billion in 1994. This improvement in the U.S. trade position was

<sup>2</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. Total production of these parts accounted for approximately 70 percent of the value of all motor-vehicle parts and accessories produced worldwide in 1994.

largely attributable to the increasing international competitiveness of U.S. parts makers, and the dominance of U.S. parts makers in leading edge technological developments, such as safety and environmental systems. Moreover, the production rationalization strategies of the U.S. Big Three automakers within North America contributed to increased trade with Canada and Mexico.

Imports of certain motor-vehicle parts in 1994 rose by \$1.4 billion to \$16.0 billion, a 10-percent increase over 1993. U.S. imports from Canada, the leading foreign source for auto parts, rose by 8 percent to \$6.4 billion in 1994. Imports of auto parts from Japan, the second-leading source of these products, increased by 11 percent, to \$4.2 billion in 1994. This latter increase was principally attributable to increased U.S. production of automobiles by the Japanese transplants, which rose by over 10 percent in 1994 to over 2 million vehicles. Imports from the third-leading foreign source of auto parts, Mexico, increased by 3 percent to \$2.1 billion in 1994.

U.S. exports of certain motor-vehicle parts rose by \$2.2 billion to \$20.7 billion in 1994, representing a 12-percent increase. U.S. exports to Canada, the leading export market, rose by 14 percent to \$11.8 billion in 1994, responding to a slight increase in car and truck production in that market. U.S. exports to Mexico, the second-leading export market, rose by 9 percent to \$4.4 billion in 1994, responding to a 10-percent increase in Mexican car and truck production. Japan reestablished itself as the third-leading export market, with U.S. exports rising by 15 percent to \$640 million in 1994. This increase likely was attributable to efforts by Japanese automakers to increase the use of foreign parts in their domestic auto production, and to the significant appreciation of the yen in 1994, which made U.S. auto parts comparatively less expensive.

Among the top 10 U.S. export markets for certain motor-vehicle parts, significant percentage increases in 1994 exports were recorded for Belgium (44 percent) and Australia (55 percent). Australia's new vehicle market grew in 1994, prompting Ford to expand production there. Industry sources report that this recovery followed 4 years of low vehicle sales. Moreover, in 1993, Australia reduced local-content requirements and tariffs on imported auto parts, thereby making the market more accessible to U.S. auto parts producers. Industry sources report that Belgian car and truck production increased by approximately 15 percent in 1994. Increased vehicle production and U.S. auto parts exports are likely attributable to Ford, which has begun producing what it calls its World Car, the Mondeo, in Belgium.

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## ***Aircraft, spacecraft, and parts***

The U.S. trade surplus in aircraft, spacecraft, and parts declined by \$2.3 billion (9 percent) in 1994, to \$22.1 billion. This slide was the result of the continued contraction in the global market for large civil aircraft (LCA), and the worldwide trend toward downsizing military forces. The primary market for LCA consists of the world airlines. During 1994, these airlines were recovering from unprecedented financial losses incurred during the early 1990s; therefore, many orders and deliveries of LCA were either deferred or canceled. Deliveries of military aircraft were similarly affected, largely due to slow economic growth in important markets and defense restructuring.

U.S. exports of aircraft, spacecraft, and parts declined by \$2.1 billion (7 percent), to \$28.6 billion in 1994. The most significant decreases in U.S.

exports were to Taiwan (\$428 million), China (\$389 million), and India (\$376 million). These declines were primarily the result of decreased U.S. shipments of LCA.

The leading foreign markets for U.S. aircraft, spacecraft, and related parts exports in 1994 were Japan, the United Kingdom, and China. Japan received \$3.3 billion in exports in 1994, a 19-percent increase from 1993; the United Kingdom received \$2.8 billion, up by 7 percent over 1993; and China received \$1.8 billion in U.S. exports, an 18-percent decrease from 1993. LCA accounted for 62 percent of U.S. exports to Japan and the United Kingdom, whereas exports of LCA to China amounted to more than 90 percent of all aircraft exports. U.S. exports to Japan and the United Kingdom were largely designed to meet projected demand, whereas U.S. exports to China were largely required to meet immediate demand for air-transportation service.

Imports of aircraft, spacecraft, and parts rose by \$176 million, (3 percent) during 1994, to \$6.4 billion. France, Canada, and the United Kingdom were the leading sources of these imports, accounting for 69 percent of total U.S. imports. Imports from France, the leading source of these products, declined by \$120 million to \$1.9 billion (down 6 percent) during 1994. LCA, such as French-assembled Airbus aircraft, represented 41 percent (\$788 million) of these imports from France, compared with 63 percent in 1993. Typically, orders for LCA are made 2 years in advance of their deliveries. The decline in 1994 foreign deliveries to U.S. airlines may be explained by the lack of profitability of U.S. airlines in 1992.

Imports from Canada rose by 27 percent to \$1.6 billion during 1994. Imports from Canada largely consisted of completed turbofan aircraft weighing under 33,000 pounds and parts for aircraft. Such aircraft are typically used in both commuter and business applications, whereas the parts are used in many types of aircraft. The rise in imports reflected the recovering U.S. market for these products. Imports of parts for aircraft from the United Kingdom amounted to \$454 million in 1994 and represented more than one-half of total U.S. imports from that country.

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## ***Construction and mining equipment***

The U.S. trade surplus in construction and mining equipment declined by \$866 million to \$3.5 billion in 1994, due largely to the increased value of imports from most of the major supplying countries,

particularly Japan and Belgium. This continued the decline in the trade surplus in this equipment from its peak of \$5.3 billion in 1991.

U.S. imports of construction and mining equipment rose by 51 percent (\$1.2 billion) to \$3.5 billion in 1994. U.S. imports from Japan, the leading foreign source of these products, grew by 30 percent to \$1.1 billion in 1994. Imports of excavators, which accounted for about one-half of Japanese shipments, rose by 27 percent in response to strong U.S. demand and limited U.S. production. Imports from both Belgium and Brazil tripled to \$358 million and \$102 million, respectively. U.S.-owned Caterpillar is believed to have sourced equipment (for example, excavators) from its Belgian and Brazilian factories during the ongoing United Auto Workers labor strike that began in June 1994 at its U.S. operations.<sup>3</sup> The increase in the value of U.S. equipment imports was also partially attributable to the depreciation of the U.S. dollar relative to major supplying countries' currencies, which increased the unit price of imported equipment and inflated the value of imports.

U.S. exports of construction and mining equipment rose by 5 percent (\$296 million) to \$6.9 billion in 1994. U.S. exports to Canada and Mexico, two of the leading U.S. markets in 1994, increased by 32 percent (to \$983 million) and 37 percent (to \$488 million), respectively. Industry sources indicate that the North American Free-Trade Agreement (NAFTA) was instrumental in the growth of U.S. exports to these countries. U.S. exports to Venezuela, which rose by 34 percent to \$510 million, primarily consisted of drilling equipment for oil wells and gas fields. Demand for these products was stimulated by the relaxation of foreign investment restrictions in the Venezuelan hydrocarbon sector in 1993 and the related increase in offshore exploration.

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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) decreased by \$246 million in 1994, to \$846 million. Although U.S. exports of engines increased in 1994, imports increased by a slightly larger margin. The demand

<sup>3</sup> "UAW Officer Casstevens Wants to Delay Retirement; UAW Says No," NewsEDGE/LAN, May 5, 1995, and *Machinery Outlook*, "1st half U.S. machinery trade figures yield interesting trends," Sept. 1994, p. 15.

for engines in the United States grew in 1994, particularly in the diesel truck market. Production of U.S. cars grew by 10 percent in 1994, while U.S. truck production increased by 17 percent.

U.S. imports of engines rose by \$1.1 billion (17 percent), to \$7.4 billion in 1994. Imports from the leading source, Japan, increased by 19 percent, to \$2.6 billion in 1994. This increase was primarily attributable to an increase in vehicle production by Japanese-owned automobile assembly plants in the United States. Imports from the second-leading source, Canada, increased by just 4 percent, to \$1.9 billion in 1994. However, a significant increase in imports came from the third-leading supplier, Mexico. U.S. imports of Mexican engines increased from \$526 million in 1993 to \$879 million in 1994, or by 67 percent. This sharp increase was attributable to expanded engine capacity in Mexico by U.S. and other foreign manufacturers that supply their U.S. vehicle assembly plants with engines from Mexico.

U.S. exports of engines rose by \$0.8 billion (11 percent), to \$8.3 billion in 1994. Exports to the leading market, Canada, increased by 10 percent, to \$4.4 billion in 1994. Exports to the second-leading market, Mexico, increased by 22 percent to reach \$1.1 billion in 1994. The latter increase was attributable to an 11-percent increase in car production, and a 6-percent increase in truck production in Mexico in 1994. Exports to the third-leading market, Australia, increased by 12 percent, to \$336 million in 1994. The Australian motor-vehicle market improved dramatically in 1994, spurring increased vehicle production.

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## **Miscellaneous vehicles and transportation equipment<sup>4</sup>**

The U.S. trade surplus in miscellaneous vehicles and transportation equipment increased by \$724 million to \$1.7 billion in 1994, due largely to the increased value of U.S. exports to Saudi Arabia. This reversed the decline in the trade surplus, which had fallen to \$976 million in 1993 from \$1.5 billion in 1992.

The level of U.S. imports of miscellaneous transportation equipment remained relatively unchanged, totaling \$1.5 billion in 1994. U.S. imports from Canada, the leading import source of these products, declined by 15 percent to \$689 million in

<sup>4</sup> Included in this sector are—snowmobiles, golf carts, and all-terrain vehicles; tanks and other armored fighting vehicles; special purpose motor vehicles (for example, fire trucks, concrete mixers, wreckers); wheelchairs; truck trailers; and parts thereof.

1994. This decline was principally attributable to a 29-percent drop in imports of all-terrain vehicles.

U.S. exports of miscellaneous transportation equipment rose by 29 percent (\$715 million) to \$3.2 billion in 1994. This growth was driven by a 246-percent increase in U.S. exports to Saudi Arabia, which totaled \$845 million in 1994. About 86

percent of this total was accounted for by tanks and other armored fighting vehicles (with tracked running gear), exports of which increased by sevenfold, to \$730 million in 1994.

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Table 10-2

Transportation equipment sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MT001	Aircraft engines and gas turbines:				
	Exports .....	8,266	8,467	201	2.4
	Imports .....	5,735	5,825	90	1.6
	Trade balance .....	2,531	2,642	111	4.4
MT002	Internal combustion piston engines, other than for aircraft:				
	Exports .....	7,450	8,288	838	11.2
	Imports .....	6,340	7,424	1,084	17.1
	Trade balance .....	1,110	864	-246	-22.2
MT011	Forklift trucks and similar industrial vehicles:				
	Exports .....	566	691	125	22.1
	Imports .....	721	955	234	32.5
	Trade balance .....	-155	-264	-109	-70.3
MT012	Construction and mining equipment:				
	Exports .....	6,651	6,947	296	4.5
	Imports .....	2,299	3,462	1,163	50.6
	Trade balance .....	4,352	3,485	-867	-19.9
MT025	Ball and roller bearings:				
	Exports .....	719	801	82	11.4
	Imports .....	1,114	1,302	188	16.9
	Trade balance .....	-395	-501	-106	-26.8
MT030	Primary cells and batteries and electric storage batteries:				
	Exports .....	957	1,125	168	17.6
	Imports .....	1,079	1,441	362	33.6
	Trade balance .....	-122	-316	-194	-159.0
MT033	Ignition, starting, lighting, and other electrical equipment:				
	Exports .....	1,432	1,409	-23	-1.6
	Imports .....	1,495	1,699	204	13.6
	Trade balance .....	-63	-290	-227	-360.3
MT037	Rail locomotive and rolling stock:				
	Exports .....	574	750	176	30.7
	Imports .....	729	1,161	432	59.3
	Trade balance .....	-155	-411	-256	-165.2
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:				
	Exports .....	18,555	21,365	2,810	15.1
	Imports .....	68,607	79,240	10,633	15.5
	Trade balance .....	-50,052	-57,875	-7,823	-15.6
MT039	Certain motor-vehicle parts:				
	Exports .....	18,469	20,685	2,216	12.0
	Imports .....	14,646	16,085	1,439	9.8
	Trade balance .....	3,823	4,600	777	20.3
MT040	Motorcycles, mopeds, and parts:				
	Exports .....	506	511	5	1.0
	Imports .....	877	937	60	6.8
	Trade balance .....	-371	-426	-55	-14.8
MT041	Miscellaneous vehicles and transportation-related equipment:				
	Exports .....	2,441	3,156	715	29.3
	Imports .....	1,465	1,456	-9	-0.6
	Trade balance .....	976	1,700	724	74.2
MT042	Aircraft, spacecraft, and related equipment:				
	Exports .....	30,673	28,576	-2,097	-6.8
	Imports .....	6,255	6,431	176	2.8
	Trade balance .....	24,418	22,145	-2,273	-9.3
MT043	Ships, tugs, pleasure boats, and similar vessels:				
	Exports .....	1,002	1,203	201	20.1
	Imports .....	1,019	653	-366	-35.9
	Trade balance .....	-17	550	567	3,335.3
MT044	Motors and engines, except internal combustion, aircraft, or electric:				
	Exports .....	244	275	31	12.7
	Imports .....	283	374	91	32.2
	Trade balance .....	-39	-99	-60	-153.8

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

<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 widened significantly in 1994 to \$36.5 billion, compared with a deficit of \$26.6 billion in 1993 (table 11-1). Despite a strong 16-percent increase in sector exports—due in large part to rapid growth in demand for electronic products in Japan, Canada, and Mexico—the sector deficit worsened as a result of a \$25.0-billion increase in U.S. electronics imports. This represented a 21-percent increase over the corresponding 1993 import figure. Sharp increases in the U.S. trade deficits for both computers and semiconductors were the principal factors contributing to the dramatic decline in the overall U.S. electronics trade position during 1994.

The large increase in U.S. electronics imports during 1994 can be attributed to the rapid growth in U.S. consumer spending on computers and the related surge in demand for semiconductor components that are used extensively by U.S.-based manufacturers of computers and communications equipment. U.S. imports of computers, computer peripherals, and parts grew by \$8.3 billion in 1994 to \$46.2 billion, while imports of diodes, transistors, integrated circuits, and other semiconductor devices increased by \$6.6 billion to \$26.0 billion. Together, these two categories of products accounted for 50 percent of 1994 U.S. electronics imports, and the combined import increase for computers and semiconductors represented 59 percent of the total 1994 import increase for the sector. Significant increases in imports were also apparent during 1994 for radio transmission and receiving equipment (\$1.3 billion increase) and measuring, testing, controlling, and analyzing instruments (\$1.2 billion increase). Import growth for both of these categories reflected the continuing impact of strong growth in the U.S. economy.

Though improvements in export performance were insufficient to offset the effects of import growth, large increases in export revenues occurred during 1994 for both telephone and telegraph equipment (29-percent growth), and computers (15-percent growth). For both of these industries, strong consumer demand in East Asia and Canada, as well as the continuing weakness of the U.S. dollar, helped boost export revenues dramatically. In the case of

medical goods and recorded media (including compact discs, tapes, and computer software), large increases in U.S. exports during 1994 reflected the impact of sustained consumer interest in U.S. technology, particularly in Western Europe and Japan. In contrast to most other electronics industries, substantial improvements in the industry trade balance position were apparent in 1994 for both medical equipment (\$613 million trade surplus increase) and recorded media products (\$322 million trade surplus increase).

### U.S. Bilateral Trade

Ranked in terms of total import and export value, the largest U.S. trading partners in electronics products during 1994 were Japan, Canada, Mexico, Singapore, and Taiwan. Japan remained the largest electronics import supplier in 1994, accounting for 31 percent (\$45.1 billion) of all U.S. imports in the sector. Canada remained the largest U.S. electronics export market in 1994, purchasing \$15.8 billion in U.S. electronics goods (14 percent of total U.S. sectoral exports). The most widely traded electronics products in 1994—in terms of combined import and export value—were computers and computer parts, semiconductors, telecommunications equipment, radio transmission and receiving equipment, and precision instruments.

Substantial increases in U.S. imports of semiconductors from Japan (\$1.9 billion increase) and Korea (\$1.4 billion increase), as well as the \$2.0 billion increase in computer imports from Japan, represented the largest changes in bilateral trade patterns during 1994 (figure 11-1). Meanwhile, U.S. exports of semiconductors to Malaysia grew by \$849 million in 1994 (42 percent). Another sizable bilateral trade improvement was evident in telephone and telegraph equipment, where U.S. exports to Korea rose by 132 percent in 1994 to \$664 million (figure 11-2).

Bilateral deficits with Mexico, Singapore, and Taiwan also increased in 1994, to \$1.6 billion, \$7.5 billion, and \$7.1 billion, respectively. Sustained

Table 11-1

Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
			<i>Million dollars</i>	
U.S. exports of domestic merchandise:				
Japan .....	9,512	11,320	1,808	19.0
Canada .....	13,784	15,780	1,997	14.5
Mexico .....	7,761	9,852	2,091	26.9
Singapore .....	4,609	4,954	346	7.5
Taiwan .....	3,556	3,956	400	11.2
Malaysia .....	2,648	3,738	1,089	41.1
Korea .....	3,220	4,479	1,259	39.1
United Kingdom .....	6,967	8,192	1,225	17.6
Germany .....	6,278	6,291	12	0.2
China .....	1,406	1,410	4	0.3
All other .....	34,315	39,205	4,890	14.2
<b>Total .....</b>	<b>94,056</b>	<b>109,177</b>	<b>15,120</b>	<b>16.1</b>
EU-12 .....	25,922	28,242	2,320	8.9
OPEC .....	2,246	2,046	-199	-8.9
Latin America .....	13,628	17,207	3,579	26.3
CBERA .....	1,030	1,191	162	15.7
Asian Pacific Rim .....	31,303	37,716	6,413	20.5
ASEAN .....	9,893	12,296	2,403	24.3
Eastern Europe .....	354	344	-10	-3.0
U.S. imports for consumption:				
Japan .....	40,414	45,085	4,671	11.6
Canada .....	7,470	9,021	1,551	20.8
Mexico .....	7,991	11,436	3,444	43.1
Singapore .....	10,010	12,441	2,431	24.3
Taiwan .....	9,502	10,972	1,471	15.5
Malaysia .....	7,671	10,493	2,822	36.8
Korea .....	7,265	9,173	1,908	26.3
United Kingdom .....	3,553	4,089	536	15.1
Germany .....	4,081	4,522	441	10.8
China .....	4,731	7,272	2,541	53.7
All other .....	17,993	21,152	3,159	17.6
<b>Total .....</b>	<b>120,682</b>	<b>145,656</b>	<b>24,974</b>	<b>20.7</b>
EU-12 .....	13,208	14,908	1,700	12.9
OPEC .....	586	934	348	59.4
Latin America .....	8,880	12,461	3,581	40.3
CBERA .....	468	542	74	15.8
Asian Pacific Rim .....	84,947	101,552	16,605	19.5
ASEAN .....	22,983	30,050	7,067	30.7
Eastern Europe .....	38	52	14	37.8
U.S. merchandise trade balance:				
Japan .....	-30,902	-33,765	-2,863	(2)
Canada .....	6,313	6,760	446	(2)
Mexico .....	-230	-1,584	-1,354	(2)
Singapore .....	-5,402	-7,486	-2,085	(2)
Taiwan .....	-5,946	-7,016	-1,071	(2)
Malaysia .....	-5,023	-6,755	-1,732	(2)
Korea .....	-4,045	-4,694	-649	(2)
United Kingdom .....	3,414	4,103	689	(2)
Germany .....	2,197	1,768	-429	(2)
China .....	-3,325	-5,862	-2,537	(2)
All other .....	16,322	18,053	1,731	(2)
<b>Total .....</b>	<b>-26,626</b>	<b>-36,480</b>	<b>-9,853</b>	<b>(2)</b>
EU-12 .....	12,714	13,334	620	(2)
OPEC .....	1,660	1,112	-547	(2)
Latin America .....	4,747	4,746	-1	(2)
CBERA .....	562	650	88	(2)
Asian Pacific Rim .....	-53,644	-63,836	-10,191	(2)
ASEAN .....	-13,090	-17,753	-4,663	(2)
Eastern Europe .....	316	292	-25	(2)

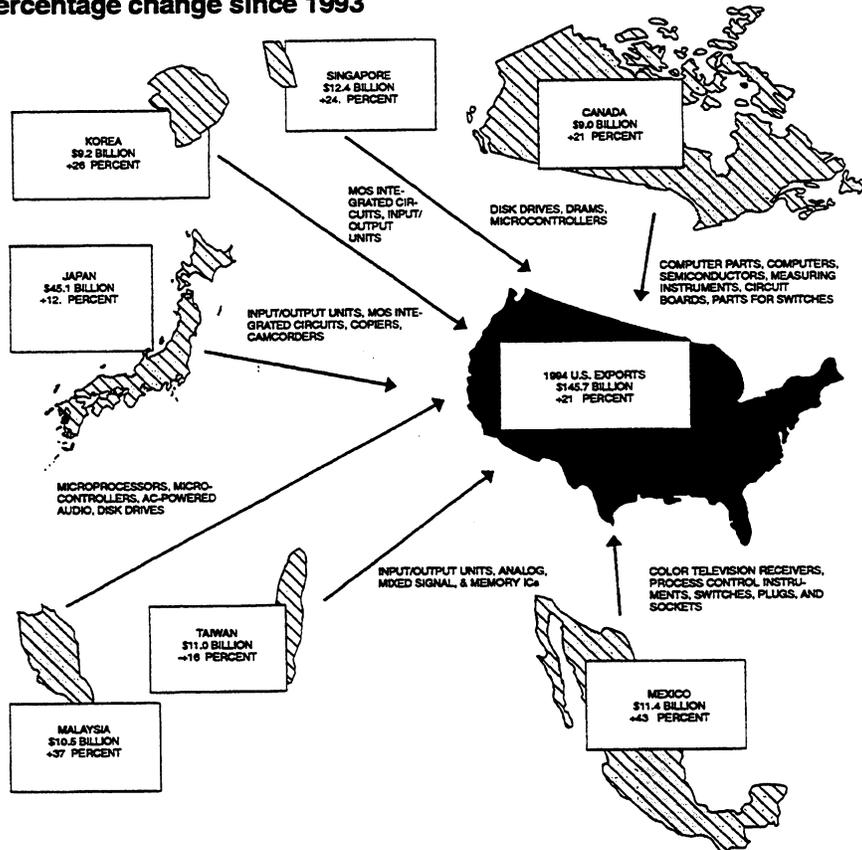
<sup>1</sup> Import values are based on Customs value; export values are based on f.a.s. value, U.S. port of export.

<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 1994.

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

**Figure 11-1**  
**U.S. electronic products sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

demand from U.S. consumers for low-priced computers, peripherals, and semiconductors contributed most to the changes in bilateral trade patterns with all three of these countries. U.S. electronics imports from Mexico grew by 43 percent, to \$11.4 billion, largely as a result of rapid growth in imports of computers (\$550 million increase). In the case of Singapore, U.S. imports grew by 24 percent, to \$12.4 billion. A \$1.7 billion (24 percent) increase in U.S. imports of computers and peripherals was the primary factor behind the change in the U.S.-Singapore trade balance. Finally, U.S. electronics imports from Taiwan grew by \$1.5 billion in 1994, reflecting the impact of strong U.S. demand for Taiwan computers and parts (\$716 million increase), and semiconductors (\$558 million increase).

sharply from the \$12.5 billion deficit in 1993. The continuing deterioration of the U.S. computer trade balance reflects the impact of a sharp increase in imports, which rose from \$37.9 billion in 1993 to \$46.2 billion in 1994—a 22-percent increase. Imports from China, Malaysia, and Mexico grew fastest in 1994, with the value of computer imports from each of these countries rising by more than 50 percent between 1993 and 1994. Japan retained its position as the leading supplier of U.S. computer imports, while Singapore strengthened its position as the second-leading import supplier, largely as a result of rapid growth in U.S. imports of disk storage products. These disk drives are used extensively by computer manufacturers in the United States.

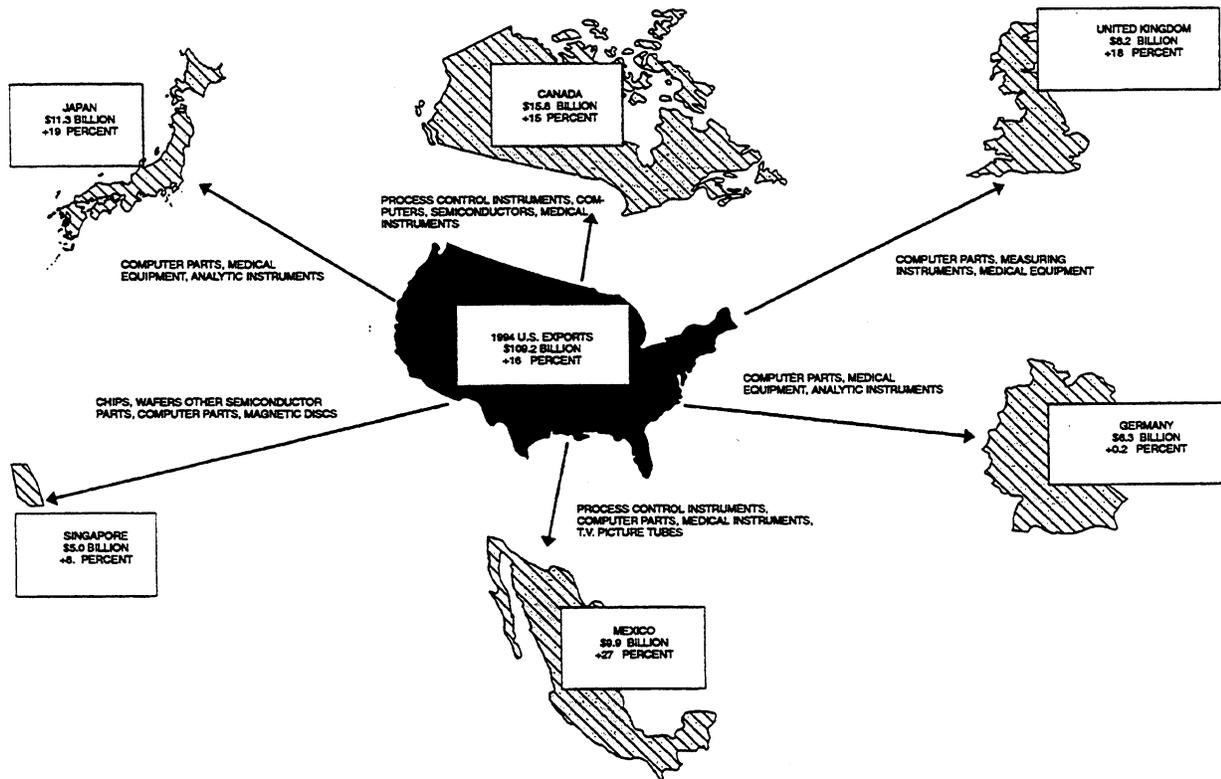
## Commodity Analysis

### Automatic data processing machines

The U.S. trade deficit in automatic data processing machines (i.e., computers, peripherals, and computer parts) grew again in 1994 to \$17.1 billion, up

Declining computer and peripheral prices, which typically result from the steady improvements in the processing power of microelectronic components, continued to drive rapid growth in U.S. import demand throughout 1994. U.S. consumer interest in networked personal computers and printers accelerated in 1994, forcing many U.S. manufacturers of finished computer systems to boost imports of key computer inputs, such as printed circuit boards upon which microelectronic devices are mounted, display units, and hard disk drives.

**Figure 11-2**  
**U.S. electronic products sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

U.S. imports of flat-panel displays—advanced technology screens designed for use in notebook computers—increased by \$1.2 billion in 1994 to \$1.8 billion. Production capacity shortages in Japan, the preeminent world supplier of flat-panel displays, kept prices for these screens quite high in comparison with more widely used cathode-ray tube monitors. However, superior imaging features in the new screens helped fuel demand from quality-conscious U.S. consumers. U.S.-based manufacturers of notebook computers—including Apple Computer, Inc. and Dell Computer Corp.—purchased large numbers of advanced displays from Japanese suppliers, such as Sharp Electronics Corp. Magnetic disk storage device imports also grew substantially in 1994, mirroring the growth in U.S. demand for finished computers. Singapore, Japan, Malaysia, and Thailand accounted for virtually all U.S. imports of data storage devices in 1994.

The size of the increase in the 1994 computer trade deficit was reduced somewhat by a significant increase in U.S. information technology exports. Overall, U.S. exports of computers, peripherals, and

parts grew by \$3.7 billion (15 percent) in 1994 to \$29.1 billion. Particularly strong growth was apparent in U.S. exports to Ireland, France, Singapore, and Mexico. U.S. exports to each of those four countries grew by more than 20 percent during 1994. Strong growth in foreign demand for price-competitive computer workstations, servers, and printed circuit boards mounting microelectronic components, coupled with the continuing weakness of the U.S. dollar versus the yen and major European currencies, helped explain the large increase in 1994 exports. Moreover, exports grew in response to the ongoing expansion in intracompany shipments of such items as computer subassemblies and peripherals. This factor explains much of the growth in U.S. sales to such countries as Ireland, Singapore, and Mexico, where U.S.-owned manufacturers such as Compaq Computer Corp. and International Business Machines Corp. have established large computer assembly facilities.

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

The value of both U.S. imports and exports of semiconductors grew by over 30 percent in 1994, largely as a result of price increases.<sup>1</sup> During 1994, semiconductor import and export prices were on average 21 percent and 26 percent higher, respectively, than in 1993. Worldwide prices of semiconductors rose during 1994 because most semiconductor producers did not anticipate that demand for their products would grow so rapidly.<sup>2</sup> As a result, production capacity was insufficient to meet demand, leading customers to bid up semiconductor prices.<sup>3</sup>

Semiconductor prices also rose during 1994 because Japanese producers, which accounted for 29 percent of U.S. imports, raised many of their export prices in response to the yen appreciation. Price increases did not reduce the market shares of Japanese producers because they typically lead changes in the price of the types of semiconductors that they export. Most notably, these producers generally lead changes in the price of dynamic random access memories (DRAMs). These devices accounted for about 26 percent of U.S. semiconductor imports and 5 percent of U.S. semiconductor exports in 1994.<sup>4</sup>

U.S. semiconductor import and export growth in 1994 was also driven by an expansion in world demand for personal computers (PCs), telecommunications apparatus, and other electronic equipment that incorporates semiconductors. In 1994, sales of this equipment grew by 13 percent in the United States and at a somewhat lower rate in other areas of the world.<sup>5</sup>

U.S. exports of semiconductors grew by \$4.3 billion (31 percent) in 1994 to \$18.1 billion. Unassembled, chips, dice, wafers, and other semiconductor parts accounted for about half of this increase. These parts are primarily sent abroad to have labor-intensive assembly and testing operations performed on them and then returned as imports to the United States. Microprocessors accounted for about

15 percent of the 1994 growth in U.S. semiconductor exports. U.S. firms dominate the production of these devices, which are primarily used in PCs. In 1994, world demand for PCs shifted to PCs incorporating more advanced and expensive microprocessors, most notably Intel's 80486 and Pentium microprocessors. DRAMs accounted for about 10 percent of the rise in U.S. semiconductor exports.

The composition of U.S. semiconductor exports did not change notably between 1993 and 1994. Unassembled semiconductors and other semiconductor parts accounted for about 51 percent of all U.S. semiconductor exports both in 1993 and 1994. Assembled microprocessors accounted for 10 percent of these exports in 1994, compared to 8 percent in 1993. Assembled DRAMs and other memory products accounted for 8 percent of U.S. semiconductor exports in 1994, compared to 7 percent in 1993. The latter two rises were offset primarily by a decrease in the share of U.S. exports of discrete semiconductors. Discretes are generally technologically more mature and less sophisticated products than integrated circuits. Discretes' share of semiconductor consumption has fallen worldwide over the last two decades. These devices accounted for 9 percent of U.S. semiconductor exports in 1994, compared to 11 percent in 1993.

The Asia-Pacific Rim region and the EU accounted for most of the growth in U.S. exports of semiconductors. These regions are large producers of electronic equipment. Both regions are also principal exporters of this equipment and the Asia-Pacific Rim region is the main site used to assemble and test U.S. semiconductor parts.

U.S. imports of semiconductors increased by \$6.6 billion (33 percent) in 1994 to \$26.0 billion. Products from Japan, South Korea, and Taiwan accounted for almost 60 percent of this import growth. These countries principally supply the United States with DRAMs, whose use is particularly intensive in the 80486 and Pentium microprocessor-based PCs that dominated the PC market in 1994. Malaysia, Singapore, Hong Kong, and the Philippines, the main sites for the assembling and testing of U.S. semiconductor parts, accounted for most of the remaining increase in U.S. imports.

In 1994, the composition (by value) of U.S. semiconductor imports changed primarily because of DRAM and, to a lesser extent, microprocessor price increases. DRAMs and other memory products accounted for about 39 percent of the value of U.S. semiconductor imports in 1994, compared to 34 percent in 1993. Microprocessors, accounted for about 10 percent of the value of these imports in 1994, compared to 9 percent in 1993. These rises were offset primarily by a decrease in U.S. imports of microcontrollers. Many of these devices are technologically more mature products and subject to

<sup>1</sup> During 1994, U.S. semiconductor import and export unit growth was 11 percent and 6 percent, respectively.

<sup>2</sup> Edmund B. Swort, CFA, "Semiconductor Industry," *Value Line*, Jan. 27, 1995, p. 1056.

<sup>3</sup> "A Question of Balance," *Electronics Weekly*, Apr. 19, 1995, p. 13.

<sup>4</sup> Anthony Cataldo, "DRAM Vendors Weigh Price Jumps," *Electronics Weekly*, Mar. 27, 1995, p. 1.

<sup>5</sup> Electronic Industries Association (EIA), *Outlook 1995* (Washington DC: EIA, 1995).

great pricing pressures. These devices accounted for about 19 percent of U.S. semiconductor imports in 1994, compared to 22 percent in 1993. From 1993 to 1994, both semiconductor parts' and discretely' share of U.S. imports remained unchanged accounting for about 10 percent and 9 percent, respectively, of semiconductor imports.

During 1993-94, the U.S. trade deficit in semiconductors increased by \$2.3 billion, or by 41 percent, while rising to \$7.9 billion. U.S. imports rose more rapidly than U.S. exports as the rate of growth in semiconductor demand in the United States was higher than that in the rest of the world.<sup>6</sup> The U.S. trade deficit in semiconductors has grown since 1989. The deficit has reached a record level in each year since 1991.

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## **Telephone and telegraph apparatus**

U.S. exports of telecommunication apparatus flourished in 1994 as many U.S. trading partners worked to upgrade and expand their national communication infrastructures. Exports reached \$6.7 billion for the year, representing an increase of \$1.5 billion (29 percent) over 1993. During the same period, U.S. imports of telecommunication equipment grew by 21 percent, permitting the overall trade deficit in equipment to enter its sixth year of decline, with a decrease from \$944 million in 1993 to \$724 million in 1994.

U.S. exports to Asia, Australia, and Mexico grew significantly during 1994. Within Asia, sales of equipment to Korea and Hong Kong were particularly strong, increasing by 133 and 58 percent, respectively. Both countries increased their imports of cellular equipment to respond to rising domestic demand. Korea's second licensed cellular carrier began a 3-year project to install digital equipment for its mobile services. Similarly, Hong Kong's cellular market continued its rapid growth, though it already boasts the highest per capita consumption of handheld portable phones of any major cellular market in the world. Both countries also increased purchases of wireline equipment, such as private branch exchanges, key telephone sets, cordless phones, and modems, in an effort to improve communications in the business community.

<sup>6</sup> Semiconductor consumption grew by 33 percent in the United States, which accounts for about a third of world semiconductor consumption, and by 24 percent in the rest of the world. Robert Reistelhueber, "Global Electronics Forecast: Semiconductors," *Electronics Business Buyer*, Jan. 1995, p. 63.

Exports to Australia were up by nearly 68 percent, from \$118 million in 1993 to \$197 million in 1994. Exports consisted primarily of carrier line equipment and cellular apparatus to supplement Australia's extensive communications network.

U.S. exports to Mexico expanded by \$217 million (58 percent) as the country continued efforts to improve its domestic telecommunication infrastructure and increase main line penetration ratios.<sup>7</sup> Toward these goals, Mexico's public telephone company, Telmex, increased its purchases of line equipment and parts for switches. In addition, the North American Free-Trade Agreement (NAFTA) has encouraged the establishment of new businesses in Mexico, resulting in demand for office telecommunication equipment such as telephone sets, private branch exchanges, and modems. U.S. producers account for approximately half of Mexico's telecommunication imports, due to the geographical proximity of U.S. suppliers, high quality and compatibility of U.S. products, rapid delivery time, and availability of technical assistance.

Examined by product category, exports of cellular equipment, PBXs, and line apparatus grew most rapidly in 1994. Increased cellular exports are explained by the growing number of countries establishing or expanding their wireless systems. Many U.S. trading partners licensed additional cellular carriers to respond to escalating consumer demand in 1994. Exports of line apparatus were largely in response to demand from countries that are working to improve their national telecommunication infrastructures. Finally, demand for PBXs reflects continued efforts by multinational firms to enhance competitiveness by improving corporate communication systems.

By comparison, U.S. imports of telecommunication equipment grew by \$1.3 billion, or by 21 percent, in 1994 to \$7.4 billion. Korea and Mexico recorded the greatest increases among major foreign suppliers of telecommunication equipment to the U.S. market, with import growth concentrated in modems and parts for terminal and switching equipment.<sup>8</sup>

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<sup>7</sup> These ratios reflect the number of telecommunication lines per 100 people in a country. Mexico currently has less than 10 lines per 100 people, compared with over 50 for the United States.

<sup>8</sup> Approximately 40 percent of imports of telecommunication equipment from Mexico in 1994 consisted of products assembled or processed from U.S. components and entered under subheading 9802 of the *U.S. Harmonized Tariff System (HTS)*. On average, 45 percent of the value of such imports was considered to be of U.S. origin and therefore entered duty free. Several U.S. companies, including AT&T and Motorola, maintain production facilities in Mexico.

## **Apparatus for making, breaking, protecting, or connecting electrical circuits<sup>9</sup>**

Both U.S. exports and imports of apparatus for making, breaking, protecting, or connecting electrical circuits grew significantly in 1994. The growth in the traded value of these electronic apparatus resulted primarily from a worldwide rise in demand for electronic equipment, particularly PCs, telecommunications gear, automobile electronic systems, and medical equipment. The use of these apparatus in electronic equipment is extensive and generally growing.<sup>10</sup> U.S. trade in these apparatus also grew in 1994 as a result of the NAFTA, which encouraged trade between the United States and Mexico. The value of trade also expanded, partly in response to rising prices for some of these apparatus. Worldwide demand for these apparatus has grown in the past by no more than 5 percent annually, but in 1994 demand unexpectedly grew by 12 to 15 percent.<sup>11</sup> As a result, some supply constraints developed, raising the prices of some of these goods.<sup>12</sup>

U.S. exports of apparatus for making, breaking, protecting, or connecting electrical circuits rose by \$1.2 billion (24 percent) in 1994 to \$6.5 billion. This growth was primarily accounted for by Mexico (37 percent of the increase), Canada (23 percent), the EU (22 percent), and members of the Association of South East Asian Nations (ASEAN) (6 percent). The 1994 rise in U.S. exports to Mexico and Canada consisted primarily of apparatus classified under HTS heading 8536. Producers in Mexico and Canada primarily use these components to manufacture automobiles and automobile subassemblies as well as PCs and telecommunications accessories for the U.S. market, which expanded rapidly

<sup>9</sup> These apparatus consist of the following: (1) fuses, relays, switches, connectors, and electrical terminals for a voltage exceeding 1000 V (classified in HTS heading 8535), and (2) fuses, relays, etc., of a voltage not exceeding 1000 V (HTS heading 8536), (3) boards and consoles incorporating these components (HTS heading 8537), and (4) parts of these components (HTS heading 8538), as well as (5) printed circuit boards (classified in HTS heading 8534).

<sup>10</sup> "How's Business," and "Global Electronics Forecast," *Electronic Business Buyers Guide*, Jan. 1995, p. 15 and pp. 64-69.

