

Shifts in U.S. Merchandise Trade in 1997

Investigation No. 332-345

Publication 3120

July 1998

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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PREFACE

On August 27, 1993, on its own motion and pursuant to section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)), the U.S. International Trade Commission (USITC) instituted investigation No. 332-345, *Annual Reports on U.S. Trade Shifts in Selected Industries*, for the purpose of preparing annual trade shifts reports. 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 publishes two reports annually, one entitled *Shifts in U.S. Merchandise Trade* and the second entitled *Recent Trends in U.S. Services Trade*. A separate report covering services trade was instituted in order to provide more comprehensive coverage of U.S. trade performance and overall economic competitiveness.

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

The current report briefly summarizes and analyzes the major trade shifts that occurred in 1997 in terms of both industries/commodities and the leading U.S. trading partners. It also discusses the following: certain trade developments with countries or regions where there are current noteworthy U.S. trade interests, and factors affecting trends in selected commodities where notable factors are affecting U.S. trade. This report also summarizes trade information and profiles basic statistics of industry/commodity groups.

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

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Glossary of Frequently Used Abbreviations and Acronyms

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

CHAPTER 1

Introduction

The trade analysts of the U.S. International Trade Commission (USITC or the Commission) Office of Industries routinely monitor trade developments in all agricultural and manufacturing industries, and in the services sector, as part of the USITC mission. Trade monitoring at the major sector and subsector levels (referred to as industry/commodity groups in this report) is a facet of the research and analysis undertaken by the Office of Industries in 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.¹ This annual report analyzes significant merchandise trade shifts on an aggregate basis, on a bilateral basis, and at the industry/commodity-group level. This series is part of the Commission's recurring reports that facilitate the development of core competencies and expertise, and enable the Commission to provide objective and in-depth analysis to the Congress, the public, and other agencies related to emerging and complex trade and economic issues.

For trade-monitoring purposes, U.S. Harmonized Tariff Schedule (HTS) headings/subheadings, and the corresponding export categories, are assigned to industry/commodity groups by the USITC.² These groups are aggregated into sectors. Table 1-1 at the end of this chapter shows the major sectors, the industry/commodity groups in the sector, and HTS coverage by chapter, for each sector.

This report does not analyze U.S. trade shifts in services, which, as noted in the Preface, is the subject of a complementary USITC annual report.³ Thus, throughout this report (except in the lead paragraph of chapter 2), references to trade balances represent only U.S. balances in merchandise trade. However, in assessing the U.S. merchandise trade deficit in 1997, it is important to note that the United States recorded a trade surplus in services of \$85.3 billion, which, when added to the \$219.2 billion merchandise trade deficit, reduced the total trade deficit to \$133.9 billion.

¹Major roles include determining whether U.S. industries are materially injured or threatened with material injury 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.

²All import and export data in this report are official statistics of the U.S. Department of Commerce.

³See USITC, *Recent Trends in U.S. Services Trade* (investigation No. 332-345), USITC publication 3105, May 1998.

TRADE DATA NOTE

Although all import and export figures presented in this report are official statistics of the U.S. Department of Commerce (Commerce), these figures may be substantially different from the figures presented by other government agencies and private institutions that cite Commerce as the source for trade data. Possible reasons for these discrepancies are as follows:

- Figures in this report include merchandise trade only; other reported figures may include services.
- Figures are not seasonally adjusted; the values of other reported figures may be so adjusted. Imports are on an imports for consumption/customs value basis; other reported import figures may be on a general imports/customs value basis.
- Exports are on a domestic export/f.a.s. basis; other reported export figures may be on a total export/f.a.s. basis, which include re-exports of foreign merchandise.
- Imports and exports may not include all errata because certain errors may not be corrected by Commerce in time to be included in this report.
- Figures in this report may be adjusted for errors that are not of sufficient magnitude to be changed in Commerce data.
- There are no adjustments for carryover (imports and exports received late or not processed for any reason and then subsequently included in the following month's figures are reassigned to the month of entry/exportation), and trade is reported as originally released by Commerce. Other reported figures may adjust import/export trade for carryover.
- The commodity groupings contained in this report are developed by the USITC and may differ from those used by other reporters.

Chapter 2 of the report summarizes U.S. merchandise trade that occurred in 1997, as compared with levels in 1996. Coverage of the individual merchandise sectors include data showing U.S. 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 year-to-year shifts that occurred in the major industrial and agricultural sectors.⁴

Chapter 3 provides analysis of the important shifts in U.S. trade with major trading partners. In addition, other current noteworthy trade developments involving specific countries or country groups are discussed. Chapter 4 analyzes factors affecting trends in selected industries/commodities that have been subject to specific monitoring requirements or recent bilateral agreements; affected importantly by longer range trends; or have been the subject of trade-remedy action.

Chapters 5 through 14 address specific major industrial and agricultural sectors, with each chapter providing both a general sector overview and in most cases, analyses of specific industry/commodity groups. These chapters also identify significant bilateral shifts in merchandise trade within each major sector. A statistical summary table of industry/commodity groups follows each major sector analysis.

The report includes four appendixes. Appendix A lists the specific industrial and agricultural commodity groups that the Commission monitors. Appendix B provides official and estimated data for 1993-97 on domestic

⁴See ch. 3 of the 1993 annual report for long-range assessments of common factors affecting trends in selected industry/commodity sectors. USITC, *U.S. Trade Shifts in Selected Industries: 1993 Annual Report* (investigation No. 332-345), USITC publication 2805, Sept. 1994.

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 components 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 this report. Appendix D discusses the effect of exchange rate shifts on trade, and summarizes the major changes in exchange rates that occurred in 1997.

**Table 1-1
USITC major sectors, HTS coverage, and code for industry/commodity groupings**

Major sector	HTS chapters¹	USITC code for industry/ commodity grouping²
Agricultural products	1-24, 35, 41, 43,51, 52	AG001-AG045, AG062-AG064
Forest products	14, 44-49	AG046-AG061
Chemicals and related products	13-15, 22, 25, 27-40	CH007-CH047
Energy-related products	27- 29, 34,36, 38	CH001-CH006
Textiles, apparel, and footwear	39, 40, 42, 43, 50-65	CH048-CH079
Minerals and metals	25, 26, 68-76,78-84	MM001-MM045
Machinery	84, 85, 87	MT003-MT010, MT013-MT024, MT026-MT029, MT031, MT032, MT034-MT036, MT045, MT046
Transportation equipment	84-89	MT001, MT002, MT011, MT012, MT025, MT030, MT033, MT037-MT044
Electronic products	37, 84, 85, 88, 90, 91	ST001-ST030
Miscellaneous manufactures	42, 66, 67, 71, 87, 92-97 . . .	MM046-MM067
Special provisions	98-99	none

¹Products in some chapters are divided between sectors; however, no products are in more than 1 sector. Chapter 77 of the HTS is not used (it is reserved for possible future use).

²This coding system is used by the U.S. International Trade Commission to identify major groupings of HTS headings/subheadings and corresponding export categories for trade monitoring purposes. See app. A for a list and title of each of these groupings, and app. B for industry and trade data for each grouping.

CHAPTER 2

U.S. Merchandise Trade Performance

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Total U.S. merchandise and services trade (exports plus imports) grew by \$180.0 billion (10 percent) to \$1,926.8 billion in 1997. Merchandise trade accounted for \$1,505.6 billion (78 percent) of total trade in 1997, and amounted to 19 percent of U.S. GDP.

The U.S. merchandise trade deficit widened by \$10.9 billion (5 percent) to \$219.2 billion in 1997, up from the \$208.3 billion deficit recorded in 1996 (table 2-1 and figure 2-1). U.S. exports rose by \$61.1 billion (11 percent) to \$643.2 billion, while imports increased by \$72.0 billion (9 percent) to \$862.4 billion. The ratio of exports and imports to total merchandise trade narrowed slightly to 43 and 57 percent, respectively.

Various internal and external economic factors influenced U.S. merchandise trade performance in 1997. The healthy U.S. economy boosted consumer confidence and encouraged an increase in consumer spending in the United States, which in turn spurred both U.S. production and imports. Changes in the relative level of interest rates and exchange rates between the United States and its trading partners also affected the merchandise trade balance. The real exchange rate of the dollar continued its medium-term appreciation in 1997, tending to induce a movement towards deficit in the U.S. merchandise trade balance. Other macroeconomic factors influencing the merchandise trade deficit include the continued decline in the U.S. Government budget deficit, which tended to induce a movement towards surplus in the merchandise trade balance. U.S. economic growth, as measured by GDP, was close to the rate of global economic growth; thus, the effect of differing growth rates on the aggregate merchandise trade balance was modest. The relatively small shift in the U.S. merchandise trade balance in 1997 can be explained in part by these offsetting factors. However, for particular U.S. trading partners, the effect of the above macroeconomic forces did induce a tendency for the merchandise trade balance to shift to a more significant degree.¹

Other economic factors, such as different growth rates in global economies and structural impediments in key foreign markets, may have a greater direct influence on trade shifts in particular product sectors within a given year, as well as on bilateral trade flows with particular partners. The East Asian financial crisis, which began in July 1997, was one of the important economic events of 1997; however, any effect on U.S. trade flows will not be readily apparent until 1998.² This report discusses a variety of product-specific developments in each industrial and agricultural chapter, and highlights important bilateral or multilateral developments in trade throughout the report.

¹See app. D for a more detailed discussion of the manner in which exchange rate shifts and other macroeconomic factors affect trade flows.

²See ch. 3 for a discussion of the Asian financial situation.

The expansion in the U.S. trade deficit during 1997 was led by substantial growth in the value of imports of automatic data processing machines (computer hardware), motor vehicles, medicinal chemicals, petroleum products, aircraft, and aircraft engines. Decreased exports of cereals, miscellaneous vehicles and equipment, and precious metals also contributed to the growth of the trade deficit. However, increases in U.S. exports of aircraft, semiconductors, computer hardware, certain motor-vehicle parts, radio transmission and reception apparatus, and aircraft engines served to minimize the expansion of the trade deficit. A sharp decrease in the value of U.S. imports of crude petroleum also mitigated growth of the deficit.

Table 2-1

U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Agricultural products	69,046	65,295	-3,752	-5.4
Forest products	25,509	25,964	455	1.8
Chemicals and related products	69,796	78,279	8,483	12.2
Energy-related products	14,401	15,165	764	5.3
Textiles and apparel	16,459	18,609	2,150	13.1
Footwear	761	802	42	5.5
Minerals and metals	40,392	43,103	2,711	6.7
Machinery	60,966	69,654	8,688	14.3
Transportation equipment	115,829	134,949	19,120	16.5
Electronic products	137,022	157,164	20,142	14.7
Miscellaneous manufactures	14,393	15,658	1,265	8.8
Special provisions	17,561	18,580	1,018	5.8
Total	582,137	643,222	61,085	10.5
U.S. imports for consumption:				
Agricultural products	41,526	45,839	4,313	10.4
Forest products	28,957	30,456	1,499	5.2
Chemicals and related products	58,378	66,065	7,687	13.2
Energy-related products	75,499	74,017	-1,482	-2.0
Textiles and apparel	52,268	60,794	8,527	16.3
Footwear	12,708	13,951	1,243	9.8
Minerals and metals	66,191	73,209	7,018	10.6
Machinery	63,115	68,731	5,616	8.9
Transportation equipment	142,822	155,836	13,014	9.1
Electronic products	180,543	195,699	15,156	8.4
Miscellaneous manufactures	42,515	48,954	6,440	15.1
Special provisions	25,946	28,874	2,928	11.3
Total	790,470	862,426	71,957	9.1
U.S. merchandise trade balance:				
Agricultural products	27,520	19,455	-8,065	-29.3
Forest products	-3,448	-4,492	-1,044	-30.3
Chemicals and related products	11,418	12,214	796	7.0
Energy-related products	-61,098	-58,852	2,246	3.7
Textiles and apparel	-35,809	-42,186	-6,376	-17.8
Footwear	-11,948	-13,149	-1,201	-10.1
Minerals and metals	-25,799	-30,106	-4,307	-16.7
Machinery	-2,149	923	3,072	(²)
Transportation equipment	-26,993	-20,887	6,106	22.6
Electronic products	-43,521	-38,535	4,986	11.5
Miscellaneous manufactures	-28,121	-33,296	-5,175	-18.4
Special provisions	-8,385	-10,294	-1,909	-22.8
Total	-208,333	-219,204	-10,871	-5.2

¹Import values are based on imports for consumption/customs value; export values are based on domestic export/f.a.s. value, U.S. port of export.

²Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

Insert figure 2-1

All major sectors except agricultural products, chemicals and related products, and machinery continued to experience deficits in 1997. For the first time since 1993, the machinery sector registered a trade surplus of \$923 million; in 1996 the sector experienced a \$2.1 billion deficit. The trade surplus in agricultural products shrank considerably in 1997 by \$8.1 billion (29 percent) to \$19.5 billion, while the surplus in chemicals and related products increased marginally by \$796 million (7 percent) to \$12.2 billion.

Besides the machinery sector, transportation equipment, electronic products, and energy-related products experienced reductions in their respective U.S. sectoral deficit in 1997. The deficit reductions were as follows: \$6.1 billion (23 percent) to \$20.9 billion in transportation equipment; \$5.0 billion (12 percent) to \$38.5 billion in electronic products; and \$2.2 billion (4 percent) to \$58.9 billion in energy-related products. The reduction in the sectoral deficit in electronic products, transportation equipment, and machinery continues from 1996. Trade in energy-related products improved in 1997 after a significant deficit increase in 1996. Beyond these four sectors, the trade deficit in all other sectors expanded in 1997. Notable deficit increases were registered in the textiles and apparel sector, which grew by \$6.4 billion (18 percent) to \$42.2 billion; miscellaneous manufactures, which expanded by \$5.2 billion (18 percent) to \$33.3 billion; and minerals and metals, which increased by \$4.3 billion (17 percent) to \$30.1 billion.