<sup>11</sup> Bernard Levine, "New Gear Buys Sales of Veteran Caps, Resistors, and Connectors," and "Booming Growth Can't Last, Say Distributors-Again" *Electronic News*, Jan. 2, 1995, pp. 61 and 62.

<sup>12</sup> While prices of electronic components generally fall due to technological innovations, prices for switches and connectors, for example, rose by about 2 percent in 1994. "Electronic Buying Data Prices," *Electronic Business Buyer*, Jan. 1995, p. 105.

in 1994. Most of the rise in U.S. exports to the EU consisted of printed circuit boards used principally to make PCs and package integrated circuits (ICs). U.S. firms are major suppliers for manufacturers of PCs and ICs in the United Kingdom, Germany, and France, all of which increased their production of these end products in 1994.<sup>13</sup>

U.S. imports of apparatus for making, breaking, protecting, or connecting electrical circuits rose by \$1.1 billion (18 percent) in 1994 to \$7.4 billion. All major sources, especially Mexico, China, and the ASEAN countries, increased their supply of these imports. Mexico, China, and the ASEAN countries are primary suppliers of subcontract production operations to U.S. producers.

From 1993 to 1994, the U.S. trade deficit in these apparatus decreased by \$121 million (12 percent) to \$909 million. During 1994, U.S. exports of these goods grew at a faster pace than U.S. imports because domestic producers generally have a worldwide competitive advantage in supplying many of the components used by manufacturers of PCs, telecommunications gear, and the other electronic equipment. Time-to-market is of key importance in maintaining a competitive advantage in the worldwide electronic equipment marketplace, and most of the innovation in this equipment takes place in the United States. By virtue of their geographical proximity, organizational flexibility, and innovative design teams, U.S. suppliers of these manufacturers, including producers of apparatus for making, breaking, protecting, or connecting electrical circuits, can generally make design changes and deliver products more quickly than foreign suppliers. These U.S. suppliers also often hold an advantage in supplying equipment producers abroad because the product designs and supply requirements of foreign producers generally mirror those of U.S. products.

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## **Measuring, testing, controlling, and analyzing instruments**

U.S. exports of measuring, testing, controlling, and analyzing instruments grew by \$1.0 billion in 1994, reaching \$10.1 billion. The 12-percent increase was mostly due to the growth in U.S. exports of technology-intensive instruments, of which the United States is the leading producer. Such instruments are increasingly being used by all segments of the manufacturing sector to increase productivity, and to attain greater consistency in the quality of

<sup>13</sup> Peter Fletcher, "European Industry Exhibits Mild Growth," *Electronics*, Jan. 9, 1995, p. 11.

manufactured products, as well as to identify and control contaminants in the air, water, and solid waste. In addition, the rise in U.S. exports can be attributed to the growing number of U.S. manufacturers that have become more focused on developments in export markets.

U.S. imports of instruments rose by \$1.2 billion (26 percent) to \$5.7 billion in 1994. This substantial increase in U.S. imports of instruments was stimulated by the availability of a growing number of advanced-technology and competitively priced foreign-made instruments. A rise in intra-corporate trade between U.S. companies and their subsidiaries in foreign countries, and between the U.S. subsidiaries of foreign companies and related parties in other countries also bolstered import growth. Additionally, the NAFTA has led to an increase in the value of U.S. imports from Canada and Mexico.

U.S. exports of technology-intensive instruments grew substantially in 1994. Among the products with significant increases were miscellaneous measuring and checking instruments, up by 23 percent to \$1.1 billion; automatic regulating and controlling instruments, up by 13 percent to \$2.0 billion; and instruments for measuring or checking electrical quantities, up by 8 percent to \$2.4 billion. Canada was the largest market for U.S.-made instruments, accounting for 19 percent of total U.S. exports, followed by Japan with 12 percent, and Mexico, with 11 percent. U.S. exports to Canada, Japan, and Korea grew fastest in 1994. Exports to Canada rose by 29 percent (\$420 million); to Japan, by 20 percent (\$211 million); and to Korea, by 34 percent (\$135 million). The substantial increase in U.S. exports to Canada was primarily generated by a 37-percent (\$230 million) increase in U.S. shipments of automatic regulating and controlling instruments. The rise in U.S. exports to Japan was mostly a result of a 21 percent (\$73 million) growth in exports of instruments for measuring or checking electrical quantities, and a fivefold (\$64 million) increase in exports of optical instruments for inspecting semiconductor wafers. The marked rise in U.S. exports to Korea was due in large part to greater demand for advanced-technology instruments in the expanding Korean industrial infrastructure. The growth in U.S. exports to Mexico was generated by increased U.S. shipments of parts and components to U.S.-owned assembly plants located in Mexico, as well as U.S. shipments of instruments purchased by Mexico's rapidly growing manufacturing sector.

Japan remained the largest source of U.S. imports of instruments in 1994, accounting for 23 percent of the total, followed by Mexico with 18 percent, Canada with 13 percent, Germany with 12 percent, and the United Kingdom with 10 percent. Imports from Mexico and Canada showed the greatest increases. U.S. imports from Mexico increased by 61 percent (\$391 million), mostly due to a 170-percent rise in U.S. imports of speedometers and tachometers, as well as a 67-percent increase in U.S. im-

ports of parts and accessories for automatic regulating and controlling instruments. U.S. imports from Canada grew by 41 percent (\$213 million), due in large part to a fourfold increase in U.S. imports of speedometers and tachometers, and a 140-percent increase in imports of parts and accessories for automatic regulating and controlling instruments. U.S. imports from Japan grew by 15 percent (\$169 million), mostly from an increase in U.S. imports of automatic regulating and controlling instruments, and parts thereof. It is believed that related party transactions accounted for a substantial part of U.S. imports from Mexico, Canada, and Japan.

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## ***Radio transmission and reception apparatus, and combinations thereof***

U.S. imports of radio transmission and reception apparatus, and combinations thereof increased by 21 percent from 1993 to 1994, from \$6.4 billion to \$7.7 billion. The products experiencing the greatest increases were radiobroadcast receiver combinations, imports of which rose by 31 percent to \$1.3 billion. The principal reasons for the increase were the acceleration of trade with Mexico as a result of the NAFTA, and the movement of the production of mass-produced, low-value-added consumer electronic products from more developed Southeast Asian countries like Japan and Korea to less developed countries like China and Malaysia. The availability of lower cost products from China, Malaysia, and Mexico has led to increased demand because the elasticity of demand for consumer electronic products is high. Imports of radio combinations from China, Malaysia, and Mexico increased by \$437 million to \$1.2 billion, \$320 million to \$1.0 billion, and \$234 million to \$485 million, respectively. Although imports of low-cost radio combinations from these countries increased dramatically, imports from Japan and Korea declined by \$102 million and \$31 million, respectively.

U.S. exports of radio transmission and reception apparatus increased by 21 percent to \$5.2 billion. Exports to Mexico and Japan, the two largest markets for U.S. products, increased by 10 percent to \$701 million and 125 percent to \$618 million, respectively.

The continuing trade deficit increased by \$461 million to \$2.6 billion. China, Japan, and Korea remained the countries with which the United States had the largest trade deficits. The deficits with Japan and Korea improved, by \$667 million to \$670 million and \$60 million to \$356 million, respectively, while the deficit with China grew by \$426 million to \$1.1 billion. Trade surpluses with Canada and Mexico continued, but declined by

\$113 million to \$241 million and by \$156 million to \$55 million, respectively.

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## **Audio and video recording and reproducing equipment**

U.S. imports in this sector increased by \$838 million, or 15 percent, from \$5.4 billion in 1993, to \$6.3 billion in 1994. Exports also increased, but only by \$61 million, and the sector trade deficit expanded by \$777 million (16 percent) in 1994.

More than 90 percent of the increase in imports was accounted for by three product types: stand-alone videocassette recorders (VCRs), compact-disc (CD) players, and television-VCR (TV-VCR) combinations. VCRs accounted for the largest increase in value terms, \$332 million or 12 percent, but TV-VCR combinations experienced a much larger proportional growth, 87 percent, or \$209 million. Of these three product types, only relatively high-end TV-VCR combinations were produced in significant quantities in the United States during 1993-94. Thus, the increase in imports of these products was due primarily to an expansion of the U.S. market as discretionary consumer spending rose during the recent U.S. economic recovery.

The total increase in U.S. imports of audio and video recording and reproducing equipment in 1994 was more than fully accounted for by three countries, which represented 37 percent of 1994 imports. Imports from Malaysia, primarily CD players, VCRs, and TV/VCRs, rose by \$458 million, or 51 percent in 1994; imports from China, primarily CD players and VCRs, by \$393 million, or 140 percent; and imports from Thailand, primarily VCRs, by \$121 million, or 65 percent. Imports from Japan, the largest single source, declined by \$211 million, or 8 percent.

Approximately 90 percent of the \$61-million increase in U.S. exports was accounted for by sound-recording and miscellaneous sound-reproducing equipment. These categories include CD players, optical-disc recording equipment, and a wide variety of miscellaneous products.

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## **Medical goods**

The U.S. trade surplus in medical goods increased by \$613 million in 1994 to \$3.6 billion, continuing an 8-year trend of steadily increasing trade surpluses for the U.S. industry. U.S. exports increased

by almost 9 percent (by \$637 million to \$8.0 billion), while imports rose by less than 1 percent during the period (by \$24 million to \$4.4 billion). Asian markets, led by Japan and Korea, were responsible for a significant portion of the increase in the U.S. trade surplus as exports to those two markets increased by 21 percent and 43 percent, respectively.

Private and public hospitals, clinics, and physicians in Japan increased their purchases of medical goods to meet the escalating health care requirements of one of the most aged populations in the world. Although exports to that country had slowed considerably over the past several years due to Japan's severe recession, somewhat improved economic conditions in Japan in 1994 enabled many Japanese health care entities to expand their purchases of such items as electromedical equipment and apparatus, patient monitoring equipment, as well as needles, syringes, and other commodity hospital and medical supplies. Korea and other rapidly developing East Asian markets, such as Taiwan, Singapore, Thailand, Malaysia, and China, which are among the fastest growing markets for medical goods in the world, were also important markets for U.S. exports in 1994. Other significant markets for medical goods in 1994 were France, the Netherlands, and Belgium in the EU; Australia, Argentina, and Russia.

U.S. imports of medical goods in 1994 declined significantly from Japan and Europe, as cost-containment efforts by U.S. Government and private-sector health care insurance plans resulted in slower growth in purchases of high-end electromedical and medical imaging equipment in the mature U.S. market. The only countries to significantly increase their exports to the United States were Mexico and the Dominican Republic, suppliers of relatively low-priced, commodity hospital and medical supplies, such as needles, catheters, and intravenous and blood administration sets. Major U.S.-based companies, such as Abbott Laboratories, Baxter International, and Johnson & Johnson maintain assembly operations in Mexico and the Dominican Republic to take advantage of relatively low wage rates and preferential tariff treatment available in those two countries under NAFTA and the Caribbean Economic Recovery Act (CBERA), respectively. The Mexican and Dominican Republic subsidiaries of those companies have not been hurt as much as have foreign suppliers of relatively expensive, high-end medical equipment, such as medical imaging equipment, which has been affected most by more stringent reimbursement policies by U.S. public and private health care insurance.<sup>14</sup>

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<sup>14</sup> Telephone interviews by USITC staff, U.S. and foreign industry insurance company officials and investment analysts, Feb., Mar., May, and July 1995.

## **Office machines**

The U.S. trade deficit for office machines increased by \$722 million, or by 22 percent, to \$4.0 billion in 1994, as imports increased and exports were flat. Imports of office machines increased by 14 percent in 1994 to \$5.8 billion. Most U.S. producers purchase at least part of the low end of their product line from foreign sources. U.S. exports of office machines increased by just \$7 million, or less than 1 percent, in 1994 to \$1.8 billion.

The principal imported items were plain paper electrostatic copying machines and parts for photocopying apparatus, which together accounted for 58 percent of total imports. Japanese low- and mid-range copiers have made significant inroads in the U.S. market through price competition. At the same time, U.S. producers of photocopying apparatus are continuing to buy components from many countries, which accounted for the 6-percent increase in imports for parts of photocopying apparatus in 1994.

The principal source of U.S. imports of office machines in 1994 was Japan, which accounted for 54 percent of the total. Of the imports from Japan, 78 percent were office copying machines and parts for photocopying apparatus. China and Taiwan were the second and third principal sources of imports, accounting for 6 and 5 percent, respectively, of imports. The principal imports from China were calculators and parts (48 percent) and miscellaneous office machines (21 percent). The principal imports from Taiwan were cash registers (32 percent) and hand-held calculators (22 percent). Many of these calculators were for the lower end of the market.

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

U.S. imports of television apparatus (except receivers and monitors) including cameras, camcorders, and cable apparatus, rose by 29 percent from 1993 to 1994, from \$2.5 billion to \$3.3 billion. The major reasons for the import increase were the expansion in U.S. trade with Mexico as a result of NAFTA and increasing demand for cable television end-user equipment, notably set-top converters. U.S. imports of television apparatus from Mexico—virtually all apparatus for cable and close-circuit television systems, including set-top converters—more than tripled from 1993 to 1994, from \$169 million to \$527 million, as Mexico's share of U.S. imports increased from 6 to 16 percent. Al-

though Japan was the source of 63 percent of U.S. imports of television apparatus in 1994, imports from Japan grew by less than 3 percent.

U.S. exports of television apparatus increased by \$88 million to \$427 million. The greatest increase in exports was for miscellaneous transmission apparatus for television, which increased by 61 percent to \$227 million. Exports to the United Kingdom and Mexico increased the most, by \$16 million to \$48 million and by \$14 million to \$71 million, respectively. The increase in imports was over eight times greater than the increase in exports. Thus, the trade deficit grew by \$641 million to \$2.8 billion.

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

The U.S. trade surplus in this product grouping rose by \$322 million, or 12 percent, from \$2.7 billion in 1993 to \$3.0 billion in 1994. This increase was fully accounted for by growth in exports of miscellaneous recorded media products. The trade surplus in this miscellaneous category rose by \$435 million, or 23 percent, from \$1.9 billion in 1993 to \$2.4 billion in 1994. The principal products included in this miscellaneous category are computer software programs recorded on magnetic ("floppy") and optical (CD-ROM) disks.<sup>15</sup>

U.S. exports of unspecified recorded media increased by \$506 million, or 22 percent, from \$2.3 billion in 1993 to \$2.8 billion in 1994. Imports of unspecified recorded media increased nearly as much in proportional terms, 21 percent, but by only \$71 million in value, from \$338 million to \$409 million.<sup>16</sup> For the recorded media sector as a whole, exports rose by 14 percent or \$461 million and imports by 23 percent, or \$139 million.

<sup>15</sup> It is likely that both import and export statistics underestimate the value of transactions involving computer software, inasmuch as these transactions are generally valued at the cost of the storage medium rather than at the much higher value of the information content. Furthermore, software, music, and video recordings are often exported (or imported) in the form of master recordings for replication within the foreign market. See USITC, *Industry and Trade Summary: Computer Software and Other Recorded Media*, USITC publication 2850, Jan. 1995.

<sup>16</sup> For the sake of compatibility with export statistics, imports here include those under the heading "master records or metal matrices therefrom for use in the production of sound records for exports; recordings on wire," which accounted for \$1.6 million in imports in 1994, down \$0.2 million from the previous year. Import statistics for 1995 will also include a separate category for prepackaged computer software, but export statistics will still not report these data separately.

As in past years, the continuing increase in U.S. exports of computer software appears to have been the result of increases in the use of personal computers, the adoption of U.S. technical standards for computer operating systems, and the enforcement of software copyrights in foreign markets. U.S. exports of computer software to Japan, Korea, Mexico, and Brazil each increased by over 40 percent for a second consecutive year, to \$217 million, \$95 million, \$77 million, and \$65 million, respectively.<sup>17</sup> These are all countries that allegedly have had very high rates of software "piracy" but which are improving copyright enforcement.<sup>18</sup> The rise in exports to Japan is also the result of the increased adoption of two U.S. PC operating system standards, Microsoft Corp.'s Windows and Apple

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<sup>17</sup> Exports to Brazil and Mexico have increased by at least 60 percent annually for 3 and 4 consecutive years, respectively.

<sup>18</sup> Business Software Alliance, *1993 Software Piracy Estimates* (news release, Washington, DC, Apr. 27, 1994).

Computer's Macintosh, in place of NEC Corp.'s proprietary operating system.<sup>19</sup> Exports of computer software to Canada, the largest foreign market, rose by 23 percent from \$602 to \$740 million. This increase was likely the result primarily of market growth rather than improved copyright enforcement.

Another factor impacting the increase in U.S. exports may be a heightened attention to sales opportunities in foreign markets by small- and medium-sized U.S. software companies.<sup>20</sup> Larger U.S. software companies usually serve foreign markets through foreign subsidiaries rather than through U.S. exports.

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<sup>19</sup> USITC staff telephone interview with an industry official, May 2, 1994. See also USITC, *Computer Software and Other Recorded Media*.

<sup>20</sup> USITC staff telephone interview with an industry official, May 2, 1994.

Table 11-2

Electronic products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
ST001	Office machines:				
	Exports .....	1,770	1,777	7	0.4
	Imports .....	5,052	5,781	729	14.4
	Trade balance .....	-3,282	-4,004	-722	-22.0
ST002	Telephone and telegraph apparatus:				
	Exports .....	5,199	6,724	1,525	29.3
	Imports .....	6,143	7,448	1,305	21.2
	Trade balance .....	-944	-724	220	23.3
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:				
	Exports .....	851	1,006	155	18.2
	Imports .....	1,473	1,827	354	24.0
	Trade balance .....	-622	-821	-199	-32.0
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:				
	Exports .....	579	640	61	10.5
	Imports .....	5,445	6,283	838	15.4
	Trade balance .....	-4,866	-5,643	-777	-16.0
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Exports .....	1,675	1,736	61	3.6
	Imports .....	1,928	1,943	15	0.8
	Trade balance .....	-253	-207	46	18.2
ST006	Records, tapes, compact discs, computer software, and other recored media:				
	Exports .....	3,281	3,742	461	14.1
	Imports .....	616	755	139	22.6
	Trade balance .....	2,665	2,987	322	12.1
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Exports .....	4,283	5,166	883	20.6
	Imports .....	6,420	7,764	1,344	20.9
	Trade balance .....	-2,137	-2,598	-461	-21.6
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Exports .....	1,249	1,242	-7	-0.6
	Imports .....	408	438	30	7.4
	Trade balance .....	841	804	-37	-4.4
ST009	Television receivers and video monitors and combinations including television receivers:				
	Exports .....	1,199	1,302	103	8.6
	Imports .....	3,707	4,319	612	16.5
	Trade balance .....	-2,508	-3,017	-509	-20.3
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:				
	Exports .....	339	427	88	26.0
	Imports .....	2,536	3,265	729	28.7
	Trade balance .....	-2,197	-2,838	-641	-29.2
ST011	Electric sound and visual signaling apparatus:				
	Exports .....	560	578	18	3.2
	Imports .....	1,261	1,576	315	25.0
	Trade balance .....	-701	-998	-297	-42.4
ST012	Electrical capacitors, and resistors:				
	Exports .....	960	1,186	226	23.5
	Imports .....	1,181	1,475	294	24.9
	Trade balance .....	-221	-289	-68	-30.8
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:				
	Exports .....	5,224	6,471	1,247	23.9
	Imports .....	6,254	7,380	1,126	18.0
	Trade balance .....	-1,030	-909	121	11.7
ST014	Television picture tubes and other cathode ray tubes:				
	Exports .....	769	1,061	292	38.0
	Imports .....	822	1,003	181	22.0
	Trade balance .....	-53	58	111	209.4
ST015	Special-purpose tubes:				
	Exports .....	159	171	12	7.5
	Imports .....	168	215	47	28.0
	Trade balance .....	-9	-44	-35	-388.9

See footnotes at end of table.

Table 11-2—Continued

Electronic products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
ST016	Diodes, transistors, integrated circuits and similar semiconductor solid-state devices:				
	Exports .....	13,813	18,098	4,285	31.0
	Imports .....	19,466	26,020	6,554	33.7
	Trade balance .....	-5,653	-7,922	-2,269	-40.1
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:				
	Exports .....	1,871	2,117	246	13.1
	Imports .....	987	1,137	150	15.2
	Trade balance .....	884	980	96	10.9
ST018	Automatic data processing machines:				
	Exports .....	25,397	29,102	3,705	14.6
	Imports .....	37,906	46,161	8,255	21.8
	Trade balance .....	-12,509	-17,059	-4,550	-36.4
ST019	Photographic supplies:				
	Exports .....	1,636	1,621	-15	-0.9
	Imports .....	1,702	1,675	-27	-1.6
	Trade balance .....	-66	-54	12	18.2
ST020	Exposed photographic plates, film, and paper:				
	Exports .....	100	110	10	10.0
	Imports .....	156	107	-49	-31.4
	Trade balance .....	-56	3	59	105.4
ST021	Optical fibers, optical fiber bundles and cables:				
	Exports .....	325	418	93	28.6
	Imports .....	90	104	14	15.6
	Trade balance .....	235	314	79	33.6
ST022	Optical goods, including ophthalmic goods:				
	Exports .....	1,150	1,324	174	15.1
	Imports .....	2,181	2,385	204	9.4
	Trade balance .....	-1,031	-1,061	-30	-2.9
ST023	Photographic cameras and equipment:				
	Exports .....	940	980	40	4.3
	Imports .....	1,968	2,315	347	17.6
	Trade balance .....	-1,028	-1,335	-307	-29.9
ST024	Medical goods:				
	Exports .....	7,360	7,997	637	8.7
	Imports .....	4,381	4,405	24	0.5
	Trade balance .....	2,979	3,592	613	20.6
ST025	Surveying and navigational instruments:				
	Exports .....	1,556	1,470	-86	-5.5
	Imports .....	477	461	-16	-3.4
	Trade balance .....	1,079	1,009	-70	-6.5
ST026	Watches:				
	Exports .....	138	163	25	18.1
	Imports .....	2,048	2,127	79	3.9
	Trade balance .....	-1,910	-1,964	-54	-2.8
ST027	Clocks and timing devices:				
	Exports .....	97	113	16	16.5
	Imports .....	400	424	24	6.0
	Trade balance .....	-303	-311	-8	-2.6
ST028	Arms and ammunition:				
	Exports .....	2,372	2,212	-160	-6.7
	Imports .....	682	777	95	13.9
	Trade balance .....	1,690	1,435	-255	-15.1
ST029	Balances of a sensitivity of 5 cg or better:				
	Exports .....	18	18	0	0
	Imports .....	38	37	-1	-2.6
	Trade balance .....	-20	-19	1	5.0
ST030	Drawing and mathematical calculating or measuring instruments:				
	Exports .....	162	145	-17	-10.5
	Imports .....	235	322	87	37.0
	Trade balance .....	-73	-177	-104	-142.5

See footnotes at end of table.

**Table 11-2—Continued**  
**Electronic products sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
		<i>Million dollars</i>			
ST031	Measuring, testing, controlling, and analyzing instruments:				
	Exports .....	9,026	10,060	1,034	11.5
	Imports .....	4,553	5,727	1,174	25.8
	Trade balance .....	4,473	4,333	-140	-3.1

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

<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 12

## Miscellaneous Manufactures<sup>1</sup>

Despite a 13-percent increase in U.S. exports of miscellaneous manufactures in 1994, the greater than 3-to-1 ratio of imports to exports in these products promoted an 8-percent rise in U.S. imports into a \$1.5-billion expansion of the trade deficit in this sector, which reached \$24.5 billion (table 12-1).

U.S. exports of miscellaneous manufactures climbed by \$1.2 billion in 1994 to \$10.8 billion, largely on the strength of increased shipments of furniture (the bulk of which were exports to Canada and Japan of motor-vehicle seats and parts), miscellaneous articles (principally works of art), sporting goods (notably gymnasium and exercise equipment and golf clubs), and games (predominately video games and bowling equipment). In 1994, U.S. exports of furniture rose by \$359 million, or 12 percent, to \$3.3 billion. U.S. exports of works of art expanded by 22 percent (\$274 million) in 1994 to \$1.5 billion. At the same time, exports of sporting goods and games climbed by \$186 million and \$117 million, or by 16 and 12 percent, respectively, to \$1.3 billion and \$1.1 billion.

The growth in U.S. imports of miscellaneous manufactures from \$32.6 billion in 1993 to \$35.3 billion in 1994, was spurred by substantial increases in U.S. demand for furniture (car seats and wood household furniture); sporting goods (in-line roller skates, exercise equipment, and golf clubs); luggage; and toys. Increased imports of related items helped to offset a decline in imports of video games (table 12-2). The \$0.9-billion drop in U.S. imports of games was largely attributable to the saturation of the U.S. market for home video games, imports of which receded by \$925 million to \$1.5 billion in 1994.

### U.S. Bilateral Trade

Together, the top five leading U.S. trading partners (China, Canada, Taiwan, Japan, and Mexico) in miscellaneous manufactures accounted for 60 percent of total U.S. trade in this sector in 1994 (figures 12-1 and 12-2). The most significant bilateral trade improvement in miscellaneous manufactures

during 1994, however, was recorded with Japan. The deficit with Japan in these products shrank from \$2.9 billion in 1993 to \$1.5 billion in 1994, principally owing to a \$1.4-billion decline in U.S. imports of video game players and game software. On the export side of trade with Japan, U.S. suppliers registered 107-percent (\$121 million) and 11-percent (\$37 million) increases in their shipments of furniture and sporting goods, respectively, to \$235 million and \$379 million in 1994. The large rise in furniture shipments was predominately of leather seat covers for Japanese automobile producers.

China continued to be the largest U.S. trading partner in miscellaneous manufactures in 1994. The importance of China in bilateral trade in these products was almost exclusively as a source of imported merchandise, as U.S. exports to China during 1994 were negligible (\$81 million). U.S. imports from China rose by nearly \$2.0 billion, or 25 percent, to \$9.9 billion in 1994. The \$9.8-billion trade deficit with China accounted for nearly 40 percent of the deficit with all countries during 1994. The composition of Chinese imports was heavily skewed towards low technology, low- to moderate-priced, and high-labor-intensive products such as luggage, handbags, and flat goods; lamps and lighting fixtures; dolls; toys and models; and miscellaneous articles (notably artificial flowers, Christmas decorations, and umbrellas). The abundance of low-wage, semiskilled labor has provided domestic and foreign transplant operations in China with a significant price advantage in U.S. and world markets for these products.

U.S. trade with Canada in miscellaneous manufactures generated a nearly \$300-million decline in the bilateral balance, which shifted from a \$287-million surplus in 1993 to a \$13-million trade deficit in 1994. An increase of 13 percent in U.S. exports (principally automotive seats and parts, games, and

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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, 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, 1993 and 1994<sup>1</sup>

Item	1993	1994	Change, 1994 from 1993	
			Amount	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	78	81	3	3.3
Canada	2,388	2,693	305	12.8
Taiwan	210	273	63	29.7
Japan	1,140	1,325	185	16.2
Mexico	1,278	1,505	226	17.7
Italy	128	112	-16	-12.7
United Kingdom	605	720	115	19.1
Thailand	80	68	-11	-14.4
Korea	249	295	46	18.5
France	324	278	-46	-14.1
All other	3,093	3,419	326	10.5
Total	9,573	10,769	1,196	12.5
EU-12	1,881	1,955	74	3.9
OPEC	369	324	-45	-12.2
Latin America	2,007	2,329	322	16.0
CBERA	266	294	27	10.3
Asian Pacific Rim	2,285	2,688	403	17.6
ASEAN	303	350	46	15.3
Eastern Europe	18	19	1	4.6
U.S. imports for consumption:				
China	7,900	9,883	1,984	25.1
Canada	2,102	2,706	604	28.7
Taiwan	4,277	4,029	-248	-5.8
Japan	4,062	2,843	-1,219	-30.0
Mexico	1,758	2,185	427	24.3
Italy	2,164	2,458	294	13.6
United Kingdom	974	1,082	108	11.1
Thailand	1,192	1,308	116	9.8
Korea	1,087	1,035	-52	-4.8
France	901	990	89	9.8
All other	6,226	6,827	600	9.6
Total	32,643	35,346	2,703	8.3
EU-12	5,211	5,814	603	11.6
OPEC	363	435	72	19.8
Latin America	2,548	3,383	835	32.8
CBERA	298	354	56	18.9
Asian Pacific Rim	19,556	20,238	682	3.5
ASEAN	2,486	2,884	399	16.0
Eastern Europe	120	125	5	4.1
U.S. merchandise trade balance:				
China	-7,822	-9,803	-1,981	(2)
Canada	287	-13	-299	(2)
Taiwan	-4,066	-3,756	310	(2)
Japan	-2,922	-1,518	1,404	(2)
Mexico	-479	-680	-201	(2)
Italy	-2,036	-2,346	-310	(2)
United Kingdom	-370	-362	7	(2)
Thailand	-1,113	-1,240	-128	(2)
Korea	-838	-740	98	(2)
France	-577	-711	-134	(2)
All other	-3,133	-3,407	-274	(2)
Total	-23,070	-24,577	-1,508	(2)
EU-12	-3,330	-3,859	-529	(2)
OPEC	6	-111	-117	(2)
Latin America	-541	-1,054	-514	(2)
CBERA	-32	-60	-29	(2)
Asian Pacific Rim	-17,271	-17,550	-279	(2)
ASEAN	-2,182	-2,535	-352	(2)
Eastern Europe	-101	-106	-4	(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 1994.

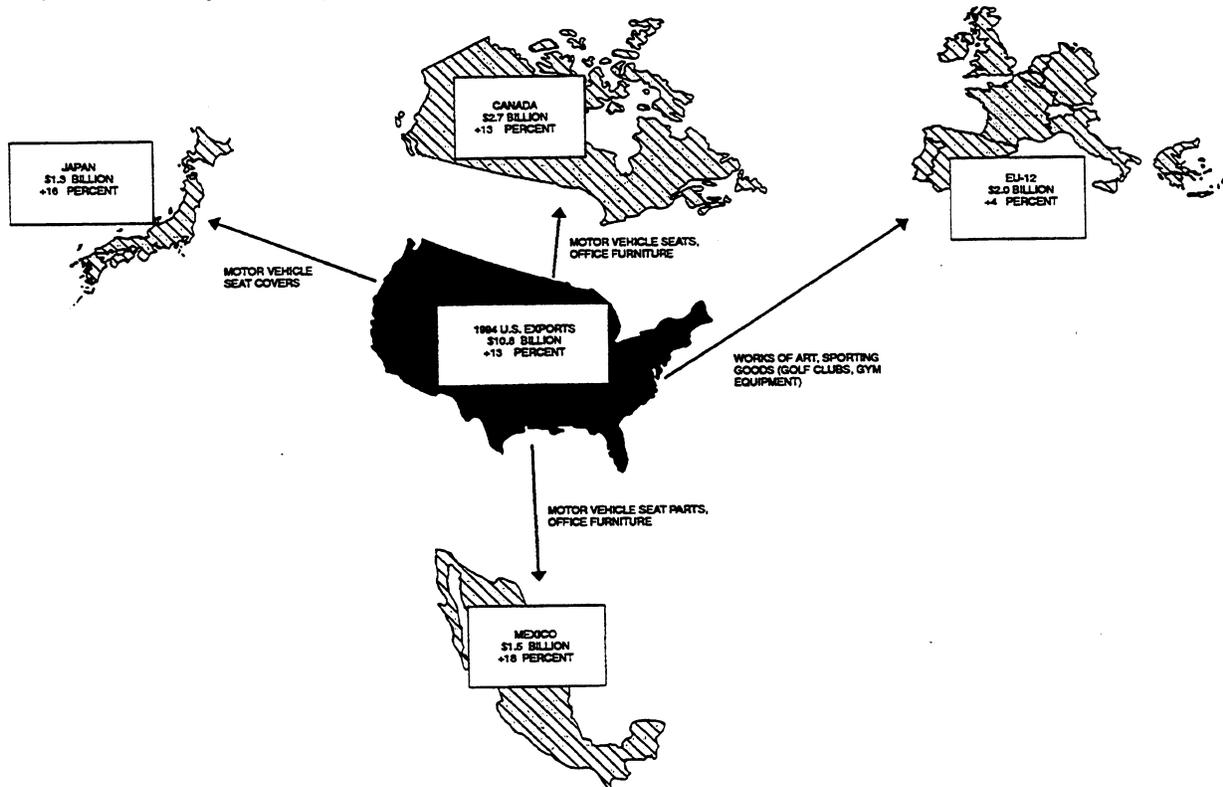
Source: Compiled from official statistics of the U.S. Department of Commerce.

**Table 12-2**  
**Leading changes in U.S. imports in the miscellaneous manufactures sector, 1993-94**

Industry/commodity groups	Change in 1994		Total imports in 1994
	Value	Percent	
	Million dollars		Billion dollars
Furniture .....	1,340	21	7.6
Sporting goods .....	540	25	2.7
Luggage, handbags, and flatgoods .....	424	16	3.0
Toys and models .....	344	9	4.0
Games .....	-886	-26	2.6
All other .....	941	7	15.4
<b>Total .....</b>	<b>2,703</b>	<b>8</b>	<b>35.3</b>

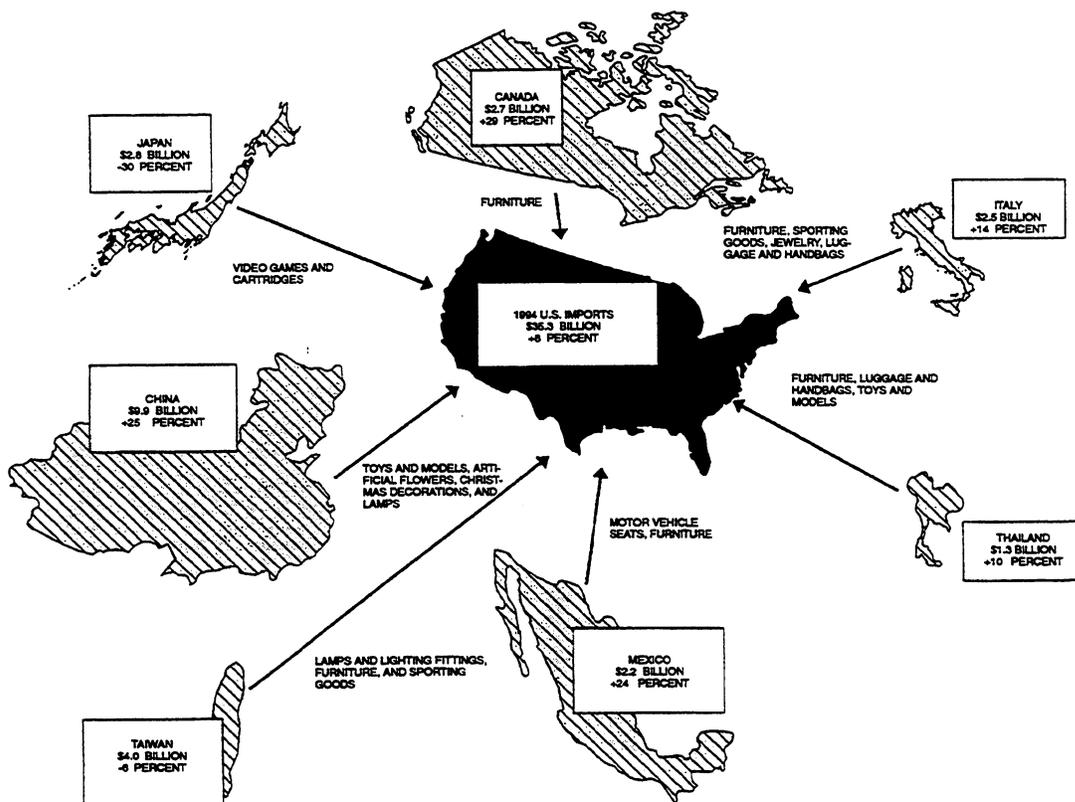
Source: Compiled from official statistics of the U.S. Department of Commerce.

**Figure 12-1**  
**U.S. miscellaneous manufactures sector exports, 1994: Leading U.S. exports, by major markets, and overall percentage change since 1993**



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

**Figure 12-2**  
**U.S. miscellaneous manufactures sector imports, 1994: Leading U.S. imports, by major sources, and overall percentage change since 1993**



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

sporting goods) to Canada, which reached \$2.7 billion in 1994, was overwhelmed by a 29-percent rise in imports also to \$2.7 billion and also largely attributable to higher demand for automotive seats and parts. Much of the trade in miscellaneous manufactures with Canada has been heavily influenced by the interdependence of automotive assembly facilities (largely of the Big Three U.S. automakers) along the Canadian border, which enables shipments of vehicles and component parts without duty under the U.S.-Canada Automotive Products Trade Act.

The continued shift of production to China and away from Taiwan of furniture, lighting, and bicycle industries was largely responsible for the \$310-million improvement in the U.S. trade balance with this second-leading import supplier of miscellaneous manufactures. Even so, the U.S. deficit with Taiwan was \$3.8 billion in 1994 on imports of \$4.0 billion (down by 6 percent) and exports of \$273 million (up by 30 percent). The most signifi-

cant declines in imports of miscellaneous manufactures from Taiwan were in furniture, down by \$36 million (3 percent) to \$1.2 billion; bicycles, \$18 million lower (4 percent) at \$452 million; and lamps and lighting fixtures, off by \$76 million (15 percent) to \$427 million. The major offsetting increase was in imports of sporting goods, which rose by \$84 million (13 percent) to \$741 million.

Bilateral trade in miscellaneous manufactures with Mexico, the fifth-largest U.S. trading partner, registered a \$200-million decline to a \$680-million trade deficit during 1994. This development was largely the result of a 26-percent rise (to \$1.1 billion) in U.S. imports of furniture, which were heavily comprised of seats for motor vehicles to meet strong U.S. automotive market demand in 1994. Total U.S. imports of miscellaneous manufactures from Mexico increased by 24 percent to \$2.2 billion in 1994, while U.S. exports were up by 18 percent to \$1.5 billion.

# Commodity Analysis

## Games and fairground amusements

Near-saturation of the U.S. market for video games using 16-bit technology resulted in a \$1.0 billion reduction in the U.S. trade deficit in the games and fairground amusements (hereafter, games) sector in 1994, which dropped to \$1.5 billion. Imports declined by \$886 million (26 percent) in 1994 while exports were up by \$117 million (12 percent) over 1993. Imports of video games (home video game players, software, and arcade games), which accounted for 43 percent of total U.S. imports of games in 1994, dropped by \$925 million to \$1.5 billion.

An estimated 20 million American homes have video game players using aging 16-bit technology.<sup>2</sup> Most of these "home video game systems" (which display games on television screens or computer monitors) were made by Nintendo or Sega. These two Japanese video game giants, and long-time U.S. producer Atari and newcomer 3DO (a joint venture of IBM and Sony), are shifting to 32-bit or 64-bit technology games. According to industry sources, U.S. game retailers are balking at paying the sticker price of up to \$400 apiece for these advanced-technology "toys." Both retailers and Nintendo want to sell down inventories of Nintendo's 16-bit games before introducing the new technology to the consumer, fearing that once the advanced technology games are available few consumers will buy the overstocked 16-bit games.

During the 1994 transition from 16-bit to 32- and 64-bit technology video games, imports of all types of games from Japan dropped (by \$1.2 billion) to \$1.4 billion. This resulted in a corresponding reduction in the U.S. bilateral trade deficit with Japan in the games sector in 1994 to \$1.1 billion. Video games and software accounted for 77 percent of total game imports from Japan in 1994.

Rising relative labor costs in Japan and Taiwan and revised company policies that now allow software (cartridges) for Nintendo game players to be produced outside Japan have led some companies to shift assembly of video game players and software from Japan and Taiwan to China, Malaysia, and Mexico. While imports of games from Taiwan fell by \$104 million (to \$186 million) in 1994, imports from China grew by \$209 million (to \$556 million); Malaysia, by \$66 million (to \$85 million); and Mexico, by \$64 million (to \$84 million).

<sup>2</sup> Kara Swisher and Rob Pegoraro, "In Vegas, a Big Bet on More Bits; Video Game Makers Introduce New, More Powerful Machines Into an Uncertain Market," *Washington Post*, May 13, 1995, p. D01.