U.S. IMPORTS

U.S. imports rose in every major industry/commodity sector during 1997, with the exception of energy-related products, which decreased by \$1.5 billion (2 percent) to \$74.0 billion (table 2-1 and figure 2-2). The fall in U.S. imports of energy-related products was mainly attributable to the decline in the value of crude petroleum imports due to an average \$2 per barrel price decrease during 1997. A substantial portion of the \$72.0 billion increase in total imports was accounted for by higher imports in five major sectors: electronic products, up by \$15.2 billion (8 percent) to \$195.7 billion; transportation equipment, up by \$13.0 billion (9 percent) to \$155.8 billion; textiles and apparel, up by \$8.5 billion (16 percent) to \$60.8 billion; chemicals and related products, up by \$7.7 billion (13 percent) to \$66.1 billion; and minerals and metals, up by \$7.0 billion (11 percent) to \$73.2 billion. Together these sectors accounted for 64 percent (\$551.6 billion) of total imports in 1997, and 71 percent (\$51.4 billion) of the total increase.

The main product groups exhibiting growth in U.S. imports of electronic products included computer hardware, which rose by \$8.5 billion (14 percent) to \$70.0 billion in 1997; apparatus for making, breaking, protecting or connecting electrical circuits, which grew by \$1.1 billion (13 percent) to \$10.0 billion; and telephone and telegraph apparatus, which increased by a comparable amount, \$1.1 billion (13 percent) to \$9.3 billion. The rise in imports of computer hardware reflects intense competition among U.S. computer vendors, which contributed to significantly lower prices of computers and peripherals, thus fueling U.S. demand and increasing the total value of imports. Expanding imports of apparatus for making, breaking, protecting or connecting electrical circuits resulted from increased production sharing output (particularly from Mexico) as well growing imports from Taiwan and China. Rising telephone and telegraph apparatus imports in 1997 mirrored steady growth in the U.S. telecommunications market.

The main product areas driving the increase in imports of transportation equipment were motor vehicles, which grew by \$5.9 billion (7 percent) to \$93.0 billion; aircraft, spacecraft, and related equipment, which rose by \$2.1 billion (29 percent) to \$9.5 billion; and aircraft engines and turbines, which increased by \$2.1 billion (34 percent) to \$8.4 billion in 1997. Imports of motor vehicles from the North American Free-Trade Agreement (NAFTA) countries and Japan, the largest U.S. trading partners in this sector, led the growth as a result of increasing integration of North American automobile production facilities, a depreciating yen against the U.S. dollar, and the continuing Japanese recession that prompted Japanese automakers to export their excess capacity. Increased civilian aircraft and aircraft parts imports were fueled by aggressive efforts by U.S. passenger airlines to meet their fleet replacement needs. Likewise, growth in the U.S. regional and

Insert figure 2-2

business jet aircraft market spurred demand for aircraft engine imports. The transportation equipment and electronic products sectors continued to constitute the largest import categories in 1997, accounting for 18 and 23 percent of total imports, respectively.

The increase in U.S. imports of textile and apparel products, which led to a \$6.4 billion (18 percent) increase in the sectoral trade deficit (\$42.2 billion in 1997), is largely a result of the continued expansion of production-sharing activity with Mexico and the Caribbean Basin countries. Also, rebounding imports from China and other Asian countries contributed significantly to the increase in imports. Industry sources attribute the growth to a strong U.S. economy and the appreciation of the dollar against Asian currencies. International trade agreements and preferential programs have also impacted U.S. trade flows in textiles and apparel. Particularly relevant to rising U.S. imports in textiles and apparel is the WTO Agreement on Textiles and Clothing (ATC), which began a 10-year phase-out of textiles and apparel quotas in 1995.

Surplus inventory among European producers, the continuing effects of the elimination of duties on most medicinal chemical products (pharmaceuticals) as a result of the Uruguay Round Agreement in 1995, and increasing efforts by U.S. drug companies to outsource their production, all contributed to an increase in U.S. imports of pharmaceuticals in 1997, which represented the main product category fueling the growth in total U.S. imports of the chemicals and related products sector. Imports of pharmaceuticals rose by \$3.0 billion (27 percent) to \$14.2 billion in 1997. This rise also led to a significant expansion in the trade deficit in pharmaceuticals, which expanded by \$1.2 billion (45 percent) to \$3.8 billion in 1997. Total sector imports also increased as a result of significant growth in imports of general organic chemicals, which rose by \$2.1 billion (18 percent) to \$13.8 billion, and plastic and rubber (raw materials and finished products), which increased by \$1.5 billion (7 percent) to \$21.2 billion.

The rise in U.S. imports of minerals and metals was driven primarily by increased imports of natural and synthetic gemstones, which grew by \$1.2 billion (16 percent) to \$8.6 billion in 1997. The continued strength of the U.S. economy, which increased real disposable personal income and heightened consumer confidence, is the main reason for this increase in imports, as gemstones are considered luxury items. The growth in U.S. imports in this product category was led by particularly strong demand for diamonds at slightly higher prices in 1997, as well as increased imports of pearls, colored gemstones, and synthetic gemstone products. Lesser increases in imports of steel mill products, which grew by \$846 million (7 percent) to \$13.6 billion; imports of chain and miscellaneous products of base metal, which rose by \$813 million (16 percent) to \$5.9 billion; and imports of precious metals and related articles, which increased by \$539 million (10 percent) to \$5.8 billion, also fueled sector imports.

U.S. EXPORTS

In 1997, U.S. exports grew in all major sectors except agricultural products, which recorded a decrease of \$3.8 billion (5 percent) to \$65.3 billion in 1997 (table 2-1 and figure 2-2). The bulk of the reduction in U.S. exports of agricultural products was accounted for by cereals (mostly wheat and corn), exports of which fell by \$5.7 billion (34 percent) to \$11.0 billion in 1997. A number of factors were responsible, including increased foreign production to serve domestic markets, lower world grain prices due to plentiful global supplies, and shifts to third country suppliers. The main export growth occurred in electronic products (up by \$20.1 billion, or 15 percent, to \$157.2 billion), followed closely by transportation equipment (up by \$19.1 billion, or 17 percent, to \$134.9 billion), which was the leading growth sector in 1996. Other sectors that experienced significant export growth include machinery (up by \$8.7 billion, or 14 percent, to \$69.7 billion) and chemicals and related products (up by \$8.5 billion, or 12 percent, to \$78.3 billion). These four sectors accounted for 68 percent (\$440.0 billion) of total exports and 92 percent (\$56.4 billion) of the total increase in exports in 1997.

The growth in electronic product exports was fueled by large increases in the following product areas:

diodes, transistors, integrated circuits, and similar semiconductor solid-state devices (semiconductors) (up \$4.9 billion, or 20 percent, to \$29.0 billion); computer hardware (up \$3.8 billion, or 10 percent, to \$41.8 billion); measuring, testing, controlling and analyzing instruments (certain measuring instruments) (up \$2.0 billion, or 16 percent, to \$14.6 billion); and medical goods (up \$1.0 billion, or 10 percent, to \$11.2 billion). The surge in semiconductor exports is largely a function of increasing global demand for computer and telecommunications equipment. The growth in computer hardware exports reflects strong international demand for U.S.-made computer products (an area where U.S. producers excel), aggressive pricing by U.S. distributors, and increased Internet usage worldwide. Exports of certain measuring instruments rose on the strength of increased spending in emerging industrial nations on research and development projects, capital equipment, and construction and increased demand for high-quality, leading-edge technology instruments from U.S. manufacturers to improve productivity. Finally, while exports of medical goods increased, the rise was not as significant as in past years, largely because fiscal concerns in Japan (the United States' largest export market for medical goods) have resulted in smaller allocations of the national budget to health care, thus diminishing Japanese demand for imports of these products.

The surge in exports of transportation equipment in 1997 was caused mainly by a rise in aircraft exports, which increased by \$7.9 billion (26 percent) to \$38.7 billion; motor-vehicle parts, which grew by \$3.5 billion (16 percent) to \$26.3 billion; and aircraft engines, which rose by \$2.6 billion (29 percent) to \$11.6 billion. The rise in aircraft exports represented the single largest shift in U.S. merchandise trade in 1997, in terms of value, among all product categories. Increased earnings of foreign air carriers, coupled with airline projections showing an increased demand for air-transport services by the general public, fueled demand for U.S. large civilian aircraft in 1997, mainly in the United Kingdom, Japan, and Saudi Arabia. Exports of certain motor-vehicle parts increased on the strength of U.S. exports to the NAFTA partners, reflecting increased integration of the North American automotive industry and production sharing relationships between the three countries. Electronic products and transportation equipment continued to constitute the largest export product categories in 1997, representing 24 and 21 percent of total exports, respectively.

The rise in machinery exports in 1997 was fueled by farm and garden machinery, exports of which grew by \$1.0 billion (21 percent) to \$5.9 billion; air conditioner equipment and parts, which increased \$738 million (15 percent) to \$5.7 billion; and miscellaneous machinery, up by \$657 million (12 percent) to \$6.1 billion in 1997. Other significant increases were reported in exports of electrical transformers, static converters and inductors (up \$557 million, or 29 percent, to \$2.5 billion) as well as insulated electrical wire and cable (up \$556 million, or 14 percent, to \$4.5 billion). A number of factors help explain the rise in machinery exports. North American trade in machinery is extensive; rationalization of production operations in Mexico by U.S. producers, as well as the high level of integration between U.S. and Canadian companies (many of which are U.S. subsidiary operations) have contributed to the rise in exports. Also, continued efforts by developing nations, particularly in Asia and Latin America, to implement infrastructure and industrial capacity improvements have intensified, spurring increased machinery purchases from U.S. producers.

Exports of chemicals and related products rose in 1997 primarily on the strength of increased exports of pharmaceuticals, which grew by \$1.8 billion (21 percent) to \$10.3 billion. The U.S. pharmaceutical industry benefitted from the release of a large number of newly approved products in 1997, which tended to command high retail prices. The combination of higher drug prices, increased demand by aging populations, and an industry environment conducive to trade, has contributed to the continued rise in U.S. exports, particularly to Japan.

U.S. BILATERAL TRADE

U.S. bilateral trade with the largest U.S. trading partners in 1997 is shown in table 2-2 and figure 2-3. Table 2-3 indicates the leading U.S. import and export products for the largest bilateral trading partners. While trade deficits with China, Japan, Germany, Taiwan, and France expanded in 1997, deficits narrowed with other major trading partners, including Canada, Mexico, and Singapore. Among major trading partners, the United States again registered a trade surplus with the United Kingdom and Korea. The trade position with the United Kingdom increased for the second year in a row by \$1.5 billion (1,414 percent) to \$1.6 billion in 1997, led in part by increases in exports of aircraft, which grew by \$2.8 billion (125 percent) to \$5.1 billion. However, the trade surplus with Korea declined by \$1.6 billion (54 percent) to \$1.3 billion.

Four years after the implementation of the NAFTA, total U.S. trade with Canada and Mexico continued to increase. Canada remains the United States' primary trading partner with total trade of \$302.7 billion in 1997. Exports to Canada expanded by \$15.7 billion (13 percent) to \$134.8 billion, while imports from Canada increased by \$11.6 billion (7 percent) to \$167.9 billion. Mexico was the third-largest source of U.S. imports and the second-largest U.S. export market in 1997. U.S. imports from Mexico rose by \$10.8 billion (15 percent) to \$85.0 billion. Reflecting the Mexican economy's continued recovery from the peso devaluation of 1994-95, U.S. exports to Mexico increased by \$13.7 billion (25 percent) to \$68.4 billion.

The trade deficit with the Asian Pacific Rim countries³ widened by \$18.5 billion (16 percent) to \$135.2 billion in 1997; expanding deficits with China and Japan were the major contributors to the total U.S. trade deficit with this group. The deficit with the European Union (EU) also grew in 1997, by \$2.4 billion (11 percent) to \$24.1 billion. However, the U.S. trade deficit with Latin America narrowed substantially, by \$9.3 billion (52 percent) to \$8.4 billion in 1997, largely on the strength of increased U.S. exports to Mexico and Brazil. In addition, the trade deficit with the Organization of Petroleum Exporting Countries (OPEC) decreased by \$1.9 billion (10 percent) to \$17.4 billion in 1997, primarily due to reductions in the price of crude petroleum.

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, 1996 and 1997¹

³See app. C for a list of political entities considered part of the Asian Pacific Rim, as well as other political entities/countries included in selected country groupings.

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	119,123	134,794	15,671	13.2
Japan	63,585	62,091	-1,493	-2.3
Mexico	54,686	68,393	13,707	25.1
China	11,801	12,533	732	6.2
United Kingdom	28,678	33,987	5,309	18.5
Germany	22,191	23,136	945	4.3
Taiwan	16,920	18,883	1,963	11.6
Korea	25,433	24,287	-1,146	-4.5
Singapore	14,677	15,697	1,020	7.0
France	13,544	15,122	1,577	11.6
All Other	211,498	234,298	22,801	10.8
Total	582,137	643,222	61,085	10.5
EU-15	119,719	131,751	12,032	10.1
OPEC	21,555	24,826	3,271	15.2
Latin America	105,056	128,815	23,759	22.6
CBERA	15,375	17,808	2,433	15.8
Asian Pacific Rim	183,534	190,428	6,894	3.8
ASEAN	40,235	45,204	4,969	12.4
Central and Eastern Europe	2,485	3,043	558	22.4
U.S. imports for consumption:				
Canada	156,299	167,881	11,582	7.4
Japan	114,762	120,480	5,718	5.0
Mexico	74,179	85,005	10,826	14.6
China	51,209	61,996	10,787	21.1
United Kingdom	28,574	32,412	3,838	13.4
Germany	39,215	42,793	3,578	9.1
Taiwan	29,797	32,474	2,677	9.0
Korea	22,532	22,939	407	1.8
Singapore	20,249	19,982	-267	-1.3
France	17,914	20,126	2,211	12.3
All Other	235,740	256,339	20,599	8.7
Total	790,470	862,426	71,957	9.1
EU-15	141,455	155,890	14,436	10.2
OPEC	40,784	42,197	1,413	3.5
Latin America	122,817	137,260	14,443	11.8
CBERA	14,545	16,572	2,028	13.9
Asian Pacific Rim	300,270	325,618	25,348	8.4
ASEAN	65,955	70,336	4,381	6.6
Central and Eastern Europe	2,799	3,649	849	30.3
U.S. merchandise trade balance:				
Canada	-37,176	-33,087	4,088	11.0
Japan	-51,177	-58,389	-7,211	-14.1
Mexico	-19,493	-16,612	2,882	14.8
China	-39,408	-49,462	-10,054	-25.5
United Kingdom	104	1,575	1,471	1,414.4
Germany	-17,024	-19,657	-2,634	-15.5
Taiwan	-12,877	-13,591	-715	-5.6
Korea	2,902	1,348	-1,553	-53.5
Singapore	-5,572	-4,284	1,288	23.1
France	-4,370	-5,004	-634	-14.5
All Other	-24,242	-22,041	2,201	9.1
Total	-208,333	-219,204	-10,871	-5.2
EU-15	-21,735	-24,139	-2,404	-11.1
OPEC	-19,230	-17,372	1,858	9.7
Latin America	-17,761	-8,445	9,316	52.5
CBERA	830	1,235	406	48.9
Asian Pacific Rim	-116,736	-135,189	-18,453	-15.8
ASEAN	-25,720	-25,132	588	2.3
Central and Eastern Europe	-314	-606	-292	-93.0

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997.

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

Insert figure 2-3

Table 2-3
Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Passenger cars Crude petroleum Motor vehicle parts Trucks	Motor vehicle parts Passenger cars Computer hardware, excluding parts Trucks
Japan	Passenger cars Computer hardware, excluding parts Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers	Computer hardware, excluding parts Aircraft and spacecraft Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers
Mexico	Passenger cars Crude petroleum Insulated wire and cable Trucks	Motor vehicle parts Electronic integrated circuits, microassemblies, and parts Insulated wire and cable Computers hardware, excluding parts
China	Certain toys Footwear Computer hardware, excluding parts Reception apparatus for radiotelephony, radio telegraphy, and radio broadcasting	Aircraft and spacecraft Fertilizers Cotton, not carded or combed Soybeans
Germany	Passenger cars Therapeutic/prophylactic medicaments, in dosages Motor vehicle parts Turbojets, turbopropellers, other gas turbines, parts	Computer hardware, excluding parts Parts for office machines and computers Aircraft and spacecraft Passenger cars
United Kingdom	Turbojets, turbopropellers, other gas turbines, parts Passenger cars Computer hardware, excluding parts Therapeutic/prophylactic medicaments, in dosages	Aircraft and spacecraft Computer hardware, excluding parts Parts for office machines and computers Turbojets, turbopropellers, other gas turbines, parts
Korea	Electronic integrated circuits, microassemblies, and parts Computer hardware, excluding parts Parts for office machines and computers Passenger cars	Electronic integrated circuits, microassemblies, and parts Aircraft and spacecraft Miscellaneous machinery and parts Computer hardware, excluding parts
Taiwan	Computer hardware, excluding parts Parts for office machines and computers Electronic integrated circuits, microassemblies, and parts Iron or steel screws, bolts, nuts, washers, etc.	Electronic integrated circuits, microassemblies, and parts Aircraft and spacecraft Miscellaneous machinery and parts Corn
Singapore	Computer hardware, excluding parts Parts for office machines and computers Electronic integrated circuits, microassemblies, and parts Heterocyclic compounds	Electronic integrated circuits, microassemblies, and parts Aircraft and spacecraft Parts for office machines and computers Prepared unrecorded media
France	Turbojets, turbopropellers, other gas turbines, parts Aircraft and spacecraft Hand paintings and drawings Wine	Turbojets, turbopropellers, other gas turbines, parts Parts for office machines and computers Computer hardware, excluding parts Aircraft and spacecraft parts

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and comparable export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

International Trade and GDP

Table 2-4 shows the relative sizes of the major trading partner economies, U.S. trade, U.S. trade balance, and the balance of the bilateral deficit or surplus as a ratio to the U.S. GDP for the major partner countries. A summary of the significant shifts in trade with these countries is presented in the following section of this chapter. The total U.S. merchandise trade deficit was equal to 2.7 percent of the nominal U.S. GDP in 1997, little changed from the ratio for 1996; the bilateral deficit with Japan (the largest for the United States) represented 0.7 percent of nominal U.S. GDP in 1997.

Table 2-4
U.S. bilateral merchandise trade balances with major partners, in dollars and as a ratio to nominal U.S. gross domestic product (GDP), 1997

Partner	Nominal GDP	U.S. imports	U.S. exports	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	8,083	862,426	643,222	-219,204	-2.71
Canada	610	167,881	134,794	-33,087	-0.41
Mexico	410	85,005	68,393	-16,612	-0.21
China	893	61,996	12,533	-49,462	-0.61
United Kingdom	1,092	32,412	33,987	1,575	0.02
Japan	4,215	120,480	62,091	-58,389	-0.72
Taiwan	288	32,474	18,883	-13,591	-0.17
Germany	2,108	42,793	23,136	-19,657	-0.24
France	1,376	20,126	15,122	5,004	-0.01
Brazil	790	9,510	15,001	5,491	0.07
Philippines	84	10,419	7,137	-3,282	-0.04

Source: U.S. trade data compiled from official statistics of the U.S. Department of Commerce; estimated GDP data for Canada, Japan, Mexico, China, United Kingdom, Germany, Taiwan, France, Brazil and the Philippines are from U.S. Department of State, *Country Reports on Economic Policy and Trade Practices* (Washington, DC: GPO, 1997), found at Internet address http://www.state.gov/www/issues/economic/trade_reports/, retrieved Apr. 28, 1998. GDP data for the United States are from International Monetary Fund, *International Financial Statistics* (Washington, DC: IMF Publication Services, Mar. 1998).

Both U.S. import and U.S. export trade (merchandise and services) became a larger component of the U.S. economy during 1993-97 (table 2-5). This reflects growth in total U.S. imports of 47 percent to \$1.1 trillion and total U.S. exports of 45 percent to \$957 billion, while the nominal U.S. GDP rose 23 percent to \$8.1 trillion during the period.

Table 2-5
Components of U.S. GDP and trade as a share of GDP, 1993-97

Component	1993	1994	1995	1996	1997
Personal consumption expenditures	<i>Value (billion current dollars)</i>				
<i>Goods</i>	1,900.9	2,007.0	2,084.3	2,169.2	2,251.3
<i>Services</i>	2,558.4	2,709.1	2,873.4	3,038.4	3,234.5
Gross private domestic investment	876.2	1,007.9	1,038.2	1,116.5	1,242.5
Exports	658.6	721.2	818.4	870.9	957.1
<i>Goods</i>	439.3	481.9	546.5	582.1	643.2
<i>Services</i>	219.3	239.3	271.9	288.8	313.9
Imports (-)	-719.3	-812.1	-904.5	-965.7	-1,058.1
<i>Goods (-)</i>	-574.9	-657.9	-740.0	-790.5	-862.4
<i>Services (-)</i>	-144.4	-154.2	-164.5	-175.2	-195.7
Government consumption expenditures and gross investment	1,283.4	1,313.0	1,355.5	1,406.7	1,452.7
Gross Domestic Product	6,558.1	6,947.0	7,265.4	7,636.0	8,079.9
	<i>Percent</i>				
Imports as a share of GDP	11.0	11.7	12.4	12.6	13.1
Exports as a share of GDP	10.0	10.4	11.3	11.4	11.8

Source: Official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis.

Comparing both total merchandise import and export trade as a share of GDP for the United States and selected trading partners indicates that each is a smaller component of GDP for the U.S. than it is for major U.S. trading partners, with the exception of Japanese merchandise imports (table 2-6). Global merchandise trade accounts for a smaller portion of GDP for the United States and Japan, the two largest economies in the world, than for Canada, Mexico, or Germany (table 2-6). While the ratio of merchandise imports to GDP was slightly higher for the United States than for Japan in 1997 (10.7 percent compared with 8.1 percent), it was roughly one-third the comparable ratio for Canada (31.7 percent) and one half the ratio for Germany (20.4 percent). In terms of exports as a share of GDP, the United States (8.0 percent) lagged significantly behind Canada (34.7 percent), Germany (24.3 percent), and Mexico (16.1 percent). These U.S. trading partners each have benefitted from sustained growth in the U.S. economy which provided a strong market for their exports in recent years.

Table 2-6
Merchandise trade as a share of GDP for the United States and selected trading partners, 1993-97
(Percent)

Country	1993	1994	1995	1996	1997
Merchandise imports as a share of GDP:					
United States	8.8	9.5	10.2	10.4	10.7
Canada	24.5	27.6	28.6	28.4	31.7
Mexico	12.2	14.5	15.7	17.7	17.6
Japan	5.6	5.9	6.5	7.6	8.1
Germany	17.6	18.3	18.7	19.0	20.4
Merchandise exports as a share of GDP:					
United States	6.7	6.9	7.5	7.6	8.0
Canada	26.3	30.2	33.5	33.5	34.7
Mexico	7.5	8.2	16.5	17.7	16.1
Japan	8.5	8.4	8.6	8.9	10.0
Germany	20.0	20.9	21.7	22.3	24.3

Source: Compiled from official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis, and statistics of the International Monetary Fund, *International Financial Statistics*, vol. 51, No. 5, May 1998.

The decrease in Mexican exports as a share of GDP from 17.7 percent in 1996 to 16.1 percent in 1997 reflects the resurgence of the Mexican economy, which grew by 7.0 percent in 1997. Expanded demand in Mexico helped boost U.S. exports to that country by 26 percent in 1997 over 1996, compared with an overall growth in U.S. merchandise exports of 10.5 percent. However, the share of Mexican GDP that was exported doubled in 1995 over 1994 as the devaluation of the peso relative to the U.S. dollar reduced labor costs in Mexico and provided an incentive for expanded use of assembly plants in Mexico by U.S. and other foreign investors (table 2-6). That, in turn, contributed to the sharp rise in Mexico's exports to the United States in 1995.

A comparison of the cumulative percentage point growth in the share of each country's merchandise import and export trade to nominal GDP during 1993-97 is shown in the following tabulation, which reflects smaller growth relative to U.S. GDP than for increases of these ratios relative to the GDP for selected major U.S. trading partners (based on the nominal value of the country's currency).

Percentage-point increase in the ratio of each country's merchandise trade to nominal GDP, 1993-97

<u>Country</u>	<u>Imports</u>	<u>Exports</u>
United States	1.9	1.3
Canada	7.2	8.4
Mexico	5.4	8.6
Japan	2.5	1.5
Germany	2.8	4.3

SUMMARIES OF SIGNIFICANT BILATERAL/MULTILATERAL SHIFTS

Among the 10 U.S. trading partners that accounted for the largest shifts in bilateral trade during 1996-97 (table 2-7),⁴ the United States experienced an improvement in its bilateral trade balance with Canada, Mexico, Brazil, and the United Kingdom. The deficit with China represented the largest bilateral trade position decline with any country in 1997, surging by \$10.1 billion (26 percent) to \$49.5 billion. After registering a significant trade position improvement in 1996, the deficit with Japan widened by \$7.2 billion (14 percent) to \$58.4 billion in 1997.

Taiwan, France, Brazil, and the Philippines appeared on the list of 10 countries that registered the largest shifts in 1997, displacing Venezuela, Saudi Arabia, Singapore, and Korea, which appeared on the 1996 list. Large increases in both imports from and exports to Taiwan, France, Brazil, and the Philippines in 1997 merited inclusion on this list.

Table 2-7
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 1996-97

(Million dollars)

Rank	Partner	Change in exports	Change in imports	Total change ¹	Change in bi-lateral balance ²
1	Canada	15,671	11,582	27,253	4,088
2	Mexico	13,707	10,826	24,533	2,882
3	China	732	10,787	11,519	-10,054
4	United Kingdom	5,309	3,838	9,147	1,471
5	Japan	-1,493	5,718	7,211	-7,211
6	Taiwan	1,963	2,677	4,640	-715
7	Germany	945	3,578	4,523	-2,634
8	France	1,577	2,211	3,789	-634
9	Brazil	3,081	639	3,720	2,442
10	Philippines	1,314	2,245	3,559	-931

¹This equals the absolute value of the change in exports plus the absolute value of the change in imports.

²This equals the change in exports minus the change in imports.

Note.--Calculations based on unrounded data.

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

An analysis of the underlying factors and the leading products responsible for trade shifts for each of the 10 countries is provided in chapter 3. A summary of these analyses is provided in table 2-8. Chapter 3 also contains an examination of three country groups that have not experienced a large trade shift in 1997, but are undergoing developments with potentially important implications for U.S. trade flows. The developments impacting these country groups are as follows: (1) the East Asian financial crisis, which began in July 1997, is widely expected to impact U.S.-Asian trade flows in 1998; (2) the factors underlying steadily increasing U.S.

⁴The countries are ranked based on the absolute value of the total change in the value of both U.S. imports and exports (i.e., the change in imports is added to the change in exports, disregarding the negative signs). The effect on the bilateral trade balance with each country is also shown on the table (for example, if the change in imports from a certain country was greater than the change in exports to that country, then the bilateral effect would be to increase the U.S. trade deficit with the country).

trade with the Mercosur countries;⁵ and (3) sustained growth in U.S. trade with Sub-Saharan African countries.