U.S. exports of games and fairground amusements increased by 11 percent in 1994 to \$1.1 billion. A \$110-million rise in exports of video games and parts, and bowling equipment, more than offset a \$47-million decline in exports of pinball machines. The leading markets for U.S. exports continued to be Canada, Taiwan, and Korea. U.S. exports to Canada increased by 24 percent in 1994 to \$214 million; exports to Taiwan increased by 36 percent to \$142 million; while exports to Korea decreased slightly, by 4 percent to \$121 million. Home video game players and software, casino games, and arcade video games were the main exports to Canada in 1994.

A \$47-million (23-percent) decline in exports of pinball machines in 1994, primarily to Germany, France, Japan, and Italy, was in marked contrast to strong overall market growth, indicating that foreign interest in pinball may have peaked in recent years, and has been replaced by other leisure activities, such as in-line roller skating. The slump in pinball exports was offset by a \$48-million (18-percent) increase in exports of bowling equipment, primarily to Taiwan. The adoption of bowling as an Olympic sport and U.S. technological advantages in the manufacture of lower cost, higher quality bowling equipment have aided U.S. exports. The jump in exports of bowling equipment to Taiwan in 1994 followed a surge in exports to Korea in 1993, and reflects the high initial investment required to equip bowling alleys, which are rapidly growing in popularity in these nations. Exports include wood lanes, pin-setting equipment, and ball-retrieving machines, as well as bowling balls.

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## Sporting goods

The United States recorded an overall trade deficit of \$1.4 billion in sporting goods in 1994, up from \$1.0 billion in 1993. Rising consumer demand for certain types of competitively priced sporting goods reflected the continuing pursuit of healthier lifestyles, a more robust U.S. economy, and elevated discretionary incomes in the United States. These factors contributed to a 25-percent (\$540 million) increase in U.S. imports of sporting goods in 1994 to \$2.7 billion. In-line roller skates (also known as roller blades), gymnasium and other exercise equipment (such as treadmills and weight machines), and parts of golf clubs provided for 86 percent of the growth. Imports supplied about one-quarter of the U.S. market for sporting goods in 1994. U.S. exports of sporting goods also increased in 1994, but the \$186-million (16 percent) rise to \$1.3 billion was not nearly enough to offset the larger expansion in imports.

The largest increases in U.S. imports of sporting goods in 1994 were recorded from China (\$235

million), Taiwan (\$84 million), Italy (\$54 million) and Canada (\$50 million). In-line roller skates accounted for nearly half of the increase in U.S. imports of sporting goods, growing from \$51 million to \$311 million. Italy and China emerged as major new foreign suppliers of in-line roller skates to the U.S. market and provided a combined 35 percent of these imports in 1994, rising from almost zero in 1993 to over \$50 million each in 1994. Each country has a long tradition in the footwear industry, including the production of specialized boots and athletic shoes, and was a logical location for new roller-skate production in 1994. U.S. imports from Taiwan, which was the sole major supplier of roller skates to the U.S. market in 1993, also rose significantly (although at a lesser pace) to \$137 million in 1994.

U.S. imports of gymnasium and other exercise equipment provided the second highest increase in U.S. imports of sporting goods (\$141 million) in 1994. China and Taiwan were almost exclusively responsible for the increase (\$68 million and \$60 million, respectively). Despite the larger increase in U.S. imports from China, Taiwan retained a 46-percent share of U.S. imports of these products in 1994, while China increased its share to about 30 percent. Similarly, U.S. imports of parts of golf clubs (golf club heads) were also sourced primarily from Taiwan and China in 1994. Although the foundations for this sourcing relationship were established years ago, when major U.S. sporting goods companies contracted out the manufacture of certain labor-intensive products to Taiwan's strong metalworking industry and skilled labor force, rising labor costs in Taiwan and improvements in China's infrastructure and business climate led to a shift in outsourcing from Taiwan to China.

The increase in exports was spearheaded by shipments of gymnasium and other exercise equipment (\$59 million) and golf clubs (\$55 million). The most significant growth in exports occurred in North America, where Canada and Mexico accounted for 36 percent of the overall increase. This rise coincided with the lowering of North-American trade barriers as a result of the CFTA and the North American Free-Trade Agreement (NAFTA). The improving U.S. export performance also benefited from depreciation of the U.S. dollar against major currencies, such as the Japanese yen and the German mark. U.S. export increases in gymnasium and exercise equipment were widespread among traditional markets (such as Canada, the European Union (EU), and Japan). In addition, the growth of middle-income consumers in newly industrialized countries and in recently opened economies in East Asia, Central Europe, and Latin America led to the rapid expansion of exports of high-quality, U.S.-name-brand athletic equipment to those markets.

Developing countries and newly industrialized countries in East Asia (especially China, Taiwan, Thailand, and South Korea) accounted for all of the U.S. trade deficit in sporting goods. However, the United States has traditionally maintained a trade surplus with Japan; in 1994, that surplus expanded from \$207 million to \$239 million. The surplus with Japan was driven by U.S. exports of golf clubs, in which the United States holds a competitive advantage over other producers worldwide, particularly in quality and price. According to industry sources, the falling U.S. dollar vis-a-vis the Japanese yen<sup>3</sup> enabled U.S. exporters of golf clubs, golf balls, and similar high-end sports equipment to expand their market shares in Japan.

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## ***Furniture and selected furnishings***

Reflecting a robust U.S. economy, imports of furniture and selected furnishings rose by 21 percent (\$1.3 billion) in 1994 to \$7.6 billion. The growth in imports exceeded the strong performance by U.S. furniture producers in foreign markets. Exports of furniture increased by 12 percent (\$359 million) in the same year to \$3.3 billion. Consequently, the U.S. trade deficit in furniture expanded by \$981 million in 1994 to \$4.3 billion.

NAFTA partners Canada and Mexico, the first- and third-ranked sources of imports, accounted for the bulk of the increase in U.S. imports of furniture and furnishings in 1994. Imports from Canada rose by 30 percent (\$465 million) to \$2 billion in 1994. Those from Mexico rose by 26 percent (\$226 million) to \$1.1 billion. Motor vehicle seats and parts accounted for virtually all of the rise in U.S. imports from Mexico in 1994 and a large share of the increase from Canada. Wood household furniture also contributed to the growth in imports from Canada.

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

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<sup>3</sup>The U.S. dollar depreciated by an average of nearly 8 percent vis-a-vis the Japanese yen in 1994.

by 31 percent (\$162 million) in 1994, to \$692 million; while those from Mexico rose by 37 percent (\$193 million) to \$722 million. U.S. imports of household furniture from Canada rose by 38 percent (\$160 million) in 1994 to \$580 million. Canadian household furniture producers provide furniture to the U.S. market at lower prices than their European competitors. Producers in Canada have greater access to lumber and significantly lower transportation costs because of proximity to the U.S. market.

China, Malaysia, Indonesia, and the Philippines accounted for most of the increase in U.S. imports of low-end, knock-down furniture; fully assembled household furniture of tropical hardwoods; and furniture woven from rattan. Manufacturers in these countries, which benefit from low-cost labor and proximity to tropical forests, accounted for a 45 percent (\$429 million) increase of these U.S. imports in 1994, which reached \$1.4 billion. Imports from China, which rose by \$250 million in 1994 to \$748 million, accounted for the largest share. Metal<sup>4</sup> household furniture accounts for an increasing share of U.S. imports of furniture from China and the Philippines. The cost of wood is rising as the supply of tropical hardwoods and rattan from these regions has become more limited because of restraints on logging and delays in forest-replanting programs. U.S. imports of metal furniture from China rose by 63 percent (\$49 million) in 1994 to \$128 million, while such imports from the Philippines rose by 78 percent (\$14 million) to \$32 million.

The strong U.S. market for high-quality furniture allowed for a 31-percent (\$130 million) rise in imports from Italy in 1994 to \$558 million. Most imports from Italy are of wood household furniture although Italy is a leading supplier of leather furniture.

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<sup>4</sup> Popular metals used in metal household furniture made in China and the Philippines include powder-coated steels and aluminum.

The motor vehicle assembly industries in Canada and Japan accounted for the bulk of the increase in U.S. exports of furniture in 1994. Exports of motor vehicle seats and parts to Canada rose by 23 percent (\$93 million) in 1994 to \$506 million, while such exports to Japan rose from \$18 million to \$105 million. Most U.S. exports of motor-vehicle seats and parts to Canada are destined for car assembly facilities wholly or jointly owned by the Big Three U.S. automakers. Virtually all of the increase in U.S. exports to Japan was of leather seat covers.<sup>5</sup> The small size of Japan's domestic leather industry contributed to the successful penetration by U.S. producers of the Japanese market for top-quality leather seats for luxury vehicles such as Lexus and Acura Legend. U.S. producers benefit from economies of scale and a long tradition of high-quality leather vehicle seat production.

Prior to the Mexican peso crisis in December 1994, U.S. producers of wood household furniture had ridden the wave of Mexican euphoria over NAFTA to boost exports by \$100 million in 1994 to \$145 million. In addition to the staged elimination of Mexican tariffs under NAFTA that made U.S. furniture more cost competitive in the Mexican market, U.S. producers were the beneficiaries of NAFTA-related consumer confidence. Moderate local credit terms led many in Mexico's growing middle class to purchase U.S.-made durable goods, such as stylish household furniture, that had long been out of reach for most Mexican consumers. Because they are considered luxury goods, exports to Mexico of such furniture are likely to drop sharply in 1995 as the Mexican economy adjusts to the devaluation of the peso and high interest rates.

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<sup>5</sup> Leather seat covers fit over the metal seat frame and foam padding of motor vehicle seats.

**Table 12-3**  
**Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, by specified periods,**  
**Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MM047	Luggage, handbags, and flat goods:				
	Exports .....	199	233	34	17.1
	Imports .....	2,584	3,008	424	16.4
	Trade balance .....	-2,385	-2,775	-390	-16.4
MM048	Certain other leather goods:				
	Exports .....	79	88	9	11.4
	Imports .....	168	196	28	16.7
	Trade balance .....	-89	-108	-19	-21.3
MM049	Musical instruments and accessories:				
	Exports .....	354	389	35	9.9
	Imports .....	861	883	22	2.6
	Trade balance .....	-507	-494	13	2.6
MM050	Umbrellas, whips, riding crops, and canes:				
	Exports .....	9	8	-1	-11.1
	Imports .....	180	188	8	4.4
	Trade balance .....	-171	-180	-9	-5.3
MM051	Silverware and certain other articles of precious metal or metal clad with precious metal:				
	Exports .....	87	89	2	2.3
	Imports .....	109	317	208	190.8
	Trade balance .....	-22	-228	-206	-936.4
MM052	Precious jewelry and related articles:				
	Exports .....	407	381	-26	-6.4
	Imports .....	3,232	3,525	293	9.1
	Trade balance .....	-2,825	-3,144	-319	-11.3
MM053	Costume jewelry and related articles:				
	Exports .....	120	126	6	5.0
	Imports .....	544	567	23	4.2
	Trade balance .....	-424	-441	-17	-4.0
MM054	Bicycles and certain parts:				
	Exports .....	197	200	3	1.5
	Imports .....	841	825	-16	-1.9
	Trade balance .....	-644	-625	19	3.0
MM055	Furniture and selected furnishings:				
	Exports .....	2,941	3,300	359	12.2
	Imports .....	6,298	7,638	1,340	21.3
	Trade balance .....	-3,357	-4,338	-981	-29.2
MM056	Writing instruments and related articles:				
	Exports .....	242	233	-9	-3.7
	Imports .....	568	611	43	7.6
	Trade balance .....	-326	-378	-52	-16.0
MM057	Lamps and lighting fittings:				
	Exports .....	472	519	47	10.0
	Imports .....	1,712	1,956	244	14.3
	Trade balance .....	-1,240	-1,437	-197	-15.9
MM058	Prefabricated buildings:				
	Exports .....	329	415	86	26.1
	Imports .....	71	48	-23	-32.4
	Trade balance .....	258	367	109	42.2
MM059	Children's vehicles:				
	Exports .....	34	44	10	29.4
	Imports .....	228	249	21	9.2
	Trade balance .....	-194	-205	-11	-5.7
MM060	Dolls:				
	Exports .....	27	29	2	7.4
	Imports .....	885	934	49	5.5
	Trade balance .....	-858	-905	-47	-5.5
MM061	Toys and models:				
	Exports .....	468	528	60	12.8
	Imports .....	3,666	4,010	344	9.4
	Trade balance .....	-3,198	-3,482	-284	-8.9
MM062	Games and fairground amusements:				
	Exports .....	1,000	1,117	117	11.7
	Imports .....	3,461	2,575	-886	-25.6
	Trade balance .....	-2,461	-1,458	1,003	40.8
MM063	Sporting goods:				
	Exports .....	1,140	1,326	186	16.3
	Imports .....	2,159	2,699	540	25.0
	Trade balance .....	-1,019	-1,373	-354	-34.7

See footnotes at end of table.

**Table 12-3—Continued**

**Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, by specified periods, Jan. 1993-Dec. 1994<sup>1</sup>**

USITC code <sup>2</sup>	Industry/commodity group	1993	1994	Change, 1994 from 1993	
				Amount	Percent
<i>Million dollars</i>					
MM064	Smokers' articles:				
	Exports .....	74	75	1	1.4
	Imports .....	137	145	8	5.8
	Trade balance .....	-63	-70	-7	-11.1
MM065	Brooms, brushes, and hair grooming articles:				
	Exports .....	143	148	5	3.5
	Imports .....	491	525	34	6.9
	Trade balance .....	-348	-377	-29	-8.3
MM066	Miscellaneous articles:				
	Exports .....	1,250	1,524	274	21.9
	Imports .....	4,449	4,449	0	0
	Trade balance .....	-3,199	-2,925	274	8.6

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

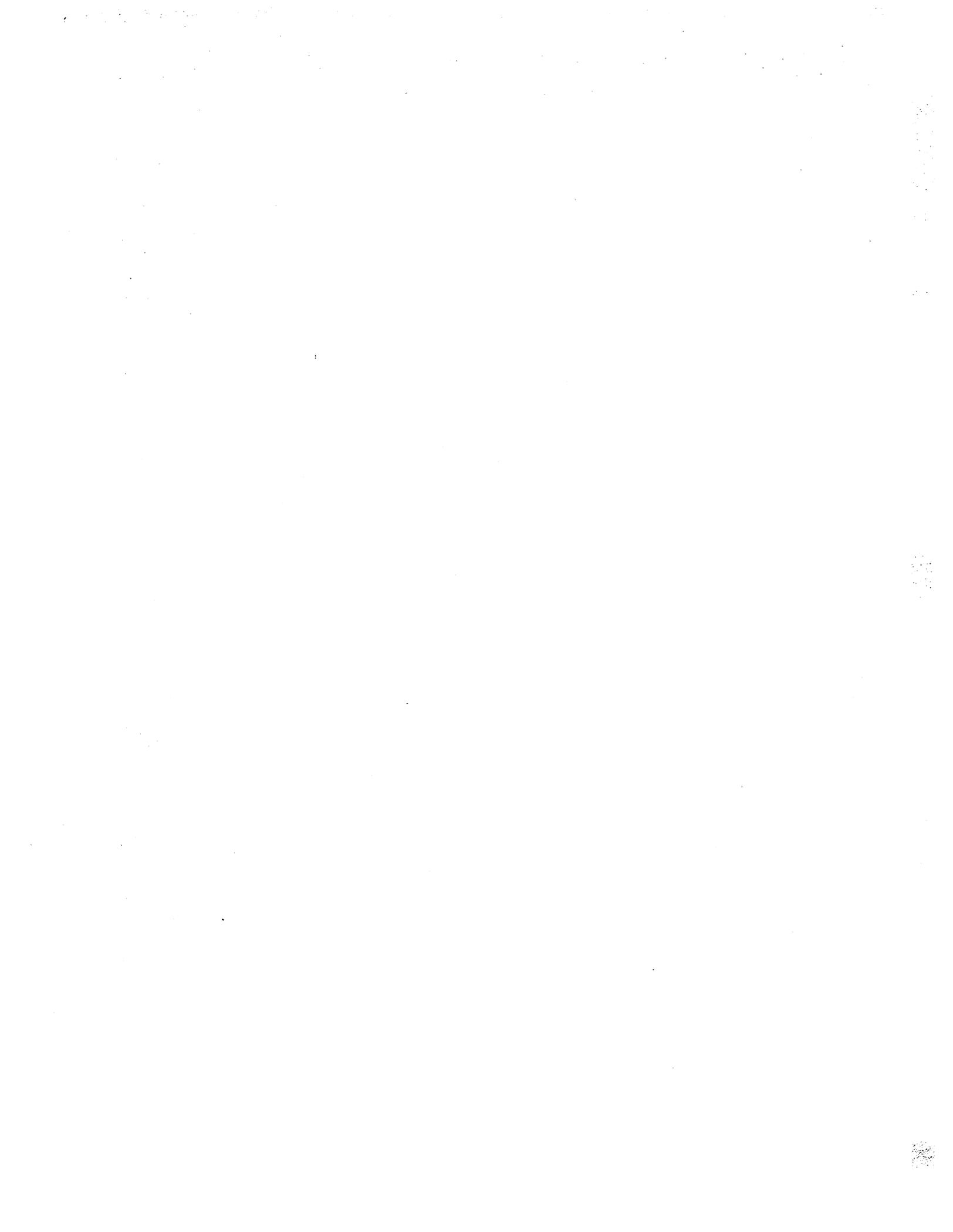
<sup>2</sup> This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS import and export items for trade monitoring purposes.

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



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**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	Fiber glass 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

ST008 Radio navigational aid, radar, and remote control apparatus

ST009 Television receivers and video monitors and combinations including television receivers

ST010 Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus

ST011 Electric sound and visual signaling apparatus

ST012 Electric capacitors and resistors

ST013 Apparatus for making, breaking, protecting, or connecting electrical circuits

ST014 Television picture tubes and other cathode ray tubes

ST015 Special-purpose tubes

ST016 Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices

ST017 Electrical and electronic articles, apparatus and parts not elsewhere provided for

ST018 Automatic data processing machines

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

ST026 Watches

ST027 Clocks and timing devices

ST028 Arms and ammunition

ST029 Balances of a sensitivity of 5 cgs or better

ST030 Drawing and mathematical calculating and measuring instruments

ST031 Measuring, testing, controlling, and analyzing 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, 1990-94

**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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG001	Certain miscellaneous live animals, meat, offals, and animal products:					
	Number of establishments	156,865	150,397	147,000	143,766	145,000
	Employees (thousands)	203	189	167	147	148
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	6,100	6,200	6,700	6,700	6,800
	U.S. exports (million dollars)	1,392	1,549	1,509	1,456	1,521
	U.S. imports (million dollars)	1,010	1,004	905	914	1,010
	Apparent U.S. consumption (million dollars)	5,718	5,655	6,096	6,158	6,289
	Trade balance (million dollars)	382	545	604	542	511
	Ratio of imports to apparent consumption (percent)	17.7	17.8	14.8	14.8	16.1
	Ratio of exports to production (percent)	22.8	25.0	22.5	21.7	22.4
AG002	Cattle and beef:					
	Number of establishments	1,289,600	1,230,870	1,233,400	1,225,990	1,152,431
	Employees (thousands)	1,373	1,367	1,347	1,339	1,259
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. production (million dollars)	42,900	47,000	50,000	50,000	52,000
	U.S. exports (million dollars)	1,570	1,816	2,120	2,016	2,361
	U.S. imports (million dollars)	2,643	2,643	2,906	3,045	2,716
	Apparent U.S. consumption (million dollars)	43,973	47,827	50,786	51,029	52,355
	Trade balance (million dollars)	-1,073	-827	-786	-1,029	-355
	Ratio of imports to apparent consumption (percent)	6.0	5.5	5.7	6.0	5.2
	Ratio of exports to production (percent)	3.7	3.9	4.2	4.0	4.5
AG003	Swine and pork:					
	Number of establishments	279,040	257,418	237,500	235,840	234,190
	Employees (thousands)	334	336	323	321	315
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	18,000	17,500	17,000	17,540	17,190
	U.S. exports (million dollars)	290	304	400	438	485
	U.S. imports (million dollars)	606	573	436	501	503
	Apparent U.S. consumption (million dollars)	18,316	17,769	17,036	17,603	17,208
	Trade balance (million dollars)	-316	-269	-36	-63	-18
	Ratio of imports to apparent consumption (percent)	3.3	3.2	2.6	2.8	2.9
	Ratio of exports to shipments (percent)	1.6	1.7	2.4	2.5	2.8
AG004	Sheep and meat of sheep:					
	Number of establishments	108,940	105,710	101,792	93,991	88,002
	Employees (thousands)	109	106	103	95	89
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	460	487	470	485	460
	U.S. exports (million dollars)	24	36	36	39	37
	U.S. imports (million dollars)	40	37	46	62	59
	Apparent U.S. consumption (million dollars) <sup>3</sup>	476	488	480	508	482
	Trade balance (million dollars)	-16	-1	-10	-23	-22
	Ratio of imports to apparent consumption (percent)	8.4	7.6	9.6	12.2	12.2
	Ratio of exports to shipments (percent)	5.2	7.4	7.7	8.0	8.0
AG005	Poultry:					
	Number of establishments	300	300	300	300	300
	Employees (thousands)	177	183	188	190	195
	Capacity utilization (percent)	90	90	90	90	90
	U.S. production (million dollars)	20,928	21,625	22,825	23,738	25,786
	U.S. exports (million dollars)	776	930	1,051	1,229	1,691
	U.S. imports (million dollars)	29	28	22	24	23
	Apparent U.S. consumption (million dollars)	20,181	20,723	21,796	22,533	24,118
	Trade balance (million dollars)	747	902	1,029	1,205	1,668
	Ratio of imports to apparent consumption (percent)	0.1	0.1	0.1	0.1	0.1
	Ratio of exports to production (percent)	3.7	4.3	4.6	5.2	6.6
AG006	Fresh or chilled fish:					
	Number of establishments	90,000	90,000	82,000	80,000	70,000
	Employees (thousands)	225	200	180	150	150
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	2,500	2,500	2,700	2,500	2,700
	U.S. exports (million dollars)	164	160	190	196	217
	U.S. imports (million dollars)	592	615	601	652	744
	Apparent U.S. consumption (million dollars)	2,928	2,955	3,111	2,956	3,227
	Trade balance (million dollars)	-428	-455	-411	-456	-527
	Ratio of imports to apparent consumption (percent)	20.2	20.8	19.3	22.1	23.1
	Ratio of exports to shipments (percent)	6.6	6.4	7.0	7.8	8.0
AG007	Frozen fish:					
	Number of establishments	900	860	880	880	850
	Employees (thousands)	70	65	70	70	65
	Capacity utilization (percent)	75	75	70	70	75
	U.S. shipments (million dollars)	1,809	1,656	2,215	2,132	2,207

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG007	Frozen fish— <i>Continued</i>					
	U.S. exports (million dollars)	1,572	1,641	1,886	1,526	1,556
	U.S. imports (million dollars)	1,377	1,467	1,302	1,293	1,267
	Apparent U.S. consumption (million dollars)	1,614	1,482	1,631	1,899	1,918
	Trade balance (million dollars)	195	174	584	233	289
	Ratio of imports to apparent consumption (percent)	85.3	99.0	79.8	68.1	66.1
	Ratio of exports to shipments (percent)	86.9	99.1	85.1	71.6	70.5
AG008	Fish, canned, cured, or otherwise prepared, and live fish:					
	Number of establishments	700	650	600	600	550
	Employees (thousands)	26	20	18	18	17
	Capacity utilization (percent)	85	75	80	85	75
	U.S. shipments (million dollars)	1,800	1,600	1,500	1,600	1,700
	U.S. exports (million dollars)	317	427	446	417	373
	U.S. imports (million dollars)	677	760	683	617	685
	Apparent U.S. consumption (million dollars)	2,160	1,933	1,737	1,800	2,012
	Trade balance (million dollars)	-360	-333	-237	-200	-312
	Ratio of imports to apparent consumption (percent)	31.3	39.3	39.3	34.3	34.0
	Ratio of exports to shipments (percent)	17.6	26.7	29.7	26.1	21.9
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	1,600
	U.S. exports (million dollars)	748	852	872	860	904
	U.S. imports (million dollars)	2,555	2,793	3,067	3,243	3,896
	Apparent U.S. consumption (million dollars)	3,407	3,541	3,795	3,983	4,592
	Trade balance (million dollars)	-1,807	-1,941	-2,195	-2,383	-2,992
	Ratio of imports to apparent consumption (percent)	75.0	78.9	80.8	81.4	84.8
	Ratio of exports to production (percent)	46.8	53.3	54.5	53.8	56.5
AG010	Dairy produce:					
	Number of establishments	195,000	183,000	174,000	162,000	152,000
	Employees (thousands)	785	770	733	682	695
	Capacity utilization (percent)	82	82	(1)	(1)	(1)
	U.S. shipments (million dollars)	44,228	44,360	48,000	47,000	49,000
	U.S. exports (million dollars)	282	325	593	655	572
	U.S. imports (million dollars)	853	756	845	836	922
	Apparent U.S. consumption (million dollars)	44,799	44,791	48,252	47,181	49,350
	Trade balance (million dollars)	-571	-431	-252	-181	-350
	Ratio of imports to apparent consumption (percent)	1.9	1.7	1.8	1.8	1.9
	Ratio of exports to shipments (percent)	0.6	0.7	1.2	1.4	1.2
AG011	Eggs:					
	Number of establishments	80	75	75	75	70
	Employees (thousands)	9	8	8	8	8
	Capacity utilization (percent)	85	85	85	85	85
	U.S. production (million dollars)	4,823	4,787	4,148	4,701	4,833
	U.S. exports (million dollars)	99	140	134	133	158
	U.S. imports (million dollars)	24	20	27	35	30
	Apparent U.S. consumption (million dollars)	4,748	4,667	4,041	4,603	4,705
	Trade balance (million dollars)	75	120	107	98	128
	Ratio of imports to apparent consumption (percent)	0.5	0.4	0.7	0.8	0.6
	Ratio of exports to production (percent)	2.1	2.9	3.2	2.8	3.3
AG012	Sugar and other sweeteners:					
	Number of establishments	100	100	100	100	97
	Employees (thousands)	32	32	31	31	30
	Capacity utilization (percent)	86	87	89	89	90
	U.S. shipments (million dollars)	7,920	8,000	8,000	8,200	8,300
	U.S. exports (million dollars)	407	362	300	269	303
	U.S. imports (million dollars)	978	844	857	812	844
	Apparent U.S. consumption (million dollars)	8,491	8,482	8,557	8,743	8,841
	Trade balance (million dollars)	-571	-482	-557	-543	-541
	Ratio of imports to apparent consumption (percent)	11.5	10.0	10.0	9.3	9.5
	Ratio of exports to shipments (percent)	5.1	4.5	3.8	3.3	3.7
AG013	Animal feeds:					
	Number of establishments	2,600	2,500	2,300	2,224	2,000
	Employees (thousands)	60	60	55	55	50
	Capacity utilization (percent)	85	85	85	85	85
	U.S. production (million dollars)	25,000	26,000	27,000	27,000	25,000
	U.S. exports (million dollars)	2,950	3,323	3,656	3,616	3,482
	U.S. imports (million dollars)	378	399	450	543	613
	Apparent U.S. consumption (million dollars)	22,428	23,076	23,794	23,927	22,131
	Trade balance (million dollars)	2,572	2,924	3,206	3,073	2,869
	Ratio of imports to apparent consumption (percent)	1.7	1.7	1.9	2.3	2.8
	Ratio of exports to production (percent)	11.8	12.8	13.5	13.4	13.9

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG014	Live plants:					
	Number of establishments	25,000	25,000	25,000	25,000	24,000
	Employees (thousands)	125	125	125	125	120
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	8,291	8,100	8,904	(1)	(1)
	U.S. exports (million dollars)	104	106	103	94	99
	U.S. imports (million dollars)	162	177	200	216	238
	Apparent U.S. consumption (million dollars)	8,349	8,171	9,001	(1)	(1)
	Trade balance (million dollars)	-58	-71	-97	-122	-139
	Ratio of imports to apparent consumption (percent)	1.9	2.2	2.2	(1)	(1)
	Ratio of exports to shipments (percent)	1.3	1.3	1.2	(1)	(1)
AG015	Seeds:					
	Number of establishments	15,000	12,800	10,929	10,000	9,000
	Employees (thousands)	230	196	168	153	138
	Capacity utilization (percent)	85	80	85	85	85
	U.S. shipments (million dollars)	2,000	2,000	2,000	2,000	2,000
	U.S. exports (million dollars)	296	289	316	319	340
	U.S. imports (million dollars)	122	135	154	156	155
	Apparent U.S. consumption (million dollars)	1,826	1,846	1,838	1,837	1,815
	Trade balance (million dollars)	174	154	162	163	185
	Ratio of imports to apparent consumption (percent)	6.7	7.3	8.4	8.5	8.5
	Ratio of exports to shipments (percent)	14.8	14.5	15.8	16.0	17.0
AG016	Cut flowers:					
	Number of establishments	3,000	3,000	3,000	3,000	2,900
	Employees (thousands)	39	39	39	39	36
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	528	507	493	500	500
	U.S. exports (million dollars)	30	34	33	39	38
	U.S. imports (million dollars)	326	322	352	382	420
	Apparent U.S. consumption (million dollars)	824	795	812	843	882
	Trade balance (million dollars)	-296	-288	-319	-343	-382
	Ratio of imports to apparent consumption (percent)	39.6	40.5	43.3	45.3	47.6
	Ratio of exports to shipments (percent)	5.7	6.7	6.7	7.8	7.6
AG017	Miscellaneous vegetable substances:					
	Number of firms	112	112	100	100	90
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) <sup>4</sup>	850	850	800	800	813
	U.S. exports (million dollars)	362	392	462	436	433
	U.S. imports (million dollars)	516	556	545	568	623
	Apparent U.S. consumption (million dollars)	1,004	1,014	883	932	1,003
	Trade balance (million dollars)	-154	-164	-83	-132	-190
	Ratio of imports to apparent consumption (percent)	51.4	54.8	61.7	60.9	62.1
	Ratio of exports to production (percent)	42.6	46.1	57.8	54.5	53.3
AG018	Fresh, chilled, or frozen vegetables:					
	Number of establishments	36,500	34,000	38,000	36,500	36,400
	Employees (thousands)	43	42	42	40	50
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars)	4,120	4,220	4,376	3,938	4,300
	U.S. exports (million dollars)	802	903	972	1,058	1,122
	U.S. imports (million dollars)	1,157	1,048	966	1,253	1,364
	Apparent U.S. consumption (million dollars)	4,475	4,365	4,370	4,133	4,542
	Trade balance (million dollars)	-355	-145	6	-195	-242
	Ratio of imports to apparent consumption (percent)	25.9	24.0	22.1	30.3	30.0
	Ratio of exports to production (percent)	19.5	21.4	22.2	26.9	26.1
AG019	Prepared or preserved vegetables, mushrooms, and olives:					
	Number of establishments	2,020	2,010	1,990	1,750	1,700
	Employees (thousands)	5	5	4	4	4
	Capacity utilization (percent)	78	82	81	83	85
	U.S. production (million dollars)	7,542	7,631	7,799	8,189	8,400
	U.S. exports (million dollars)	950	953	955	1,075	1,290
	U.S. imports (million dollars)	785	774	788	777	909
	Apparent U.S. consumption (million dollars)	7,377	7,452	7,632	7,891	8,019
	Trade balance (million dollars)	165	179	167	298	381
	Ratio of imports to apparent consumption (percent)	10.6	10.4	10.3	9.8	11.3
	Ratio of exports to production (percent)	12.6	12.5	12.2	13.1	15.4
AG020	Edible nuts:					
	Number of establishments	70,000	70,000	70,000	70,000	6,800
	Employees (thousands)	350	325	325	300	380
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,421	2,690	2,703	2,740	2,691

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG020	Edible nuts— <i>Continued</i>					
	U.S. exports (million dollars) .....	1,019	1,067	1,188	1,224	1,318
	U.S. imports (million dollars) .....	401	429	461	460	497
	Apparent U.S. consumption (million dollars) .....	1,803	2,052	1,976	1,976	1,870
	Trade balance (million dollars) .....	618	638	727	764	821
	Ratio of imports to apparent consumption (percent) ..	22.2	20.9	23.3	23.3	26.6
	Ratio of exports to shipments (percent) .....	42.1	39.7	44.0	44.7	49.0
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) .....	323	343	226	361	348
	U.S. exports (million dollars) .....	55	57	64	69	70
	U.S. imports (million dollars) .....	1,062	1,132	1,233	1,217	1,253
	Apparent U.S. consumption (million dollars) .....	1,330	1,418	1,395	1,509	1,531
	Trade balance (million dollars) .....	-1,007	-1,075	-1,169	-1,148	-1,183
	Ratio of imports to apparent consumption (percent) ..	79.8	79.8	88.4	80.6	81.8
	Ratio of exports to shipments (percent) .....	17.0	16.6	28.3	19.1	20.1
AG022	Citrus fruit:					
	Number of establishments .....	17,858	17,878	17,898	17,918	17,938
	Employees (thousands) .....	98	98	97	95	95
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars) .....	2,243	2,415	2,401	2,160	2,276
	U.S. exports (million dollars) .....	583	614	649	647	674
	U.S. imports (million dollars) .....	89	148	134	119	129
	Apparent U.S. consumption (million dollars) .....	1,749	1,949	1,886	1,632	1,731
	Trade balance (million dollars) .....	494	466	515	528	545
	Ratio of imports to apparent consumption (percent) ..	5.1	7.6	7.1	7.3	7.5
	Ratio of exports to shipments (percent) .....	26.0	25.4	27.0	30.0	29.6
AG023	Deciduous fruit:					
	Number of farms .....	86,000	85,000	84,000	83,000	82,000
	Employees (thousands) .....	160	160	160	160	160
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars) .....	1,936	2,118	1,820	1,888	1,790
	U.S. exports (million dollars) .....	477	517	607	596	774
	U.S. imports (million dollars) .....	114	127	163	146	157
	Apparent U.S. consumption (million dollars) .....	1,573	1,728	1,376	1,438	1,173
	Trade balance (million dollars) .....	363	390	444	450	617
	Ratio of imports to apparent consumption (percent) ..	7.2	7.3	11.8	10.2	13.4
	Ratio of exports to shipments (percent) .....	24.6	24.4	33.4	31.6	43.2
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) .....	1,479	1,435	1,605	1,860	1,915
	U.S. exports (million dollars) .....	405	414	409	437	482
	U.S. imports (million dollars) .....	506	511	486	473	528
	Apparent U.S. consumption (million dollars) .....	1,580	1,532	1,682	1,896	1,961
	Trade balance (million dollars) .....	-101	-97	-77	-36	-46
	Ratio of imports to apparent consumption (percent) ..	32.0	33.4	28.9	24.9	26.9
	Ratio of exports to shipments (percent) .....	27.4	28.9	25.5	23.5	25.2
AG025	Dried fruit, other than tropical:					
	Number of establishments .....	40	40	40	40	40
	Employees (thousands) .....	9	9	10	10	9
	Capacity utilization (percent) .....	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	715	738	835	787	754
	U.S. exports (million dollars) .....	326	344	357	360	369
	U.S. imports (million dollars) .....	33	34	34	42	46
	Apparent U.S. consumption (million dollars) .....	422	428	512	469	431
	Trade balance (million dollars) .....	293	310	323	318	323
	Ratio of imports to apparent consumption (percent) ..	7.8	7.9	6.6	9.0	10.7
	Ratio of exports to shipments (percent) .....	45.6	46.6	42.8	45.7	48.9
AG026	Frozen fruit:					
	Number of establishments .....	40	40	40	40	40
	Employees (thousands) .....	5	6	6	6	6
	Capacity utilization (percent) .....	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	532	555	600	620	650
	U.S. exports (million dollars) .....	50	48	58	58	71
	U.S. imports (million dollars) .....	59	61	57	63	64
	Apparent U.S. consumption (million dollars) .....	541	568	599	655	643
	Trade balance (million dollars) .....	-9	-13	1	-5	7
	Ratio of imports to apparent consumption (percent) ..	10.9	10.7	9.5	9.6	10.0
	Ratio of exports to shipments (percent) .....	9.4	8.6	9.7	9.4	10.9

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
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)	2,920	3,030	2,970	3,080	3,170	
	U.S. exports (million dollars)	113	149	167	166	157	
	U.S. imports (million dollars)	316	355	417	421	414	
	Apparent U.S. consumption (million dollars)	3,123	3,236	3,220	3,335	3,427	
	Trade balance (million dollars)	-203	-206	-250	-255	-257	
	Ratio of imports to apparent consumption (percent)	10.1	11.0	13.0	12.6	12.1	
	Ratio of exports to shipments (percent)	3.9	4.9	5.6	5.4	5.0	
	AG028	Coffee and tea:					
		Number of establishments	171	172	172	172	172
Employees (thousands)		16	16	17	17	11	
Capacity utilization (percent)		68	90	73	85	85	
U.S. shipments (million dollars)		5,740	5,520	5,300	5,520	6,000	
U.S. exports (million dollars)		106	118	160	187	231	
U.S. imports (million dollars)		2,049	1,999	1,871	1,705	2,655	
Apparent U.S. consumption (million dollars)		7,683	7,401	7,011	7,038	8,424	
Trade balance (million dollars)		-1,943	-1,881	-1,711	-1,518	-2,424	
Ratio of imports to apparent consumption (percent)		26.7	27.0	26.7	24.2	31.5	
Ratio of exports to shipments (percent)		1.8	2.1	3.0	3.4	3.9	
AG029		Spices:					
		Number of establishments	78	76	74	74	74
	Employees (thousands)	9	8	8	8	8	
	Capacity utilization (percent)	78	(1)	(1)	(1)	(1)	
	U.S. shipments (million dollars)	1,278	1,300	1,325	1,350	1,375	
	U.S. exports (million dollars)	34	38	43	51	52	
	U.S. imports (million dollars)	198	223	234	223	272	
	Apparent U.S. consumption (million dollars)	1,442	1,485	1,516	1,522	1,595	
	Trade balance (million dollars)	-164	-185	-191	-172	-220	
	Ratio of imports to apparent consumption (percent)	13.7	15.0	15.4	14.7	17.1	
	Ratio of exports to shipments (percent)	2.7	2.9	3.2	3.8	3.8	
	AG030	Cereals:					
		Number of establishments	425,400	414,000	405,000	394,000	383,000
Employees (thousands)		(1)	(1)	(1)	(1)	(1)	
Capacity utilization (percent)		(2)	(2)	(2)	(2)	(2)	
U.S. production (million dollars)		29,400	28,900	28,000	31,700	27,300	
U.S. exports (million dollars)		11,941	10,096	11,245	10,728	10,088	
U.S. imports (million dollars)		314	354	513	586	861	
Apparent U.S. consumption (million dollars)		17,773	19,158	17,268	21,558	18,073	
Trade balance (million dollars)		11,627	9,742	10,732	10,142	9,227	
Ratio of imports to apparent consumption (percent)		1.8	1.8	3.0	2.7	4.8	
Ratio of exports to production (percent)		40.6	34.9	40.2	33.8	37.0	
AG031		Milled grains, malts, and starches:					
		Number of establishments	415	414	413	412	412
	Employees (thousands)	22	22	22	22	22	
	Capacity utilization (percent)	85	85	85	90	90	
	U.S. production (million dollars)	11,652	12,438	13,276	14,115	14,115	
	U.S. exports (million dollars)	357	370	387	445	464	
	U.S. imports (million dollars)	71	58	70	96	132	
	Apparent U.S. consumption (million dollars)	11,366	12,126	12,959	13,766	13,783	
	Trade balance (million dollars)	286	312	317	349	332	
	Ratio of imports to apparent consumption (percent)	0.6	0.5	0.5	0.7	1.0	
	Ratio of exports to production (percent)	3.1	3.0	2.9	3.2	3.3	
	AG032	Oilseeds:					
		Number of establishments	425,000	414,000	405,000	394,000	383,800
Employees (thousands)		(1)	(1)	(1)	(1)	(1)	
Capacity utilization (percent)		(2)	(2)	(2)	(2)	(2)	
U.S. production (million dollars)		11,663	12,065	12,000	13,100	13,100	
U.S. exports (million dollars)		3,705	4,124	4,564	4,758	4,537	
U.S. imports (million dollars)		196	118	122	155	268	
Apparent U.S. consumption (million dollars)		8,154	8,059	7,558	8,497	8,831	
Trade balance (million dollars)		3,509	4,006	4,442	4,603	4,269	
Ratio of imports to apparent consumption (percent)		2.4	1.5	1.6	1.8	3.0	
Ratio of exports to production (percent)		31.8	34.2	38.0	36.3	34.6	
AG033		Animal or vegetable fats and oils:					
		Number of establishments	560	550	540	530	520
	Employees (thousands)	30	30	30	30	30	
	Capacity utilization (percent)	84	84	85	86	88	
	U.S. shipments (million dollars)	6,000	5,700	5,300	6,200	7,800	