Table 2-8

Summary of significant bilateral/multilateral shifts during 1996-97

CANADA

- Total U.S. trade with Canada in 1997 was \$302.7 billion (20 percent of total U.S. merchandise trade).
- The growing Canadian economy and sustained job creation in 1997 contributed to the decline in the U.S. trade deficit with Canada, which decreased by \$4.1 billion (11 percent) to \$33.1 billion. Canadian economic growth was supported by low interest rates, Canadian demand for housing and consumer durables, and economic growth in the United States and the EU, which stimulated demand for Canadian exports.
- The transportation sector accounted for 30 percent of the increase of U.S. imports from Canada in 1997. The U.S.-Canadian auto industry is fully integrated, as U.S. automakers consider the United States and Canada to be a single unit for production planning purposes. U.S. imports of civil aircraft increased to meet U.S. demand and reflects Canada's position as a notable world supplier.
- U.S. exports to Canada grew by \$15.7 billion (13 percent) to \$134.8 billion in 1997. Leading Canadian markets for U.S. merchandise included motor vehicles, machinery and equipment, steel, gold, and electronic products. U.S. exports were aided by increased Canadian demand as unemployment declined and the economy continued its recovery.

MEXICO

- Total U.S. trade with Mexico in 1997 was \$153.4 billion (10 percent of total U.S. merchandise trade).
- The U.S. trade balance with Mexico improved for the first time since 1992 as exports to Mexico again achieved record growth in 1997 (up \$13.7 billion, or 25 percent, to \$68.4 billion). Imports from Mexico also increased (\$10.8 billion, or 15 percent, to \$85.8 billion), reflecting the continuing effects of the peso devaluation of 1994-95 which lowered the cost of Mexican labor and Mexican exports.
- Mexico was the third-largest source of U.S. imports in 1997. The NAFTA continued to facilitate two-way trade between Mexico and the United States by reducing and/or eliminating tariffs. NAFTA's rules of origin encourage firms to use U.S.-made components in order to qualify for duty-free entry to the United States. Sectors that gained the most included electronic products, apparel, machinery, and transportation equipment.
- U.S. exports to Mexico are boosted by regional intra-industry trade and the continued growth of the maquiladora industry, both of which contribute to demand for U.S. products. U.S. sector exports experiencing the greatest growth included transportation equipment, electronic products, apparel, and petroleum products.

CHINA

- Total U.S. trade with China in 1997 was \$74.5 billion (5 percent of total U.S. merchandise trade).
- The United States registered a deficit in its merchandise trade balance with China for the 14th consecutive year in 1997, as U.S. imports increased by \$10.8 billion (21 percent), although U.S. exports increased by \$732 million (6 percent).
- U.S. exports to China are constrained by Chinese policies that restrict imports and are inhibited by competition from suppliers in the Asia Pacific Rim region. Such policies include the use of high tariffs and other taxes; nontariff measures, and limitations on which enterprises can import. Some U.S. producers have established manufacturing operations in China for technologically advanced goods in order to gain access to the Chinese market.
- Strong demand in the United States led to significant increases in U.S. imports of computer hardware, toys, apparel, and footwear from China. The United States was China's second-largest foreign market, after Japan, in 1997.

⁵Argentina, Brazil, Paraguay, and Uruguay.

Table 2-8--Continued
Summary of significant bilateral/multilateral shifts during 1996-97

UNITED KINGDOM

- Total U.S. trade with the United Kingdom in 1997 was \$66.4 billion (4 percent of total U.S. merchandise trade).
- The rise in trade between the United States and the United Kingdom was due in part to strong economic growth and robust private demand in both countries. The improvement in the U.S. trade balance with the United Kingdom was aided by the strengthening of the pound against the dollar.
- Imports and exports of aircraft, aircraft engines, computer hardware, and medicinal chemicals led the increase in trade between the United States and the United Kingdom, reflecting the importance of intra-industry trade. The United States maintained its position as the leading trading partner for the United Kingdom in 1997.

JAPAN

- Total U.S. trade with Japan in 1997 was \$182.6 billion (12 percent of total U.S. merchandise trade).
- The deterioration of the U.S. bilateral trade deficit with Japan in 1997, following the 1996 trade position improvement, was the result of an increase in imports of \$5.8 billion (5 percent) to \$120.5 billion, while exports decreased by \$1.5 billion (2 percent) to \$62.1 billion.
- The overall rise in U.S. imports, led by video and arcade games, reflected the continued strength of the U.S. economy and the weakening of the yen against the dollar. Additional import growth occurred in the motor vehicles sector, as U.S. demand for sport utility vehicles remained strong in 1997.
- Domestic demand in Japan remained weak in 1997, contributing in part to a slight decrease in U.S. exports. The sectors experiencing the most significant declines include motor vehicles, lumber, and corn. However, exports of large civil aircraft rose by \$1.1 billion, as aircraft ordered in prior years were delivered.
- A tax increase in Japan on April 1, 1997 froze consumer spending and further hindered economic growth. After the failure of several financial institutions, the Government of Japan initiated several measures late in 1997 designed to stabilize the economy, including a \$77 billion bank rescue plan and corporate and consumer tax cuts.

TAIWAN

- Total U.S. trade with Taiwan in 1997 was \$51.4 billion (3 percent of total U.S. merchandise trade).
- U.S. imports from Taiwan in 1997 rose by \$2.7 billion (9 percent) to \$32.5 billion. Continuing the trend of recent years, computer hardware and electronic integrated circuits, microassemblies, and parts accounted for 39 percent of this total and 70 percent of the growth in U.S. imports from Taiwan in 1997. Other leading growth sectors included television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus; electric transformers, static converters and inductors; and printed circuits.
- The increase in U.S. exports of aircraft to Taiwan reflected the expansion of Taiwan's civilian and military air fleets. Exports of corn declined, as much of Taiwan's hog population was destroyed due to an outbreak of foot-and-mouth disease. Overall, U.S. exports to Taiwan increased by \$2.0 billion (12 percent) to \$18.9 billion in 1997.

GERMANY

- Total U.S. trade with Germany in 1997 was \$65.9 billion (4 percent of total U.S. merchandise trade).
- The expansion of the U.S. bilateral trade deficit with Germany reflected the strengthening of the dollar against the deutschemark and German efforts to use exports to improve the Germany economy. German unemployment hit record post-war levels during 1997, dampening demand for U.S. exports as consumption stagnated.
- Trade between the U.S. and Germany continued to be dominated by U.S. imports of motor vehicles, which reached \$9.8 billion in 1997. Other areas of significant growth included pharmaceuticals as U.S. companies turned to European third-party sources of fine chemicals and custom manufacturing to supplement U.S. capabilities.

Table 2-8--Continued
Summary of significant bilateral/multilateral shifts during 1996-97

FRANCE

- Total U.S. trade with France in 1997 was \$35.2 billion (2 percent of total U.S. merchandise trade).
- The U.S. trade deficit with France increased by \$634 million (15 percent) as the value of U.S. imports of French goods outpaced U.S. exports to France. Overall, France is the 10th-largest trading partner of the United States.
- Aircraft and aircraft parts are the single largest trade category between both nations, accounting for 20 percent of U.S. imports from France and 17 percent of U.S. exports to France in 1997. This trend has emerged in recent years due to the growing influence of Airbus Industrie and the joint U.S.-French ownership of aircraft engine manufacturer CFM International.

BRAZIL

- Total U.S. trade with Brazil in 1997 was \$24.5 billion (1.6 percent of total U.S. merchandise trade).
- Although U.S. imports from Brazil grew by just 7 percent, one-third of the increase was attributable to imports of coffee. U.S. imports of Brazilian coffee expanded by \$204 million (80 percent) to \$459 million, due in part to higher prices. In addition to primary products such as coffee, gold, and lumber, the United States imported from Brazil manufactured products that included aircraft, motor vehicle engines, and footwear.
- The U.S. trade surplus with Brazil in 1997 reflects Brazil's position as the 11th-leading destination for U.S. goods, accounting for 2.3 percent of all U.S. exports in 1997 and 5 percent of the total increase in U.S. exports. Mechanical and electrical equipment for Brazil's growing industrial base made up one-half of total U.S. exports to Brazil. Principal sectors included the aircraft and automotive industries.

PHILIPPINES

- Total U.S. trade with the Philippines in 1997 was \$17.6 billion (1 percent of total U.S. merchandise trade).
 - A major portion of U.S. imports of computer hardware and semiconductors from the Philippines is intracompany trade of U.S. firms with assembly facilities in the Philippines. U.S. imports of electronic products rose by \$1.9 billion (41 percent) to \$6.4 billion, accounting for 62 percent of total imports from the Philippines.
 - U.S. exports to the Philippines resemble imports, as U.S. electronic components are sent to U.S.-affiliated production sharing operations for assembly and re-export. These trade flows reflect strong U.S. demand for electronic products.
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Source: Compiled by the staff of the U.S. International Trade Commission.

SUMMARIES OF SIGNIFICANT COMMODITY SHIFTS

The industry/commodity groupings with the most significant shifts during 1996-97 are summarized in tables 2-9 through 2-14. These shifts are presented in rank order according to changes in absolute value and in percentage terms between 1996 and 1997 for U.S. export growth and declines (tables 2-9 and 2-10), U.S. import growth and declines (tables 2-11 and 2-12), and U.S. trade position increases and declines (tables 2-13 and 2-14).

The top three industry/commodity groupings contributing to the 1997 deficit continued to be automobiles, trucks, buses, etc. (MT038), crude petroleum (CH004), and computer hardware (ST018).⁶ In total, these accounted for \$134.4 billion (61 percent) of the total U.S. deficit in 1997. This is a slight decrease from 1996 when these products accounted for 63 percent of the total deficit. The top three groupings with trade surpluses in 1997 were again aircraft, spacecraft, and related equipment (MT042), cereals (AG030), and oilseeds (AG032), which together accounted for a total of \$46.7 billion, almost exactly the surplus registered in 1996. These six groups not only were a large component of the 1997 trade position, they also exhibited significant shifts in U.S. exports and/or U.S. imports during 1996-97 which, among other industry/commodity groupings, are discussed in greater detail in chapters 5-14.

⁶Codes such as ST018 are used by the USITC to identify major groupings of HTS headings/subheadings and corresponding export categories for trade monitoring purposes. See app. A for a list and title of each of these groupings.

Table 2-9
Domestic export growth: Ranking of top 20 industry/commodity groups, 1996 and 1997

USITC code	Industry/commodity group	U.S. exports		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value growth:					
MT042	Aircraft, spacecraft, and related equipment	30,754	38,698	7,944	25.8
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices	24,135	29,037	4,902	20.3
ST018	Automatic data processing machines	37,977	41,792	3,815	10.0
MT039	Certain motor-vehicle parts	22,793	26,324	3,531	15.5
MT001	Aircraft engines and gas turbines	8,963	11,594	2,630	29.3
ST030	Measuring, testing, controlling, and analyzing instruments	12,578	14,587	2,009	16.0
CH026	Medicinal chemicals	8,546	10,344	1,798	21.0
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	22,693	24,394	1,701	7.5
ST007	Radio transmission and reception apparatus, and combinations thereof	6,500	7,992	1,492	23.0
MT002	Internal combustion piston engines, other than for aircraft	9,167	10,625	1,457	15.9
MT012	Construction and mining equipment	9,953	11,070	1,117	11.2
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	8,200	9,268	1,068	13.0
ST024	Medical goods	10,217	11,226	1,009	9.9
MT014	Farm and garden machinery and equipment	4,848	5,855	1,007	20.8
MM025	Steel mill products, all grades	4,076	4,843	768	18.8
CH011	Benzenoid specialty chemicals	4,827	5,587	761	15.8
CH012	Miscellaneous organic chemicals	7,031	7,780	749	10.6
ST002	Telephone and telegraph apparatus	8,630	9,370	740	8.6
MT004	Air-conditioning equipment and parts	4,988	5,726	738	14.8
AG034	Edible preparations	3,353	4,029	676	20.2

Rank order based on changes in percentage growth:

AG004	Sheep and meat of sheep	21	65	44	211.2
MM008	Precious metal ores and concentrates	9	21	12	143.7
CH001	Electrical energy	69	124	55	78.6
CH004	Crude petroleum	460	780	320	69.6
MM006	Zinc ores and residues	227	379	152	66.8
AG051	Tools and tool handles of wood	24	37	13	54.8
CH007	Major primary olefins	199	306	107	54.1
ST029	Drawing and mathematical calculating and measuring instruments	275	400	125	45.5
MM021	Primary iron products	13	19	6	45.4
MT037	Rail locomotive and rolling stock	851	1,229	377	44.3
MT035	Electric and gas welding and soldering equipment	534	762	229	42.9
CH002	Nuclear materials	1,047	1,444	397	37.9
MT013	Mineral processing machinery	674	915	241	35.8
CH014	Inorganic acids	142	192	50	35.6
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	726	969	243	33.5
MT031	Portable electric hand tools	333	443	111	33.2
ST014	Television picture tubes and other cathode-ray tubes	1,566	2,085	518	33.1
MT043	Ships, tugs, pleasure boats, and similar vessels	1,058	1,408	350	33.1
AG050	Wooden containers	85	112	27	32.2
MM049	Umbrellas, whips, riding crops, and canes	9	11	3	31.9

Note.--Calculations based on unrounded data.