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG033	Animal or vegetable fats and oils— <i>Continued</i>					
	U.S. exports (million dollars)	1,172	1,123	1,439	1,454	1,851
	U.S. imports (million dollars)	684	734	966	856	1,046
	Apparent U.S. consumption (million dollars)	5,512	5,311	4,827	5,602	6,995
	Trade balance (million dollars)	488	389	473	598	805
	Ratio of imports to apparent consumption (percent)	12.4	13.8	20.0	15.3	15.0
	Ratio of exports to shipments (percent)	19.5	19.7	27.2	23.5	23.7
AG034	Edible preparations:					
	Number of establishments	5,100	5,100	5,100	5,100	5,100
	Employees (thousands)	395	395	395	397	397
	Capacity utilization (percent)	85	84	84	85	90
	U.S. production (million dollars)	89,168	93,742	94,700	96,600	100,000
	U.S. exports (million dollars)	1,348	1,925	2,156	2,522	3,062
	U.S. imports (million dollars)	949	1,113	1,249	1,348	1,561
	Apparent U.S. consumption (million dollars)	88,769	92,930	93,793	95,426	98,499
	Trade balance (million dollars)	399	812	907	1,174	1,501
	Ratio of imports to apparent consumption (percent)	1.1	1.2	1.3	1.4	1.6
	Ratio of exports to production (percent)	1.5	2.1	2.3	2.6	3.1
AG035	Cocoa, chocolate, and confectionery:					
	Number of establishments	871	871	920	920	920
	Employees (thousands)	57	57	62	62	62
	Capacity utilization (percent)	68	65	62	62	66
	U.S. shipments (million dollars)	9,004	9,710	10,428	10,756	11,076
	U.S. exports (million dollars)	328	345	438	560	545
	U.S. imports (million dollars)	1,267	1,302	1,347	1,299	1,299
	Apparent U.S. consumption (million dollars)	9,943	10,667	11,337	11,495	11,830
	Trade balance (million dollars)	-939	-957	-909	-739	-754
	Ratio of imports to apparent consumption (percent)	12.7	12.2	11.9	11.3	11.0
	Ratio of exports to shipments (percent)	3.6	3.6	4.2	5.2	4.9
AG036	Fruit and vegetable juices:					
	Number of establishments	100	100	100	100	100
	Employees (thousands)	150	150	150	150	150
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	2,000	2,000	1,950	2,100	2,200
	U.S. exports (million dollars)	375	385	461	470	539
	U.S. imports (million dollars)	1,000	793	812	653	663
	Apparent U.S. consumption (million dollars)	2,625	2,408	2,301	2,283	2,324
	Trade balance (million dollars)	-625	-408	-351	-183	-124
	Ratio of imports to apparent consumption (percent)	38.1	32.9	35.3	28.6	28.5
	Ratio of exports to shipments (percent)	18.8	19.3	23.6	22.4	24.5
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:					
	Number of establishments	3,000	3,100	3,100	3,200	3,200
	Employees (thousands)	113	112	112	110	112
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	36,000	37,000	38,000	40,000	42,000
	U.S. exports (million dollars)	117	154	191	220	344
	U.S. imports (million dollars)	218	242	250	277	349
	Apparent U.S. consumption (million dollars)	36,101	37,088	38,059	40,057	42,005
	Trade balance (million dollars)	-101	-88	-59	-57	-5
	Ratio of imports to apparent consumption (percent)	0.6	0.7	0.7	0.7	0.8
	Ratio of exports to shipments (percent)	0.3	0.4	0.5	0.6	0.8
AG038	Malt beverages:					
	Number of establishments <sup>5</sup>	138	134	134	134	134
	Employees (thousands)	40	40	35	38	38
	Capacity utilization (percent)	90	86	84	84	84
	U.S. shipments (million dollars)	15,186	15,925	17,300	17,500	17,700
	U.S. exports (million dollars)	139	169	194	202	341
	U.S. imports (million dollars)	907	813	854	929	1,038
	Apparent U.S. consumption (million dollars)	15,954	16,569	17,960	18,227	18,397
	Trade balance (million dollars)	-768	-644	-660	-727	-697
	Ratio of imports to apparent consumption (percent)	5.7	4.9	4.8	5.1	5.6
	Ratio of exports to shipments (percent)	0.9	1.1	1.1	1.2	1.9
AG039	Wine and certain other fermented beverages:					
	Number of establishments <sup>6</sup>	1,610	1,610	1,590	1,590	1,590
	Employees (thousands)	13	17	13	14	14
	Capacity utilization (percent)	58	83	83	83	83
	U.S. shipments (million dollars)	3,208	3,554	3,900	4,246	4,529
	U.S. exports (million dollars)	127	147	176	177	192
	U.S. imports (million dollars)	924	920	1,094	984	1,045
	Apparent U.S. consumption (million dollars)	4,005	4,327	4,818	5,053	5,382
	Trade balance (million dollars)	-797	-773	-918	-807	-853

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG039	Wine and certain other fermented beverages—Continued					
	Ratio of imports to apparent consumption (percent) . . .	23.1	21.3	22.7	19.5	19.4
	Ratio of exports to shipments (percent) . . . . .	4.0	4.1	4.5	4.2	4.2
AG040	Distilled spirits:					
	Number of establishments . . . . .	69	65	65	65	65
	Employees (thousands) . . . . .	8	7	7	7	7
	Capacity utilization (percent) . . . . .	80	77	78	78	78
	U.S. shipments (million dollars) . . . . .	3,474	3,656	3,498	3,341	3,191
	U.S. exports (million dollars) . . . . .	257	279	343	344	356
	U.S. imports (million dollars) . . . . .	1,523	1,304	1,552	1,442	1,552
	Apparent U.S. consumption (million dollars) . . . . .	4,740	4,681	4,707	4,439	4,387
	Trade balance (million dollars) . . . . .	-1,266	-1,025	-1,209	-1,098	-1,196
	Ratio of imports to apparent consumption (percent) . . .	32.1	27.9	33.0	32.5	35.4
	Ratio of exports to shipments (percent) . . . . .	7.4	7.6	9.8	10.3	11.2
AG041	Unmanufactured tobacco:					
	Number of establishments . . . . .	130,150	122,341	113,777	104,675	96,301
	Employees (thousands) . . . . .	390	367	341	314	289
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)
	U.S. production (million dollars) . . . . .	2,741	2,886	2,961	3,000	3,062
	U.S. exports (million dollars) . . . . .	1,441	1,428	1,651	1,306	1,303
	U.S. imports (million dollars) <sup>7</sup> . . . . .	583	736	1,475	1,370	613
	Apparent U.S. consumption (million dollars) . . . . .	1,883	2,194	2,785	3,064	2,372
	Trade balance (million dollars) . . . . .	858	692	176	-64	690
	Ratio of imports to apparent consumption (percent) . . .	31.0	33.5	53.0	44.7	25.8
	Ratio of exports to production (percent) . . . . .	52.6	49.5	55.8	43.5	42.6
AG042	Cigars, and certain other manufactured tobacco:					
	Number of establishments . . . . .	54	55	57	57	57
	Employees (thousands) . . . . .	13	15	16	16	16
	Capacity utilization (percent) . . . . .	88	87	85	85	85
	U.S. shipments (million dollars) . . . . .	1,866	2,089	1,895	1,719	1,600
	U.S. exports (million dollars) . . . . .	279	342	317	327	402
	U.S. imports (million dollars) . . . . .	63	79	85	107	90
	Apparent U.S. consumption (million dollars) . . . . .	1,650	1,826	1,663	1,499	1,288
	Trade balance (million dollars) . . . . .	216	263	232	220	312
	Ratio of imports to apparent consumption (percent) . . .	3.8	4.3	5.1	7.1	7.0
	Ratio of exports to shipments (percent) . . . . .	15.0	16.4	16.7	19.0	25.1
AG043	Cigarettes:					
	Number of establishments . . . . .	11	11	11	10	10
	Employees (thousands) . . . . .	29	27	25	24	23
	Capacity utilization (percent) . . . . .	93	90	87	87	90
	U.S. shipments (million dollars) . . . . .	25,522	27,111	29,476	31,625	27,135
	U.S. exports (million dollars) . . . . .	4,761	4,232	4,192	3,926	4,965
	U.S. imports (million dollars) . . . . .	31	120	199	360	73
	Apparent U.S. consumption (million dollars) . . . . .	20,792	22,999	25,483	28,059	22,243
	Trade balance (million dollars) . . . . .	4,730	4,112	3,993	3,566	4,892
	Ratio of imports to apparent consumption (percent) . . .	0.1	0.5	0.8	1.3	0.3
	Ratio of exports to shipments (percent) . . . . .	18.7	15.6	14.2	12.4	18.3
AG044	Hides, skins, and leather:					
	Number of establishments . . . . .	1,389	1,301	1,235	1,235	1,220
	Employees (thousands) . . . . .	19	17	18	18	18
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars) . . . . .	4,989	4,919	4,194	4,337	4,755
	U.S. exports (million dollars) . . . . .	2,372	1,967	1,974	1,977	2,108
	U.S. imports (million dollars) . . . . .	788	695	767	868	995
	Apparent U.S. consumption (million dollars) . . . . .	3,405	3,647	2,987	3,228	3,642
	Trade balance (million dollars) . . . . .	1,584	1,272	1,207	1,109	1,113
	Ratio of imports to apparent consumption (percent) . . .	23.1	19.1	25.7	26.9	27.3
	Ratio of exports to shipments (percent) . . . . .	47.5	40.0	47.1	45.6	44.3
AG045	Furskins:					
	Number of establishments . . . . .	771	682	571	502	500
	Employees (thousands) . . . . .	3	3	3	3	3
	Capacity utilization (percent) . . . . .	73	71	65	59	61
	U.S. shipments (million dollars) . . . . .	205	166	164	146	185
	U.S. exports (million dollars) . . . . .	205	154	134	128	167
	U.S. imports (million dollars) . . . . .	100	75	83	83	109
	Apparent U.S. consumption (million dollars) . . . . .	100	87	113	101	127
	Trade balance (million dollars) . . . . .	105	79	51	45	58
	Ratio of imports to apparent consumption (percent) . . .	100.0	86.2	73.5	82.2	85.8
	Ratio of exports to shipments (percent) . . . . .	100.0	92.8	81.7	87.7	90.3

See footnotes at end of table.

**Table B-1—Continued**  
**Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
AG062	Ethyl alcohol for nonbeverages purposes:						
	Firms (number) . . . . .	18	20	30	30	30	
	Employees (thousands) . . . . .	6	6	7	7	7	
	Capacity utilization (percent) . . . . .	90	92	93	94	90	
	U.S. shipments (million dollars) . . . . .	1,100	1,209	1,239	1,178	1,594	
	U.S. exports (million dollars) . . . . .	169	79	38	71	215	
	U.S. imports (million dollars) . . . . .	80	84	114	143	146	
	Apparent U.S. consumption (million dollars) . . . . .	1,011	1,214	1,315	1,250	1,525	
	Trade balance (million dollars) . . . . .	89	-5	-76	-72	69	
	Ratio of imports to apparent consumption (percent) . . . . .	7.9	6.9	8.7	11.4	9.6	
	Ratio of exports to shipments (percent) . . . . .	15.4	6.5	3.1	6.0	13.5	
	AG063	Wool and other animal hair: <sup>8</sup>					
		Number of establishments . . . . .	72,502	66,091	63,268	60,737	59,722
		Employees (thousands) . . . . .	(1)	(1)	(1)	(1)	(1)
Capacity utilization (percent) . . . . .		(2)	(2)	(2)	(2)	(2)	
U.S. production (million dollars) <sup>9</sup> . . . . .		85	68	74	51	78	
U.S. exports (million dollars) . . . . .		25	21	19	14	36	
U.S. imports (million dollars) . . . . .		171	170	172	175	173	
Apparent U.S. consumption (million dollars) . . . . .		231	217	227	212	215	
Trade balance (million dollars) . . . . .		-146	-149	-153	-161	-137	
Ratio of imports to apparent consumption (percent) . . . . .		74.0	78.3	75.8	82.5	80.5	
Ratio of exports to production (percent) . . . . .		29.4	30.9	25.7	27.5	46.2	
AG064		Cotton, not carded or combed:					
		Number of establishments <sup>10</sup> . . . . .	43,000	43,000	43,000	43,000	43,000
		Employees (thousands) . . . . .	12,348	14,052	13,240	13,660	13,660
	Capacity utilization (percent) . . . . .	(2)	(2)	(2)	(2)	(2)	
	U.S. production (million dollars) . . . . .	4,994	4,912	4,250	4,247	4,247	
	U.S. exports (million dollars) . . . . .	2,783	2,480	1,999	1,528	2,653	
	U.S. imports (million dollars) . . . . .	0	4	0	0	7	
	Apparent U.S. consumption (million dollars) . . . . .	2,211	2,436	2,251	2,719	1,601	
	Trade balance (million dollars) . . . . .	2,783	2,476	1,999	1,528	2,646	
	Ratio of imports to apparent consumption (percent) . . . . .	0.0	0.2	0.0	0.0	0.4	
	Ratio of exports to production (percent) . . . . .	55.7	50.5	47.0	36.0	62.5	

<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 is 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 1987 Census of Agriculture.

**Table B-2**  
**Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG046	Logs and rough wood products:					
	Number of establishments	10,800	10,000	13,000	13,100	13,000
	Employees (thousands)	82	78	83	85	85
	Capacity utilization (percent)	80	70	82	92	92
	U.S. shipments (million dollars)	12,300	11,600	13,800	14,000	14,000
	U.S. exports (million dollars)	2,969	2,765	2,809	3,134	2,963
	U.S. imports (million dollars)	119	299	349	387	366
	Apparent U.S. consumption (million dollars)	9,450	9,134	11,340	11,253	11,403
	Trade balance (million dollars)	2,850	2,466	2,460	2,747	2,597
	Ratio of imports to apparent consumption (percent)	1.3	3.3	3.1	3.4	3.2
	Ratio of exports to shipments (percent)	24.1	23.8	20.4	22.4	21.2
AG047	Lumber:					
	Number of establishments	6,500	6,400	6,880	7,000	7,000
	Employees (thousands)	168	155	167	168	170
	Capacity utilization (percent)	85	85	85	85	90
	U.S. shipments (million dollars)	19,700	17,200	23,000	25,000	27,000
	U.S. exports (million dollars)	2,138	2,220	2,337	2,470	2,458
	U.S. imports (million dollars)	2,671	2,644	3,481	5,032	6,059
	Apparent U.S. consumption (million dollars)	20,233	17,624	24,144	27,562	30,601
	Trade balance (million dollars)	-533	-424	-1,144	-2,562	-3,601
	Ratio of imports to apparent consumption (percent)	13.2	15.0	14.4	18.3	19.8
	Ratio of exports to shipments (percent)	10.9	12.9	10.2	9.9	9.1
AG048	Moldings, millwork, and joinery:					
	Number of establishments	2,600	2,600	3,000	3,000	3,000
	Employees (thousands)	91	85	87	85	85
	Capacity utilization (percent)	75	77	68	70	75
	U.S. shipments (million dollars)	9,500	9,000	9,600	10,000	12,000
	U.S. exports (million dollars)	331	366	444	458	443
	U.S. imports (million dollars)	766	531	659	812	959
	Apparent U.S. consumption (million dollars)	9,935	9,165	9,815	10,354	12,516
	Trade balance (million dollars)	-435	-165	-215	-354	-516
	Ratio of imports to apparent consumption (percent)	7.7	5.8	6.7	7.8	7.7
	Ratio of exports to shipments (percent)	3.5	4.1	4.6	4.6	3.7
AG049	Structural panel products:					
	Number of establishments	600	600	600	600	600
	Employees (thousands)	78	70	74	77	75
	Capacity utilization (percent)	80	80	80	80	85
	U.S. production (million dollars)	10,600	10,400	12,000	12,200	12,000
	U.S. exports (million dollars)	770	748	858	921	962
	U.S. imports (million dollars)	993	858	1,190	1,515	1,820
	Apparent U.S. consumption (million dollars)	10,823	10,510	12,332	12,794	12,858
	Trade balance (million dollars)	-223	-110	-332	-594	-858
	Ratio of imports to apparent consumption (percent)	9.2	8.2	9.6	11.8	14.2
	Ratio of exports to production (percent)	7.3	7.2	7.2	7.5	8.0
AG050	Wooden containers:					
	Number of establishments	2,600	2,600	2,400	2,500	2,500
	Employees (thousands)	29	29	34	35	35
	Capacity utilization (percent)	75	77	74	74	75
	U.S. production (million dollars)	1,900	2,000	2,800	2,500	2,500
	U.S. exports (million dollars)	70	76	73	83	76
	U.S. imports (million dollars)	149	142	162	174	197
	Apparent U.S. consumption (million dollars)	1,979	2,066	2,889	2,591	2,621
	Trade balance (million dollars)	-79	-66	-89	-91	-121
	Ratio of imports to apparent consumption (percent)	7.5	6.9	5.6	6.7	7.5
	Ratio of exports to production (percent)	3.7	3.8	2.6	3.3	3.0
AG051	Tools and tool handles of wood:					
	Number of establishments	136	135	135	135	135
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	73	70	70	70
	U.S. shipments (million dollars)	150	155	160	160	170
	U.S. exports (million dollars)	13	14	16	20	16
	U.S. imports (million dollars)	75	76	86	94	109
	Apparent U.S. consumption (million dollars)	212	217	230	234	263
	Trade balance (million dollars)	-62	-62	-70	-74	-93
	Ratio of imports to apparent consumption (percent)	35.4	35.0	37.4	40.2	41.4
	Ratio of exports to shipments (percent)	8.7	9.0	10.0	12.5	9.4
AG052	Miscellaneous articles of wood:					
	Number of establishments	680	680	680	680	650
	Employees (thousands)	30	30	30	30	30
	Capacity utilization (percent)	70	73	73	75	75
	U.S. shipments (million dollars)	2,400	2,500	2,575	2,600	2,500
	U.S. exports (million dollars)	155	156	147	155	177

See footnotes at end of table.

**Table B-2—Continued**  
**Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
AG052	Miscellaneous articles of wood— <i>Continued</i>					
	U.S. imports (million dollars) .....	378	394	428	465	540
	Apparent U.S. consumption (million dollars) .....	2,623	2,738	2,856	2,910	2,863
	Trade balance (million dollars) .....	-223	-238	-281	-310	-363
	Ratio of imports to apparent consumption (percent) ...	14.4	14.4	15.0	16.0	18.9
	Ratio of exports to shipments (percent) .....	6.5	6.2	5.7	6.0	7.1
AG053	Cork and rattan:					
	Number of establishments .....	30	31	31	31	30
	Employees (thousands) .....	2	2	2	2	2
	Capacity utilization (percent) .....	70	73	(1)	70	75
	U.S. shipments (million dollars) .....	60	62	64	60	60
	U.S. exports (million dollars) .....	38	35	44	44	50
	U.S. imports (million dollars) .....	318	306	342	354	360
	Apparent U.S. consumption (million dollars) .....	340	333	362	370	370
	Trade balance (million dollars) .....	-280	-271	-298	-310	-310
	Ratio of imports to apparent consumption (percent) ...	93.5	91.9	94.5	95.7	97.3
	Ratio of exports to shipments (percent) .....	63.3	56.5	68.8	73.3	83.3
AG054	Wood pulp and wastepaper:					
	Number of establishments .....	(1)	(1)	(1)	(1)	(1)
	Employees (thousands) .....	12	13	13	13	14
	Capacity utilization (percent) .....	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	9,000	7,900	8,100	7,700	8,000
	U.S. exports (million dollars) .....	4,056	3,616	3,862	2,999	3,816
	U.S. imports (million dollars) .....	2,886	2,176	2,138	1,899	2,329
	Apparent U.S. consumption (million dollars) .....	7,830	6,460	6,376	6,600	6,513
	Trade balance (million dollars) .....	1,170	1,440	1,724	1,100	1,487
	Ratio of imports to apparent consumption (percent) ...	36.9	33.7	33.5	28.8	35.8
	Ratio of exports to shipments (percent) .....	45.1	45.8	47.7	38.9	47.7
AG055	Paper boxes and bags:					
	Number of establishments .....	2,600	2,600	2,600	2,600	2,600
	Employees (thousands) .....	180	180	180	180	182
	Capacity utilization (percent) .....	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	34,900	34,000	36,100	36,500	36,500
	U.S. exports (million dollars) .....	473	547	665	752	871
	U.S. imports (million dollars) .....	225	246	315	358	451
	Apparent U.S. consumption (million dollars) .....	34,652	33,699	35,750	36,106	36,080
	Trade balance (million dollars) .....	248	301	350	394	420
	Ratio of imports to apparent consumption (percent) ...	0.6	0.7	0.9	1.0	1.3
	Ratio of exports to shipments (percent) .....	1.4	1.6	1.8	2.1	2.4
AG056	Industrial papers and paperboards:					
	Number of establishments .....	700	700	700	700	704
	Employees (thousands) .....	(1)	(1)	(1)	(1)	(1)
	Capacity utilization (percent) .....	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars) .....	44,000	42,000	42,000	42,000	43,000
	U.S. exports (million dollars) .....	2,960	3,314	3,328	3,331	3,827
	U.S. imports (million dollars) .....	1,136	936	1,065	1,114	1,388
	Apparent U.S. consumption (million dollars) .....	42,176	39,622	39,737	39,783	40,561
	Trade balance (million dollars) .....	1,824	2,378	2,263	2,217	2,439
	Ratio of imports to apparent consumption (percent) ...	2.7	2.4	2.7	2.8	3.4
	Ratio of exports to shipments (percent) .....	6.7	7.9	7.9	7.9	8.9
AG057	Newsprint:					
	Number of establishments .....	18	18	18	19	19
	Employees (thousands) .....	9	9	9	9	9
	Capacity utilization (percent) .....	92	90	96	97	98
	U.S. shipments (million dollars) .....	4,500	4,200	4,200	4,300	4,350
	U.S. exports (million dollars) .....	293	388	467	496	481
	U.S. imports (million dollars) .....	4,247	3,979	3,599	3,593	3,333
	Apparent U.S. consumption (million dollars) .....	8,454	7,791	7,332	7,397	7,202
	Trade balance (million dollars) .....	-3,954	-3,591	-3,132	-3,097	-2,852
	Ratio of imports to apparent consumption (percent) ...	50.2	51.1	49.1	48.6	46.3
	Ratio of exports to shipments (percent) .....	6.5	9.2	11.1	11.5	11.1
AG058	Printing and writing papers:					
	Number of establishments .....	132	132	132	132	132
	Employees (thousands) .....	134	134	131	134	134
	Capacity utilization (percent) .....	(1)	(1)	90	91	91
	U.S. shipments (million dollars) .....	20,600	19,250	19,750	19,750	20,800
	U.S. exports (million dollars) .....	575	871	948	911	1,146
	U.S. imports (million dollars) .....	2,142	2,092	2,168	2,634	2,831
	Apparent U.S. consumption (million dollars) .....	22,167	20,471	20,970	21,473	22,485
	Trade balance (million dollars) .....	-1,567	-1,221	-1,220	-1,723	-1,685
	Ratio of imports to apparent consumption (percent) ...	9.7	10.2	10.3	12.3	12.6
	Ratio of exports to shipments (percent) .....	2.8	4.5	4.8	4.6	5.5

See footnotes at end of table.

**Table B-2—Continued**  
**Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
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. shipments (million dollars) .....	4,800	4,700	4,900	4,800	4,950	
	U.S. exports (million dollars) .....	386	431	426	432	530	
	U.S. imports (million dollars) .....	464	441	476	512	568	
	Apparent U.S. consumption (million dollars) .....	4,878	4,710	4,950	4,880	4,988	
	Trade balance (million dollars) .....	-78	-10	-50	-80	-38	
	Ratio of imports to apparent consumption (percent) ...	9.5	9.4	9.6	10.5	11.4	
	Ratio of exports to shipments (percent) .....	8.0	9.2	8.7	9.0	10.7	
	AG060	Miscellaneous paper products:					
		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. shipments (million dollars) .....		20,850	20,000	20,000	20,000	21,000	
U.S. exports (million dollars) .....		398	577	635	706	781	
U.S. imports (million dollars) .....		343	376	429	489	583	
Apparent U.S. consumption (million dollars) .....		20,795	19,799	19,794	19,783	20,802	
Trade balance (million dollars) .....		55	201	206	217	198	
Ratio of imports to apparent consumption (percent) ...		1.6	1.9	2.2	2.5	2.8	
Ratio of exports to shipments (percent) .....		1.9	2.9	3.2	3.5	3.7	
AG061		Printed matter:					
		Number of establishments .....	60,000	60,000	60,000	60,000	60,000
	Employees (thousands) .....	1,500	1,500	1,500	1,500	1,500	
	Capacity utilization (percent) .....	(2)	(2)	(2)	(2)	(2)	
	U.S. shipments (million dollars) .....	157,000	157,000	160,000	166,000	176,000	
	U.S. exports (million dollars) .....	3,072	3,470	3,670	3,828	3,788	
	U.S. imports (million dollars) .....	1,616	1,649	1,813	1,962	2,146	
	Apparent U.S. consumption (million dollars) .....	155,544	155,179	158,143	164,134	174,358	
	Trade balance (million dollars) .....	1,456	1,821	1,857	1,866	1,642	
	Ratio of imports to apparent consumption (percent) ...	1.0	1.1	1.1	1.2	1.2	
	Ratio of exports to shipments (percent) .....	2.0	2.2	2.3	2.3	2.2	

<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,**  
**1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH008	Other olefins:					
	Number of establishments	23	23	23	23	23
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	85	85	88	87	90
	U.S. shipments (million dollars)	900	910	920	940	980
	U.S. exports (million dollars)	263	285	253	223	190
	U.S. imports (million dollars)	14	19	32	35	38
	Apparent U.S. consumption (million dollars)	651	644	699	752	828
	Trade balance (million dollars)	249	266	221	188	152
	Ratio of imports to apparent consumption (percent)	2.2	3.0	4.6	4.7	4.6
Ratio of exports to shipments (percent)	29.2	31.3	27.5	23.7	19.4	
CH009	Primary aromatics:					
	Number of establishments	31	31	31	31	31
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	60	63	66	73	78
	U.S. shipments (million dollars)	3,300	3,700	3,600	3,931	4,200
	U.S. exports (million dollars)	276	105	106	145	138
	U.S. imports (million dollars)	124	196	187	169	158
	Apparent U.S. consumption (million dollars)	3,148	3,791	3,681	3,955	4,220
	Trade balance (million dollars)	152	-91	-81	-24	-20
	Ratio of imports to apparent consumption (percent)	3.9	5.2	5.1	4.3	3.7
Ratio of exports to shipments (percent)	8.4	2.8	2.9	3.7	3.3	
CH010	Benzenoid commodity chemicals:					
	Number of establishments	54	54	54	53	53
	Employees (thousands)	15	15	15	15	15
	Capacity utilization (percent)	90	85	82	82	82
	U.S. shipments (million dollars)	13,600	14,150	14,000	13,500	13,900
	U.S. exports (million dollars)	1,517	1,385	1,162	1,213	1,555
	U.S. imports (million dollars)	492	364	313	339	392
	Apparent U.S. consumption (million dollars)	12,575	13,129	13,151	12,626	12,737
	Trade balance (million dollars)	1,025	1,021	849	874	1,163
	Ratio of imports to apparent consumption (percent)	3.9	2.8	2.4	2.7	3.1
Ratio of exports to shipments (percent)	11.2	9.8	8.3	9.0	11.2	
CH011	Benzenoid specialty chemicals:					
	Number of establishments	250	250	250	250	250
	Employees (thousands)	95	95	95	95	95
	Capacity utilization (percent)	95	89	87	82	85
	U.S. shipments (million dollars)	7,700	7,930	8,175	7,800	8,000
	U.S. exports (million dollars)	2,753	3,244	3,448	3,650	4,073
	U.S. imports (million dollars)	1,888	1,999	2,211	2,063	2,281
	Apparent U.S. consumption (million dollars)	6,835	6,685	6,938	6,213	6,208
	Trade balance (million dollars)	865	1,245	1,237	1,587	1,792
	Ratio of imports to apparent consumption (percent)	27.6	29.9	31.9	33.2	36.7
Ratio of exports to shipments (percent)	35.8	40.9	42.2	46.8	50.9	
CH012	Miscellaneous organic chemicals:					
	Number of establishments	103	100	100	104	110
	Employees (thousands)	87	80	70	70	75
	Capacity utilization (percent)	83	80	85	85	85
	U.S. shipments (million dollars)	40,767	39,300	40,000	40,200	43,000
	U.S. exports (million dollars)	4,457	4,745	4,842	4,886	5,897
	U.S. imports (million dollars)	2,552	2,792	3,251	3,502	4,445
	Apparent U.S. consumption (million dollars)	38,862	37,347	38,409	38,816	41,548
	Trade balance (million dollars)	1,905	1,953	1,591	1,384	1,452
	Ratio of imports to apparent consumption (percent)	6.6	7.5	8.5	9.0	10.7
Ratio of exports to shipments (percent)	10.9	12.1	12.1	12.2	13.7	
CH013	Selected inorganic chemicals and elements:					
	Number of firms	480	480	(1)	(1)	(1)
	Employees (thousands)	77	79	(1)	(1)	(1)
	Capacity utilization (percent)	77	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	3,111	2,651	2,526	2,390	(1)
	U.S. exports (million dollars)	842	893	768	781	790
	U.S. imports (million dollars)	1,738	1,573	1,363	1,252	1,235
	Apparent U.S. consumption (million dollars)	4,007	3,331	3,121	2,861	(1)
	Trade balance (million dollars)	-896	-680	-595	-471	-445
	Ratio of imports to apparent consumption (percent)	43.4	47.2	43.7	43.8	(1)
Ratio of exports to shipments (percent)	27.1	33.7	30.4	32.7	(1)	
CH014	Inorganic acids:					
	Number of establishments	145	145	145	145	145
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	2,379	2,426	2,499	2,550	2,601
	U.S. exports (million dollars)	109	129	156	157	160

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH014	Inorganic acids— <i>Continued</i>					
	U.S. imports (million dollars)	179	168	142	144	199
	Apparent U.S. consumption (million dollars)	2,449	2,465	2,485	2,537	2,640
	Trade balance (million dollars)	-70	-39	14	13	-39
	Ratio of imports to apparent consumption (percent)	7.3	6.8	5.7	5.7	7.5
	Ratio of exports to shipments (percent)	4.6	5.3	6.2	6.2	6.2
CH015	Salts and other inorganic chemicals:					
	Number of establishments	235	230	225	220	217
	Employees (thousands)	36	35	34	33	32
	Capacity utilization (percent)	75	72	72	72	(1)
	U.S. shipments (million dollars)	7,043	7,000	7,315	7,403	7,462
	U.S. exports (million dollars)	2,452	1,958	2,191	2,222	2,487
	U.S. imports (million dollars)	1,337	1,354	1,471	1,812	2,166
	Apparent U.S. consumption (million dollars)	5,928	6,396	6,595	6,993	7,141
	Trade balance (million dollars)	1,115	604	720	410	321
	Ratio of imports to apparent consumption (percent)	22.6	21.2	22.3	25.9	30.3
		Ratio of exports to shipments (percent)	34.8	28.0	30.0	30.0
CH016	Chlor-alkali chemicals:					
	Number of establishments	27	27	27	27	27
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	(1)	94	96	95	95
	U.S. shipments (million dollars)	4,033	3,864	3,682	3,700	3,720
	U.S. exports (million dollars)	453	912	803	598	594
	U.S. imports (million dollars)	180	177	170	125	149
	Apparent U.S. consumption (million dollars)	3,760	3,129	3,049	3,227	3,275
	Trade balance (million dollars)	273	735	633	473	445
	Ratio of imports to apparent consumption (percent)	4.8	5.7	5.6	3.9	4.5
		Ratio of exports to shipments (percent)	11.2	23.6	21.8	16.2
CH017	Industrial gases:					
	Number of establishments	103	103	103	103	103
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	74	73	73	73	73
	U.S. shipments (million dollars)	2,696	2,815	3,131	3,200	3,400
	U.S. exports (million dollars)	84	95	98	99	105
	U.S. imports (million dollars)	36	38	39	39	42
	Apparent U.S. consumption (million dollars)	2,648	2,758	3,072	3,140	3,337
	Trade balance (million dollars)	48	57	59	60	63
	Ratio of imports to apparent consumption (percent)	1.4	1.4	1.3	1.2	1.3
		Ratio of exports to shipments (percent)	3.1	3.4	3.1	3.1
CH018	Fertilizers:					
	Number of establishments	650	650	650	650	650
	Employees (thousands)	41	41	41	41	41
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	8,281	8,332	8,391	8,560	8,731
	U.S. exports (million dollars)	2,697	3,138	2,483	1,877	2,780
	U.S. imports (million dollars)	1,513	1,536	1,471	1,600	2,040
	Apparent U.S. consumption (million dollars)	7,097	6,730	7,379	8,283	7,991
	Trade balance (million dollars)	1,184	1,602	1,012	277	740
	Ratio of imports to apparent consumption (percent)	21.3	22.8	19.9	19.3	25.5
		Ratio of exports to shipments (percent)	32.6	37.7	29.6	21.9
CH019	Paints, inks, and related items, certain components thereof:					
	Number of establishments	1,580	1,580	1,580	1,580	1,580
	Employees (thousands)	14	13	14	14	15
	Capacity utilization (percent)	90	80	82	84	85
	U.S. shipments (million dollars)	17,300	17,360	17,793	18,250	19,000
	U.S. exports (million dollars)	1,487	1,554	1,712	1,772	2,057
	U.S. imports (million dollars)	800	826	930	980	1,148
	Apparent U.S. consumption (million dollars)	16,613	16,632	17,011	17,458	18,091
	Trade balance (million dollars)	687	728	782	792	909
	Ratio of imports to apparent consumption (percent)	4.8	5.0	5.5	5.6	6.3
		Ratio of exports to shipments (percent)	8.6	9.0	9.6	9.7
CH020	Synthetic organic pigments:					
	Number of firms	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)	725	644	789	793	793
	U.S. exports (million dollars)	214	200	223	267	299
	U.S. imports (million dollars)	208	249	274	294	339
	Apparent U.S. consumption (million dollars)	719	693	840	820	833
	Trade balance (million dollars)	6	-49	-51	-27	-40
	Ratio of imports to apparent consumption (percent)	28.9	35.9	32.6	35.9	40.7
		Ratio of exports to shipments (percent)	29.5	31.1	28.3	33.7

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH021	Synthetic dyes and azoic couples:					
	Number of firms	32	32	32	32	32
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	870	858	860	991	991
	U.S. exports (million dollars)	193	178	192	200	227
	U.S. imports (million dollars)	459	497	571	583	595
	Apparent U.S. consumption (million dollars)	1,136	1,177	1,239	1,374	1,359
	Trade balance (million dollars)	-266	-319	-379	-383	-368
	Ratio of imports to apparent consumption (percent)	40.4	42.2	46.1	42.4	43.8
	Ratio of exports to shipments (percent)	22.2	20.7	22.3	20.2	22.9
CH022	Synthetic tanning agents:					
	Number of firms	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)	20	20	20	19	20
	U.S. exports (million dollars)	11	13	11	10	11
	U.S. imports (million dollars)	3	4	4	6	6
	Apparent U.S. consumption (million dollars)	12	11	13	15	15
	Trade balance (million dollars)	8	9	7	4	5
	Ratio of imports to apparent consumption (percent)	25.0	36.4	30.8	40.0	40.0
	Ratio of exports to shipments (percent)	55.0	65.0	55.0	52.6	55.0
CH023	Natural tanning and dyeing materials:					
	Number of firms	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)	11	12	17	16	19
	U.S. imports (million dollars)	49	56	65	64	58
	Apparent U.S. consumption (million dollars)	48	54	58	58	49
	Trade balance (million dollars)	-38	-44	-48	-48	-39
	Ratio of imports to apparent consumption (percent)	102.1	103.7	112.1	110.3	118.4
	Ratio of exports to shipments (percent)	110.0	120.0	170.0	160.0	190.0
CH024	Photographic chemicals and preparations:					
	Number of firms	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)	245	287	306	331	383
	U.S. imports (million dollars)	370	405	496	554	650
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	-125	-118	-190	-223	-267
	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:					
	Number of firms	59	59	59	59	59
	Employees (thousands)	22	22	22	22	22
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	4,774	4,019	4,174	4,580	4,580
	U.S. exports (million dollars)	1,586	1,509	1,543	1,584	1,736
	U.S. imports (million dollars)	642	681	806	825	852
	Apparent U.S. consumption (million dollars)	3,830	3,191	3,437	3,821	3,696
	Trade balance (million dollars)	944	828	737	759	884
	Ratio of imports to apparent consumption (percent)	16.8	21.3	23.5	21.6	23.1
	Ratio of exports to shipments (percent)	33.2	37.5	37.0	34.6	37.9
CH026	Adhesives and glues:					
	Number of establishments	486	485	480	480	482
	Employees (thousands)	11	10	10	10	10
	Capacity utilization (percent)	87	82	80	80	85
	U.S. shipments (million dollars)	2,810	2,850	2,910	2,890	3,040
	U.S. exports (million dollars)	179	194	222	256	308
	U.S. imports (million dollars)	89	93	111	118	134
	Apparent U.S. consumption (million dollars)	2,720	2,749	2,799	2,752	2,866
	Trade balance (million dollars)	90	101	111	138	174
	Ratio of imports to apparent consumption (percent)	3.3	3.4	4.0	4.3	4.7
	Ratio of exports to shipments (percent)	6.4	6.8	7.6	8.9	10.1
CH027	Medicinal chemicals, except antibiotics:					
	Number of firms	750	750	750	750	700
	Employees (thousands)	157	154	155	158	150
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	42,280	46,050	48,000	50,428	51,400

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,**  
**1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH027	Medicinal chemicals, except antibiotics—Continued					
	U.S. exports (million dollars)	3,950	4,458	5,248	5,690	6,079
	U.S. imports (million dollars)	3,268	3,918	4,888	4,897	5,688
	Apparent U.S. consumption (million dollars)	41,598	45,510	47,640	49,635	51,009
	Trade balance (million dollars)	682	540	360	793	391
	Ratio of imports to apparent consumption (percent)	7.9	8.6	10.3	9.9	11.2
	Ratio of exports to shipments (percent)	9.3	9.7	10.9	11.3	11.8
CH028	Antibiotics:					
	Number of firms	20	20	20	20	18
	Employees (thousands)	31	34	36	39	34
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	5,552	5,830	7,600	8,000	8,200
	U.S. exports (million dollars)	1,230	1,380	1,568	1,580	1,528
	U.S. imports (million dollars)	677	986	1,138	1,226	1,280
	Apparent U.S. consumption (million dollars)	4,999	5,436	7,170	7,646	7,952
	Trade balance (million dollars)	553	394	430	354	248
	Ratio of imports to apparent consumption (percent)	13.5	18.1	15.9	16.0	16.1
	Ratio of exports to shipments (percent)	22.2	23.7	20.6	19.8	18.6
CH029	Essential oils and other flavoring materials:					
	Number of establishments	58	58	58	58	57
	Employees (thousands)	53	51	49	50	51
	Capacity utilization (percent)	75	80	75	77	80
	U.S. shipments (million dollars)	2,880	2,950	2,700	2,800	2,900
	U.S. exports (million dollars)	593	614	618	734	848
	U.S. imports (million dollars)	484	490	555	557	624
	Apparent U.S. consumption (million dollars)	2,771	2,826	2,637	2,623	2,676
	Trade balance (million dollars)	109	124	63	177	224
	Ratio of imports to apparent consumption (percent)	17.5	17.3	21.0	21.2	23.3
	Ratio of exports to shipments (percent)	20.6	20.8	22.9	26.2	29.2
CH030	Perfumes, cosmetics, and toiletries:					
	Number of establishments	650	650	650	650	650
	Employees (thousands)	56	55	56	57	57
	Capacity utilization (percent)	83	80	83	85	87
	U.S. shipments (million dollars)	15,800	16,700	17,200	17,900	18,500
	U.S. exports (million dollars)	852	1,075	1,228	1,415	1,715
	U.S. imports (million dollars)	638	716	898	973	1,055
	Apparent U.S. consumption (million dollars)	15,586	16,341	16,870	17,458	17,840
	Trade balance (million dollars)	214	359	330	442	660
	Ratio of imports to apparent consumption (percent)	4.1	4.4	5.3	5.6	5.9
	Ratio of exports to shipments (percent)	5.4	6.4	7.1	7.9	9.3
CH031	Soaps, detergents, and surface-active agents:					
	Number of establishments	950	950	950	950	950
	Employees (thousands)	45	46	47	47	47
	Capacity utilization (percent)	83	80	83	85	87
	U.S. shipments (million dollars)	13,400	14,500	14,900	15,400	16,000
	U.S. exports (million dollars)	856	1,018	1,158	1,263	1,454
	U.S. imports (million dollars)	327	364	387	450	556
	Apparent U.S. consumption (million dollars)	12,871	13,846	14,129	14,587	15,102
	Trade balance (million dollars)	529	654	771	813	898
	Ratio of imports to apparent consumption (percent)	2.5	2.6	2.7	3.1	3.7
	Ratio of exports to shipments (percent)	6.4	7.0	7.8	8.2	9.1
CH032	Miscellaneous chemicals and specialties:					
	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. shipments (million dollars)	(1)	(1)	(1)	(1)	(1)
	U.S. exports (million dollars)	930	1,117	1,251	1,289	1,371
	U.S. imports (million dollars)	437	505	673	603	733
	Apparent U.S. consumption (million dollars)	(1)	(1)	(1)	(1)	(1)
	Trade balance (million dollars)	493	612	578	686	638
	Ratio of imports to apparent consumption (percent)	(1)	(1)	(1)	(1)	(1)
	Ratio of exports to shipments (percent)	(1)	(1)	(1)	(1)	(1)
CH033	Explosives and propellant powders:					
	Number of firms	135	135	135	135	135
	Employees (thousands)	15	15	15	15	15
	Capacity utilization (percent)	90	90	90	92	90
	U.S. shipments (million dollars)	1,350	1,380	1,410	1,500	(1)
	U.S. exports (million dollars)	157	169	212	259	252
	U.S. imports (million dollars)	156	178	216	209	196

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH033	Explosives and propellant powders— <i>Continued</i>					
	Apparent U.S. consumption (million dollars)	1,349	1,389	1,414	1,450	(1)
	Trade balance (million dollars)	1	-9	-4	50	56
	Ratio of imports to apparent consumption (percent)	11.6	12.8	15.3	14.4	(1)
	Ratio of exports to shipments (percent)	11.6	12.2	15.0	17.3	(1)
CH034	Polyethylene resins in primary forms:					
	Number of establishments	36	37	40	40	40
	Employees (thousands)	22	22	22	21	21
	Capacity utilization (percent)	87	87	86	86	88
	U.S. shipments (million dollars)	8,617	7,355	7,916	6,890	7,493
	U.S. exports (million dollars)	1,106	1,460	1,255	1,260	1,459
	U.S. imports (million dollars)	528	448	462	571	783
	Apparent U.S. consumption (million dollars)	8,039	6,343	7,123	6,201	6,817
	Trade balance (million dollars)	578	1,012	793	689	676
	Ratio of imports to apparent consumption (percent)	6.6	7.1	6.5	9.2	11.5
	Ratio of exports to shipments (percent)	12.8	19.9	15.9	18.3	19.5
CH035	Polypropylene resins in primary forms:					
	Number of establishments	19	19	21	23	23
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	92	88	85	86	88
	U.S. shipments (million dollars)	2,772	1,998	2,048	2,801	3,065
	U.S. exports (million dollars)	730	788	522	432	449
	U.S. imports (million dollars)	38	64	83	116	155
	Apparent U.S. consumption (million dollars)	2,080	1,274	1,609	2,485	2,771
	Trade balance (million dollars)	692	724	439	316	294
	Ratio of imports to apparent consumption (percent)	1.8	5.0	5.2	4.7	5.6
	Ratio of exports to shipments (percent)	26.3	39.4	25.5	15.4	14.6
CH036	PVC resins in primary forms:					
	Number of establishments	27	26	27	27	27
	Employees (thousands)	8	8	8	7	7
	Capacity utilization (percent)	97	95	97	97	100
	U.S. shipments (million dollars)	3,525	2,659	2,788	3,243	3,475
	U.S. exports (million dollars)	419	549	488	500	671
	U.S. imports (million dollars)	67	54	82	117	182
	Apparent U.S. consumption (million dollars)	3,173	2,164	2,382	2,860	2,986
	Trade balance (million dollars)	352	495	406	383	489
	Ratio of imports to apparent consumption (percent)	2.1	2.5	3.4	4.1	6.1
	Ratio of exports to shipments (percent)	11.9	20.6	17.5	15.4	19.3
CH037	Styrene polymers in primary forms:					
	Number of establishments	70	68	68	68	68
	Employees (thousands)	11	11	11	11	11
	Capacity utilization (percent)	90	84	91	90	94
	U.S. shipments (million dollars)	5,688	4,204	4,077	4,611	4,999
	U.S. exports (million dollars)	516	550	539	600	662
	U.S. imports (million dollars)	138	132	199	235	300
	Apparent U.S. consumption (million dollars)	5,310	3,786	3,737	4,246	4,637
	Trade balance (million dollars)	378	418	340	365	362
	Ratio of imports to apparent consumption (percent)	2.6	3.5	5.3	5.5	6.5
	Ratio of exports to shipments (percent)	9.1	13.1	13.2	13.0	13.2
CH038	Saturated polyester resins:					
	Number of establishments	47	48	49	49	49
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	64	72	77	79	83
	U.S. shipments (million dollars)	2,925	2,972	3,066	3,221	3,925
	U.S. exports (million dollars)	107	408	456	390	491
	U.S. imports (million dollars)	41	69	88	108	197
	Apparent U.S. consumption (million dollars)	2,859	2,633	2,698	2,939	3,631
	Trade balance (million dollars)	66	339	368	282	294
	Ratio of imports to apparent consumption (percent)	1.4	2.6	3.3	3.7	5.4
	Ratio of exports to shipments (percent)	3.7	13.7	14.9	12.1	12.5
CH039	Other plastics in primary forms:					
	Number of establishments	282	280	279	279	279
	Employees (thousands)	34	33	33	32	32
	Capacity utilization (percent)	91	89	89	90	93
	U.S. shipments (million dollars)	12,236	13,020	13,956	14,012	14,900
	U.S. exports (million dollars)	3,111	3,647	3,793	3,992	4,670
	U.S. imports (million dollars)	963	1,046	1,208	1,386	1,684
	Apparent U.S. consumption (million dollars)	10,088	10,419	11,371	11,406	11,914
	Trade balance (million dollars)	2,148	2,601	2,585	2,606	2,986
	Ratio of imports to apparent consumption (percent)	9.5	10.0	10.6	12.2	14.1
	Ratio of exports to shipments (percent)	25.4	28.0	27.2	28.5	31.3

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
CH040	SBR rubber in primary forms:						
	Number of establishments	11	10	10	11	11	
	Employees (thousands)	6	5	5	5	5	
	Capacity utilization (percent)	90	90	90	89	90	
	U.S. shipments (million dollars)	1,107	884	1,033	968	1,025	
	U.S. exports (million dollars)	206	219	258	255	298	
	U.S. imports (million dollars)	94	92	116	111	137	
	Apparent U.S. consumption (million dollars)	995	757	891	824	864	
	Trade balance (million dollars)	112	127	142	144	161	
	Ratio of imports to apparent consumption (percent)	9.4	12.2	13.0	13.5	15.9	
	Ratio of exports to shipments (percent)	18.6	24.8	25.0	26.3	29.1	
	CH041	Other synthetic rubber:					
		Number of establishments	36	34	34	34	34
Employees (thousands)		13	12	11	11	11	
Capacity utilization (percent)		81	79	80	79	80	
U.S. shipments (million dollars)		3,381	3,340	3,401	2,906	3,070	
U.S. exports (million dollars)		789	772	833	769	874	
U.S. imports (million dollars)		423	376	403	445	491	
Apparent U.S. consumption (million dollars)		3,015	2,944	2,971	2,582	2,687	
Trade balance (million dollars)		366	396	430	324	383	
Ratio of imports to apparent consumption (percent)		14.0	12.8	13.6	17.2	18.3	
Ratio of exports to shipments (percent)		23.3	23.1	24.5	26.5	28.5	
CH042		Pneumatic tires and tubes (new):					
		Number of establishments	38	38	39	39	37
	Employees (thousands)	65	63	62	63	63	
	Capacity utilization (percent)	96	95	95	95	97	
	U.S. shipments (million dollars)	10,500	10,200	10,500	10,600	10,900	
	U.S. exports (million dollars)	1,097	1,215	1,402	1,464	1,614	
	U.S. imports (million dollars)	2,522	2,223	2,448	2,661	2,960	
	Apparent U.S. consumption (million dollars)	11,925	11,208	11,546	11,797	12,246	
	Trade balance (million dollars)	-1,425	-1,008	-1,046	-1,197	-1,346	
	Ratio of imports to apparent consumption (percent)	21.1	19.8	21.2	22.6	24.2	
	Ratio of exports to shipments (percent)	10.4	11.9	13.4	13.8	14.8	
	CH043	Other tires:					
		Number of establishments	1,970	1,850	1,800	1,750	1,600
Employees (thousands)		7	6	6	6	5	
Capacity utilization (percent)		83	88	85	88	90	
U.S. shipments (million dollars)		2,100	2,000	2,000	1,800	1,800	
U.S. exports (million dollars)		49	58	66	66	79	
U.S. imports (million dollars)		67	78	94	107	114	
Apparent U.S. consumption (million dollars)		2,118	2,020	2,028	1,841	1,835	
Trade balance (million dollars)		-18	-20	-28	-41	-35	
Ratio of imports to apparent consumption (percent)		3.2	3.9	4.6	5.8	6.2	
Ratio of exports to shipments (percent)		2.3	2.9	3.3	3.7	4.4	
CH044		Plastic or rubber semifabricated forms:					
		Number of establishments	1,535	1,540	1,546	1,551	1,551
	Employees (thousands)	101	100	101	103	103	
	Capacity utilization (percent)	80	79	81	81	81	
	U.S. shipments (million dollars)	16,092	16,770	16,914	17,462	17,800	
	U.S. exports (million dollars)	2,519	2,603	2,833	3,139	3,596	
	U.S. imports (million dollars)	1,660	1,752	1,934	2,015	2,286	
	Apparent U.S. consumption (million dollars)	15,233	15,919	16,015	16,338	16,490	
	Trade balance (million dollars)	859	851	899	1,124	1,310	
	Ratio of imports to apparent consumption (percent)	10.9	11.0	12.1	12.3	13.9	
	Ratio of exports to shipments (percent)	15.7	15.5	16.7	18.0	20.2	
	CH045	Plastic containers and closures:					
		Number of establishments	1,882	1,860	1,860	1,860	1,860
Employees (thousands)		73	74	75	77	76	
Capacity utilization (percent)		90	90	90	90	90	
U.S. shipments (million dollars)		8,783	8,962	9,039	9,280	9,466	
U.S. exports (million dollars)		575	681	841	914	1,060	
U.S. imports (million dollars)		697	665	738	845	968	
Apparent U.S. consumption (million dollars)		8,905	8,946	8,936	9,211	9,374	
Trade balance (million dollars)		-122	16	103	69	92	
Ratio of imports to apparent consumption (percent)		7.8	7.4	8.3	9.2	10.3	
Ratio of exports to shipments (percent)		6.5	7.6	9.3	9.8	11.2	
CH046		Hose, belting, and plastic pipe:					
		Number of establishments	439	438	438	438	475
	Employees (thousands)	38	36	36	36	38	
	Capacity utilization (percent)	70	71	71	72	75	
	U.S. shipments (million dollars)	5,133	5,159	5,204	5,355	5,900	

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH046	Hose, belting, and plastic pipe— <i>Continued</i>					
	U.S. exports (million dollars) .....	634	739	829	880	1,027
	U.S. imports (million dollars) .....	587	594	657	699	855
	Apparent U.S. consumption (million dollars) .....	5,086	5,014	5,032	5,174	5,728
	Trade balance (million dollars) .....	47	145	172	181	172
	Ratio of imports to apparent consumption (percent) ...	11.5	11.8	13.1	13.5	14.9
	Ratio of exports to shipments (percent) .....	12.4	14.3	15.9	16.4	17.4
CH047	Miscellaneous rubber or plastic products:					
	Number of establishments .....	13,000	12,900	12,800	12,900	12,900
	Employees (thousands) .....	665	620	600	605	605
	Capacity utilization (percent) .....	85	85	90	85	87
	U.S. shipments (million dollars) .....	71,500	70,000	72,000	70,000	72,000
	U.S. exports (million dollars) .....	1,770	1,997	2,407	2,592	3,110
	U.S. imports (million dollars) .....	2,917	2,929	3,448	3,815	4,456
	Apparent U.S. consumption (million dollars) .....	72,647	70,932	73,041	71,223	73,346
	Trade balance (million dollars) .....	-1,147	-932	-1,041	-1,223	-1,346
	Ratio of imports to apparent consumption (percent) ...	4.0	4.1	4.7	5.4	6.1
	Ratio of exports to shipments (percent) .....	2.5	2.9	3.3	3.7	4.3
CH048	Gelatin:					
	Number of establishments .....	8	8	8	8	8
	Employees (thousands) .....	1	1	1	1	1
	Capacity utilization (percent) .....	88	88	92	90	90
	U.S. shipments (million dollars) .....	125	135	145	148	152
	U.S. exports (million dollars) .....	30	31	33	35	36
	U.S. imports (million dollars) .....	66	80	94	97	90
	Apparent U.S. consumption (million dollars) .....	161	184	206	210	206
	Trade balance (million dollars) .....	-36	-49	-61	-62	-54
	Ratio of imports to apparent consumption (percent) ...	41.0	43.5	45.6	46.2	43.7
	Ratio of exports to shipments (percent) .....	24.0	23.0	22.8	23.6	23.7
CH049	Natural rubber:					
	Number of establishments .....	( <sup>1</sup> )				
	Employees (thousands) .....	( <sup>1</sup> )				
	Capacity utilization (percent) .....	( <sup>1</sup> )				
	U.S. shipments (million dollars) .....	0	0	0	0	0
	U.S. exports (million dollars) .....	33	36	31	27	33
	U.S. imports (million dollars) .....	707	663	770	852	965
	Apparent U.S. consumption (million dollars) .....	674	627	739	825	932
	Trade balance (million dollars) .....	-674	-627	-739	-825	-932
	Ratio of imports to apparent consumption (percent) ...	104.9	105.7	104.2	103.3	103.5
	Ratio of exports to shipments (percent) .....	( <sup>1</sup> )				

<sup>1</sup> Not available.

**Table B-4**  
**Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
CH001	Electrical energy:						
	Number of establishments	3,225	3,225	3,225	3,225	3,225	
	Employees (thousands)	(1)	(1)	(1)	(1)	(1)	
	Capacity utilization (percent)	100	100	100	100	100	
	U.S. shipments (million dollars)	167,403	145,800	153,831	163,261	185,062	
	U.S. exports (million dollars)	491	54	64	61	30	
	U.S. imports (million dollars)	463	487	590	662	960	
	Apparent U.S. consumption (million dollars)	167,375	146,233	154,357	163,862	185,992	
	Trade balance (million dollars)	28	-433	-526	-601	-930	
	Ratio of imports to apparent consumption (percent)	0.3	0.3	0.4	0.4	0.5	
	Ratio of exports to shipments (percent)	0.3	0.0	0.0	0.0	0.0	
	CH002	Nuclear materials:					
		Number of establishments	43	40	(1)	(1)	(1)
Employees (thousands)		32	30	(1)	(1)	(1)	
Capacity utilization (percent)		60	58	(1)	(1)	(1)	
U.S. shipments (million dollars)		4,000	3,800	(1)	(1)	(1)	
U.S. exports (million dollars)		1,068	1,120	1,247	1,139	1,226	
U.S. imports (million dollars)		1,015	1,092	1,080	930	1,114	
Apparent U.S. consumption (million dollars)		3,947	3,772	(1)	(1)	(1)	
Trade balance (million dollars)		53	28	167	209	112	
Ratio of imports to apparent consumption (percent)		25.7	29.0	(1)	(1)	(1)	
Ratio of exports to shipments (percent)		26.7	29.5	(1)	(1)	(1)	
CH003		Coal, coke, and related chemical products:					
		Number of establishments	525	525	523	520	520
	Employees (thousands)	135	129	160	155	150	
	Capacity utilization (percent)	85	85	85	85	85	
	U.S. shipments (million dollars)	22,690	22,346	23,461	25,980	30,000	
	U.S. exports (million dollars)	5,003	4,990	4,723	3,587	3,464	
	U.S. imports (million dollars)	582	453	536	603	799	
	Apparent U.S. consumption (million dollars)	18,269	17,809	19,274	22,996	27,335	
	Trade balance (million dollars)	4,421	4,537	4,187	2,984	2,665	
	Ratio of imports to apparent consumption (percent)	3.2	2.5	2.8	2.6	2.9	
	Ratio of exports to shipments (percent)	22.0	22.3	20.1	13.8	11.5	
	CH004	Crude petroleum:					
		Number of establishments	18,000	18,000	18,000	18,000	18,000
Employees (thousands)		204	204	204	204	204	
Capacity utilization (percent)		100	100	100	100	100	
U.S. shipments (million dollars)		46,904	45,800	41,750	35,613	34,000	
U.S. exports (million dollars)		2	35	27	20	44	
U.S. imports (million dollars)		43,833	37,374	38,104	38,248	38,530	
Apparent U.S. consumption (million dollars)		90,735	83,139	79,827	73,841	72,486	
Trade balance (million dollars)		-43,831	-37,339	-38,077	-38,228	-38,486	
Ratio of imports to apparent consumption (percent)		48.3	45.0	47.7	51.8	53.2	
Ratio of exports to shipments (percent)		0.0	0.1	0.1	0.1	0.1	
CH005		Petroleum products:					
		Number of establishments	194	190	190	190	190
	Employees (thousands)	75	75	75	75	75	
	Capacity utilization (percent)	85	85	85	85	85	
	U.S. shipments (million dollars)	150,628	129,291	120,565	127,488	130,000	
	U.S. exports (million dollars)	7,302	7,461	6,603	6,654	6,014	
	U.S. imports (million dollars)	16,138	12,578	11,260	11,041	10,450	
	Apparent U.S. consumption (million dollars)	159,464	134,408	125,222	131,875	134,436	
	Trade balance (million dollars)	-8,836	-5,117	-4,657	-4,387	-4,436	
	Ratio of imports to apparent consumption (percent)	10.1	9.4	9.0	8.4	7.8	
	Ratio of exports to shipments (percent)	4.8	5.8	5.5	5.2	4.6	
	CH006	Natural gas and components:					
		Number of establishments	(1)	(1)	(1)	(1)	(1)
Employees (thousands)		200	200	200	200	205	
Capacity utilization (percent)		80	80	80	80	80	
U.S. shipments (million dollars)		73,000	75,000	75,000	77,000	76,000	
U.S. exports (million dollars)		493	700	759	603	568	
U.S. imports (million dollars)		3,229	3,358	3,595	4,421	5,201	
Apparent U.S. consumption (million dollars)		75,736	77,658	77,836	80,818	80,633	
Trade balance (million dollars)		-2,736	-2,658	-2,836	-3,818	-4,633	
Ratio of imports to apparent consumption (percent)		4.3	4.3	4.6	5.5	6.5	
Ratio of exports to shipments (percent)		0.7	0.9	1.0	0.8	0.7	
CH007		Major primary olefins:					
		Number of establishments	37	37	37	37	37
	Employees (thousands)	5	5	5	5	5	
	Capacity utilization (percent)	95	93	95	94	97	
	U.S. shipments (million dollars)	12,943	11,589	12,100	12,300	13,200	

See footnote at end of table.

**Table B-4—Continued**  
**Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH007	Major primary olefins— <i>Continued</i>					
	U.S. exports (million dollars) .....	209	222	225	148	123
	U.S. imports (million dollars) .....	265	188	200	193	289
	Apparent U.S. consumption (million dollars) .....	12,999	11,555	12,075	12,345	13,366
	Trade balance (million dollars) .....	-56	34	25	-45	-166
	Ratio of imports to apparent consumption (percent) ...	2.0	1.6	1.7	1.6	2.2
	Ratio of exports to shipments (percent) .....	1.6	1.9	1.9	1.2	0.9

<sup>1</sup> Not available.

**Table B-5**  
**Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH050	Manmade fibers and filament yarns:					
	Number of establishments	210	220	230	230	230
	Employees (thousands)	75	75	73	69	63
	Capacity utilization (percent)	82	83	82	84	85
	U.S. shipments (million dollars)	12,884	12,581	12,862	12,350	12,740
	U.S. exports (million dollars)	1,570	1,608	1,434	1,393	1,585
	U.S. imports (million dollars)	700	780	900	1,126	1,299
	Apparent U.S. consumption (million dollars)	12,014	11,753	12,328	12,083	12,454
	Trade balance (million dollars)	870	828	534	267	286
	Ratio of imports to apparent consumption (percent)	5.8	6.6	7.3	9.3	10.4
	Ratio of exports to shipments (percent)	12.2	12.8	11.1	11.3	12.4
CH051	Spun yarns and miscellaneous yarns:					
	Number of establishments	450	455	465	465	460
	Employees (thousands)	90	88	86	83	83
	Capacity utilization (percent)	83	87	86	(1)	(1)
	U.S. shipments (million dollars)	8,050	8,060	8,650	8,500	7,500
	U.S. exports (million dollars)	451	494	434	347	458
	U.S. imports (million dollars)	357	404	474	497	594
	Apparent U.S. consumption (million dollars)	7,956	7,970	8,690	8,650	7,636
	Trade balance (million dollars)	94	90	-40	-150	-136
	Ratio of imports to apparent consumption (percent)	4.5	5.1	5.5	5.7	7.8
	Ratio of exports to shipments (percent)	5.6	6.1	5.0	4.1	6.1
CH052	Broadwoven fabrics:					
	Number of establishments	1,420	1,400	1,330	1,330	1,340
	Employees (thousands)	248	242	242	243	243
	Capacity utilization (percent)	82	85	89	92	93
	U.S. shipments (million dollars)	20,160	20,540	22,040	22,330	22,720
	U.S. exports (million dollars)	1,236	1,321	1,471	1,592	1,747
	U.S. imports (million dollars)	2,657	2,950	3,223	3,339	3,362
	Apparent U.S. consumption (million dollars)	21,581	22,169	23,792	24,077	24,335
	Trade balance (million dollars)	-1,421	-1,629	-1,752	-1,747	-1,615
	Ratio of imports to apparent consumption (percent)	12.3	13.3	13.5	13.9	13.8
	Ratio of exports to shipments (percent)	6.1	6.4	6.7	7.1	7.7
CH053	Knit fabrics:					
	Number of establishments	630	650	664	670	670
	Employees (thousands)	47	48	49	49	19
	Capacity utilization (percent)	72	77	74	(1)	(1)
	U.S. shipments (million dollars)	9,100	8,400	7,400	7,100	7,200
	U.S. exports (million dollars)	218	287	328	322	344
	U.S. imports (million dollars)	144	183	217	286	336
	Apparent U.S. consumption (million dollars)	9,026	8,296	7,289	7,064	7,192
	Trade balance (million dollars)	74	104	111	36	8
	Ratio of imports to apparent consumption (percent)	1.6	2.2	3.0	4.0	4.7
	Ratio of exports to shipments (percent)	2.4	3.4	4.4	4.5	4.8
CH054	Miscellaneous fabrics:					
	Number of establishments	260	260	275	275	275
	Employees (thousands)	28	27	25	26	26
	Capacity utilization (percent)	77	79	78	78	80
	U.S. shipments (million dollars)	1,260	1,250	1,320	1,340	1,370
	U.S. exports (million dollars)	147	174	179	199	234
	U.S. imports (million dollars)	90	86	100	105	130
	Apparent U.S. consumption (million dollars)	1,203	1,162	1,241	1,246	1,266
	Trade balance (million dollars)	57	88	79	94	104
	Ratio of imports to apparent consumption (percent)	7.5	7.4	8.1	8.4	10.3
	Ratio of exports to shipments (percent)	11.7	13.9	13.6	14.9	17.1
CH055	Coated, covered, impregnated or laminated textile fabrics:					
	Number of establishments	254	250	260	279	275
	Employees (thousands)	12	11	11	10	26
	Capacity utilization (percent)	68	81	77	78	80
	U.S. shipments (million dollars)	1,960	1,868	2,055	2,100	2,200
	U.S. exports (million dollars)	287	313	360	370	450
	U.S. imports (million dollars)	185	189	200	206	227
	Apparent U.S. consumption (million dollars)	1,858	1,744	1,895	1,936	1,977
	Trade balance (million dollars)	102	124	160	164	223
	Ratio of imports to apparent consumption (percent)	10.0	10.8	10.6	10.6	11.5
	Ratio of exports to shipments (percent)	14.6	16.8	17.5	17.6	20.5
CH056	Cordage, nets, and netting:					
	Number of establishments	190	188	204	200	195
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	74	75	82	80	80

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, 1990-94

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH056	Cordage, nets, and netting—Continued					
	U.S. shipments (million dollars)	576	566	564	559	750
	U.S. exports (million dollars)	44	48	52	50	43
	U.S. imports (million dollars)	137	127	124	123	147
	Apparent U.S. consumption (million dollars)	669	645	636	632	854
	Trade balance (million dollars)	-93	-79	-72	-73	-104
	Ratio of imports to apparent consumption (percent)	20.5	19.7	19.5	19.5	17.2
	Ratio of exports to shipments (percent)	7.6	8.5	9.2	8.9	5.7
CH057	Certain textile articles and fabrics suitable for industrial use:					
	Number of establishments	74	75	78	80	80
	Employees (thousands)	14	15	15	14	14
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	3,020	3,050	3,100	3,250	3,500
	U.S. exports (million dollars)	184	211	268	277	282
	U.S. imports (million dollars)	135	142	144	177	202
	Apparent U.S. consumption (million dollars)	2,971	2,981	2,976	3,150	3,420
	Trade balance (million dollars)	49	69	124	100	80
	Ratio of imports to apparent consumption (percent)	4.5	4.8	4.8	5.6	5.9
	Ratio of exports to shipments (percent)	6.1	6.9	8.6	8.5	8.1
CH058	Miscellaneous textiles and articles:					
	Number of establishments	3,761	3,800	3,800	3,800	3,800
	Employees (thousands)	82	83	83	86	85
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	6,501	7,000	7,200	7,500	7,875
	U.S. exports (million dollars)	531	605	709	793	848
	U.S. imports (million dollars)	622	794	894	983	1,179
	Apparent U.S. consumption (million dollars)	6,592	7,189	7,385	7,690	8,206
	Trade balance (million dollars)	-91	-189	-185	-190	-331
	Ratio of imports to apparent consumption (percent)	9.4	11.0	12.1	12.8	14.4
	Ratio of exports to shipments (percent)	8.2	8.6	9.8	10.6	10.8
CH059	Sacks and bags of textile materials:					
	Number of establishments	280	270	280	260	260
	Employees (thousands)	5	5	6	6	6
	Capacity utilization (percent)	82	77	73	70	70
	U.S. shipments (million dollars)	288	299	420	430	440
	U.S. exports (million dollars)	15	16	17	30	22
	U.S. imports (million dollars)	41	52	43	50	52
	Apparent U.S. consumption (million dollars)	314	335	446	450	470
	Trade balance (million dollars)	-26	-36	-26	-20	-30
	Ratio of imports to apparent consumption (percent)	13.1	15.5	9.6	11.1	11.1
	Ratio of exports to shipments (percent)	5.2	5.4	4.0	7.0	5.0
CH060	Carpets and rugs:					
	Number of establishments	480	450	450	475	475
	Employees (thousands)	52	49	49	51	52
	Capacity utilization (percent)	76	75	82	84	84
	U.S. shipments (million dollars)	8,527	7,980	8,749	9,318	9,530
	U.S. exports (million dollars)	551	704	725	730	713
	U.S. imports (million dollars)	598	591	709	671	748
	Apparent U.S. consumption (million dollars)	8,574	7,867	8,733	9,259	9,565
	Trade balance (million dollars)	-47	113	16	59	-35
	Ratio of imports to apparent consumption (percent)	7.0	7.5	8.1	7.2	7.8
	Ratio of exports to shipments (percent)	6.5	8.8	8.3	7.8	7.5
CH061	Home furnishings:					
	Number of establishments	1,500	1,550	1,600	1,650	1,650
	Employees (thousands)	68	67	66	65	66
	Capacity utilization (percent)	68	68	82	80	85
	U.S. shipments (million dollars)	6,700	6,800	6,900	7,000	7,350
	U.S. exports (million dollars)	191	251	249	253	261
	U.S. imports (million dollars)	751	726	827	939	1,075
	Apparent U.S. consumption (million dollars)	7,260	7,275	7,478	7,686	8,164
	Trade balance (million dollars)	-560	-475	-578	-686	-814
	Ratio of imports to apparent consumption (percent)	10.3	10.0	11.1	12.2	13.2
	Ratio of exports to shipments (percent)	2.9	3.7	3.6	3.6	3.6
CH062	Men's and boys' suits and sport coats:					
	Number of establishments	348	345	330	314	310
	Employees (thousands)	39	34	37	35	35
	Capacity utilization (percent)	82	88	85	82	82
	U.S. shipments (million dollars)	2,091	1,900	2,044	1,960	2,016

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH062	Men's and boys' suits and sport coats— <i>Continued</i>					
	U.S. exports (million dollars)	85	98	114	125	148
	U.S. imports (million dollars)	513	561	662	664	748
	Apparent U.S. consumption (million dollars)	2,519	2,363	2,592	2,499	2,616
	Trade balance (million dollars)	-428	-463	-548	-539	-600
	Ratio of imports to apparent consumption (percent)	20.4	23.7	25.5	26.6	28.6
	Ratio of exports to shipments (percent)	4.1	5.2	5.6	6.4	7.3
CH063	Men's and boys' coats and jackets:					
	Number of establishments	388	394	411	423	410
	Employees (thousands)	29	25	24	24	23
	Capacity utilization (percent)	82	85	86	87	85
	U.S. shipments (million dollars)	1,163	1,023	1,232	1,295	1,195
	U.S. exports (million dollars)	50	81	103	102	136
	U.S. imports (million dollars)	1,166	1,039	1,285	1,563	1,773
	Apparent U.S. consumption (million dollars)	2,279	1,981	2,414	2,756	2,832
	Trade balance (million dollars)	-1,116	-958	-1,182	-1,461	-1,637
	Ratio of imports to apparent consumption (percent)	51.2	52.4	53.2	56.7	62.6
	Ratio of exports to shipments (percent)	4.3	7.9	8.4	7.9	11.4
CH064	Men's and boys' trousers:					
	Number of establishments	764	753	738	726	720
	Employees (thousands)	104	105	105	102	101
	Capacity utilization (percent)	86	86	90	90	92
	U.S. shipments (million dollars)	6,089	6,676	7,295	7,480	7,800
	U.S. exports (million dollars)	529	663	843	974	1,050
	U.S. imports (million dollars)	2,122	2,304	2,666	2,797	3,145
	Apparent U.S. consumption (million dollars)	7,682	8,317	9,118	9,303	9,895
	Trade balance (million dollars)	-1,593	-1,641	-1,823	-1,823	-2,095
	Ratio of imports to apparent consumption (percent)	27.6	27.7	29.2	30.1	31.8
	Ratio of exports to shipments (percent)	8.7	9.9	11.6	13.0	13.5
CH065	Women's and girls' trousers:					
	Number of establishments	1,598	1,818	1,760	1,712	1,700
	Employees (thousands)	68	68	68	66	65
	Capacity utilization (percent)	70	90	92	94	93
	U.S. shipments (million dollars)	3,664	3,827	4,389	5,047	5,105
	U.S. exports (million dollars)	141	215	312	325	409
	U.S. imports (million dollars)	2,692	2,737	3,342	3,354	3,583
	Apparent U.S. consumption (million dollars)	6,215	6,349	7,419	8,076	8,279
	Trade balance (million dollars)	-2,551	-2,522	-3,030	-3,029	-3,174
	Ratio of imports to apparent consumption (percent)	43.3	43.1	45.0	41.5	43.3
	Ratio of exports to shipments (percent)	3.8	5.6	7.1	6.4	8.0
CH066	Shirts and blouses:					
	Number of establishments	2,040	1,957	2,030	2,004	1,980
	Employees (thousands)	134	125	133	133	132
	Capacity utilization (percent)	89	90	88	89	89
	U.S. shipments (million dollars)	9,143	9,364	10,697	11,378	11,788
	U.S. exports (million dollars)	398	455	664	854	1,021
	U.S. imports (million dollars)	5,057	7,410	9,173	10,042	10,840
	Apparent U.S. consumption (million dollars)	13,802	16,319	19,206	20,566	21,607
	Trade balance (million dollars)	-4,659	-6,955	-8,509	-9,188	-9,819
	Ratio of imports to apparent consumption (percent)	36.6	45.4	47.8	48.8	50.2
	Ratio of exports to shipments (percent)	4.4	4.9	6.2	7.5	8.7
CH067	Sweaters:					
	Number of establishments	307	329	315	312	310
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	68	90	88	90	90
	U.S. shipments (million dollars)	753	737	813	872	909
	U.S. exports (million dollars)	16	27	27	32	31
	U.S. imports (million dollars)	4,089	1,917	2,149	1,961	2,052
	Apparent U.S. consumption (million dollars)	4,826	2,627	2,935	2,801	2,930
	Trade balance (million dollars)	-4,073	-1,890	-2,122	-1,929	-2,021
	Ratio of imports to apparent consumption (percent)	84.7	73.0	73.2	70.0	70.0
	Ratio of exports to shipments (percent)	2.1	3.7	3.3	3.7	3.4
CH068	Women's and girls' suits, skirts, and coats:					
	Number of establishments	1,085	1,020	1,060	1,081	1,070
	Employees (thousands)	48	50	52	54	51
	Capacity utilization (percent)	89	93	92	90	86
	U.S. shipments (million dollars)	3,111	3,587	3,809	3,979	3,537
	U.S. exports (million dollars)	175	204	260	283	255
	U.S. imports (million dollars)	2,611	2,635	3,011	3,244	3,261
	Apparent U.S. consumption (million dollars)	5,547	6,018	6,560	6,940	6,543
	Trade balance (million dollars)	-2,436	-2,431	-2,751	-2,961	-3,006

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, 1990-94

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH068	Women's and girls' suits, skirts, and coats—Continued					
	Ratio of imports to apparent consumption (percent) . . .	47.1	43.8	45.9	46.7	49.8
	Ratio of exports to shipments (percent) . . . . .	5.6	5.7	6.8	7.1	7.2
CH069	Women's and girls' dresses:					
	Number of establishments . . . . .	2,541	2,480	2,375	2,314	2,300
	Employees (thousands) . . . . .	76	70	63	59	56
	Capacity utilization (percent) . . . . .	(1)	87	83	85	82
	U.S. shipments (million dollars) . . . . .	4,734	4,530	4,360	4,578	4,201
	U.S. exports (million dollars) . . . . .	50	65	98	105	103
	U.S. imports (million dollars) . . . . .	946	938	1,011	1,082	1,260
	Apparent U.S. consumption (million dollars) . . . . .	5,630	5,403	5,273	5,555	5,358
	Trade balance (million dollars) . . . . .	-896	-873	-913	-977	-1,157
	Ratio of imports to apparent consumption (percent) . . .	16.8	17.4	19.2	19.5	23.5
	Ratio of exports to shipments (percent) . . . . .	1.1	1.4	2.2	2.3	2.5
CH070	Robes, nightwear, and underwear:					
	Number of establishments . . . . .	737	719	707	688	675
	Employees (thousands) . . . . .	79	73	66	62	61
	Capacity utilization (percent) . . . . .	91	93	94	92	92
	U.S. shipments (million dollars) . . . . .	3,673	3,815	3,921	3,883	3,979
	U.S. exports (million dollars) . . . . .	157	302	382	512	569
	U.S. imports (million dollars) . . . . .	1,076	1,293	1,563	1,909	2,197
	Apparent U.S. consumption (million dollars) . . . . .	4,592	4,806	5,102	5,280	5,607
	Trade balance (million dollars) . . . . .	-919	-991	-1,181	-1,397	-1,628
	Ratio of imports to apparent consumption (percent) . . .	23.4	26.9	30.6	36.2	39.2
	Ratio of exports to shipments (percent) . . . . .	4.3	7.9	9.7	13.2	14.3
CH071	Hosiery:					
	Number of establishments . . . . .	660	666	691	679	660
	Employees (thousands) . . . . .	71	70	70	69	68
	Capacity utilization (percent) . . . . .	80	90	83	85	88
	U.S. shipments (million dollars) . . . . .	3,899	3,941	4,426	4,691	4,832
	U.S. exports (million dollars) . . . . .	73	98	135	206	220
	U.S. imports (million dollars) . . . . .	186	314	178	231	291
	Apparent U.S. consumption (million dollars) . . . . .	4,012	4,157	4,469	4,716	4,903
	Trade balance (million dollars) . . . . .	-113	-216	-43	-25	-71
	Ratio of imports to apparent consumption (percent) . . .	4.6	7.6	4.0	4.9	5.9
	Ratio of exports to shipments (percent) . . . . .	1.9	2.5	3.1	4.4	4.6
CH072	Body-supporting garments:					
	Number of establishments . . . . .	113	111	103	110	115
	Employees (thousands) . . . . .	12	11	12	12	13
	Capacity utilization (percent) . . . . .	86	88	90	88	91
	U.S. shipments (million dollars) . . . . .	1,154	1,368	1,567	1,579	1,805
	U.S. exports (million dollars) . . . . .	182	231	278	316	344
	U.S. imports (million dollars) . . . . .	366	444	557	639	751
	Apparent U.S. consumption (million dollars) . . . . .	1,338	1,581	1,846	1,902	2,212
	Trade balance (million dollars) . . . . .	-184	-213	-279	-323	-407
	Ratio of imports to apparent consumption (percent) . . .	27.4	28.1	30.2	33.6	34.0
	Ratio of exports to shipments (percent) . . . . .	15.8	16.9	17.7	20.0	19.1
CH073	Neckwear, handkerchiefs and scarves: <sup>2</sup>					
	Number of establishments . . . . .	162	158	167	167	160
	Employees (thousands) . . . . .	7	7	7	7	6
	Capacity utilization (percent) . . . . .	90	87	86	82	80
	U.S. shipments (million dollars) . . . . .	415	443	544	484	416
	U.S. exports (million dollars) . . . . .	17	20	21	31	26
	U.S. imports (million dollars) . . . . .	296	283	294	322	336
	Apparent U.S. consumption (million dollars) . . . . .	694	706	817	775	726
	Trade balance (million dollars) . . . . .	-279	-263	-273	-291	-310
	Ratio of imports to apparent consumption (percent) . . .	42.7	40.1	36.0	41.5	46.3
	Ratio of exports to shipments (percent) . . . . .	4.1	4.5	3.9	6.4	6.3
CH074	Gloves, including gloves for sports:					
	Number of establishments . . . . .	210	205	185	175	170
	Employees (thousands) . . . . .	12	11	10	10	10
	Capacity utilization (percent) . . . . .	75	77	77	(1)	(1)
	U.S. shipments (million dollars) . . . . .	833	793	812	809	805
	U.S. exports (million dollars) . . . . .	165	165	166	157	168
	U.S. imports (million dollars) . . . . .	875	912	1,124	1,349	1,499
	Apparent U.S. consumption (million dollars) . . . . .	1,543	1,540	1,770	2,001	2,136
	Trade balance (million dollars) . . . . .	-710	-747	-958	-1,192	-1,331
	Ratio of imports to apparent consumption (percent) . . .	56.7	59.2	63.5	67.4	70.2
	Ratio of exports to shipments (percent) . . . . .	19.8	20.8	20.4	19.4	20.9

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
CH075	Headwear:						
	Number of establishments	312	310	315	335	335	
	Employees (thousands)	16	16	19	20	21	
	Capacity utilization (percent)	75	84	85	(1)	(1)	
	U.S. shipments (million dollars)	737	801	978	980	985	
	U.S. exports (million dollars)	64	89	103	109	112	
	U.S. imports (million dollars)	429	495	687	778	821	
	Apparent U.S. consumption (million dollars)	1,102	1,207	1,562	1,649	1,694	
	Trade balance (million dollars)	-365	-406	-584	-669	-709	
	Ratio of imports to apparent consumption (percent)	38.9	41.0	44.0	47.2	48.5	
	Ratio of exports to shipments (percent)	8.7	11.1	10.5	11.1	11.4	
	CH076	Leather apparel and accessories:					
		Number of establishments	490	470	430	405	395
Employees (thousands)		12	11	11	11	10	
Capacity utilization (percent)		75	77	79	(1)	(1)	
U.S. shipments (million dollars)		501	545	557	560	560	
U.S. exports (million dollars)		75	96	99	97	93	
U.S. imports (million dollars)		1,354	1,226	1,411	1,418	1,456	
Apparent U.S. consumption (million dollars)		1,780	1,675	1,869	1,881	1,923	
Trade balance (million dollars)		-1,279	-1,130	-1,312	-1,321	-1,363	
Ratio of imports to apparent consumption (percent)		76.1	73.2	75.5	75.4	75.7	
Ratio of exports to shipments (percent)		15.0	17.6	17.8	17.3	16.6	
CH077		Fur apparel and other fur articles:					
		Number of establishments	394	315	249	213	200
	Employees (thousands)	2	1	1	1	1	
	Capacity utilization (percent)	(1)	94	95	(1)	(1)	
	U.S. shipments (million dollars)	379	257	205	215	200	
	U.S. exports (million dollars)	54	61	67	55	58	
	U.S. imports (million dollars)	249	172	140	173	187	
	Apparent U.S. consumption (million dollars)	574	368	278	333	329	
	Trade balance (million dollars)	-195	-111	-73	-118	-129	
	Ratio of imports to apparent consumption (percent)	43.4	46.7	50.4	52.0	56.8	
	Ratio of exports to shipments (percent)	14.2	23.7	32.7	25.6	29.0	
	CH078	Rubber, plastic, and coated-fabric apparel:					
		Number of establishments	67	65	(1)	(1)	(1)
Employees (thousands)		3	3	3	3	2	
Capacity utilization (percent)		65	63	(1)	(1)	(1)	
U.S. shipments (million dollars)		149	145	140	135	130	
U.S. exports (million dollars)		31	54	48	70	87	
U.S. imports (million dollars)		149	127	140	160	172	
Apparent U.S. consumption (million dollars)		267	218	232	225	215	
Trade balance (million dollars)		-118	-73	-92	-90	-85	
Ratio of imports to apparent consumption (percent)		55.8	58.3	60.3	71.1	80.0	
Ratio of exports to shipments (percent)		20.8	37.2	34.3	51.9	66.9	
CH079		Nonwoven and related products:					
		Number of establishments	78	80	82	85	90
	Employees (thousands)	9	9	9	9	9	
	Capacity utilization (percent)	82	86	85	90	90	
	U.S. shipments (million dollars)	3,341	3,377	3,400	3,550	3,750	
	U.S. exports (million dollars)	367	378	407	447	526	
	U.S. imports (million dollars)	306	360	436	435	437	
	Apparent U.S. consumption (million dollars)	3,280	3,359	3,429	3,538	3,661	
	Trade balance (million dollars)	61	18	-29	12	89	
	Ratio of imports to apparent consumption (percent)	9.3	10.7	12.7	12.3	11.9	
	Ratio of exports to shipments (percent)	11.0	11.2	12.0	12.6	14.0	
	CH080	Other wearing apparel:					
		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. shipments (million dollars)		(1)	(1)	(1)	(1)	(1)	
U.S. exports (million dollars)		227	286	368	448	603	
U.S. imports (million dollars)		1,225	1,259	1,612	2,006	2,292	
Apparent U.S. consumption (million dollars)		(1)	(1)	(1)	(1)	(1)	
Trade balance (million dollars)		-998	-973	-1,244	-1,558	-1,689	
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:					
		Number of establishments	110	110	104	96	93
	Employees (thousands)	7	6	6	5	5	
	Capacity utilization (percent)	79	84	85	86	87	
	U.S. shipments (million dollars)	461	468	475	480	500	

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
CH081	Apparel fasteners— <i>Continued</i>					
	U.S. exports (million dollars) .....	51	59	75	81	88
	U.S. imports (million dollars) .....	90	109	120	122	122
	Apparent U.S. consumption (million dollars) .....	500	518	520	521	534
	Trade balance (million dollars) .....	-39	-50	-45	-41	-34
	Ratio of imports to apparent consumption (percent) ...	18.0	21.0	23.1	23.4	22.8
	Ratio of exports to shipments (percent) .....	11.1	12.6	15.8	16.9	17.6
CH082	Footwear and footwear parts:					
	Number of establishments .....	717	712	668	665	650
	Employees (thousands) .....	91	84	79	77	74
	Capacity utilization (percent) .....	81	80	77	80	82
	U.S. shipments (million dollars) .....	4,422	4,323	4,358	4,403	4,675
	U.S. exports (million dollars) .....	479	542	603	604	646
	U.S. imports (million dollars) .....	9,538	9,542	10,141	11,105	11,714
	Apparent U.S. consumption (million dollars) .....	13,481	13,323	13,896	14,904	15,743
	Trade balance (million dollars) .....	-9,059	-9,000	-9,538	-10,501	-11,068
	Ratio of imports to apparent consumption (percent) ...	70.8	71.6	73.0	74.5	74.4
	Ratio of exports to shipments (percent) .....	10.8	12.5	13.8	13.7	13.8

<sup>1</sup> Not available.