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

Table 2-10
Domestic export declines: Ranking of top 20 industry/commodity groups, 1996 and 1997

USITC code	Industry/commodity group	U.S. exports		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value decline:					
AG030	Cereals	16,751	11,106	-5,645	-33.7
MT041	Miscellaneous vehicles and transportation-related equipment	3,980	3,166	-814	-20.4
MM020	Precious metals and related articles	7,886	7,149	-737	-9.3
AG046	Logs and rough wood products	2,909	2,420	-489	-16.8
AG043	Cigarettes	4,736	4,409	-326	-6.9
MM067	Arms and ammunition	2,606	2,395	-211	-8.1
CH010	Benzenoid commodity chemicals	1,487	1,283	-203	-13.7
AG007	Frozen fish	1,557	1,371	-186	-11.9
CH003	Coal, coke, and related chemical products	4,452	4,276	-176	-4.0
AG020	Edible nuts	1,666	1,491	-175	-10.5
AG054	Wood pulp and wastepaper	4,059	3,893	-166	-4.1
CH015	Chlor-alkali chemicals	967	824	-143	-14.8
MM036	Copper and related articles	2,370	2,228	-142	-6.0
AG057	Newsprint	652	522	-130	-19.9
AG008	Canned fish and other fish	426	326	-100	-23.5
MM004	Copper ores and concentrates	287	211	-76	-26.6
AG005	Poultry	2,589	2,515	-74	-2.9
ST005	Unrecorded magnetic tapes, discs, and other media	2,670	2,603	-67	-2.5
AG001	Certain miscellaneous animals and meats	1,895	1,848	-47	-2.5
MM032	Industrial fasteners of base metal	1,325	1,280	-44	-3.4
Rank order based on changes in percentage decline:					
AG030	Cereals	16,751	11,106	-5,645	-33.7
MM004	Copper ores and concentrates	287	211	-76	-26.6
CH065	Sweaters	46	34	-12	-25.4
AG008	Canned fish and other fish	426	326	-100	-23.5
MT041	Miscellaneous vehicles and transportation-related equipment	3,980	3,166	-814	-20.4
AG057	Newsprint	652	522	-130	-19.9
AG046	Logs and rough wood products	2,909	2,420	-489	-16.8
AG063	Wool and other animal hair	20	17	-3	-16.0
CH015	Chlor-alkali chemicals	967	824	-143	-14.8
CH010	Benzenoid commodity chemicals	1,487	1,283	-203	-13.7
MM033	Cooking and kitchen ware	278	242	-36	-13.1
AG038	Malt beverages	362	319	-44	-12.0
AG007	Frozen fish	1,557	1,371	-186	-11.9
CH031	Explosives, propellant powders, and related items	328	291	-36	-11.1
AG021	Tropical fruit	79	70	-9	-10.9
AG020	Edible nuts	1,666	1,491	-175	-10.5
CH076	Rubber, plastic, and coated-fabric apparel	97	88	-9	-9.4
MM020	Precious metals and related articles	7,886	7,149	-737	-9.3
CH061	Men's and boys' coats and jackets	144	131	-13	-9.3
AG006	Fresh or chilled fish	263	238	-24	-9.3

Note.--Calculations based on unrounded data.

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

Table 2-11

Domestic import growth: Ranking of top 20 industry/commodity groups, 1996 and 1997

USITC code	Industry/commodity group	U.S. imports		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value growth:					
ST018	Automatic data processing machines	61,457	69,953	8,496	13.8
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	87,116	92,988	5,872	6.7
CH026	Medicinal chemicals	11,189	14,184	2,994	26.8
CH005	Petroleum products	18,915	21,523	2,608	13.8
MT001	Aircraft engines and gas turbines	6,241	8,380	2,139	34.3
MT042	Aircraft, spacecraft, and related equipment	7,353	9,459	2,106	28.6
CH064	Shirts and blouses	12,377	14,416	2,039	16.5
CH006	Natural gas and components	8,253	10,215	1,961	23.8
MM054	Furniture and selected furnishings	9,497	11,224	1,726	18.2
MM060	Toys and models	5,481	6,728	1,247	22.8
CH079	Footwear and footwear parts	12,708	13,951	1,243	9.8
MM019	Natural and synthetic gemstones	7,412	8,564	1,152	15.5
MM061	Games and fairground amusements	2,881	4,033	1,152	40.0
CH063	Women's and girls' trousers	3,948	5,097	1,149	29.1
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits	8,829	9,965	1,137	12.9
AG028	Coffee and tea	2,958	4,071	1,113	37.6
ST002	Telephone and telegraph apparatus	8,202	9,261	1,059	12.9
MM065	Miscellaneous articles	5,056	6,079	1,022	20.2
ST007	Radio transmission and reception apparatus, and combinations thereof	8,071	9,060	990	12.3
MT012	Construction and mining equipment	3,928	4,884	956	24.3
Rank order based on changes in percentage growth:					
MM006	Zinc ores and residues	18	45	28	155.7
MM005	Lead ores and residues	2	6	3	137.2
AG042	Cigars and certain other manufactured tobacco	207	419	212	102.1
CH007	Major primary olefins	897	1,520	623	69.5
CH036	Saturated polyester resins	230	355	125	54.2
CH051	Knit fabrics	520	784	264	50.8
CH009	Primary aromatics	588	856	269	45.7
CH069	Hosiery	404	566	162	40.0
MM057	Prefabricated buildings	92	129	37	40.0
MM061	Games and fairground amusements	2,881	4,033	1,152	40.0
AG050	Wooden containers	253	348	95	37.8
AG028	Coffee and tea	2,958	4,071	1,113	37.6
AG048	Moldings, millwork, and joinery	1,171	1,594	423	36.1
MM040	Zinc and related articles	979	1,328	349	35.6
CH003	Coal, coke, and related chemical products	1,253	1,688	434	34.7
MT001	Aircraft engines and gas turbines	6,241	8,380	2,139	34.3
CH034	Polyvinyl chloride resins in primary forms	203	271	67	33.0
ST025	Surveying and navigational instruments	571	757	186	32.6
CH076	Rubber, plastic, and coated-fabric apparel	178	230	52	29.2
CH063	Women's and girls' trousers	3,948	5,097	1,149	29.1

Note.--Calculations based on unrounded data.

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

Table 2-12

Domestic import declines: Ranking of top 20 industry/commodity groups, 1996 and 1997

USITC code	Industry/commodity group	U.S. imports		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value decline:					
CH004	Crude petroleum	44,849	38,394	-6,455	-14.4
AG057	Newsprint	4,063	3,590	-473	-11.6
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	4,353	4,039	-314	-7.2
AG064	Cotton, not carded or combed	283	3	-280	-98.9
CH047	Natural rubber	1,468	1,229	-238	-16.2
MT043	Ships, tugs, pleasure boats, and similar vessels	1,130	924	-207	-18.3
MM022	Ferroalloys	1,217	1,044	-174	-14.3
MT027	Boilers, turbines, and related machinery	499	345	-154	-30.9
MT004	Air-conditioning equipment and parts	4,576	4,433	-143	-3.1
MT019	Metal rolling mills and parts thereof	533	394	-139	-26.1
ST014	Television picture tubes and other cathode-ray tubes	987	876	-111	-11.2
CH002	Nuclear materials	1,326	1,219	-107	-8.1
ST009	Television receivers, video monitors, and combinations including television receivers	4,498	4,403	-95	-2.1
AG010	Dairy produce	1,198	1,109	-89	-7.4
AG012	Sugar and other sweeteners	1,407	1,321	-87	-6.2
AG036	Fruit and vegetable juices	929	856	-73	-7.9
MT016	Pulp, paper, and paperboard machinery	1,178	1,105	-73	-6.2
MT008	Centrifuges and filtering and purifying equipment	1,353	1,291	-62	-4.6
MM047	Certain other leather goods	239	198	-41	-17.3
AG062	Ethyl alcohol for nonbeverage purposes	160	119	-41	-25.8
Rank order based on changes in percentage decline:					
AG064	Cotton, not carded or combed	283	3	-280	-98.9
MM008	Precious metal ores and concentrates	74	38	-36	-48.5
MT027	Boilers, turbines, and related machinery	499	345	-154	-30.9
MT019	Metal rolling mills and parts thereof	533	394	-139	-26.1
AG062	Ethyl alcohol for nonbeverage purposes	160	119	-41	-25.8
AG011	Eggs	24	19	-5	-20.2
MT043	Ships, tugs, pleasure boats, and similar vessels	1,130	924	-207	-18.3
MM047	Certain other leather goods	239	198	-41	-17.3
CH047	Natural rubber	1,468	1,229	-238	-16.2
MM039	Lead and related articles	240	201	-39	-16.2
CH004	Crude petroleum	44,849	38,394	-6,455	-14.4
MM022	Ferroalloys	1,217	1,044	-174	-14.3
AG057	Newsprint	4,063	3,590	-473	-11.6
ST014	Television picture tubes and other cathode-ray tubes	987	876	-111	-11.2
CH002	Nuclear materials	1,326	1,219	-107	-8.1
AG036	Fruit and vegetable juices	929	856	-73	-7.9
AG010	Dairy produce	1,198	1,109	-89	-7.4
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	4,353	4,039	-314	-7.2
MM063	Smokers' articles	149	139	-10	-6.6
MM050	Silverware and certain other articles of precious metal	83	78	-5	-6.4

Note.--Calculations based on unrounded data.

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

Table 2-13

U.S. trade position increases: Ranking of top 30 industry/commodity groups, 1996 and 1997

USITC code	Industry/commodity group	U.S. balance		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
CH004	Crude petroleum	-44,389	-37,615	6,775	15.3
MT042	Aircraft, spacecraft, and related equipment	23,401	29,239	5,837	24.9
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices	-12,636	-7,841	4,795	37.9
MT039	Certain motor-vehicle parts	5,927	8,520	2,593	43.8
ST030	Measuring, testing, controlling, and analyzing instruments	5,442	6,498	1,056	19.4
MT002	Internal combustion piston engines, other than for aircraft	-366	638	1,004	(¹)
MT004	Air-conditioning equipment and parts	412	1,294	882	213.9
ST014	Television picture tubes and other cathode-ray tubes	579	1,209	629	108.7
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus	-3,627	-3,070	557	15.3
MT043	Ships, tugs, pleasure boats, and similar vessels	-72	485	557	(¹)
MT008	Centrifuges and filtering and purifying equipment	1,036	1,554	518	50.0
CH002	Nuclear materials	-279	225	504	(¹)
ST007	Radio transmission and reception apparatus, and combinations thereof	-1,571	-1,068	503	32.0
MT014	Farm and garden machinery and equipment	1,465	1,967	502	34.2
MT001	Aircraft engines and gas turbines	2,722	3,213	491	18.0
ST024	Medical goods	4,850	5,331	482	9.9
AG034	Edible preparations	1,410	1,890	480	34.1
MT005	Certain industrial thermal-processing equipment and certain furnaces	857	1,324	467	54.5
AG013	Animal feeds	3,595	4,054	459	12.8
MT027	Boilers, turbines, and related machinery	1,060	1,519	458	43.2
CH045	Miscellaneous rubber or plastic products	-1,358	-958	400	29.5
CH037	Other plastics in primary forms	3,472	3,860	389	11.2
ST009	Television receivers, video monitors, and combinations including television receivers	-3,230	-2,861	369	11.4
ST006	Records, tapes, compact discs, computer software, and other recorded media	2,459	2,804	345	14.0
AG057	Newsprint	-3,411	-3,068	343	10.1
CH013	Miscellaneous inorganic chemicals	-593	-259	334	56.4
MT003	Pumps for liquids	443	775	332	75.1
MT045	Miscellaneous machinery	1,097	1,416	319	29.1
MT037	Rail locomotive and rolling stock	-461	-143	317	68.9
AG033	Animal or vegetable fats and oils	346	656	310	89.4

¹Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

Table 2-14

U.S. trade position declines: Ranking of top 30 industry/commodity groups, 1996 and 1997