<sup>2</sup> 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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:						
	Number of establishments	323	323	320	320	320	
	Employees (thousands)	14	14	14	14	14	
	Capacity utilization (percent)	89	76	70	72	74	
	U.S. shipments (million dollars)	2,600	2,600	2,400	2,450	2,550	
	U.S. exports (million dollars)	701	748	847	855	950	
	U.S. imports (million dollars)	122	87	97	125	153	
	Apparent U.S. consumption (million dollars)	2,021	1,939	1,650	1,720	1,753	
	Trade balance (million dollars)	579	661	750	730	797	
	Ratio of imports to apparent consumption (percent)	6.0	4.5	5.9	7.3	8.7	
	Ratio of exports to shipments (percent)	27.0	28.8	35.3	34.9	37.3	
	MM002	Certain miscellaneous mineral substances:					
		Number of establishments	10	10	10	9	9
		Employees (thousands)	2	2	2	2	2
Capacity utilization (percent)		85	80	84	82	82	
U.S. shipments (million dollars)		42	40	42	40	42	
U.S. exports (million dollars)		4	19	3	3	5	
U.S. imports (million dollars)		56	41	36	33	34	
Apparent U.S. consumption (million dollars)		94	62	75	70	71	
Trade balance (million dollars)		-52	-22	-33	-30	-29	
Ratio of imports to apparent consumption (percent)		59.6	66.1	48.0	47.1	47.9	
Ratio of exports to shipments (percent)		9.5	47.5	7.1	7.5	11.9	
MM003		Iron ores and concentrates:					
		Number of establishments	23	23	22	22	23
		Employees (thousands)	8	8	8	8	9
	Capacity utilization (percent)	75	70	73	73	80	
	U.S. shipments (million dollars)	1,800	1,790	1,700	1,650	1,800	
	U.S. exports (million dollars)	123	156	187	167	162	
	U.S. imports (million dollars)	560	437	396	415	510	
	Apparent U.S. consumption (million dollars)	2,237	1,981	1,909	1,898	2,148	
	Trade balance (million dollars)	-437	-281	-209	-248	-348	
	Ratio of imports to apparent consumption (percent)	25.0	22.1	20.7	21.9	23.7	
	Ratio of exports to shipments (percent)	6.8	9.2	11.0	10.1	9.0	
	MM004	Copper ores and concentrates:					
		Number of establishments	62	65	65	50	50
		Employees (thousands)	13	14	14	13	14
Capacity utilization (percent)		84	85	90	90	89	
U.S. shipments (million dollars)		2,520	2,350	2,500	2,180	2,630	
U.S. exports (million dollars)		446	382	445	342	393	
U.S. imports (million dollars)		134	67	107	42	126	
Apparent U.S. consumption (million dollars)		2,208	2,035	2,162	1,880	2,363	
Trade balance (million dollars)		312	315	338	300	267	
Ratio of imports to apparent consumption (percent)		6.1	3.3	4.9	2.2	5.3	
Ratio of exports to shipments (percent)		17.7	16.3	17.8	15.7	14.9	
MM005		Lead ores and residues:					
		Number of establishments	15	15	15	15	15
		Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	65	64	54	52	53	
	U.S. shipments (million dollars)	500	350	300	275	325	
	U.S. exports (million dollars)	62	38	32	14	23	
	U.S. imports (million dollars)	4	3	2	0	0	
	Apparent U.S. consumption (million dollars)	442	315	270	261	302	
	Trade balance (million dollars)	58	35	30	14	23	
	Ratio of imports to apparent consumption (percent)	0.9	1.0	0.7	0.0	0.0	
	Ratio of exports to shipments (percent)	12.4	10.9	10.7	5.1	7.1	
	MM006	Zinc ores and residues:					
		Number of establishments	26	26	26	26	26
		Employees (thousands)	3	2	2	2	2
Capacity utilization (percent)		85	86	87	83	93	
U.S. shipments (million dollars)		845	600	675	500	575	
U.S. exports (million dollars)		269	232	250	137	191	
U.S. imports (million dollars)		24	28	46	18	18	
Apparent U.S. consumption (million dollars)		600	396	471	381	402	
Trade balance (million dollars)		245	204	204	119	173	
Ratio of imports to apparent consumption (percent)		4.0	7.1	9.8	4.7	4.5	
Ratio of exports to shipments (percent)		31.8	38.7	37.0	27.4	33.2	
MM007		Certain ores, concentrates, ash, and residues:					
		Number of establishments	206	196	186	180	175
		Employees (thousands)	5	5	5	5	4
	Capacity utilization (percent)	40	47	53	51	49	
	U.S. shipments (million dollars)	795	540	475	395	515	

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM007	Certain ores, concentrates, ash, and residues— <i>Continued</i>					
	U.S. exports (million dollars)	361	292	280	191	301
	U.S. imports (million dollars)	495	473	475	476	508
	Apparent U.S. consumption (million dollars)	929	721	670	680	722
	Trade balance (million dollars)	-134	-181	-195	-285	-207
	Ratio of imports to apparent consumption (percent)	53.3	65.6	70.9	70.0	70.4
	Ratio of exports to shipments (percent)	45.4	54.1	58.9	48.4	58.4
MM008	Precious metal ores and concentrates:					
	Number of establishments	410	420	430	420	420
	Employees (thousands)	19	17	17	16	15
	Capacity utilization (percent)	99	88	87	80	70
	U.S. shipments (million dollars)	3,175	2,940	3,115	3,265	3,505
	U.S. exports (million dollars)	13	4	5	3	16
	U.S. imports (million dollars)	30	11	4	20	49
	Apparent U.S. consumption (million dollars)	3,192	2,947	3,114	3,282	3,538
	Trade balance (million dollars)	-17	-7	1	-17	-33
	Ratio of imports to apparent consumption (percent)	0.9	0.4	0.1	0.6	1.4
	Ratio of exports to shipments (percent)	0.4	0.1	0.2	0.1	0.5
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	39,000	42,000	45,000	50,000
	U.S. exports (million dollars)	817	865	926	861	944
	U.S. imports (million dollars)	1,642	1,392	1,304	1,438	1,820
	Apparent U.S. consumption (million dollars)	39,825	39,527	42,378	45,577	50,876
	Trade balance (million dollars)	-825	-527	-378	-577	-876
	Ratio of imports to apparent consumption (percent)	4.1	3.5	3.1	3.2	3.6
	Ratio of exports to shipments (percent)	2.1	2.2	2.2	1.9	1.9
MM010	Industrial ceramics:					
	Number of establishments	180	180	180	190	220
	Employees (thousands)	12	12	12	11	11
	Capacity utilization (percent)	74	73	73	73	74
	U.S. shipments (million dollars)	2,350	2,200	2,350	2,400	2,500
	U.S. exports (million dollars)	374	373	386	387	411
	U.S. imports (million dollars)	233	265	301	330	356
	Apparent U.S. consumption (million dollars)	2,209	2,092	2,265	2,343	2,445
	Trade balance (million dollars)	141	108	85	57	55
	Ratio of imports to apparent consumption (percent)	10.5	12.7	13.3	14.1	14.6
	Ratio of exports to shipments (percent)	15.9	17.0	16.4	16.1	16.4
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)	74	71	71	75	75
	U.S. shipments (million dollars)	1,200	900	900	1,000	1,000
	U.S. exports (million dollars)	18	18	17	17	19
	U.S. imports (million dollars)	22	20	21	22	15
	Apparent U.S. consumption (million dollars)	1,204	902	904	1,005	996
	Trade balance (million dollars)	-4	-2	-4	-5	4
	Ratio of imports to apparent consumption (percent)	1.8	2.2	2.3	2.2	1.5
	Ratio of exports to shipments (percent)	1.5	2.0	1.9	1.7	1.9
MM012	Ceramic floor and wall tiles:					
	Number of establishments	150	150	110	110	110
	Employees (thousands)	10	10	10	10	10
	Capacity utilization (percent)	74	71	(1)	(1)	(1)
	U.S. shipments (million dollars)	687	639	640	661	661
	U.S. exports (million dollars)	21	21	19	23	24
	U.S. imports (million dollars)	421	365	419	472	519
	Apparent U.S. consumption (million dollars)	1,087	983	1,040	1,110	1,156
	Trade balance (million dollars)	-400	-344	-400	-449	-495
	Ratio of imports to apparent consumption (percent)	38.7	37.1	40.3	42.5	44.9
	Ratio of exports to shipments (percent)	3.1	3.3	3.0	3.5	3.6
MM013	Ceramic household articles:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	12	12	11	11	11
	Capacity utilization (percent)	(1)	81	83	(1)	(1)
	U.S. shipments (million dollars)	680	700	700	710	720
	U.S. exports (million dollars)	71	87	103	110	105
	U.S. imports (million dollars)	1,208	1,236	1,391	1,426	1,563
	Apparent U.S. consumption (million dollars)	1,817	1,849	1,988	2,026	2,178
	Trade balance (million dollars)	-1,137	-1,149	-1,288	-1,316	-1,458
	Ratio of imports to apparent consumption (percent)	66.5	66.8	70.0	70.4	71.8
	Ratio of exports to shipments (percent)	10.4	12.4	14.7	15.5	14.6

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM014	Flat glass and certain flat glass products:					
	Number of establishments	1,300	1,300	1,200	1,200	1,200
	Employees (thousands)	55	51	54	56	59
	Capacity utilization (percent)	84	93	94	(2)	(2)
	U.S. shipments (million dollars)	6,600	6,300	6,800	7,600	8,900
	U.S. exports (million dollars)	751	786	836	951	1,031
	U.S. imports (million dollars)	614	584	599	698	864
	Apparent U.S. consumption (million dollars)	6,463	6,098	6,563	7,347	8,733
	Trade balance (million dollars)	137	202	237	253	167
	Ratio of imports to apparent consumption (percent)	9.5	9.6	9.1	9.5	9.9
	Ratio of exports to shipments (percent)	11.4	12.5	12.3	12.5	11.6
MM015	Glass containers:					
	Number of establishments	136	140	135	135	135
	Employees (thousands)	37	35	35	36	35
	Capacity utilization (percent)	90	85	93	(2)	(2)
	U.S. shipments (million dollars)	4,915	4,847	4,900	5,100	4,900
	U.S. exports (million dollars)	100	122	155	133	127
	U.S. imports (million dollars)	216	236	263	265	323
	Apparent U.S. consumption (million dollars)	5,031	4,961	5,008	5,232	5,096
	Trade balance (million dollars)	-116	-114	-108	-132	-196
	Ratio of imports to apparent consumption (percent)	4.3	4.8	5.3	5.1	6.3
	Ratio of exports to shipments (percent)	2.0	2.5	3.2	2.6	2.6
MM016	Household glassware:					
	Number of establishments	237	237	237	237	237
	Employees (thousands)	26	26	26	26	26
	Capacity utilization (percent)	(2)	(2)	(2)	(2)	(2)
	U.S. shipments (million dollars)	1,400	1,500	1,600	1,600	1,700
	U.S. exports (million dollars)	123	137	150	167	192
	U.S. imports (million dollars)	524	513	533	568	643
	Apparent U.S. consumption (million dollars)	1,801	1,876	1,983	2,001	2,151
	Trade balance (million dollars)	-401	-376	-383	-401	-451
	Ratio of imports to apparent consumption (percent)	29.1	27.3	26.9	28.4	29.9
	Ratio of exports to shipments (percent)	8.8	9.1	9.4	10.4	11.3
MM017	Certain glass and glass products:					
	Number of establishments	340	390	370	370	370
	Employees (thousands)	20	21	21	22	23
	Capacity utilization (percent)	77	82	81	(2)	(2)
	U.S. shipments (million dollars)	2,200	2,400	2,400	2,400	2,700
	U.S. exports (million dollars)	342	361	369	387	437
	U.S. imports (million dollars)	283	318	400	408	518
	Apparent U.S. consumption (million dollars)	2,141	2,357	2,431	2,421	2,781
	Trade balance (million dollars)	59	43	-31	-21	-81
	Ratio of imports to apparent consumption (percent)	13.2	13.5	16.5	16.9	18.6
	Ratio of exports to shipments (percent)	15.5	15.0	15.4	16.1	16.2
MM018	Fiberglass products:					
	Number of establishments	259	259	259	259	259
	Employees (thousands)	39	34	35	36	38
	Capacity utilization (percent)	59	87	91	(2)	(2)
	U.S. shipments (million dollars)	5,100	4,600	4,700	4,800	5,200
	U.S. exports (million dollars)	347	384	392	387	448
	U.S. imports (million dollars)	112	127	160	200	255
	Apparent U.S. consumption (million dollars)	4,865	4,343	4,468	4,613	5,007
	Trade balance (million dollars)	235	257	232	187	193
	Ratio of imports to apparent consumption (percent)	2.3	2.9	3.6	4.3	5.1
	Ratio of exports to shipments (percent)	6.8	8.3	8.3	8.1	8.6
MM019	Natural and synthetic gemstones:					
	Number of establishments	454	454	454	454	454
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	600	500	650	400	500
	U.S. exports (million dollars)	436	324	476	231	268
	U.S. imports (million dollars)	4,605	4,623	4,783	5,739	6,429
	Apparent U.S. consumption (million dollars)	4,769	4,799	4,957	5,908	6,661
	Trade balance (million dollars)	-4,169	-4,299	-4,307	-5,508	-6,161
	Ratio of imports to apparent consumption (percent)	96.6	96.3	96.5	97.1	96.5
	Ratio of exports to shipments (percent)	72.7	64.8	73.2	57.8	53.6
MM020	Precious metals and related articles:					
	Number of establishments	101	100	100	100	100
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	7,070	6,640	6,735	6,135	6,710
	U.S. exports (million dollars)	3,815	4,216	4,869	9,895	6,531
	U.S. imports (million dollars)	3,758	4,406	4,083	3,994	4,033
	Apparent U.S. consumption (million dollars)	7,013	6,830	5,949	234	4,212

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM020	Precious metals and related articles— <i>Continued</i>					
	Trade balance (million dollars) .....	57	-190	786	5,901	2,498
	Ratio of imports to apparent consumption (percent) .....	53.6	64.5	68.6	1,706.8	95.8
	Ratio of exports to shipments (percent) .....	54.0	63.5	72.3	161.3	97.3
MM021	Primary iron products:					
	Number of establishments .....	17	17	17	17	17
	Employees (thousands) .....	24	23	22	22	23
	Capacity utilization (percent) .....	85	85	80	90	94
	U.S. shipments (million dollars) .....	9,045	8,475	8,800	9,000	9,800
	U.S. exports (million dollars) .....	8	8	8	8	12
	U.S. imports (million dollars) .....	101	129	130	213	450
	Apparent U.S. consumption (million dollars) .....	9,138	8,596	8,922	9,205	10,238
	Trade balance (million dollars) .....	-93	-121	-122	-205	-438
	Ratio of imports to apparent consumption (percent) .....	1.1	1.5	1.5	2.3	4.4
Ratio of exports to shipments (percent) .....	0.1	0.1	0.1	0.1	0.1	
MM022	Ferroalloys:					
	Number of establishments .....	29	28	27	26	26
	Employees (thousands) .....	4	3	3	3	3
	Capacity utilization (percent) .....	75	73	64	72	80
	U.S. shipments (million dollars) .....	871	794	740	785	776
	U.S. exports (million dollars) .....	94	99	110	95	87
	U.S. imports (million dollars) .....	908	835	807	760	777
	Apparent U.S. consumption (million dollars) .....	1,685	1,530	1,437	1,450	1,466
	Trade balance (million dollars) .....	-814	-736	-697	-665	-690
	Ratio of imports to apparent consumption (percent) .....	53.9	54.6	56.2	52.4	53.0
Ratio of exports to shipments (percent) .....	10.8	12.5	14.9	12.1	11.2	
MM023	Iron and steel waste and scrap:					
	Number of establishments .....	1,200	1,250	1,200	1,150	1,175
	Employees (thousands) .....	23	25	23	24	25
	Capacity utilization (percent) .....	75	78	81	86	90
	U.S. shipments (million dollars) .....	5,566	5,065	4,870	5,750	6,850
	U.S. exports (million dollars) .....	1,642	1,240	1,107	1,323	1,269
	U.S. imports (million dollars) .....	180	149	155	182	238
	Apparent U.S. consumption (million dollars) .....	4,104	3,974	3,918	4,609	5,819
	Trade balance (million dollars) .....	1,462	1,091	952	1,141	1,031
	Ratio of imports to apparent consumption (percent) .....	4.4	3.7	4.0	3.9	4.1
Ratio of exports to shipments (percent) .....	29.5	24.5	22.7	23.0	18.5	
MM024	Abrasives and ferrous powders:					
	Number of establishments .....	20	20	20	20	20
	Employees (thousands) .....	1	1	1	1	1
	Capacity utilization (percent) .....	76	79	80	78	80
	U.S. shipments (million dollars) .....	387	350	365	325	330
	U.S. exports (million dollars) .....	324	342	380	398	432
	U.S. imports (million dollars) .....	504	462	495	545	595
	Apparent U.S. consumption (million dollars) .....	567	470	480	472	493
	Trade balance (million dollars) .....	-180	-120	-115	-147	-163
	Ratio of imports to apparent consumption (percent) .....	88.9	98.3	103.1	115.5	120.7
Ratio of exports to shipments (percent) .....	83.7	97.7	104.1	122.5	130.9	
MM025	Steel mill products, all grades:					
	Number of establishments .....	880	860	850	850	850
	Employees (thousands) .....	203	193	177	168	171
	Capacity utilization (percent) .....	85	73	81	89	91
	U.S. shipments (million dollars) .....	51,000	46,000	49,000	56,000	60,000
	U.S. exports (million dollars) .....	2,794	3,688	3,046	2,811	3,029
	U.S. imports (million dollars) .....	8,398	7,886	7,932	8,670	12,435
	Apparent U.S. consumption (million dollars) .....	56,604	50,198	53,886	61,859	69,406
	Trade balance (million dollars) .....	-5,604	-4,198	-4,886	-5,859	-9,406
	Ratio of imports to apparent consumption (percent) .....	14.8	15.7	14.7	14.0	17.9
Ratio of exports to shipments (percent) .....	5.5	8.0	6.2	5.0	5.0	
MM026	Steel pipe and tube fittings, and certain cast products:					
	Number of establishments .....	600	500	500	500	495
	Employees (thousands) .....	50	45	43	42	40
	Capacity utilization (percent) .....	80	80	80	80	80
	U.S. shipments (million dollars) .....	4,500	4,000	3,800	3,600	3,700
	U.S. exports (million dollars) .....	413	477	525	484	484
	U.S. imports (million dollars) .....	352	344	285	310	367
	Apparent U.S. consumption (million dollars) .....	4,439	3,867	3,560	3,426	3,583
	Trade balance (million dollars) .....	61	133	240	174	117
	Ratio of imports to apparent consumption (percent) .....	7.9	8.9	8.0	9.0	10.2
Ratio of exports to shipments (percent) .....	9.2	11.9	13.8	13.4	13.1	
MM027	Fabricated structurals:					
	Number of establishments .....	2,365	2,360	2,242	2,130	2,024
	Employees (thousands) .....	77	73	69	67	66
	Capacity utilization (percent) .....	75	65	70	85	83

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
MM027	Fabricated structurals— <i>Continued</i>						
	U.S. shipments (million dollars)	8,962	8,483	7,947	7,319	8,805	
	U.S. exports (million dollars)	84	110	99	117	122	
	U.S. imports (million dollars)	72	47	45	85	109	
	Apparent U.S. consumption (million dollars)	8,950	8,420	7,893	7,287	8,792	
	Trade balance (million dollars)	12	63	54	32	13	
	Ratio of imports to apparent consumption (percent)	0.8	0.6	0.6	1.2	1.2	
	Ratio of exports to shipments (percent)	0.9	1.3	1.2	1.6	1.4	
MM028	Metal construction components:						
	Number of establishments	4,367	4,200	4,000	3,933	3,867	
	Employees (thousands)	131	126	118	118	116	
	Capacity utilization (percent)	75	74	77	78	80	
	U.S. shipments (million dollars)	11,398	10,834	11,630	10,498	12,629	
	U.S. exports (million dollars)	335	377	396	407	453	
	U.S. imports (million dollars)	150	139	124	138	181	
	Apparent U.S. consumption (million dollars)	11,213	10,596	11,358	10,229	12,357	
	Trade balance (million dollars)	185	238	272	269	272	
	Ratio of imports to apparent consumption (percent)	1.3	1.3	1.1	1.3	1.5	
	Ratio of exports to shipments (percent)	2.9	3.5	3.4	3.9	3.6	
MM029	Metallic containers:						
	Number of establishments <sup>3</sup>	590	565	540	520	521	
	Employees (thousands) <sup>3</sup>	70	66	60	58	60	
	Capacity utilization (percent) <sup>3</sup>	75	85	88	90	90	
	U.S. shipments (million dollars) <sup>3</sup>	17,326	17,184	17,080	17,330	18,200	
	U.S. exports (million dollars)	401	511	647	635	642	
	U.S. imports (million dollars)	257	244	271	282	324	
	Apparent U.S. consumption (million dollars) <sup>3</sup>	17,182	16,917	16,704	16,977	17,882	
	Trade balance (million dollars)	144	267	376	353	318	
	Ratio of imports to apparent consumption (percent) <sup>3</sup>	1.5	1.4	1.6	1.7	1.8	
		Ratio of exports to shipments (percent) <sup>3</sup>	2.3	3.0	3.8	3.7	3.5
MM030	Wire products of iron, steel, aluminum, copper, and nickel:						
	Number of establishments	1,450	1,350	1,325	1,300	1,300	
	Employees (thousands)	65	64	60	60	55	
	Capacity utilization (percent)	80	75	80	85	85	
	U.S. shipments (million dollars)	8,602	9,400	9,300	9,500	11,785	
	U.S. exports (million dollars)	244	266	297	337	469	
	U.S. imports (million dollars)	696	570	642	668	984	
	Apparent U.S. consumption (million dollars)	9,054	9,704	9,645	9,831	12,300	
	Trade balance (million dollars)	-452	-304	-345	-331	-515	
	Ratio of imports to apparent consumption (percent)	7.7	5.9	6.7	6.8	8.0	
		Ratio of exports to shipments (percent)	2.8	2.8	3.2	3.5	4.0
	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)		625	690	683	785	790	
U.S. exports (million dollars)		312	343	311	326	401	
U.S. imports (million dollars)		476	478	498	556	651	
Apparent U.S. consumption (million dollars)		789	825	870	1,015	1,040	
Trade balance (million dollars)		-164	-135	-187	-230	-250	
Ratio of imports to apparent consumption (percent)		60.3	57.9	57.2	54.8	62.6	
		Ratio of exports to shipments (percent)	49.9	49.7	45.5	41.5	50.8
MM032	Industrial fasteners of base metal:						
	Number of establishments	937	937	937	935	925	
	Employees (thousands)	52	52	52	53	52	
	Capacity utilization (percent)	75	75	75	75	75	
	U.S. shipments (million dollars)	4,483	(1)	(1)	5,500	6,050	
	U.S. exports (million dollars)	650	663	719	743	879	
	U.S. imports (million dollars)	1,478	1,324	1,469	1,643	1,646	
	Apparent U.S. consumption (million dollars)	5,311	(1)	(1)	6,400	6,817	
	Trade balance (million dollars)	-828	-661	-750	-900	-767	
	Ratio of imports to apparent consumption (percent)	27.8	(1)	(1)	25.7	24.1	
		Ratio of exports to shipments (percent)	14.5	(1)	(1)	13.5	14.5
MM033	Cooking and kitchen ware:						
	Number of establishments	24	23	23	23	23	
	Employees (thousands)	4	5	5	5	5	
	Capacity utilization (percent)	70	75	75	75	75	
	U.S. shipments (million dollars)	728	807	817	884	958	
	U.S. exports (million dollars)	170	218	209	216	233	
	U.S. imports (million dollars)	725	751	822	881	1,001	
	Apparent U.S. consumption (million dollars)	1,283	1,340	1,430	1,549	1,726	
	Trade balance (million dollars)	-555	-533	-613	-665	-768	

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM033	Cooking and kitchen ware— <i>Continued</i>					
	Ratio of imports to apparent consumption (percent) . . .	56.5	56.0	57.5	56.9	58.0
	Ratio of exports to shipments (percent) . . . . .	23.4	27.0	25.6	24.4	24.3
MM034	Metal and ceramic sanitary ware:					
	Number of establishments <sup>3</sup> . . . . .	200	190	195	200	200
	Employees (thousands) <sup>3</sup> . . . . .	26	25	24	25	25
	Capacity utilization (percent) <sup>3</sup> . . . . .	75	70	75	80	85
	U.S. shipments (million dollars) <sup>3</sup> . . . . .	1,395	1,325	1,328	1,412	1,506
	U.S. exports (million dollars) . . . . .	3125	118	135	165	153
	U.S. imports (million dollars) . . . . .	173	156	182	204	249
	Apparent U.S. consumption (million dollars) <sup>3</sup> . . . . .	1,443	1,363	1,375	1,451	1,602
	Trade balance (million dollars) . . . . .	-48	-38	-47	-39	-96
	Ratio of imports to apparent consumption (percent) <sup>3</sup> . . . . .	12.0	11.4	13.2	14.1	15.5
	Ratio of exports to shipments (percent) <sup>3</sup> . . . . .	9.0	8.9	10.2	11.7	10.2
MM035	Iron construction castings and other nonmalleable cast-iron articles:					
	Number of establishments . . . . .	29	27	27	27	27
	Employees (thousands) . . . . .	2	2	2	2	2
	Capacity utilization (percent) . . . . .	85	85	85	85	85
	U.S. shipments (million dollars) . . . . .	143	142	142	145	144
	U.S. exports (million dollars) . . . . .	31	31	27	29	26
	U.S. imports (million dollars) . . . . .	58	51	48	57	72
	Apparent U.S. consumption (million dollars) . . . . .	170	162	163	173	190
	Trade balance (million dollars) . . . . .	-27	-20	-21	-28	-46
	Ratio of imports to apparent consumption (percent) . . . . .	34.1	31.5	29.4	32.9	37.9
	Ratio of exports to shipments (percent) . . . . .	21.7	21.8	19.0	20.0	18.1
MM036	Copper and related articles:					
	Number of establishments . . . . .	840	840	840	840	830
	Employees (thousands) . . . . .	39	37	37	37	38
	Capacity utilization (percent) . . . . .	86	87	86	88	92
	U.S. shipments (million dollars) . . . . .	12,200	10,900	11,100	10,400	12,000
	U.S. exports (million dollars) . . . . .	1,833	1,843	1,528	1,562	1,813
	U.S. imports (million dollars) . . . . .	1,966	1,822	1,908	2,068	2,655
	Apparent U.S. consumption (million dollars) . . . . .	12,333	10,879	11,480	10,906	12,842
	Trade balance (million dollars) . . . . .	-133	21	-380	-506	-842
	Ratio of imports to apparent consumption (percent) . . . . .	15.9	16.7	16.6	19.0	20.7
	Ratio of exports to shipments (percent) . . . . .	15.0	16.9	13.8	15.0	15.1
MM037	Unwrought aluminum:					
	Number of establishments . . . . .	100	95	91	91	91
	Employees (thousands) . . . . .	45	45	45	45	45
	Capacity utilization (percent) . . . . .	96	90	85	85	95
	U.S. shipments (million dollars) . . . . .	7,200	5,400	5,200	4,500	6,300
	U.S. exports (million dollars) . . . . .	1,898	1,842	1,154	771	896
	U.S. imports (million dollars) . . . . .	2,252	2,021	2,120	2,774	4,221
	Apparent U.S. consumption (million dollars) . . . . .	7,554	5,579	6,166	6,503	9,625
	Trade balance (million dollars) . . . . .	-354	-179	-966	-2,003	-3,325
	Ratio of imports to apparent consumption (percent) . . . . .	29.8	36.2	34.4	42.7	43.9
	Ratio of exports to shipments (percent) . . . . .	26.4	34.1	22.2	17.1	14.2
MM038	Aluminum mill products:					
	Number of establishments . . . . .	436	425	390	385	385
	Employees (thousands) . . . . .	54	51	45	40	40
	Capacity utilization (percent) . . . . .	75	70	78	82	90
	U.S. shipments (million dollars) . . . . .	14,100	14,470	15,280	14,195	19,875
	U.S. exports (million dollars) . . . . .	1,512	1,698	1,761	1,728	2,177
	U.S. imports (million dollars) . . . . .	1,222	967	1,015	1,096	1,446
	Apparent U.S. consumption (million dollars) . . . . .	13,810	13,739	14,534	13,563	19,144
	Trade balance (million dollars) . . . . .	290	731	746	632	731
	Ratio of imports to apparent consumption (percent) . . . . .	8.8	7.0	7.0	8.1	7.6
	Ratio of exports to shipments (percent) . . . . .	10.7	11.7	11.5	12.2	11.0
MM039	Lead and related articles:					
	Number of establishments . . . . .	55	55	55	55	55
	Employees (thousands) . . . . .	3	2	2	2	2
	Capacity utilization (percent) . . . . .	67	70	62	59	64
	U.S. shipments (million dollars) . . . . .	1,309	900	900	825	1,000
	U.S. exports (million dollars) . . . . .	107	113	78	64	70
	U.S. imports (million dollars) . . . . .	91	80	119	97	149
	Apparent U.S. consumption (million dollars) . . . . .	1,293	867	941	858	1,079
	Trade balance (million dollars) . . . . .	16	33	-41	-33	-79
	Ratio of imports to apparent consumption (percent) . . . . .	7.0	9.2	12.6	11.3	13.8
	Ratio of exports to shipments (percent) . . . . .	8.2	12.6	8.7	7.8	7.0
MM040	Zinc and related articles:					
	Number of establishments . . . . .	40	40	40	40	40
	Employees (thousands) . . . . .	2	2	2	2	2

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, 1990-94

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM040	Zinc and related articles—Continued					
	Capacity utilization (percent)	73	70	76	71	70
	U.S. shipments (million dollars)	770	575	685	500	530
	U.S. exports (million dollars)	118	91	75	58	67
	U.S. imports (million dollars)	1,034	663	832	746	813
	Apparent U.S. consumption (million dollars)	1,686	1,147	1,442	1,188	1,276
	Trade balance (million dollars)	-916	-572	-757	-688	-746
	Ratio of imports to apparent consumption (percent)	61.3	57.8	57.7	62.8	63.7
	Ratio of exports to shipments (percent)	15.3	15.8	10.9	11.6	12.6
MM041	Certain base metals and chemical elements:					
	Number of establishments	(1)	(1)	(1)	(1)	(1)
	Employees (thousands)	23	22	20	20	20
	Capacity utilization (percent)	77	79	72	72	72
	U.S. shipments (million dollars)	3,030	2,670	2,690	2,390	2,580
	U.S. exports (million dollars)	1,057	1,005	905	808	923
	U.S. imports (million dollars)	1,925	1,865	1,636	1,472	1,720
	Apparent U.S. consumption (million dollars)	3,898	3,530	3,421	3,054	3,377
	Trade balance (million dollars)	-868	-860	-731	-664	-797
Ratio of imports to apparent consumption (percent)	49.4	52.8	47.8	48.2	50.9	
Ratio of exports to shipments (percent)	34.9	37.6	33.6	33.8	35.8	
MM042	Nonpowered handtools:					
	Number of establishments	1,252	1,252	1,252	1,250	1,250
	Employees (thousands)	133	125	118	121	125
	Capacity utilization (percent)	75	75	75	80	85
	U.S. shipments (million dollars)	11,196	10,735	10,622	11,472	13,193
	U.S. exports (million dollars)	1,063	1,091	1,192	1,315	1,455
	U.S. imports (million dollars)	1,378	1,620	1,450	1,789	1,939
	Apparent U.S. consumption (million dollars)	11,511	11,264	10,880	11,946	13,677
	Trade balance (million dollars)	-315	-529	-258	-474	-484
Ratio of imports to apparent consumption (percent)	12.0	14.4	13.3	15.0	14.2	
Ratio of exports to shipments (percent)	9.5	10.2	11.2	11.5	11.0	
MM043	Cutlery other than tableware, certain sewing implements, and related products:					
	Number of establishments	150	135	135	135	135
	Employees (thousands)	11	10	12	13	13
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	1,600	1,500	1,500	1,600	1,650
	U.S. exports (million dollars)	223	227	280	308	385
	U.S. imports (million dollars)	415	438	484	525	585
	Apparent U.S. consumption (million dollars)	1,792	1,711	1,704	1,817	1,850
	Trade balance (million dollars)	-192	-211	-204	-217	-200
Ratio of imports to apparent consumption (percent)	23.2	25.6	28.4	28.9	31.6	
Ratio of exports to shipments (percent)	13.9	15.1	18.7	19.3	23.3	
MM044	Table flatware and related products:					
	Number of establishments	6	6	6	6	5
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	90	80	80	85	90
	U.S. shipments (million dollars)	205	200	195	195	198
	U.S. exports (million dollars)	43	24	24	21	28
	U.S. imports (million dollars)	172	196	216	209	224
	Apparent U.S. consumption (million dollars)	334	372	387	383	394
	Trade balance (million dollars)	-129	-172	-192	-188	-196
Ratio of imports to apparent consumption (percent)	51.5	52.7	55.8	54.6	56.9	
Ratio of exports to shipments (percent)	21.0	12.0	12.3	10.8	14.1	
MM045	Certain builders' hardware:					
	Number of establishments	192	203	220	220	198
	Employees (thousands)	33	32	32	32	31
	Capacity utilization (percent)	75	75	81	81	83
	U.S. shipments (million dollars)	3,224	3,154	3,426	3,508	3,718
	U.S. exports (million dollars)	442	458	495	553	620
	U.S. imports (million dollars)	844	532	590	646	709
	Apparent U.S. consumption (million dollars)	3,626	3,228	3,521	3,601	3,807
	Trade balance (million dollars)	-402	-74	-95	-93	-89
Ratio of imports to apparent consumption (percent)	23.3	16.5	16.8	17.9	18.6	
Ratio of exports to shipments (percent)	13.7	14.5	14.4	15.8	16.7	
MM046	Miscellaneous products of base metal:					
	Number of establishments	5,000	4,950	4,950	4,950	5,000
	Employees (thousands)	410	380	340	350	380
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	26,600	25,500	25,300	25,500	26,000
	U.S. exports (million dollars)	1,515	1,901	2,122	2,344	2,776
	U.S. imports (million dollars)	2,378	2,309	2,669	2,936	3,502
	Apparent U.S. consumption (million dollars)	27,463	25,908	25,847	26,092	26,726
	Trade balance (million dollars)	-863	-408	-547	-592	-726

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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM046	Miscellaneous products of base metal— <i>Continued</i>					
	Ratio of imports to apparent consumption (percent) ...	8.7	8.9	10.3	11.3	13.1
	Ratio of exports to shipments (percent) .....	5.7	7.5	8.4	9.2	10.7

<sup>1</sup> Not available.