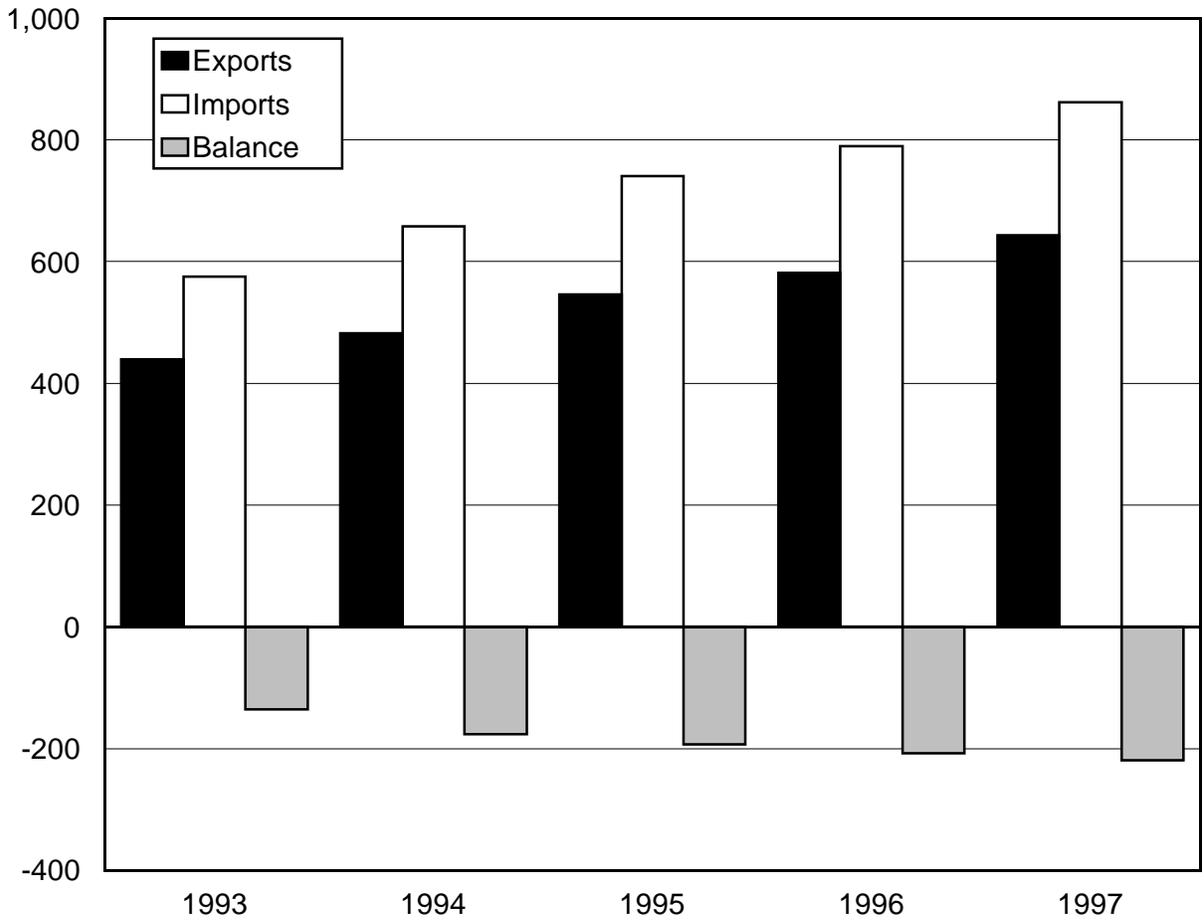
USITC code	Industry/commodity group	U.S. balance		Change, 1997 from 1996	
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
AG030	Cereals	15,961	10,122	-5,839	-36.6
ST018	Automatic data processing machines	-23,480	-28,161	-4,681	-19.9
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing	-64,423	-68,594	-4,171	-6.5
CH005	Petroleum products	-11,312	-13,794	-2,483	-21.9
CH006	Natural gas and components	-7,484	-9,401	-1,917	-25.6
CH064	Shirts and blouses	-10,975	-12,759	-1,784	-16.3
MM020	Precious metals and related articles	2,556	1,280	-1,276	-49.9
MM060	Toys and models	-4,884	-6,102	-1,217	-24.9
CH079	Footwear and footwear parts	-11,948	-13,149	-1,201	-10.1
CH026	Medicinal chemicals	-2,643	-3,840	-1,197	-45.3
MM019	Natural and synthetic gemstones	-7,165	-8,333	-1,168	-16.3
MM061	Games and fairground amusements	-1,792	-2,889	-1,097	-61.2
AG028	Coffee and tea	-2,721	-3,816	-1,095	-40.2
MM054	Furniture and selected furnishings	-5,978	-7,066	-1,088	-18.2
CH063	Women's and girls' trousers	-3,378	-4,460	-1,082	-32.0
MT041	Miscellaneous vehicles and transportation-related equipment	2,562	1,645	-918	-35.8
MM065	Miscellaneous articles	-3,803	-4,566	-763	-20.1
AG009	Shellfish	-3,003	-3,752	-749	-25.0
CH062	Men's and boys' trousers	-2,850	-3,569	-719	-25.2
CH003	Coal, coke, and related chemical products	3,198	2,588	-610	-19.1
MM037	Unwrought aluminum	-2,772	-3,366	-594	-21.4
CH007	Major primary olefins	-698	-1,214	-516	-73.9
AG046	Logs and rough wood products	2,490	1,993	-498	-20.0
CH065	Sweaters	-1,719	-2,204	-486	-28.3
CH068	Robes, nightwear, and underwear	-2,134	-2,619	-486	-22.8
CH061	Men's and boys' coats and jackets	-1,639	-2,099	-460	-28.1
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools	-1,652	-2,092	-440	-26.6
AG047	Lumber	-4,399	-4,828	-429	-9.8
MM031	Chain and miscellaneous products of base metal	-798	-1,221	-423	-53.0
MM036	Copper and related articles	-1,102	-1,516	-414	-37.5

Note.--Calculations based on unrounded data.

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

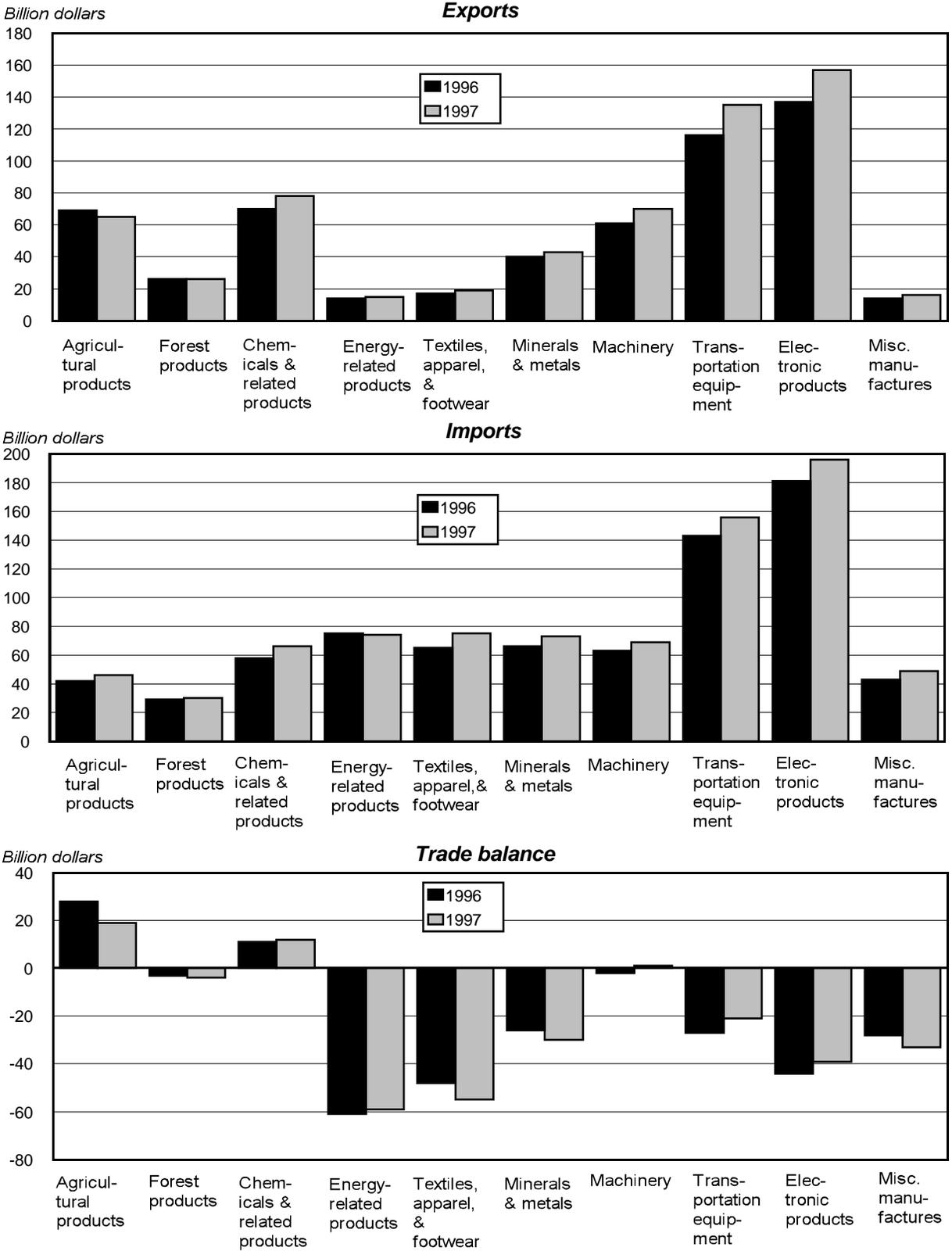
Figure 2-1
U.S. merchandise trade with the world: Exports, imports, and trade balance, 1993-97

Billion dollars



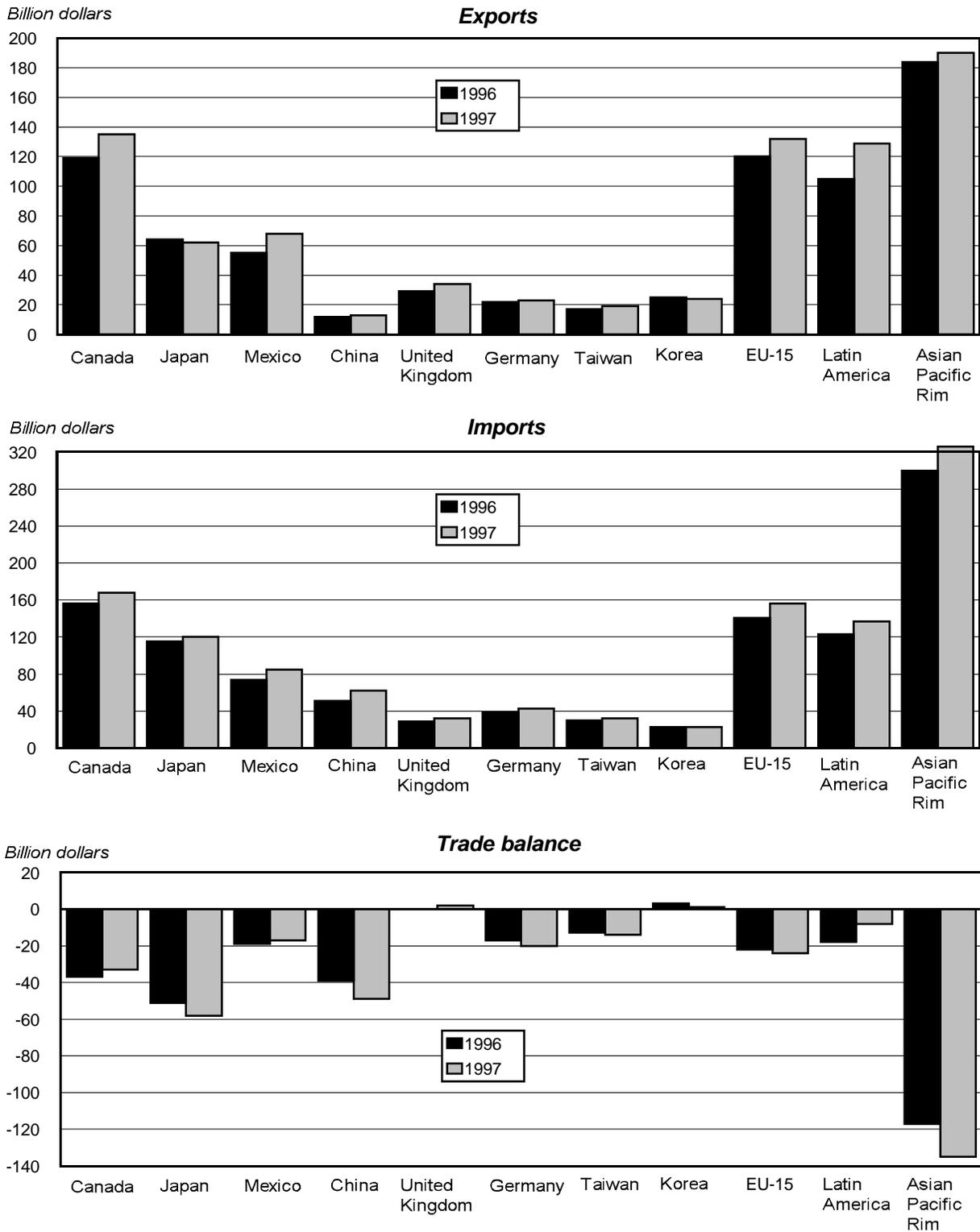
Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 2-2
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major commodity sectors, 1996 and 1997



Source: Compiled by the staff of the U.S. International Trade Commission 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 countries and country groups, 1996 and 1997



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

CHAPTER 3

Significant Bilateral Shifts and Other Trade Developments

SIGNIFICANT BILATERAL SHIFTS

Canada

Total U.S. merchandise trade with Canada grew by \$27.3 billion (10 percent) to \$302.7 billion (20 percent of total U.S. merchandise trade) in 1997.¹ Driven by strong Canadian demand, the U.S. merchandise trade deficit with Canada shrank by \$4.1 billion (11 percent) in 1997 to \$33.1 billion. The decline in the deficit with Canada in 1997 was a sharp contrast to 1996 when the trade deficit with Canada expanded by \$5.6 billion (18 percent) to \$37.2 billion from 1995 levels. Trade between the United States and Canada continues to be characterized by a high level of intra-industry trade, reflecting integration and specialization between U.S. and Canadian firms.²

A growing Canadian economy and sustained rates of job creation resulted in a significant increase in Canadian demand for U.S.-made goods in 1997. The Canadian economy has been growing at an average rate of over 3 percent since the end of 1996. Canadian economic growth was supported by low interest rates, Canadian demand for housing and consumer durables, and economic growth in the United States and the EU, which stimulated demand for Canadian exports. Since December 1995, over 360,000 jobs have been created in the private sector.³ The unemployment rate fell to 9.6 percent in the first quarter of 1997, down from 9.9 percent in the last quarter of 1996.⁴ The private sector is expected to pick-up over 600,000 new positions over the next two years.⁵ Capital spending on productivity enhancing equipment and infrastructure is estimated to have risen by 17 percent in 1997, underpinned by low long-term borrowing costs and expanding foreign investment.⁶ Capital expenditures are highest among firms in the energy, manufacturing, and construction sectors.

The Asian financial crisis is expected to have a minor, though two-staged effect on future Canadian economic growth. The impact on exports will likely be minor because Asian nations accounted for only 6 percent of Canadian exports in 1997. However, U.S. manufacturers that export to Asia are an important market for Canadian component producers. With the linkages of Canadian suppliers to U.S. exports of manufactured goods to Asia, the Bank of Nova Scotia estimates that about 2 percent of Canada's GDP is derived from exports to

¹Canada has the world's seventh-largest market economy. The U.S.-Canada trading relationship is the largest in the world. Approximately 80 percent of Canada's merchandise exports are destined for the United States, while merchandise imports from the U.S. comprised 77 percent of the total in 1997. U.S. Department of State, *Canada: Economic Policy and Trade Practices Report 1997*, submitted to the Senate Committees on Foreign Relations and on Finance, and to the House Committees on Foreign Affairs and on Ways and Means, Jan. 1998, p. 1, found at Internet address http://www.state.gov/www/issues/ec...orts/europe_canada97, retrieved Apr. 14, 1998.

²The stock of total foreign direct investment in Canada in 1996 was US\$132.3 billion, of which US\$90 billion or 68 percent was U.S.-owned. Roughly 40 percent of the assets of Canadian manufacturing companies are foreign-owned; of this total, about 75 percent belongs to U.S. firms. *Ibid.*, p. 1.