<sup>2</sup> Capacity utilization could not be meaningfully calculated for this industry group.

<sup>3</sup> Estimated.

**Table B-7**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT003	Pumps for liquids:					
	Number of establishments	602	580	568	585	572
	Employees (thousands)	58	53	51	53	51
	Capacity utilization (percent)	62	59	58	63	64
	U.S. shipments (million dollars)	6,928	6,720	6,586	6,784	6,920
	U.S. exports (million dollars)	1,542	1,766	1,857	2,043	2,222
	U.S. imports (million dollars)	1,155	1,142	1,294	1,477	1,777
	Apparent U.S. consumption (million dollars)	6,541	6,096	6,023	6,218	6,475
	Trade balance (million dollars)	387	624	563	566	445
	Ratio of imports to apparent consumption (percent)	17.7	18.7	21.5	23.8	27.4
	Ratio of exports to shipments (percent)	22.3	26.3	28.2	30.1	32.1
	MT004	Air-conditioning equipment and parts:				
Number of establishments		1,179	1,110	1,077	1,109	1,165
Employees (thousands)		158	145	140	143	146
Capacity utilization (percent)		78	75	74	76	79
U.S. shipments (million dollars)		22,195	21,405	20,763	21,386	22,455
U.S. exports (million dollars)		3,049	3,218	3,533	3,739	4,121
U.S. imports (million dollars)		2,892	2,668	2,824	3,055	3,666
Apparent U.S. consumption (million dollars)		22,038	20,855	20,054	20,702	22,000
Trade balance (million dollars)		157	550	709	684	455
Ratio of imports to apparent consumption (percent)		13.1	12.8	14.1	14.8	16.7
Ratio of exports to shipments (percent)		13.7	15.0	17.0	17.5	18.4
MT005		Certain industrial thermal-processing equipment and certain furnaces:				
	Number of establishments	305	300	294	302	305
	Employees (thousands)	33	31	28	31	33
	Capacity utilization (percent)	65	65	63	66	66
	U.S. shipments (million dollars)	3,390	3,220	3,156	3,314	3,380
	U.S. exports (million dollars)	1,267	1,331	1,440	1,532	1,879
	U.S. imports (million dollars)	759	784	813	794	1,003
	Apparent U.S. consumption (million dollars)	2,882	2,673	2,529	2,576	2,504
	Trade balance (million dollars)	508	547	627	738	876
	Ratio of imports to apparent consumption (percent)	26.3	29.3	32.1	30.8	40.1
	Ratio of exports to shipments (percent)	37.4	41.3	45.6	46.2	55.6
	MT006	Commercial machinery:				
Number of establishments		564	560	530	510	500
Employees (thousands)		42	40	40	40	40
Capacity utilization (percent)		85	80	80	80	83
U.S. shipments (million dollars)		6,143	6,426	6,722	6,760	6,895
U.S. exports (million dollars)		1,561	1,491	1,734	1,870	2,031
U.S. imports (million dollars)		1,070	815	890	964	1,082
Apparent U.S. consumption (million dollars)		5,652	5,750	5,878	5,854	5,946
Trade balance (million dollars)		491	676	844	906	949
Ratio of imports to apparent consumption (percent)		18.9	14.2	15.1	16.5	18.2
Ratio of exports to shipments (percent)		25.4	23.2	25.8	27.7	29.5
MT007		Electrical household appliances and certain heating equipment:				
	Number of establishments	480	450	450	440	420
	Employees (thousands)	111	104	98	98	98
	Capacity utilization (percent)	85	80	83	83	83
	U.S. shipments (million dollars)	18,748	15,667	19,273	19,851	20,248
	U.S. exports (million dollars)	1,581	1,886	2,100	2,277	2,348
	U.S. imports (million dollars)	2,400	2,830	3,373	3,570	3,858
	Apparent U.S. consumption (million dollars)	19,567	16,611	20,546	21,144	21,758
	Trade balance (million dollars)	-819	-944	-1,273	-1,293	-1,510
	Ratio of imports to apparent consumption (percent)	12.3	17.0	16.4	16.9	17.7
	Ratio of exports to shipments (percent)	8.4	12.0	10.9	11.5	11.6
	MT008	Centrifuges and filtering and purifying equipment:				
Number of establishments		265	265	278	278	270
Employees (thousands)		32	34	36	36	35
Capacity utilization (percent)		75	80	82	82	80
U.S. shipments (million dollars)		2,350	2,940	3,087	3,180	3,500
U.S. exports (million dollars)		1,464	1,705	1,703	1,728	1,902
U.S. imports (million dollars)		717	666	650	706	1,067
Apparent U.S. consumption (million dollars)		1,603	1,901	2,034	2,158	2,665
Trade balance (million dollars)		747	1,039	1,053	1,022	835
Ratio of imports to apparent consumption (percent)		44.7	35.0	32.0	32.7	40.0
Ratio of exports to shipments (percent)		62.3	58.0	55.2	54.3	54.3
MT009		Wrapping, packaging, and can-sealing machinery:				
	Number of establishments	340	330	335	335	335
	Employees (thousands)	24	24	24	23	23
	Capacity utilization (percent)	85	83	84	84	84
	U.S. shipments (million dollars)	2,762	2,880	2,834	2,891	2,948
	U.S. exports (million dollars)	579	611	606	672	792

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT009	Wrapping, packaging, and can-sealing machinery— <i>Continued</i>					
	U.S. imports (million dollars)	621	643	699	719	843
	Apparent U.S. consumption (million dollars)	2,804	2,912	2,927	2,938	2,999
	Trade balance (million dollars)	-42	-32	-93	-47	-51
	Ratio of imports to apparent consumption (percent)	22.1	22.1	23.9	24.5	28.1
	Ratio of exports to shipments (percent)	21.0	21.2	21.4	23.2	26.9
MT010	Scales and weighing machinery:					
	Number of establishments	108	102	97	97	95
	Employees (thousands)	7	7	6	6	6
	Capacity utilization (percent)	78	75	72	72	72
	U.S. shipments (million dollars)	638	649	662	675	688
	U.S. exports (million dollars)	91	102	105	108	120
	U.S. imports (million dollars)	153	151	157	162	183
	Apparent U.S. consumption (million dollars)	700	698	714	729	751
	Trade balance (million dollars)	-62	-49	-52	-54	-63
	Ratio of imports to apparent consumption (percent)	21.9	21.6	22.0	22.2	24.4
	Ratio of exports to shipments (percent)	14.3	15.7	15.9	16.0	17.4
MT013	Mineral processing machinery:					
	Number of establishments	100	100	100	100	90
	Employees (thousands)	7	7	7	6	7
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	697	705	730	752	775
	U.S. exports (million dollars)	431	452	537	539	569
	U.S. imports (million dollars)	240	215	200	236	260
	Apparent U.S. consumption (million dollars)	506	468	393	449	466
	Trade balance (million dollars)	191	237	337	303	309
	Ratio of imports to apparent consumption (percent)	47.4	45.9	50.9	52.6	55.8
	Ratio of exports to shipments (percent)	61.8	64.1	73.6	71.7	73.4
MT014	Farm and garden machinery and equipment:					
	Number of establishments	2,110	1,900	1,870	1,900	1,900
	Employees (thousands)	111	98	94	98	103
	Capacity utilization (percent)	62	57	60	75	87
	U.S. shipments (million dollars)	14,232	12,745	12,275	13,916	16,560
	U.S. exports (million dollars)	3,270	3,444	3,449	3,724	3,929
	U.S. imports (million dollars)	2,783	2,181	2,242	2,469	3,277
	Apparent U.S. consumption (million dollars)	13,745	11,482	11,068	12,661	15,908
	Trade balance (million dollars)	487	1,263	1,207	1,255	652
	Ratio of imports to apparent consumption (percent)	20.2	19.0	20.3	19.5	20.6
	Ratio of exports to shipments (percent)	23.0	27.0	28.1	26.8	23.7
MT015	Industrial food-processing and related machinery:					
	Number of establishments	512	510	505	500	500
	Employees (thousands)	19	18	18	18	18
	Capacity utilization (percent)	88	80	80	80	83
	U.S. shipments (million dollars)	2,261	2,193	2,067	2,159	2,256
	U.S. exports (million dollars)	480	537	595	609	641
	U.S. imports (million dollars)	405	395	445	411	439
	Apparent U.S. consumption (million dollars)	2,186	2,051	1,917	1,961	2,054
	Trade balance (million dollars)	75	142	150	198	202
	Ratio of imports to apparent consumption (percent)	18.5	19.3	23.2	21.0	21.4
	Ratio of exports to shipments (percent)	21.2	24.5	28.8	28.2	28.4
MT016	Pulp, paper, and paperboard machinery:					
	Number of establishments	265	250	237	237	237
	Employees (thousands)	20	20	19	19	19
	Capacity utilization (percent)	80	78	75	75	75
	U.S. shipments (million dollars)	2,454	2,374	2,255	2,188	2,151
	U.S. exports (million dollars)	605	641	586	655	644
	U.S. imports (million dollars)	880	694	637	709	893
	Apparent U.S. consumption (million dollars)	2,729	2,427	2,306	2,242	2,400
	Trade balance (million dollars)	-275	-53	-51	-54	-249
	Ratio of imports to apparent consumption (percent)	32.2	28.6	27.6	31.6	37.2
	Ratio of exports to shipments (percent)	24.7	27.0	26.0	29.9	29.9
MT017	Printing, typesetting, and bookbinding machinery and printing plates:					
	Number of establishments	1,790	1,775	1,739	1,745	1,745
	Employees (thousands)	60	60	58	59	59
	Capacity utilization (percent)	85	85	84	75	75
	U.S. shipments (million dollars)	6,091	5,095	4,993	5,045	4,908
	U.S. exports (million dollars)	1,139	1,133	1,120	1,125	1,094
	U.S. imports (million dollars)	1,192	1,178	1,242	1,366	1,574
	Apparent U.S. consumption (million dollars)	6,144	5,140	5,115	5,286	5,388
	Trade balance (million dollars)	-53	-45	-122	-241	-480
	Ratio of imports to apparent consumption (percent)	19.4	22.9	24.3	25.8	29.2
	Ratio of exports to shipments (percent)	18.7	22.2	22.4	22.3	22.3

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT018	Textile machinery and parts:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	16	15	15	14	15
	Capacity utilization (percent)	(1)	(1)	(1)	(1)	(1)
	U.S. shipments (million dollars)	1,535	1,515	1,470	1,380	1,460
	U.S. exports (million dollars)	716	685	659	657	687
	U.S. imports (million dollars)	1,499	1,196	1,502	1,843	1,833
	Apparent U.S. consumption (million dollars)	2,318	2,026	2,313	2,566	2,606
	Trade balance (million dollars)	-783	-511	-843	-1,186	-1,146
	Ratio of imports to apparent consumption (percent)	64.7	59.0	64.9	71.8	70.3
	Ratio of exports to shipments (percent)	46.6	45.2	44.8	47.6	47.1
MT019	Metal rolling mills and parts thereof:					
	Number of establishments	20	18	18	18	17
	Employees (thousands)	4	3	3	3	3
	Capacity utilization (percent)	68	60	60	70	75
	U.S. shipments (million dollars)	455	440	551	575	600
	U.S. exports (million dollars)	252	185	182	265	287
	U.S. imports (million dollars)	169	130	103	144	201
	Apparent U.S. consumption (million dollars)	372	385	472	454	514
	Trade balance (million dollars)	83	55	79	121	86
	Ratio of imports to apparent consumption (percent)	45.4	33.8	21.8	31.7	39.1
	Ratio of exports to shipments (percent)	55.4	42.0	33.0	46.1	47.8
MT020	Machine tools for cutting metal and parts; tool holders, etc.:					
	Number of establishments	860	830	800	800	820
	Employees (thousands)	84	78	80	82	86
	Capacity utilization (percent)	71	63	70	80	89
	U.S. shipments (million dollars)	6,132	5,646	5,578	5,812	6,535
	U.S. exports (million dollars)	1,148	1,132	1,270	1,292	1,653
	U.S. imports (million dollars)	2,180	2,213	1,960	2,188	2,735
	Apparent U.S. consumption (million dollars)	7,164	6,727	6,268	6,708	7,617
	Trade balance (million dollars)	-1,032	-1,081	-690	-896	-1,082
	Ratio of imports to apparent consumption (percent)	30.4	32.9	31.3	32.6	35.9
	Ratio of exports to shipments (percent)	18.7	20.0	22.8	22.2	25.3
MT021	Machine tools for metal forming and parts thereof:					
	Number of establishments	370	360	350	350	360
	Employees (thousands)	19	17	16	17	17
	Capacity utilization (percent)	71	68	70	80	89
	U.S. shipments (million dollars)	1,773	1,672	1,651	1,735	1,933
	U.S. exports (million dollars)	664	656	779	737	778
	U.S. imports (million dollars)	642	590	552	644	913
	Apparent U.S. consumption (million dollars)	1,751	1,606	1,424	1,642	2,068
	Trade balance (million dollars)	22	66	227	93	-135
	Ratio of imports to apparent consumption (percent)	36.7	36.7	38.8	39.2	44.1
	Ratio of exports to shipments (percent)	37.5	39.2	47.2	42.5	40.2
MT022	Non-metal working machine tools and parts thereof:					
	Number of establishments	345	345	330	330	340
	Employees (thousands)	13	12	11	13	15
	Capacity utilization (percent)	80	70	75	80	89
	U.S. shipments (million dollars)	1,535	1,200	1,762	1,885	1,998
	U.S. exports (million dollars)	378	377	474	665	861
	U.S. imports (million dollars)	679	540	633	681	818
	Apparent U.S. consumption (million dollars)	1,836	1,363	1,921	1,901	1,955
	Trade balance (million dollars)	-301	-163	-159	-16	43
	Ratio of imports to apparent consumption (percent)	37.0	39.6	33.0	35.8	41.8
	Ratio of exports to shipments (percent)	24.6	31.4	26.9	35.3	43.1
MT023	Semiconductor equipment, robots, and other machinery:					
	Number of establishments	5,800	5,700	5,586	5,580	5,580
	Employees (thousands)	280	265	260	260	260
	Capacity utilization (percent)	70	69	68	68	73
	U.S. shipments (million dollars)	29,050	27,600	27,048	28,219	34,427
	U.S. exports (million dollars)	5,706	6,550	6,787	7,574	9,292
	U.S. imports (million dollars)	5,159	5,341	5,242	6,131	8,121
	Apparent U.S. consumption (million dollars)	28,503	26,391	25,503	26,776	33,256
	Trade balance (million dollars)	547	1,209	1,545	1,443	1,171
	Ratio of imports to apparent consumption (percent)	18.1	20.2	20.6	22.9	24.4
	Ratio of exports to shipments (percent)	19.6	23.7	25.1	26.8	27.0
MT024	Taps, cocks, valves, and similar devices:					
	Number of establishments	904	910	892	895	889
	Employees (thousands)	73	75	72	74	71
	Capacity utilization (percent)	70	73	70	72	73
	U.S. shipments (million dollars)	9,515	9,768	9,573	9,669	9,862
	U.S. exports (million dollars)	1,231	1,346	1,521	1,665	1,909

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT024	Taps, cocks, valves, and similar devices— <i>Continued</i>					
	U.S. imports (million dollars)	1,635	1,760	2,057	2,175	2,600
	Apparent U.S. consumption (million dollars)	9,919	10,182	10,109	10,179	10,553
	Trade balance (million dollars)	-404	-414	-536	-510	-691
	Ratio of imports to apparent consumption (percent)	16.5	17.3	20.3	21.4	24.6
MT026	Ratio of exports to shipments (percent)	12.9	13.8	15.9	17.2	19.4
	Gear boxes and other speed changers; torque converters; etc.:					
	Number of establishments	255	240	220	230	250
	Employees (thousands)	42	39	38	39	40
	Capacity utilization (percent)	80	75	75	80	89
MT027	U.S. shipments (million dollars)	4,126	3,810	3,657	3,876	4,147
	U.S. exports (million dollars)	549	536	592	652	764
	U.S. imports (million dollars)	837	880	964	1,102	1,412
	Apparent U.S. consumption (million dollars)	4,414	4,154	4,029	4,326	4,795
	Trade balance (million dollars)	-288	-344	-372	-450	-648
MT028	Ratio of imports to apparent consumption (percent)	19.0	21.2	23.9	25.5	29.4
	Ratio of exports to shipments (percent)	13.3	14.1	16.2	16.8	18.4
	Boilers, turbines, and related machinery:					
	Number of establishments	39	35	35	35	35
	Employees (thousands)	11	10	10	11	11
MT029	Capacity utilization (percent)	58	50	60	65	74
	U.S. shipments (million dollars)	1,705	1,730	1,556	1,634	1,797
	U.S. exports (million dollars)	644	897	857	1,134	1,231
	U.S. imports (million dollars)	334	305	230	306	348
	Apparent U.S. consumption (million dollars)	1,395	1,138	929	806	914
MT031	Trade balance (million dollars)	310	592	627	828	883
	Ratio of imports to apparent consumption (percent)	23.9	26.8	24.8	38.0	38.1
	Ratio of exports to shipments (percent)	37.8	51.8	55.1	69.4	68.5
	Electric motors, generators, and related equipment:					
	Number of establishments	470	475	470	470	475
MT032	Employees (thousands)	90	88	86	87	88
	Capacity utilization (percent)	79	84	81	80	82
	U.S. shipments (million dollars)	9,720	10,450	11,240	11,570	11,870
	U.S. exports (million dollars)	1,883	2,327	2,742	2,925	2,955
	U.S. imports (million dollars)	2,268	2,368	2,658	2,974	3,457
MT033	Apparent U.S. consumption (million dollars)	10,105	10,491	11,156	11,619	12,372
	Trade balance (million dollars)	-385	-41	84	-49	-502
	Ratio of imports to apparent consumption (percent)	22.4	22.6	23.8	25.6	27.9
	Ratio of exports to shipments (percent)	19.4	22.3	24.4	25.3	24.9
	Electrical transformers, static converters, and inductors:					
MT034	Number of establishments	295	290	285	285	290
	Employees (thousands)	48	46	43	44	45
	Capacity utilization (percent)	72	70	68	70	75
	U.S. shipments (million dollars)	4,980	5,150	5,000	5,765	5,955
	U.S. exports (million dollars)	1,058	1,118	1,206	1,421	1,750
MT035	U.S. imports (million dollars)	1,643	1,800	2,130	2,467	2,713
	Apparent U.S. consumption (million dollars)	5,565	5,832	5,924	6,811	6,918
	Trade balance (million dollars)	-585	-682	-924	-1,046	-963
	Ratio of imports to apparent consumption (percent)	29.5	30.9	36.0	36.2	39.2
	Ratio of exports to shipments (percent)	21.2	21.7	24.1	24.6	29.4
MT036	Portable electric handtools:					
	Number of establishments	29	29	29	29	30
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	71	76	82	83	84
	U.S. shipments (million dollars)	1,200	1,300	1,375	1,450	1,530
MT037	U.S. exports (million dollars)	224	252	260	323	357
	U.S. imports (million dollars)	356	332	381	370	423
	Apparent U.S. consumption (million dollars)	1,332	1,380	1,496	1,497	1,596
	Trade balance (million dollars)	-132	-80	-121	-47	-66
	Ratio of imports to apparent consumption (percent)	26.7	24.1	25.5	24.7	26.5
MT038	Ratio of exports to shipments (percent)	18.7	19.4	18.9	22.3	23.3
	Nonelectrically powered handtools and parts thereof:					
	Number of establishments	49	49	45	45	48
	Employees (thousands)	12	10	11	12	13
	Capacity utilization (percent)	82	72	77	82	89
MT039	U.S. shipments (million dollars)	1,148	1,094	1,288	1,411	1,552
	U.S. exports (million dollars)	556	348	381	378	474
	U.S. imports (million dollars)	540	420	470	550	619
	Apparent U.S. consumption (million dollars)	1,132	1,166	1,377	1,583	1,697
	Trade balance (million dollars)	16	-72	-89	-172	-145
MT040	Ratio of imports to apparent consumption (percent)	47.7	36.0	34.1	34.7	36.5
	Ratio of exports to shipments (percent)	48.4	31.8	29.6	26.8	30.5

See footnote at end of table.

**Table B-7—Continued**  
**Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:					
	Number of establishments	130	125	125	125	125
	Employees (thousands)	25	25	25	25	24
	Capacity utilization (percent)	72	83	82	81	80
	U.S. shipments (million dollars)	3,100	3,000	2,950	3,200	2,910
	U.S. exports (million dollars)	541	624	671	712	811
	U.S. imports (million dollars)	690	728	882	965	1,030
	Apparent U.S. consumption (million dollars)	3,249	3,104	3,161	3,453	3,129
	Trade balance (million dollars)	-149	-104	-211	-253	-219
	Ratio of imports to apparent consumption (percent)	21.2	23.5	27.9	27.9	32.9
	Ratio of exports to shipments (percent)	17.5	20.8	22.7	22.3	27.9
MT035	Electric and gas welding and soldering equipment:					
	Number of establishments	184	184	186	178	183
	Employees (thousands)	19	21	22	18	19
	Capacity utilization (percent)	70	72	73	78	78
	U.S. shipments (million dollars)	2,571	2,648	2,674	2,410	2,467
	U.S. exports (million dollars)	385	389	406	405	460
	U.S. imports (million dollars)	297	435	345	502	486
	Apparent U.S. consumption (million dollars)	2,483	2,694	2,613	2,507	2,493
	Trade balance (million dollars)	88	-46	61	-97	-26
	Ratio of imports to apparent consumption (percent)	12.0	16.1	13.2	20.0	19.5
	Ratio of exports to shipments (percent)	15.0	14.7	15.2	16.8	18.6
MT036	Insulated electrical wire and cable, and conduit; glass and ceramic insulators:					
	Number of establishments	525	525	530	525	530
	Employees (thousands)	80	79	78	75	73
	Capacity utilization (percent)	79	78	75	81	83
	U.S. shipments (million dollars)	13,300	13,500	13,250	13,200	13,725
	U.S. exports (million dollars)	1,874	2,201	2,567	2,991	3,289
	U.S. imports (million dollars)	2,729	2,707	3,154	3,564	4,810
	Apparent U.S. consumption (million dollars)	14,155	14,006	13,837	13,773	15,246
	Trade balance (million dollars)	-855	-506	-587	-573	-1,521
	Ratio of imports to apparent consumption (percent)	19.3	19.3	22.8	25.9	31.5
	Ratio of exports to shipments (percent)	14.1	16.3	19.4	22.7	24.0

<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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT001	Aircraft engines and gas turbines:					
	Number of establishments	26	26	26	26	26
	Employees (thousands)	156	155	130	120	115
	Capacity utilization (percent)	81	80	98	88	80
	U.S. shipments (million dollars)	16,012	16,000	18,000	22,000	17,500
	U.S. exports (million dollars)	7,872	8,346	8,293	8,266	8,467
	U.S. imports (million dollars)	5,085	5,385	6,185	5,735	5,825
	Apparent U.S. consumption (million dollars)	13,225	13,039	15,892	19,469	14,858
	Trade balance (million dollars)	2,787	2,961	2,108	2,531	2,642
	Ratio of imports to apparent consumption (percent)	38.4	41.3	38.9	29.5	39.2
Ratio of exports to shipments (percent)	49.2	52.2	46.1	37.6	48.4	
MT002	Internal combustion piston engines, other than for aircraft:					
	Number of establishments	780	790	800	800	800
	Employees (thousands)	161	148	149	150	155
	Capacity utilization (percent)	71	69	75	76	80
	U.S. shipments (million dollars)	32,200	30,300	31,100	32,000	34,000
	U.S. exports (million dollars)	5,492	5,853	6,640	7,450	8,288
	U.S. imports (million dollars)	5,609	5,166	5,618	6,340	7,424
	Apparent U.S. consumption (million dollars)	32,317	29,613	30,078	30,890	33,136
	Trade balance (million dollars)	-117	687	1,022	1,110	864
	Ratio of imports to apparent consumption (percent)	17.4	17.4	18.7	20.5	22.4
Ratio of exports to shipments (percent)	17.1	19.3	21.4	23.3	24.4	
MT011	Forklift trucks and similar industrial vehicles:					
	Number of establishments	430	430	432	432	432
	Employees (thousands)	20	17	17	17	18
	Capacity utilization (percent)	75	75	75	72	75
	U.S. shipments (million dollars)	2,728	2,406	2,757	2,900	3,440
	U.S. exports (million dollars)	551	627	570	566	691
	U.S. imports (million dollars)	817	614	712	721	955
	Apparent U.S. consumption (million dollars)	2,994	2,393	2,899	3,055	3,704
	Trade balance (million dollars)	-266	13	-142	-155	-264
	Ratio of imports to apparent consumption (percent)	27.3	25.7	24.6	23.6	25.8
Ratio of exports to shipments (percent)	20.2	26.1	20.7	19.5	20.1	
MT012	Construction and mining equipment:					
	Number of establishments	1,600	1,550	1,600	1,600	1,600
	Employees (thousands)	93	84	79	79	80
	Capacity utilization (percent)	70	68	70	71	73
	U.S. shipments (million dollars)	15,900	13,500	12,350	13,050	13,870
	U.S. exports (million dollars)	5,674	6,814	6,773	6,651	6,947
	U.S. imports (million dollars)	2,458	1,504	1,716	2,299	3,462
	Apparent U.S. consumption (million dollars)	12,684	8,190	7,293	8,698	10,385
	Trade balance (million dollars)	3,216	5,310	5,057	4,352	3,485
	Ratio of imports to apparent consumption (percent)	19.4	18.4	23.5	26.4	33.3
Ratio of exports to shipments (percent)	35.7	50.5	54.8	51.0	50.1	
MT025	Ball and roller bearings:					
	Number of establishments	143	140	140	143	140
	Employees (thousands)	39	37	35	37	37
	Capacity utilization (percent)	64	60	63	65	67
	U.S. shipments (million dollars)	4,300	3,762	4,011	4,278	4,470
	U.S. exports (million dollars)	733	720	713	719	801
	U.S. imports (million dollars)	963	903	990	1,114	1,302
	Apparent U.S. consumption (million dollars)	4,530	3,945	4,288	4,673	4,971
	Trade balance (million dollars)	-230	-183	-277	-395	-501
	Ratio of imports to apparent consumption (percent)	21.3	22.9	23.1	23.8	26.2
Ratio of exports to shipments (percent)	17.0	19.1	17.8	16.8	17.9	
MT030	Primary cells and batteries and electric storage batteries:					
	Number of establishments	220	220	222	225	230
	Employees (thousands)	34	31	32	35	40
	Capacity utilization (percent)	82	82	83	85	87
	U.S. shipments (million dollars)	5,200	5,000	5,200	5,500	6,200
	U.S. exports (million dollars)	590	797	848	957	1,125
	U.S. imports (million dollars)	719	795	947	1,079	1,441
	Apparent U.S. consumption (million dollars)	5,329	4,998	5,299	5,622	6,516
	Trade balance (million dollars)	-129	2	-99	-122	-316
	Ratio of imports to apparent consumption (percent)	13.5	15.9	17.9	19.2	22.1
Ratio of exports to shipments (percent)	11.3	15.9	16.3	17.4	18.1	
MT033	Ignition, starting, lighting, and other electrical equipment:					
	Number of establishments	520	522	525	523	523
	Employees (thousands)	51	49	55	56	54
	Capacity utilization (percent)	77	75	78	79	77

Table B-8—Continued

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94

USITC code	Industry/commodity group	1990	1991	1992	1993	1994	
MT033	Ignition, starting, lighting, and other electrical equipment—Continued						
	U.S. shipments (million dollars)	6,400	7,050	7,870	8,200	7,800	
	U.S. exports (million dollars)	891	975	1,122	1,432	1,409	
	U.S. imports (million dollars)	1,284	1,191	1,296	1,495	1,699	
	Apparent U.S. consumption (million dollars)	6,793	7,266	8,044	8,263	8,090	
	Trade balance (million dollars)	-393	-216	-174	-63	-290	
	Ratio of imports to apparent consumption (percent)	18.9	16.4	16.1	18.1	21.0	
	Ratio of exports to shipments (percent)	13.9	13.8	14.3	17.5	18.1	
	MT037	Rail locomotive and rolling stock:					
		Number of establishments	120	117	110	115	120
Employees (thousands)		23	22	22	23	24	
Capacity utilization (percent)		55	61	66	75	90	
U.S. shipments (million dollars)		2,800	2,700	2,950	3,500	4,000	
U.S. exports (million dollars)		518	546	580	574	750	
U.S. imports (million dollars)		701	662	744	729	1,161	
Apparent U.S. consumption (million dollars)		2,983	2,816	3,114	3,655	4,411	
Trade balance (million dollars)		-183	-116	-164	-155	-411	
Ratio of imports to apparent consumption (percent)		23.5	23.5	23.9	19.9	26.3	
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:						
	Number of establishments	1,052	1,020	1,020	1,025	1,125	
	Employees (thousands)	329	316	314	328	338	
	Capacity utilization (percent)	72	67	71	77	87	
	U.S. shipments (million dollars)	140,000	128,500	139,800	161,500	175,800	
	U.S. exports (million dollars)	13,244	15,385	17,679	18,555	21,365	
	U.S. imports (million dollars)	60,281	58,832	60,376	68,607	79,240	
	Apparent U.S. consumption (million dollars)	187,037	171,947	182,497	211,552	233,675	
	Trade balance (million dollars)	-47,037	-43,447	-42,697	-50,052	-57,875	
	Ratio of imports to apparent consumption (percent)	32.2	34.2	33.1	32.4	33.9	
MT039	Certain motor vehicle parts:						
	Number of establishments	5,765	5,750	5,825	5,910	5,900	
	Employees (thousands)	423	400	408	404	396	
	Capacity utilization (percent)	81	77	79	81	81	
	U.S. shipments (million dollars)	65,114	63,500	66,500	73,300	79,000	
	U.S. exports (million dollars)	14,039	13,607	16,046	18,469	20,685	
	U.S. imports (million dollars)	12,618	11,490	13,304	14,646	16,085	
	Apparent U.S. consumption (million dollars)	63,693	61,383	63,758	69,477	74,400	
	Trade balance (million dollars)	1,421	2,117	2,742	3,823	4,600	
	Ratio of imports to apparent consumption (percent)	19.8	18.7	20.9	21.1	21.6	
MT040	Motorcycles, mopeds, and parts:						
	Number of establishments	58	58	58	58	58	
	Employees (thousands)	6	7	7	8	8	
	Capacity utilization (percent)	78	78	79	80	81	
	U.S. shipments (million dollars)	780	790	1,080	1,200	1,370	
	U.S. exports (million dollars)	306	441	497	506	511	
	U.S. imports (million dollars)	449	584	803	877	937	
	Apparent U.S. consumption (million dollars)	923	933	1,386	1,571	1,796	
	Trade balance (million dollars)	-143	-143	-306	-371	-426	
	Ratio of imports to apparent consumption (percent)	48.6	62.6	57.9	55.8	52.2	
MT041	Miscellaneous vehicles and transportation-related equipment:						
	Number of establishments	1,204	1,204	1,205	1,200	1,200	
	Employees (thousands)	39	36	38	36	35	
	Capacity utilization (percent)	58	59	60	60	60	
	U.S. shipments (million dollars)	5,750	5,700	5,800	5,750	5,500	
	U.S. exports (million dollars)	1,743	2,217	2,701	2,441	3,156	
	U.S. imports (million dollars)	1,078	1,194	1,153	1,465	1,456	
	Apparent U.S. consumption (million dollars)	5,085	4,677	4,252	4,774	3,800	
	Trade balance (million dollars)	665	1,023	1,548	976	1,700	
	Ratio of imports to apparent consumption (percent)	21.2	25.5	27.1	30.7	38.3	
MT042	Aircraft, spacecraft, and related equipment:						
	Number of establishments	340	335	320	275	270	
	Employees (thousands)	545	535	520	495	450	
	Capacity utilization (percent)	83	79	98	87	78	
	U.S. shipments (million dollars)	50,096	50,000	48,500	40,000	34,000	
	U.S. exports (million dollars)	29,439	34,403	35,172	30,673	28,576	
	U.S. imports (million dollars)	6,369	7,501	7,262	6,255	6,431	

Table B-8—Continued

## Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MT042	Aircraft, spacecraft, and related equipment—Continued					
	Apparent U.S. consumption (million dollars) .....	27,026	23,098	20,590	15,582	11,855
	Trade balance (million dollars) .....	23,070	26,902	27,910	24,418	22,145
	Ratio of imports to apparent consumption (percent) ...	23.6	32.5	35.3	40.1	54.2
	Ratio of exports to shipments (percent) .....	58.8	68.8	72.5	76.7	84.0
MT043	Ships, tugs, pleasure boats, and similar vessels:					
	Number of establishments .....	2,525	2,400	2,350	2,350	2,200
	Employees (thousands) .....	155	150	148	149	150
	Capacity utilization (percent) .....	65	73	65	60	70
	U.S. shipments (million dollars) .....	13,900	13,500	14,000	13,900	14,000
	U.S. exports (million dollars) .....	1,334	1,174	1,441	1,002	1,203
	U.S. imports (million dollars) .....	372	279	378	1,019	653
	Apparent U.S. consumption (million dollars) .....	12,938	12,605	12,937	13,917	13,450
	Trade balance (million dollars) .....	962	895	1,063	-17	550
	Ratio of imports to apparent consumption (percent) ...	2.9	2.2	2.9	7.3	4.9
	Ratio of exports to shipments (percent) .....	9.6	8.7	10.3	7.2	8.6
MT044	Motors and engines, except internal combustion, aircraft, or electric:					
	Number of establishments .....	44	44	45	45	45
	Employees (thousands) .....	9	9	9	9	9
	Capacity utilization (percent) .....	84	84	84	84	84
	U.S. shipments (million dollars) .....	3,993	4,010	4,100	4,150	4,200
	U.S. exports (million dollars) .....	225	245	231	244	275
	U.S. imports (million dollars) .....	212	213	230	283	374
	Apparent U.S. consumption (million dollars) .....	3,980	3,978	4,099	4,189	4,299
	Trade balance (million dollars) .....	13	32	1	-39	-99
	Ratio of imports to apparent consumption (percent) ...	5.3	5.4	5.6	6.8	8.7
	Ratio of exports to shipments (percent) .....	5.6	6.1	5.6	5.9	6.5

**Table B-9**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
ST001	Office machines:					
	Number of establishments	357	355	350	350	350
	Employees (thousands)	131	123	121	123	121
	Capacity utilization (percent)	64	70	72	72	74
	U.S. shipments (million dollars)	9,188	8,579	8,387	8,614	8,897
	U.S. exports (million dollars)	1,721	1,953	2,003	1,770	1,777
	U.S. imports (million dollars)	3,944	3,960	4,578	5,052	5,781
	Apparent U.S. consumption (million dollars)	11,411	10,586	10,962	11,896	12,901
	Trade balance (million dollars)	-2,223	-2,007	-2,575	-3,282	-4,004
	Ratio of imports to apparent consumption (percent)	34.6	37.4	41.8	42.5	44.8
	Ratio of exports to shipments (percent)	18.7	22.8	23.9	20.5	20.0
ST002	Telephone and telegraph apparatus:					
	Number of establishments	642	630	625	630	636
	Employees (thousands)	92	92	90	89	87
	Capacity utilization (percent)	67	66	68	72	74
	U.S. shipments (million dollars)	16,949	15,940	16,259	16,422	16,688
	U.S. exports (million dollars)	2,963	3,234	4,170	5,199	6,724
	U.S. imports (million dollars)	4,818	4,852	5,606	6,143	7,448
	Apparent U.S. consumption (million dollars)	18,804	17,558	17,695	17,366	17,412
	Trade balance (million dollars)	-1,855	-1,618	-1,436	-944	-724
	Ratio of imports to apparent consumption (percent)	25.6	27.6	31.7	35.4	42.8
	Ratio of exports to shipments (percent)	17.5	20.3	25.6	31.7	40.3
ST003	Microphones, loudspeakers, audio amplifiers and combinations thereof:					
	Number of establishments	110	110	110	110	110
	Employees (thousands)	12	12	12	12	12
	Capacity utilization (percent)	72	73	74	75	75
	U.S. shipments (million dollars)	1,734	1,779	1,946	2,156	2,200
	U.S. exports (million dollars)	582	669	720	851	1,006
	U.S. imports (million dollars)	1,121	1,070	1,241	1,473	1,827
	Apparent U.S. consumption (million dollars)	2,273	2,180	2,467	2,778	3,021
	Trade balance (million dollars)	-539	-401	-521	-622	-821
	Ratio of imports to apparent consumption (percent)	49.3	49.1	50.3	53.0	60.5
	Ratio of exports to shipments (percent)	33.6	37.6	37.0	39.5	45.7
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:					
	Number of establishments	30	28	25	24	24
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	72	74	75	75	75
	U.S. shipments (million dollars)	366	324	384	311	300
	U.S. exports (million dollars)	501	516	627	579	640
	U.S. imports (million dollars)	4,537	4,809	5,444	5,445	6,283
	Apparent U.S. consumption (million dollars)	4,402	4,617	5,201	5,177	5,943
	Trade balance (million dollars)	-4,036	-4,293	-4,817	-4,866	-5,643
	Ratio of imports to apparent consumption (percent)	103.1	104.2	104.7	105.2	105.7
	Ratio of exports to shipments (percent)	136.9	159.3	163.3	186.2	213.3
ST005	Unrecorded magnetic tapes, discs, and other media:					
	Number of establishments	58	58	58	58	55
	Employees (thousands)	25	25	25	25	25
	Capacity utilization (percent)	77	78	85	85	85
	U.S. shipments (million dollars)	3,909	3,840	4,162	4,218	4,200
	U.S. exports (million dollars)	1,706	1,759	1,743	1,675	1,736
	U.S. imports (million dollars)	1,474	1,673	1,729	1,928	1,943
	Apparent U.S. consumption (million dollars)	3,677	3,754	4,148	4,471	4,407
	Trade balance (million dollars)	232	86	14	-253	-207
	Ratio of imports to apparent consumption (percent)	40.1	44.6	41.7	43.1	44.1
	Ratio of exports to shipments (percent)	43.6	45.8	41.9	39.7	41.3
ST006	Records, tapes, compact discs, computer software, and other recorded media:					
	Number of establishments	9,500	10,000	10,500	11,000	11,200
	Employees (thousands)	140	153	167	175	180
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	18,246	19,792	22,232	24,838	27,000
	U.S. exports (million dollars)	1,872	2,201	2,756	3,281	3,742
	U.S. imports (million dollars)	316	379	522	616	755
	Apparent U.S. consumption (million dollars)	16,690	17,970	19,998	22,173	24,013
	Trade balance (million dollars)	1,556	1,822	2,234	2,665	2,987
	Ratio of imports to apparent consumption (percent)	1.9	2.1	2.6	2.8	3.1
	Ratio of exports to shipments (percent)	10.3	11.1	12.4	13.2	13.9
ST007	Radio transmission and reception apparatus, and combinations thereof:					
	Number of establishments	264	264	260	256	252
	Employees (thousands)	71	75	73	71	70

See footnote at end of table.