³Bank of Canada Review, "Recent Economic and Financial Developments," summer 1997, p. 11.

⁴*Ibid.*, p. 12.

⁵The Scotia Bank, *Global Economic Outlook* (Nova Scotia, Canada, July 1997), p. 1.

⁶The Scotia Bank, *Global Economic Outlook*, Jan. 1998, p. 6.

Asia.⁷

U.S. imports

U.S. imports from Canada rose by \$11.6 billion (7 percent) in 1997 to \$167.9 billion (table 3-1). The transportation equipment sector accounted for \$3.5 billion (30 percent) of the increase in U.S. imports from Canada in 1997 (figure 3-1). Collectively, imports of motor vehicles, engines, and parts from Canada grew by \$3.0 billion (7 percent) in 1997 to \$46.0 billion. Imports of finished vehicles from Canada accounted for 21 percent of total imports from Canada in 1997 and 4 percent of total U.S. imports from all sources that year. The U.S.-Canadian auto industry is fully integrated, and the U.S. Big Three automakers --General Motors, Ford, and Chrysler--consider the United States and Canada as a single unit for production planning purposes. Moreover, most Canadian automotive production is for export, primarily to the United States.⁸ Rising imports of vehicles, engines, and auto parts from Canada reflected the growth of the North American automotive market.⁹

The increase in imports of aircraft, spacecraft, and related equipment (aircraft) from Canada was largely accounted for by multi-engined, propeller-powered, civil aircraft¹⁰ over 4,536 kg and not exceeding 15,000 kg, which rose by \$121 million (54 percent) in 1997 to \$345 million. Imports of multi-engined, jet-powered, civil aircraft over 4,536 kg and not exceeding 15,000 kg, rose by \$76 million (10 percent) in 1997 to \$810 million. U.S. imports of parts for civil aircraft from Canada grew as well in 1997, rising by \$238 million (32 percent) to \$1.0 billion. Canada has become a significant supplier of commuter aircraft in recent years, competing directly with aircraft from traditional suppliers such as Brazil in world markets.

The \$1.4 billion (12 percent) increase in U.S. imports from Canada of chemicals and related products in 1997 to \$12.5 billion occurred across a broad range of products; the most prominent increase was accounted for by medicinal chemicals (pharmaceuticals) (table 3-1).¹¹ U.S. trade with Canada in pharmaceuticals is characterized by high levels of integration which result in a significant level of intra-company transfers. Trade in these products is further encouraged by low tariffs, as most pharmaceutical products are duty-free as provided under the Uruguay Round Agreement, or the Canada Free-Trade Agreement (CFTA) and the NAFTA. Additionally, there is a continuing trend in the pharmaceutical industry toward outsourcing production of bulk active ingredients; chemicals such as those imported from Canada are typically produced in highly specialized processes that only a limited number of facilities are equipped to perform.

U.S. imports of natural gas and components from Canada rose by \$1.0 billion (18 percent) in 1997 to \$6.7 billion. Canada accounts for over 95 percent of U.S. imports of natural gas. In terms of quantity, the United States imported 2.88 quadrillion cubic feet of gas from Canada in 1997, which was 97 percent of total U.S. gas imports of 2.97 quadrillion cubic feet of gas. Average prices for wellhead natural gas increased significantly during 1996-97, from \$2.17 to about \$2.45 per thousand cubic feet,¹² owing to increased demand from a sustained cold spell during the winter of 1995-96.¹³

⁷Ibid., p. 2.

⁸Madellon Lopes, "Canada - Automotive Sales Up 18 Percent - IMI980121," *Market Research Reports*, Jan. 21, 1998, found at Internet address <http://www.stat-usa.gov>, retrieved Apr. 8, 1998.

⁹For more details on the dynamics behind U.S. import and export trade in transportation equipment with Canada, see ch. 12.

¹⁰In 1997, U.S. markets for business and commuter aircraft expanded, driven by increased U.S. demand for business and commuter passenger travel. U.S. imports of these aircraft are essential for both fleet replacement and business expansion.

¹¹These products include active pharmaceutical ingredients, and finished products in dosage form.

¹²U.S. Department of Energy, *Monthly Energy Review*, Feb. 1998, p. 12.

¹³"Gas Price Volatility: Of Winters Past and Futures Markets," *Public Utilities Fortnightly*, Mar. 15, 1998.

U.S. imports of furniture from Canada rose significantly in 1997 (table 3-1). Imports of household and office furniture from Canada were encouraged by proximity of Canadian producers to the United States, eliminated duties, and strong markets in the United States. Imports of office furniture grew by \$249 million (36 percent) to \$946 million, while imports of wood household furniture climbed by \$191 million (22 percent) to \$1.1 billion.

U.S. imports of natural gas and components from Canada rose by \$1.0 billion (18 percent) in 1997 to \$6.7 billion. Canada accounts for over 95 percent of U.S. imports of natural gas. In terms of quantity, the United States imported 2.88 quadrillion cubic feet of gas from Canada in 1997, which was 97 percent of total U.S. gas imports of 2.97 quadrillion cubic feet of gas. Average prices for wellhead natural gas

Table 3-1
Leading changes in U.S. imports from Canada, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Transportation equipment:				
Automobiles, trucks, and buses (MT038)	33,676	35,884	2,208	7
Certain motor-vehicle parts (MT039)	6,753	7,335	582	9
Aircraft (MT042)	2,191	2,738	547	25
Motor vehicle engines and parts (MT002)	2,554	2,755	201	8
Other:				
Natural gas and components (CH006)	5,684	6,711	1,027	18
Furniture (MM054)	2,903	3,458	556	19
Aluminum and aluminum mill products (MM037 and MM038)	3,374	3,846	472	14
Lumber (AG047)	6,378	6,769	391	6
Moldings, millwork, and joinery (AG048)	454	688	234	52
Medicinal chemicals (CH026)	458	676	218	48
Builders hardware, except locks (HTS 8302)	470	660	190	40
Printing and writing papers (AG058)	2,216	2,398	182	8
Line telephony and line telegraphy equipment (HTS 8517)	1,696	1,876	180	11
Farm and garden machinery (MT014)	835	1,013	178	21
Decreases:				
Newsprint (AG057)	4,019	3,488	-531	-13
Ships, tugs, pleasure boats, and similar vessels (MT043)	636	465	-171	-27
Boilers, turbines, and related machinery (MT027)	301	145	-156	-52
All other	81,701	86,976	5,275	6
Total	156,299	167,881	11,582	7

Note.--Calculations based on unrounded data.

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

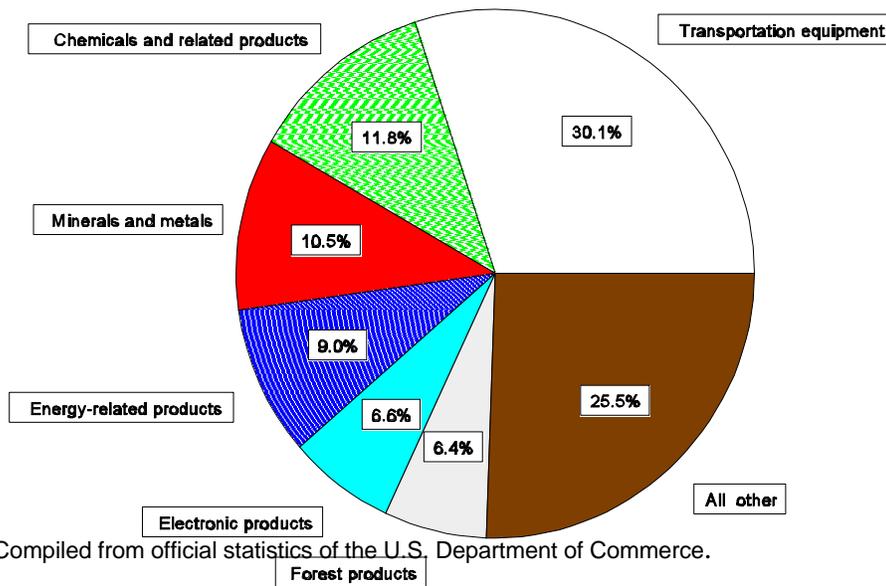
increased significantly during 1996-97, from \$2.17 to about \$2.45 per thousand cubic feet,¹⁴ owing to increased demand from a sustained cold spell during the winter of 1995-96.¹⁵

¹⁴U.S. Department of Energy, *Monthly Energy Review*, Feb. 1998, p. 12.

¹⁵"Gas Price Volatility: Of Winters Past and Futures Markets," *Public Utilities Fortnightly*, Mar. 15, 1998.

U.S. imports of furniture from Canada rose significantly in 1997 (table 3-1). Imports of household and office furniture from Canada were encouraged by proximity of Canadian producers to the United States, eliminated duties, and strong markets in the United States. Imports of office furniture grew by \$249 million (36 percent) to \$946 million, while imports of wood household furniture climbed by \$191 million (22 percent) to \$1.1 billion.

Figure 3-1
U.S. imports from Canada by major sector: Portion of absolute value increase in 1997



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

The growth in U.S. imports of wood products such as molding, millwork, and joinery from Canada was the result of expanded demand for use of these products in housing and nonresidential construction in the United States. U.S. imports of molding, millwork, and joinery from Canada grew by \$234 million (52 percent) in 1997 to \$688 million. In contrast, all of the increase in the value of U.S. imports of lumber from Canada in 1997, by \$391 million (6 percent) to \$6.8 billion, can be attributed to an 8-percent rise in the price of lumber. The quantity of lumber imported from Canada fell by 2 percent in 1997 to 17,260 MMbf.¹⁶

U.S. imports of aluminum and aluminum mill products from Canada rose by \$472 million (14 percent) in 1997 to \$3.8 billion. All of the five major North American producers of aluminum (Alcan, Alcoa, Alumax, Kaiser, and Reynolds) consider the United States and Canada as a single market because each of these companies has a significant portion of their production accounted for by across-the-border subsidiaries. As a result, shifts in trade are generally characterized by intercompany transfers in response to strong North American economic growth.

The principal decline in U.S. imports from Canada in 1997 occurred in newsprint (table 3-1). The decline in value; however, was the result of a drop in price. The transaction price for newsprint fell by \$250 per

¹⁶Million board feet.

metric ton (33 percent) in late 1996, reaching a low of \$500 per metric ton in the beginning of 1997. Although the demand for newsprint rose during 1997, and the transaction price increased somewhat to \$565 per metric ton, the value of trade in 1997 was less than in 1996.¹⁷

U.S. exports

U.S. exports to Canada grew by \$15.7 billion (13 percent) to \$134.8 billion in 1997. U.S. exports of motor vehicles, engines, and parts to Canada rose by \$4.2 billion (14 percent) in 1997 to \$34.0 billion (table 3-2). Exports of these products to Canada accounted for one-quarter of total exports to Canada in 1997 and 5 percent of total U.S. exports to all markets in that year. The increase in exports of motor vehicle equipment was largely attributable to the continued rebound in consumer spending in Canada after a 12-year low recorded in 1995, as well as exports of parts for use in the Canadian assembly of vehicles and engines for export to the United States. Canada's motor vehicle sector included five production facilities that accounted for 17 percent of U.S.-Canadian production in 1997.¹⁸ Canadian auto parts suppliers accounted for 11 percent of the North American market in this year.¹⁹

The expanding Canadian economy provided market opportunities to U.S. suppliers in other segments of the transportation equipment sector in 1997. Significant growth was recorded in U.S. exports of vehicles for mining and construction, rail locomotives and rolling stock, and aircraft engines. Altogether, the transportation sector accounted for \$5.4 billion (35 percent) of the total growth in U.S. exports to Canada in 1997 (figure 3-2).

U.S. exports of machinery to Canada rose by \$2.4 billion (18 percent) in 1997 to \$15.8 billion. The most prominent increases in U.S. exports in this year occurred in semiconductor manufacturing equipment and robotics, farm and garden machinery, nonpowered hand tools, air-conditioning equipment and parts, and taps, cocks, and valves (table 3-2). The continued strength of the Canadian economy, favorable interest rates, and the extensive linkages between U.S. and Canadian companies (many of which are subsidiary operations) bolstered the upward trend in exports.

The increase in U.S. exports of steel to Canada reflected rising Canadian demand for motor vehicles and other consumer durables, along with increasing construction activities including highways, bridgework, and nonresidential construction. Exports of steel were chiefly in such product lines as sheet and strip (including galvanized forms of these products), plate, bars and rods, and tubular products. Canadian

steelmakers are already operating at high levels of capacity utilization,²⁰ and could not meet rising Canadian

¹⁷Greg Rudder, "Newsprint: Consumption Uptick Drives Rebound in North American Newsprint Market," *Pulp and Paper*, Dec. 1997, p. 13.

¹⁸The Scotia Bank, *Global Economic Outlook*, Jan. 1998, p. 10.

¹⁹The Scotia Bank, *Global Economic Outlook*, July 1997, p. 10.

²⁰According to the Canadian Steel Producers Association, steelmakers were operating at close to 90-percent capacity during the fourth quarter of 1997 and achieved records in terms of production and shipments for the year. "Steel--the Quarterly Newsletter of the Canadian Steel Industry," winter 1998, found at Internet address http://www.canadiansteel.ca/association/newsletter_winter_1998.shtml, retrieved on Apr. 28, 1998. Capacity utilization of 90 percent is considered to be at or near full effective capacity in the steel industry.

demand in the automotive, construction,²¹ machinery, and equipment sectors.