**Table B-9—Continued**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
ST007	Radio transmission and reception apparatus, and combinations thereof— <i>Continued</i>					
	Capacity utilization (percent) .....	87	87	87	87	87
	U.S. shipments (million dollars) .....	11,860	12,050	10,400	10,940	11,640
	U.S. exports (million dollars) .....	3,356	3,370	3,528	4,283	5,166
	U.S. imports (million dollars) .....	4,721	5,387	5,958	6,420	7,764
	Apparent U.S. consumption (million dollars) .....	13,225	14,067	12,830	13,077	14,238
	Trade balance (million dollars) .....	-1,365	-2,017	-2,430	-2,137	-2,598
	Ratio of imports to apparent consumption (percent) .....	35.7	38.3	46.4	49.1	54.5
	Ratio of exports to shipments (percent) .....	28.3	28.0	33.9	39.1	44.4
ST008	Radio navigational aid, radar, and remote control apparatus:					
	Number of establishments .....	115	115	110	105	100
	Employees (thousands) .....	135	135	125	116	108
	Capacity utilization (percent) .....	72	72	72	72	72
	U.S. shipments (million dollars) .....	15,300	15,220	15,140	13,500	13,170
	U.S. exports (million dollars) .....	1,218	1,244	1,111	1,249	1,242
	U.S. imports (million dollars) .....	448	496	446	408	438
	Apparent U.S. consumption (million dollars) .....	14,530	14,472	14,475	12,659	12,366
	Trade balance (million dollars) .....	770	748	665	841	804
	Ratio of imports to apparent consumption (percent) .....	3.1	3.4	3.1	3.2	3.5
	Ratio of exports to shipments (percent) .....	8.0	8.2	7.3	9.3	9.4
ST009	Television receivers and video monitors and combinations, including television receivers:					
	Number of establishments .....	34	32	30	28	26
	Employees (thousands) .....	22	21	21	21	21
	Capacity utilization (percent) .....	69	68	68	68	70
	U.S. shipments (million dollars) .....	4,640	4,530	4,870	4,780	4,690
	U.S. exports (million dollars) .....	1,025	1,075	1,224	1,199	1,302
	U.S. imports (million dollars) .....	3,174	3,103	3,532	3,707	4,319
	Apparent U.S. consumption (million dollars) .....	6,789	6,558	7,178	7,288	7,707
	Trade balance (million dollars) .....	-2,149	-2,028	-2,308	-2,508	-3,017
	Ratio of imports to apparent consumption (percent) .....	46.8	47.3	49.2	50.9	56.0
	Ratio of exports to shipments (percent) .....	22.1	23.7	25.1	25.1	27.8
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:					
	Number of establishments .....	130	130	125	120	115
	Employees (thousands) .....	11	11	9	8	7
	Capacity utilization (percent) .....	77	75	72	72	72
	U.S. shipments (million dollars) .....	1,280	1,250	1,200	1,200	1,440
	U.S. exports (million dollars) .....	206	236	229	339	426
	U.S. imports (million dollars) .....	2,569	2,755	2,236	2,536	3,265
	Apparent U.S. consumption (million dollars) .....	3,643	3,769	3,207	3,397	4,279
	Trade balance (million dollars) .....	-2,363	-2,519	-2,007	-2,197	-2,839
	Ratio of imports to apparent consumption (percent) .....	70.5	73.1	69.7	74.7	76.3
	Ratio of exports to shipments (percent) .....	16.1	18.9	19.1	28.3	29.6
ST011	Electric sound and visual signaling apparatus:					
	Number of establishments .....	230	221	218	210	205
	Employees (thousands) .....	14	14	14	14	14
	Capacity utilization (percent) .....	75	88	87	85	85
	U.S. shipments (million dollars) .....	1,830	1,740	1,675	1,585	1,565
	U.S. exports (million dollars) .....	331	418	483	560	578
	U.S. imports (million dollars) .....	872	921	1,073	1,261	1,576
	Apparent U.S. consumption (million dollars) .....	2,371	2,243	2,265	2,286	2,563
	Trade balance (million dollars) .....	-541	-503	-590	-701	-998
	Ratio of imports to apparent consumption (percent) .....	36.8	41.1	47.4	55.2	61.5
	Ratio of exports to shipments (percent) .....	18.1	24.0	28.8	35.3	36.9
ST012	Electrical capacitors and resistors:					
	Number of establishments .....	173	171	222	230	240
	Employees (thousands) .....	25	31	30	30	31
	Capacity utilization (percent) .....	72	78	75	80	80
	U.S. shipments (million dollars) .....	2,171	1,945	1,947	2,150	2,350
	U.S. exports (million dollars) .....	766	818	898	960	1,186
	U.S. imports (million dollars) .....	879	884	1,022	1,181	1,475
	Apparent U.S. consumption (million dollars) .....	2,284	2,011	2,071	2,371	2,639
	Trade balance (million dollars) .....	-113	-66	-124	-221	-289
	Ratio of imports to apparent consumption (percent) .....	38.5	44.0	49.3	49.8	55.9
	Ratio of exports to shipments (percent) .....	35.3	42.1	46.1	44.7	50.5
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:					
	Number of establishments .....	1,743	1,760	1,790	1,800	1,825
	Employees (thousands) .....	150	160	155	160	170
	Capacity utilization (percent) .....	80	79	73	80	85

See footnote at end of table.

**Table B-9—Continued**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits— <i>Continued</i>					
	U.S. shipments (million dollars)	22,061	22,282	23,170	26,252	28,900
	U.S. exports (million dollars)	5,280	4,870	4,924	5,224	6,471
	U.S. imports (million dollars)	5,452	5,612	5,445	6,254	7,380
	Apparent U.S. consumption (million dollars)	22,233	23,024	23,691	27,282	29,809
	Trade balance (million dollars)	-172	-742	-521	-1,030	-909
	Ratio of imports to apparent consumption (percent)	24.5	24.4	23.0	22.9	24.8
	Ratio of exports to shipments (percent)	23.9	21.9	21.3	19.9	22.4
ST014	Television picture tubes and other cathode ray tubes:					
	Number of establishments	19	19	19	19	19
	Employees (thousands)	15	20	20	21	22
	Capacity utilization (percent)	80	82	87	87	80
	U.S. shipments (million dollars)	1,760	2,270	2,320	2,460	2,600
	U.S. exports (million dollars)	430	565	602	769	1,061
	U.S. imports (million dollars)	648	679	758	822	1,003
	Apparent U.S. consumption (million dollars)	1,978	2,384	2,476	2,513	2,542
	Trade balance (million dollars)	-218	-114	-156	-53	58
	Ratio of imports to apparent consumption (percent)	32.8	28.5	30.6	32.7	39.5
	Ratio of exports to shipments (percent)	24.4	24.9	25.9	31.3	40.8
ST015	Special-purpose tubes:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	6	6	6	5	5
	Capacity utilization (percent)	80	76	73	76	80
	U.S. shipments (million dollars)	1,097	1,073	948	1,074	1,100
	U.S. exports (million dollars)	211	194	169	159	171
	U.S. imports (million dollars)	133	137	170	168	215
	Apparent U.S. consumption (million dollars)	1,019	1,016	949	1,083	1,144
	Trade balance (million dollars)	78	57	-1	-9	-44
	Ratio of imports to apparent consumption (percent)	13.1	13.5	17.9	15.5	18.8
	Ratio of exports to shipments (percent)	19.2	18.1	17.8	14.8	15.5
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	182	175	172	172	180
	Capacity utilization (percent)	76	77	76	84	85
	U.S. shipments (million dollars)	23,974	26,302	25,813	29,500	34,000
	U.S. exports (million dollars)	10,761	10,887	11,527	13,813	18,098
	U.S. imports (million dollars)	12,169	13,080	15,449	19,466	26,020
	Apparent U.S. consumption (million dollars)	25,382	28,495	29,735	35,153	41,922
	Trade balance (million dollars)	-1,408	-2,193	-3,922	-5,653	-7,922
	Ratio of imports to apparent consumption (percent)	47.9	45.9	52.0	55.4	62.1
	Ratio of exports to shipments (percent)	44.9	41.4	44.7	46.8	53.2
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:					
	Number of establishments	653	658	661	660	640
	Employees (thousands)	14	15	15	15	15
	Capacity utilization (percent)	65	70	70	70	75
	U.S. shipments (million dollars)	2,950	3,150	3,200	3,400	3,500
	U.S. exports (million dollars)	1,379	1,679	1,682	1,871	2,117
	U.S. imports (million dollars)	943	815	928	987	1,137
	Apparent U.S. consumption (million dollars)	2,514	2,286	2,446	2,516	2,520
	Trade balance (million dollars)	436	864	754	884	980
	Ratio of imports to apparent consumption (percent)	37.5	35.7	37.9	39.2	45.1
	Ratio of exports to shipments (percent)	46.7	53.3	52.6	55.0	60.5
ST018	Automatic data processing machines:					
	Number of establishments	739	700	732	754	770
	Employees (thousands)	222	211	203	189	180
	Capacity utilization (percent)	75	73	78	85	87
	U.S. shipments (million dollars)	49,983	49,314	50,946	55,053	58,000
	U.S. exports (million dollars)	23,005	24,001	24,985	25,397	29,102
	U.S. imports (million dollars)	22,928	25,986	31,564	37,906	46,161
	Apparent U.S. consumption (million dollars)	49,906	51,299	57,525	67,562	75,059
	Trade balance (million dollars)	77	-1,985	-6,579	-12,509	-17,059
	Ratio of imports to apparent consumption (percent)	45.9	50.7	54.9	56.1	61.5
	Ratio of exports to shipments (percent)	46.0	48.7	49.0	46.1	50.2
ST019	Photographic supplies:					
	Number of establishments	115	115	112	112	112
	Employees (thousands)	35	34	35	34	34
	Capacity utilization (percent)	77	88	88	85	85
	U.S. shipments (million dollars)	9,500	9,400	9,200	9,500	9,500
	U.S. exports (million dollars)	1,719	1,791	1,669	1,636	1,621
	U.S. imports (million dollars)	1,409	1,486	1,610	1,702	1,675

See footnote at end of table.

**Table B-9—Continued**  
**Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
ST019	Photographic supplies— <i>Continued</i>					
	Apparent U.S. consumption (million dollars) .....	9,190	9,095	9,141	9,566	9,554
	Trade balance (million dollars) .....	310	305	59	-66	-54
	Ratio of imports to apparent consumption (percent) ...	15.3	16.3	17.6	17.8	17.5
	Ratio of exports to shipments (percent) .....	18.1	19.1	18.1	17.2	17.1
ST020	Exposed photographic plates, film, and paper:					
	Number of establishments .....	200	200	200	200	200
	Employees (thousands) .....	240	230	230	230	230
	Capacity utilization (percent) .....	77	88	88	85	85
	U.S. shipments (million dollars) .....	5,350	5,000	5,100	5,500	6,290
	U.S. exports (million dollars) .....	110	102	102	100	110
	U.S. imports (million dollars) .....	88	81	124	156	107
	Apparent U.S. consumption (million dollars) .....	5,328	4,979	5,122	5,556	6,287
	Trade balance (million dollars) .....	22	21	-22	-56	3
	Ratio of imports to apparent consumption (percent) ...	1.7	1.6	2.4	2.8	1.7
	Ratio of exports to shipments (percent) .....	2.1	2.0	2.0	1.8	1.7
ST021	Optical fibers, optical fiber bundles, and cables:					
	Number of establishments .....	50	52	55	56	58
	Employees (thousands) .....	6	6	7	7	8
	Capacity utilization (percent) .....	87	88	90	90	90
	U.S. shipments (million dollars) .....	1,184	1,256	1,602	1,829	2,290
	U.S. exports (million dollars) .....	172	247	293	325	418
	U.S. imports (million dollars) .....	62	57	85	90	104
	Apparent U.S. consumption (million dollars) .....	1,074	1,066	1,394	1,594	1,976
	Trade balance (million dollars) .....	110	190	208	235	314
	Ratio of imports to apparent consumption (percent) ...	5.8	5.3	6.1	5.6	5.3
	Ratio of exports to shipments (percent) .....	14.5	19.7	18.3	17.8	18.3
ST022	Optical goods, including ophthalmic goods:					
	Number of establishments .....	900	905	900	902	904
	Employees (thousands) .....	59	60	58	58	60
	Capacity utilization (percent) .....	77	88	88	78	80
	U.S. shipments (million dollars) .....	4,200	4,450	4,350	4,250	4,750
	U.S. exports (million dollars) .....	985	1,071	1,194	1,150	1,324
	U.S. imports (million dollars) .....	1,872	1,920	2,098	2,181	2,385
	Apparent U.S. consumption (million dollars) .....	5,087	5,299	5,254	5,281	5,811
	Trade balance (million dollars) .....	-887	-849	-904	-1,031	-1,061
	Ratio of imports to apparent consumption (percent) ...	36.8	36.2	39.9	41.3	41.0
	Ratio of exports to shipments (percent) .....	23.5	24.1	27.4	27.1	27.9
ST023	Photographic cameras and equipment:					
	Number of establishments .....	640	635	635	635	635
	Employees (thousands) .....	13	13	12	12	12
	Capacity utilization (percent) .....	77	88	88	85	85
	U.S. shipments (million dollars) .....	1,595	1,580	1,550	1,530	1,510
	U.S. exports (million dollars) .....	764	808	936	940	980
	U.S. imports (million dollars) .....	1,560	1,728	1,703	1,968	2,315
	Apparent U.S. consumption (million dollars) .....	2,391	2,500	2,317	2,558	2,845
	Trade balance (million dollars) .....	-796	-920	-767	-1,028	-1,335
	Ratio of imports to apparent consumption (percent) ...	65.2	69.1	73.5	76.9	81.4
	Ratio of exports to shipments (percent) .....	47.9	51.1	60.4	61.4	64.9
ST024	Medical goods:					
	Number of establishments .....	2,300	2,305	2,315	2,320	2,325
	Employees (thousands) .....	163	165	170	175	178
	Capacity utilization (percent) .....	82	83	84	85	87
	U.S. shipments (million dollars) .....	19,200	20,500	22,200	24,000	25,200
	U.S. exports (million dollars) .....	5,317	6,206	6,940	7,360	7,997
	U.S. imports (million dollars) .....	3,292	3,762	3,997	4,381	4,405
	Apparent U.S. consumption (million dollars) .....	17,175	18,056	19,257	21,021	21,608
	Trade balance (million dollars) .....	2,025	2,444	2,943	2,979	3,592
	Ratio of imports to apparent consumption (percent) ...	19.2	20.8	20.8	20.8	20.4
	Ratio of exports to shipments (percent) .....	27.7	30.3	31.3	30.7	31.7
ST025	Surveying and navigational instruments:					
	Number of establishments .....	355	349	366	360	356
	Employees (thousands) .....	55	50	47	45	42
	Capacity utilization (percent) .....	71	71	66	65	63
	U.S. shipments (million dollars) .....	7,213	7,546	6,937	6,700	6,435
	U.S. exports (million dollars) .....	1,519	1,734	1,709	1,556	1,470
	U.S. imports (million dollars) .....	479	499	562	477	461
	Apparent U.S. consumption (million dollars) .....	6,173	6,311	5,790	5,621	5,426
	Trade balance (million dollars) .....	1,040	1,235	1,147	1,079	1,009
	Ratio of imports to apparent consumption (percent) ...	7.8	7.9	9.7	8.5	8.5
	Ratio of exports to shipments (percent) .....	21.1	23.0	24.6	23.2	22.8
ST026	Watches:					
	Number of establishments .....	20	20	20	20	20
	Employees (thousands) .....	3	3	3	3	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, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
ST026	Watches— <i>Continued</i>					
	Capacity utilization (percent) .....	59	59	60	61	61
	U.S. shipments (million dollars) .....	205	220	210	230	250
	U.S. exports (million dollars) .....	120	126	117	138	163
	U.S. imports (million dollars) .....	2,074	1,855	1,869	2,048	2,127
	Apparent U.S. consumption (million dollars) .....	2,159	1,949	1,962	2,140	2,214
	Trade balance (million dollars) .....	-1,954	-1,729	-1,752	-1,910	-1,964
	Ratio of imports to apparent consumption (percent) ...	96.1	95.2	95.3	95.7	96.1
	Ratio of exports to shipments (percent) .....	58.5	57.3	55.7	60.0	65.2
ST027	Clocks and timing devices:					
	Number of establishments .....	50	50	49	49	48
	Employees (thousands) .....	6	5	5	5	5
	Capacity utilization (percent) .....	65	64	67	68	67
	U.S. shipments (million dollars) .....	545	535	520	535	530
	U.S. exports (million dollars) .....	89	100	90	97	113
	U.S. imports (million dollars) .....	345	317	350	400	424
	Apparent U.S. consumption (million dollars) .....	801	752	780	838	841
	Trade balance (million dollars) .....	-256	-217	-260	-303	-311
	Ratio of imports to apparent consumption (percent) ...	43.1	42.2	44.9	47.7	50.4
	Ratio of exports to shipments (percent) .....	16.3	18.7	17.3	18.1	21.3
ST028	Arms and ammunition:					
	Number of establishments .....	390	375	375	380	375
	Employees (thousands) .....	225	200	200	205	195
	Capacity utilization (percent) .....	72	74	76	77	75
	U.S. shipments (million dollars) .....	14,000	14,000	15,000	15,000	13,000
	U.S. exports (million dollars) .....	2,336	2,311	2,534	2,372	2,212
	U.S. imports (million dollars) .....	463	515	563	682	777
	Apparent U.S. consumption (million dollars) .....	12,127	12,204	13,029	13,310	11,565
	Trade balance (million dollars) .....	1,873	1,796	1,971	1,690	1,435
	Ratio of imports to apparent consumption (percent) ...	3.8	4.2	4.3	5.1	6.7
	Ratio of exports to shipments (percent) .....	16.7	16.5	16.9	15.8	17.0
ST029	Balances of a sensitivity of 5 cg or better:					
	Number of establishments .....	13	12	10	10	10
	Employees (thousands) .....	( <sup>1</sup> )				
	Capacity utilization (percent) .....	60	58	65	60	61
	U.S. shipments (million dollars) .....	30	28	33	30	34
	U.S. exports (million dollars) .....	11	14	16	18	18
	U.S. imports (million dollars) .....	28	31	41	38	37
	Apparent U.S. consumption (million dollars) .....	47	45	58	50	53
	Trade balance (million dollars) .....	-17	-17	-25	-20	-19
	Ratio of imports to apparent consumption (percent) ...	59.6	68.9	70.7	76.0	69.8
	Ratio of exports to shipments (percent) .....	36.7	50.0	48.5	60.0	52.9
ST030	Drawing and mathematical calculating or measuring instruments:					
	Number of establishments .....	185	180	175	175	175
	Employees (thousands) .....	9	7	6	6	6
	Capacity utilization (percent) .....	74	66	67	65	64
	U.S. shipments (million dollars) .....	701	527	542	545	543
	U.S. exports (million dollars) .....	136	138	166	162	145
	U.S. imports (million dollars) .....	183	196	231	235	322
	Apparent U.S. consumption (million dollars) .....	748	585	607	618	720
	Trade balance (million dollars) .....	-47	-58	-65	-73	-177
	Ratio of imports to apparent consumption (percent) ...	24.5	33.5	38.1	38.0	44.7
	Ratio of exports to shipments (percent) .....	19.4	26.2	30.6	29.7	26.7
ST031	Measuring, testing, controlling, and analyzing instruments:					
	Number of establishments .....	3,235	3,220	3,215	3,215	3,210
	Employees (thousands) .....	239	229	220	222	225
	Capacity utilization (percent) .....	72	70	71	72	74
	U.S. shipments (million dollars) .....	23,000	23,500	23,700	24,400	25,800
	U.S. exports (million dollars) .....	7,098	7,756	8,185	9,026	10,060
	U.S. imports (million dollars) .....	3,369	3,620	4,014	4,553	5,727
	Apparent U.S. consumption (million dollars) .....	19,271	19,364	19,529	19,927	21,467
	Trade balance (million dollars) .....	3,729	4,136	4,171	4,473	4,333
	Ratio of imports to apparent consumption (percent) ...	17.5	18.7	20.6	22.8	26.7
	Ratio of exports to shipments (percent) .....	30.9	33.0	34.5	37.0	39.0

<sup>1</sup> Not available.

**Table B-10**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM047	Luggage, handbags, and flat goods:					
	Number of establishments	720	700	706	690	685
	Employees (thousands)	24	23	22	21	21
	Capacity utilization (percent)	80	80	75	70	70
	U.S. shipments (million dollars)	1,896	1,836	1,805	1,735	1,750
	U.S. exports (million dollars)	133	159	194	199	233
	U.S. imports (million dollars)	2,171	2,281	2,437	2,584	3,008
	Apparent U.S. consumption (million dollars)	3,934	3,958	4,048	4,120	4,525
	Trade balance (million dollars)	-2,038	-2,122	-2,243	-2,385	-2,775
	Ratio of imports to apparent consumption (percent)	55.2	57.6	60.2	62.7	66.5
Ratio of exports to shipments (percent)	7.0	8.7	10.7	11.5	13.3	
MM048	Certain other leather goods:					
	Number of establishments	465	470	464	470	475
	Employees (thousands)	9	9	8	9	9
	Capacity utilization (percent)	80	83	85	85	90
	U.S. shipments (million dollars)	494	477	465	490	515
	U.S. exports (million dollars)	44	63	74	79	88
	U.S. imports (million dollars)	148	140	158	168	196
	Apparent U.S. consumption (million dollars)	598	554	549	579	623
	Trade balance (million dollars)	-104	-77	-84	-89	-108
	Ratio of imports to apparent consumption (percent)	24.7	25.3	28.8	29.0	31.5
Ratio of exports to shipments (percent)	8.9	13.2	15.9	16.1	17.1	
MM049	Musical instruments and accessories:					
	Number of firms	475	450	470	468	470
	Employees (thousands)	12	11	12	12	12
	Capacity utilization (percent)	58	58	60	59	60
	U.S. shipments (million dollars)	815	823	884	880	890
	U.S. exports (million dollars)	293	303	341	354	389
	U.S. imports (million dollars)	727	713	824	861	883
	Apparent U.S. consumption (million dollars)	1,249	1,233	1,367	1,387	1,384
	Trade balance (million dollars)	-434	-410	-483	-507	-494
	Ratio of imports to apparent consumption (percent)	58.2	57.8	60.3	62.1	63.8
Ratio of exports to shipments (percent)	36.0	36.8	38.6	40.2	43.7	
MM050	Umbrellas, whips, riding crops, and canes:					
	Number of establishments	22	20	15	15	15
	Employees (number)	480	430	400	405	400
	Capacity utilization (percent)	78	78	78	78	78
	U.S. shipments (million dollars)	55	60	60	61	62
	U.S. exports (million dollars)	8	10	11	9	8
	U.S. imports (million dollars)	146	143	173	180	188
	Apparent U.S. consumption (million dollars)	193	193	222	232	242
	Trade balance (million dollars)	-138	-133	-162	-171	-180
	Ratio of imports to apparent consumption (percent)	75.6	74.1	77.9	77.6	77.7
Ratio of exports to shipments (percent)	14.5	16.7	18.3	14.8	12.9	
MM051	Silverware and certain other articles of precious metal:					
	Number of establishments	46	46	45	45	44
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	72	73	75	78	75
	U.S. shipments (million dollars)	175	179	180	185	180
	U.S. exports (million dollars)	85	127	138	87	89
	U.S. imports (million dollars)	50	41	64	109	317
	Apparent U.S. consumption (million dollars)	140	93	106	207	408
	Trade balance (million dollars)	35	86	74	-22	-228
	Ratio of imports to apparent consumption (percent)	35.7	44.1	60.4	52.7	77.7
Ratio of exports to shipments (percent)	48.6	70.9	76.7	47.0	49.4	
MM052	Precious jewelry and related articles:					
	Number of firms	2,200	2,150	2,216	2,215	2,220
	Employees (thousands)	36	33	33	33	33
	Capacity utilization (percent)	55	55	55	60	60
	U.S. shipments (million dollars)	3,960	3,502	3,658	3,799	3,800
	U.S. exports (million dollars)	424	424	495	407	381
	U.S. imports (million dollars)	2,534	2,518	2,795	3,232	3,525
	Apparent U.S. consumption (million dollars)	6,070	5,596	5,958	6,624	6,944
	Trade balance (million dollars)	-2,110	-2,094	-2,300	-2,825	-3,144
	Ratio of imports to apparent consumption (percent)	41.7	45.0	46.9	48.8	50.8
Ratio of exports to shipments (percent)	10.7	12.1	13.5	10.7	10.0	
MM053	Costume jewelry and related articles:					
	Number of firms	930	900	904	910	915
	Employees (thousands)	19	18	18	18	19
	Capacity utilization (percent)	65	65	68	70	69
	U.S. shipments (million dollars)	1,417	1,399	1,509	1,453	1,505
	U.S. exports (million dollars)	110	123	114	120	126
U.S. imports (million dollars)	461	491	532	544	567	

**Table B-10—Continued**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,**  
**1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM053	Costume jewelry and related articles— <i>Continued</i>					
	Apparent U.S. consumption (million dollars) .....	1,768	1,767	1,927	1,877	1,946
	Trade balance (million dollars) .....	-351	-368	-418	-424	-441
	Ratio of imports to apparent consumption (percent) ...	26.1	27.8	27.6	29.0	29.1
	Ratio of exports to shipments (percent) .....	7.8	8.8	7.6	8.3	8.4
MM054	Bicycles and certain parts:					
	Number of establishments .....	30	30	30	30	30
	Employees (thousands) .....	5	6	7	7	7
	Capacity utilization (percent) .....	75	91	93	94	95
	U.S. shipments (million dollars) .....	985	1,245	1,155	1,205	1,325
	U.S. exports (million dollars) .....	114	174	175	197	200
	U.S. imports (million dollars) .....	750	745	734	841	825
	Apparent U.S. consumption (million dollars) .....	1,621	1,816	1,714	1,849	1,950
	Trade balance (million dollars) .....	-636	-571	-559	-644	-625
	Ratio of imports to apparent consumption (percent) ...	46.3	41.0	42.8	45.5	42.3
	Ratio of exports to shipments (percent) .....	11.6	14.0	15.2	16.3	15.1
MM055	Furniture and selected furnishings:					
	Number of establishments .....	15,000	14,500	14,500	14,500	14,600
	Employees (thousands) .....	522	480	475	480	485
	Capacity utilization (percent) .....	70	70	71	71	72
	U.S. shipments (million dollars) .....	45,000	43,000	46,300	50,300	54,800
	U.S. exports (million dollars) .....	1,731	2,256	2,700	2,941	3,300
	U.S. imports (million dollars) .....	5,050	4,981	5,555	6,298	7,638
	Apparent U.S. consumption (million dollars) .....	48,319	45,725	49,155	53,657	59,138
	Trade balance (million dollars) .....	-3,319	-2,725	-2,855	-3,357	-4,338
	Ratio of imports to apparent consumption (percent) ...	10.5	10.9	11.3	11.7	12.9
	Ratio of exports to shipments (percent) .....	3.8	5.2	5.8	5.8	6.0
MM056	Writing instruments and related articles:					
	Number of establishments .....	200	200	200	200	200
	Employees (thousands) .....	13	12	12	13	13
	Capacity utilization (percent) .....	73	78	78	80	80
	U.S. shipments (million dollars) .....	1,575	1,555	1,605	1,695	1,760
	U.S. exports (million dollars) .....	193	207	258	242	233
	U.S. imports (million dollars) .....	447	451	513	568	611
	Apparent U.S. consumption (million dollars) .....	1,829	1,799	1,860	2,021	2,138
	Trade balance (million dollars) .....	-254	-244	-255	-326	-378
	Ratio of imports to apparent consumption (percent) ...	24.4	25.1	27.6	28.1	28.6
	Ratio of exports to shipments (percent) .....	12.3	13.3	16.1	14.3	13.2
MM057	Lamps and lighting fittings:					
	Number of establishments .....	1,620	1,570	1,550	1,570	1,560
	Employees (thousands) .....	63	61	61	63	62
	Capacity utilization (percent) .....	75	73	73	73	75
	U.S. shipments (million dollars) .....	8,100	7,800	7,950	8,500	7,120
	U.S. exports (million dollars) .....	315	373	449	472	520
	U.S. imports (million dollars) .....	1,311	1,295	1,499	1,712	1,956
	Apparent U.S. consumption (million dollars) .....	9,096	8,722	9,000	9,740	8,556
	Trade balance (million dollars) .....	-996	-922	-1,050	-1,240	-1,436
	Ratio of imports to apparent consumption (percent) ...	14.4	14.8	16.7	17.6	22.9
	Ratio of exports to shipments (percent) .....	3.9	4.8	5.6	5.6	7.3
MM058	Prefabricated buildings:					
	Number of establishments .....	1,200	1,100	1,100	1,100	1,200
	Employees (thousands) .....	80	71	74	78	79
	Capacity utilization (percent) .....	72	70	70	75	76
	U.S. shipments (million dollars) .....	9,030	8,300	9,100	10,700	11,700
	U.S. exports (million dollars) .....	171	276	273	329	415
	U.S. imports (million dollars) .....	34	21	64	71	48
	Apparent U.S. consumption (million dollars) .....	8,893	8,045	8,891	10,442	11,333
	Trade balance (million dollars) .....	137	255	209	258	367
	Ratio of imports to apparent consumption (percent) ...	0.4	0.3	0.7	0.7	0.4
	Ratio of exports to shipments (percent) .....	1.9	3.3	3.0	3.1	3.5
MM059	Children's vehicles:					
	Number of establishments .....	45	45	45	45	45
	Employees (thousands) .....	3	3	3	3	3
	Capacity utilization (percent) .....	80	79	77	77	77
	U.S. shipments (million dollars) .....	455	469	482	506	517
	U.S. exports (million dollars) .....	23	28	30	34	44
	U.S. imports (million dollars) .....	179	206	194	228	248
	Apparent U.S. consumption (million dollars) .....	611	647	646	700	721
	Trade balance (million dollars) .....	-156	-178	-164	-194	-204
	Ratio of imports to apparent consumption (percent) ...	29.3	31.8	30.0	32.6	34.4
	Ratio of exports to shipments (percent) .....	5.1	6.0	6.2	6.7	8.5

**Table B-10—Continued**

**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM060	Dolls:					
	Number of establishments	180	180	180	180	180
	Employees (thousands)	4	3	3	3	3
	Capacity utilization (percent)	70	70	70	70	70
	U.S. shipments (million dollars)	109	112	117	116	117
	U.S. exports (million dollars)	17	21	29	27	29
	U.S. imports (million dollars)	772	845	901	885	934
	Apparent U.S. consumption (million dollars)	864	936	989	974	1,022
	Trade balance (million dollars)	-755	-824	-872	-858	-905
	Ratio of imports to apparent consumption (percent)	89.4	90.3	91.1	90.9	91.4
Ratio of exports to shipments (percent)	15.6	18.8	24.8	23.3	24.8	
MM061	Toys and models:					
	Number of establishments	320	315	315	315	315
	Employees (thousands)	13	12	12	12	12
	Capacity utilization (percent)	72	71	72	71	71
	U.S. shipments (million dollars)	1,670	1,698	1,758	1,845	1,871
	U.S. exports (million dollars)	382	387	427	468	528
	U.S. imports (million dollars)	2,716	2,880	3,597	3,666	4,010
	Apparent U.S. consumption (million dollars)	4,004	4,191	4,928	5,043	5,353
	Trade balance (million dollars)	-2,334	-2,493	-3,170	-3,198	-3,482
	Ratio of imports to apparent consumption (percent)	67.8	68.7	73.0	72.7	74.9
Ratio of exports to shipments (percent)	22.9	22.8	24.3	25.4	28.2	
MM062	Games and fairground amusements:					
	Number of establishments	315	325	325	325	320
	Employees (thousands)	40	45	50	50	45
	Capacity utilization (percent)	75	80	80	80	75
	U.S. shipments (million dollars)	2,060	2,068	2,113	2,240	2,285
	U.S. exports (million dollars)	547	684	884	1,000	1,117
	U.S. imports (million dollars)	2,818	2,091	2,729	3,461	2,575
	Apparent U.S. consumption (million dollars)	4,331	3,475	3,958	4,701	3,743
	Trade balance (million dollars)	-2,271	-1,407	-1,845	-2,461	-1,458
	Ratio of imports to apparent consumption (percent)	65.1	60.2	68.9	73.6	68.8
Ratio of exports to shipments (percent)	26.6	33.1	41.8	44.6	48.9	
MM063	Sporting goods:					
	Number of establishments	1,950	2,050	2,123	2,125	2,130
	Employees (thousands)	65	61	61	62	65
	Capacity utilization (percent)	75	80	80	80	80
	U.S. shipments (million dollars)	6,202	6,504	6,900	7,285	7,542
	U.S. exports (million dollars)	828	930	1,024	1,140	1,326
	U.S. imports (million dollars)	1,644	1,750	2,148	2,159	2,699
	Apparent U.S. consumption (million dollars)	7,018	7,324	8,024	8,304	8,915
	Trade balance (million dollars)	-816	-820	-1,124	-1,019	-1,373
	Ratio of imports to apparent consumption (percent)	23.4	23.9	26.8	26.0	30.3
Ratio of exports to shipments (percent)	13.4	14.3	14.8	15.6	17.6	
MM064	Smokers' articles:					
	Number of establishments	17	15	15	15	12
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	64	65	65	65	65
	U.S. shipments (million dollars)	164	166	165	168	165
	U.S. exports (million dollars)	59	77	73	74	75
	U.S. imports (million dollars)	130	132	148	137	145
	Apparent U.S. consumption (million dollars)	235	221	240	231	235
	Trade balance (million dollars)	-71	-55	-75	-63	-70
	Ratio of imports to apparent consumption (percent)	55.3	59.7	61.7	59.3	61.7
Ratio of exports to shipments (percent)	36.0	46.4	44.2	44.0	45.5	
MM065	Brooms, brushes, and hair grooming articles:					
	Number of establishments	300	290	290	285	280
	Employees (thousands)	13	12	12	11	10
	Capacity utilization (percent)	60	62	64	65	70
	U.S. shipments (million dollars)	1,340	1,445	1,500	1,700	1,650
	U.S. exports (million dollars)	74	95	110	143	148
	U.S. imports (million dollars)	423	453	468	491	525
	Apparent U.S. consumption (million dollars)	1,689	1,803	1,858	2,048	2,027
	Trade balance (million dollars)	-349	-358	-358	-348	-377
	Ratio of imports to apparent consumption (percent)	25.0	25.1	25.2	24.0	25.9
Ratio of exports to shipments (percent)	5.5	6.6	7.3	8.4	9.0	

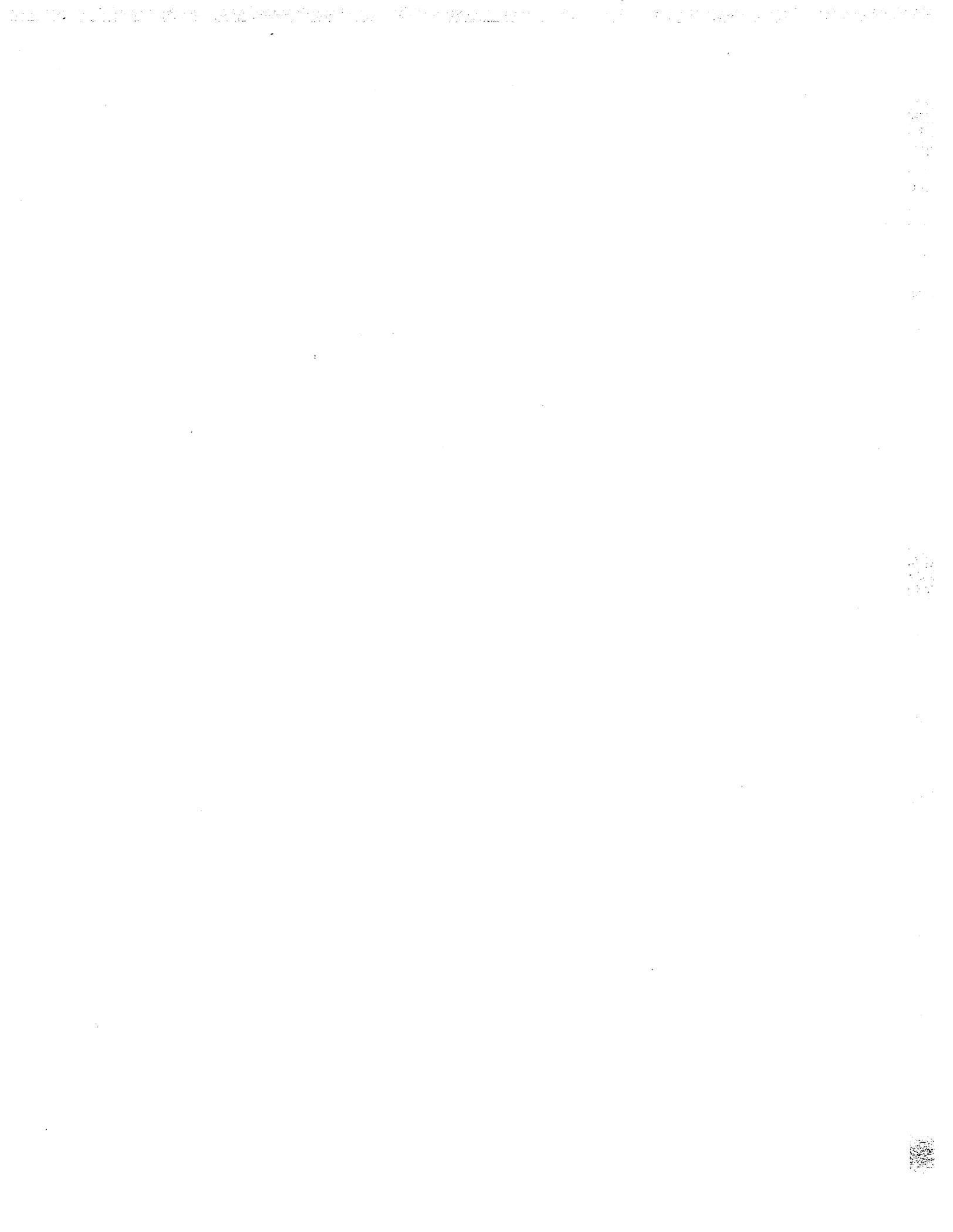
**Table B-10—Continued**  
**Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1990-94**

USITC code	Industry/commodity group	1990	1991	1992	1993	1994
MM066	Miscellaneous articles:					
	Number of establishments .....	2,300	2,100	2,100	2,100	2,200
	Employees (thousands) .....	38	37	37	37	38
	Capacity utilization (percent) .....	60	60	60	60	60
	U.S. shipments (million dollars) .....	24,800	22,600	22,700	24,100	26,000
	U.S. exports (million dollars) .....	2,493	1,503	1,352	1,250	1,524
	U.S. imports (million dollars) .....	3,522	3,347	3,718	4,449	4,449
	Apparent U.S. consumption (million dollars) .....	25,829	24,444	25,066	27,299	28,925
	Trade balance (million dollars) .....	-1,029	-1,844	-2,366	-3,199	-2,925
	Ratio of imports to apparent consumption (percent) ...	13.6	13.7	14.8	16.3	15.4
	Ratio of exports to shipments (percent) .....	10.1	6.7	6.0	5.2	5.9



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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  
China  
Christmas Island  
Cocos Island  
Cook Islands  
Heard Island and McDonald Islands  
Hong Kong  
Indonesia  
Japan  
Korea

Macao  
Malaysia  
New Zealand  
Niue  
Norfolk Island  
Papua New Guinea  
Philippines  
Singapore  
Taiwan  
Tokelau

**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

**EASTERN EUROPE**

Albania  
Bosnia-Herzegovina  
Bulgaria  
Croatia  
Czech Republic  
Hungary

Macedonia  
Poland  
Romania  
Slovakia  
Slovenia  
Yugoslavia

**EU-12<sup>3</sup>**

Belgium  
Denmark  
France  
Germany  
Greece  
Ireland

Italy  
Luxembourg  
Netherlands  
Portugal  
Spain  
United Kingdom

<sup>1</sup> Association of Southeast Asian Nations.

<sup>2</sup> Caribbean Basin Economic Recovery Act beneficiaries.

<sup>3</sup> European Union.

## **LATIN AMERICA**

Anguilla  
Antigua and Barbuda  
Argentina  
Aruba  
Bahamas, The  
Barbados  
Belize  
Bermuda  
Bolivia  
Brazil  
British Virgin Islands  
Cayman Islands  
Chile  
Columbia  
Costa Rica  
Cuba  
Dominica Island  
Dominican Republic  
Ecuador  
El Salvador  
Falkland Islands  
French Guiana

## **OPEC<sup>4</sup>**

Algeria  
Gabon  
Indonesia  
Iran  
Iraq  
Kuwait

Grenada  
Guadeloupe  
Guatemala  
Guyana  
Haiti  
Honduras  
Jamaica  
Mexico  
Montserrat  
Netherlands Antilles  
Nicaragua  
Panama  
Paraguay  
Peru  
St. Kitts and Nevis  
St. Lucia  
St. Vincent and the Grenadines  
Suriname  
Trinidad and Tobago  
Turks and Caicos Islands  
Uruguay  
Venezuela

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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