Table 3-2
Leading increases in U.S. exports to Canada, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percentage
	<i>Million dollars</i>			
Transportation equipment:				
Automobiles, trucks, and buses (MT038)	12,039	14,213	2,174	18
Certain motor-vehicle parts (MT039)	12,774	14,206	1,432	11
Motor vehicle engines and parts (MT002)	5,027	5,616	589	12
Construction and mining equipment (MT012)	1,177	1,553	376	32
Rail locomotives and rolling stock (MT037)	428	711	283	66
Aircraft engines (MT001)	1,158	1,341	184	16
Electronic products:				
Certain measuring instruments(ST030)	2,005	2,487	482	24
Computer hardware, excluding parts (HTS 8471)	3,580	3,968	388	11
Telephone and telegraph apparatus (ST002)	1,580	1,922	342	22
Machinery:				
Semiconductor manufacturing equipment and robotics (MT023)	421	838	417	99
Farm and garden machinery/equipment(MT014)	1,531	1,935	404	26
Nonpowered handtools(MT042)	571	840	269	47
Air-conditioning equipment and parts (MT004)	1,544	1,731	188	12
Taps, cocks, valves, and similar devices (MT024)	802	972	170	21
Other:				
Steel (MM025)	1,695	2,383	688	41
Gold (HTS 7108)	279	535	256	92
Furniture (MM054)	1,458	1,680	222	15
All other	71,054	77,863	6,809	10
Total	119,123	134,794	15,671	13

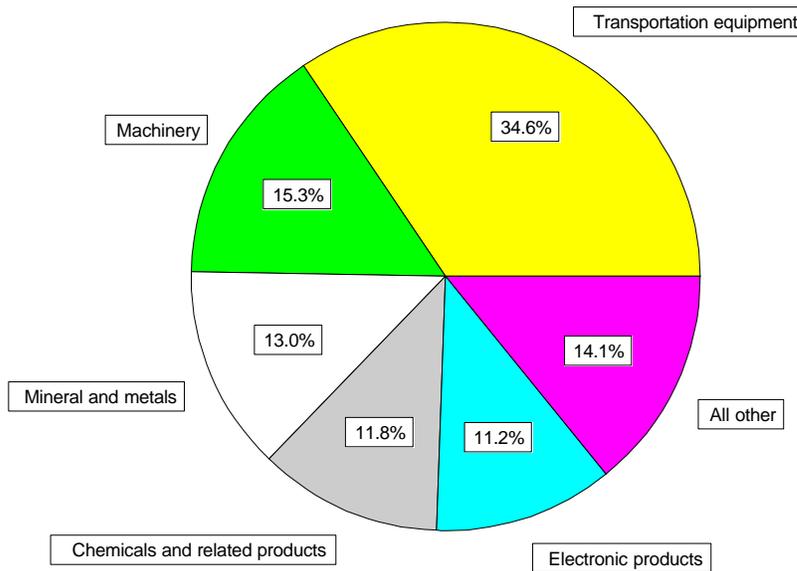
Note.--Calculations based on unrounded data.

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

Exports of gold to Canada nearly doubled in 1997 (table 3-2). These exports to Canada were chiefly of nonmonetary, unwrought gold bullion, which is a primary input for products such as jewelry, electronic products, and dentistry.

²¹With regard to construction, projects in Canada include the Hibernia energy development project, major pipeline projects and public infrastructure (bridges and roads), commercial building construction, and residential construction. These markets utilize steel in various forms including pipe and tube, concrete reinforcing bar, beams and angles, shapes, and sheet.

Figure 3-2
U.S. exports to Canada by major sector: Portion of absolute value increase in 1997



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

U.S. exports of electronic products to Canada rose by \$1.8 billion (9 percent) to \$20.7 billion in 1997. The principal products accounting for the increase were computer hardware, excluding parts and measuring, testing, controlling, and analyzing instruments (certain measuring instruments). Both product groups are key components to the expansion and upgrading of Canada's manufacturing and service sectors. The rise in U.S. exports was commensurate with the growth in the sectors of the Canadian economy in 1997. Exports of telephone and telegraph apparatus also increased by \$342 million (22 percent) to \$1.9 billion in 1997. Led by Northern Telecom, Ltd., Canada has emerged as a major domestic and world supplier of sophisticated routing and switching equipment, as well as other apparatus for the telecommunications industry. Manufacturing of telecommunications equipment is integrated throughout North America, with significant cross border trade as well as rationalization of production among the three NAFTA partners.²²

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²²Scotiabank, *Global Economic Outlook*, July 1997, p. 10.

Mexico

Total U.S. merchandise trade with Mexico expanded by \$24.5 billion (19 percent) in 1997 to \$153.4 billion (10 percent of total U.S. merchandise trade). The U.S. trade deficit with Mexico declined for the first time since 1992, by \$2.9 billion (15 percent) in 1997 to \$16.6 billion. The rise in U.S. imports from Mexico of \$10.8 billion (15 percent) to \$85.0 billion was surpassed by the \$13.7 billion (25 percent) growth in U.S. exports to Mexico to \$68.4 billion. This was the second year in a row that U.S. exports to Mexico exceeded an increase of 20 percent.

The Mexican economy continued its steady recovery from the effects of the peso devaluation in 1994-95 and subsequent recession. Since then, the Mexican Government has implemented higher taxes, reduced government spending, and liberalized investment laws.²³ As a result, real economic growth reached 7 percent in 1997, while inflation and interest rates, although still relatively high, continued to fall.²⁴ Signs of greater political openness, stemming from electoral changes, combined with Mexico's improving economy, reportedly led domestic and foreign investor confidence to reach new levels as evidenced by the rise of both foreign direct investment (\$10.0 billion in 1997) and the Mexican stock market.²⁵ However, serious political and social challenges reportedly remain regarding corruption and violence.²⁶ Although Mexico reportedly has reduced its nontariff barriers, its use of mandatory standards and antidumping regulations has expanded, and export supports in the manufacturing sector have persisted.²⁷ Real wages remain low,²⁸ moderating demand in Mexico for consumer goods.

The Asian financial crisis, which began in July 1997 (discussed later in chapter 3), may also present problems for Mexico in the form of stiffer competition in all markets from cheaper imports from Asia, and lower demand in Asia for Mexican products in the near future.²⁹ However, reduced exports to Asian markets of goods assembled in Mexico are expected to be mitigated by the continued strength of the U.S. market and further integration of manufacturing throughout North America.

U.S. imports

Mexico was the third-largest source of U.S. imports in 1997, following Canada and Japan, accounting for 10 percent of the total. Mexican exports are still benefiting from the peso devaluation that reduced the cost of Mexican labor, making exports more competitive. The NAFTA has also continued to facilitate two-way trade between Mexico and the United States by reducing and/or eliminating tariffs. Foreign companies, particularly

²³Mexico's liberalization of key sectors in the past 4 years, such as telecommunications, air transport, ports, financial services, transportation and distribution, and railway, led the WTO Secretariat to conclude that Mexico was one of the world's most open countries for foreign service suppliers. World Trade Organization (WTO) Trade Policy Review Body, *Mexico: Report by the Secretariat*, press release, Oct. 2, 1997, p. 5.

²⁴International Monetary Fund, *World Economic Outlook* (Washington, DC: IMF, May 1998), and Mary Sutter and Kevin G. Hall, "Mexican Growth Shows Recovery from Devaluation," *The Journal of Commerce*, Dec. 19, 1997, p. 3A.

²⁵Sam Dillon, "After the Vote, Brighter Mexican Prospects," *New York Times*, July 12, 1997, pp. A25 and A27.

²⁶*Ibid.*, p. 39, and John Ward Anderson and William Branigin, "Flood of Contraband Hard to Stop," *Washington Post*, Nov. 2, 1997, pp. 1 and 31-32.

²⁷WTO, "Mexico's Regional Agreements Stimulate Liberalization But Complicate Trade Regime," press release, Oct. 2, 1997, p. 2. Export supports such as tariff concession programs (i.e. maquiladora regime) are to be phased out under NAFTA. *Ibid.*, p. 7.

²⁸Brendan M. Case, "Mexico in Transition: The Challenges," *Latin Trade*, Oct. 1997, p. 39.

²⁹Sergio R. Bustos and Joachim Bamrud, "Weathering the Storm," *Latin Trade*, Apr. 1998, p. 36.

Asian, also have located or expanded assembly plants in Mexico to take advantage of relatively low-cost Mexican labor, close proximity to the U.S. market, and NAFTA provisions. NAFTA rules of origin, in particular, have encouraged the majority of these firms, often maquiladoras,³⁰ to increase their use of U.S.-made components in order to qualify for duty-free entry to the United States, either through purchasing from U.S. component suppliers or persuading their Asian component suppliers to relocate production facilities to North America.

The sectors experiencing the greatest growth in 1997 imports from Mexico included electronic products, apparel, machinery, and transportation equipment (table 3-3). U.S. imports of electronic products remained strong, and were linked to U.S. exports to Mexico of components for assembly and re-export to the United States. Most sector products are manufactured in assembly plants along the U.S./Mexican border because of the border region's relatively developed infrastructure and proximity to the electronics and computer industries in California,³¹ combined with the region's higher degree of labor skills and educational level.³² The most significant growth in U.S. electronic product imports from Mexico in 1997 was in automatic data processing machines (computer hardware), up by \$1.6 billion (52 percent) to \$4.7 billion, followed by radio transmission and reception apparatus, which rose by \$458 million (34 percent) to \$1.8 billion. Television transmission apparatus was the only type of electronic product to show a significant decline in imports from Mexico in 1997, falling by \$364 million (34 percent) to \$717 million.

Mexico was the second-leading source of U.S. imports of apparel in 1997, after China, supplying 11 percent (\$5.4 billion) of the total.³³ Apparel manufacturing in Mexico has continued to take advantage of HTS 9802.00.90 (created as a result of NAFTA), which allows garments sewn or assembled in Mexico from fabric that was wholly formed and cut in the United States to enter free of duty and quota. This provision, in addition to the peso devaluation, has provided a strong boost to the Mexican apparel industry, partly at the expense of suppliers in Asia and certain sources in the Caribbean Basin, such as Jamaica and Costa Rica.³⁴ U.S. imports of apparel from Mexico rose by \$1.5 billion (40 percent) in 1997, while such imports from the Caribbean Basin³⁵ grew by \$1.6 billion (26 percent) to \$7.7 billion.³⁶ U.S. imports of shirts and blouses, women's and girls' trousers, and men's and boys' trousers from Mexico experienced the most significant increases in 1997.

Table 3-3
Leading changes in U.S. imports from Mexico, 1996-97

³⁰For more information on the maquiladora industry and export processing in Mexico, see U. S. International Trade Commission (USITC), *Production Sharing: Use of U.S. Components and Materials in Foreign Assembly Operations, 1993-96 (U.S. Imports Under the Production-Sharing Provisions of Harmonized Tariff Schedule Chapter 98)*, USITC publication 3077, Dec. 1997.

³¹Asian firms, in particular, have increased investment in Baja California, Mexico, largely to gain close proximity to the electronic and computer industries in California. See Joel Millman, "Asian Investment Floods Into Mexican Border Region: Access to U.S. Market Draws Makers of Televisions, Toys; and Shabu-Shabu," *The Wall Street Journal*, Sept. 6, 1996; and Tim Coone, "The Aztec-Asian Connection," *Latin Trade*, Sept. 1996, p. 17.

³²Guadalajara, however, is the center for production of computer hardware and telecommunications equipment in Mexico, expanding on a base of foreign-owned assembly plants established over two decades ago to supply office equipment to the Mexican market during a period of high tariffs.

³³U.S. imports of apparel from Mexico surpassed those from Hong Kong for the first time in 1997.

³⁴U.S. imports from the Caribbean Basin and Central America, Mexico's biggest competitors, are entered under HTS 9802.00.80 and are still subject to the duty on the value added offshore, while apparel from Asia, which does not use U.S.-formed and -cut fabric, is subject to full duties and restrictions.

³⁵Caribbean Basin is defined as the CBERA countries -- members of the Caribbean Basin Economic Recovery Act.

³⁶In the apparel sector, 82 percent of all imports from Mexico in 1997 entered under either HTS subheadings 9802.00.80 or 9802.00.90, and 42 percent of total imports from CBERA-eligible countries entered under HTS 9802.00.80.

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Electronic products:				
Computer hardware (ST018)	3,061	4,655	1,594	52
Radio transmission and reception apparatus (ST007)	1,337	1,795	458	34
Electrical circuit apparatus (ST013)	1,817	2,143	326	18
Certain measuring instruments (ST030)	1,291	1,562	271	21
Telephone and telegraph apparatus (ST002)	742	913	171	23
Electrical capacitors and resistors (ST012)	329	477	147	45
Apparel (CH060-CH078)	3,850	5,350	1,500	40
Machinery:				
Wiring harnesses ¹ (MT036)	3,761	4,490	729	19
Electrical transformers and inductors (MT029)	1,052	1,394	342	33
Electric motors and generators (MT028)	1,017	1,288	271	27
Transportation equipment:				
Motor vehicles (MT038)	11,714	12,270	556	5
Certain motor-vehicle parts (MT039)	2,500	2,981	481	19
Engines for motor vehicles (MT002)	1,716	1,911	195	11
Other:				
Furniture ² (MM054)	1,525	1,919	395	26
Taps, cocks, valves, and similar devices (MT024)	492	770	278	57
Petroleum products (CH005)	583	789	206	35
Steel (MM025)	1,029	1,206	177	17
Decreases:				
Crude petroleum (CH004)	7,033	6,565	-468	-7
Television transmission apparatus ³	1,080	717	-364	-34
Precious metals and related articles (MM020)	358	281	-77	-21
All other	27,892	31,529	3,638	13
Total	74,179	85,005	10,826	15

¹Chiefly for use in motor vehicles.

²U.S. imports of seats for motor vehicles (assembled in Mexico from U.S. components) rose by \$232 million (25 percent) in 1997 to \$1.2 billion.

³HTS 8525.10.10, 8525.10.20, and 8525.10.30.

Note.--Calculations based on unrounded data.

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

U.S. imports of motor vehicles and parts, including wiring harnesses and engines, grew by \$2.0 billion (10 percent) in 1997 to \$21.7 billion and accounted for 26 percent of total U.S. imports from Mexico in 1997 (table 3-3). The motor vehicle and auto parts assembly industry in Mexico benefited from the strong automotive market in the United States in 1997. The majority of motor vehicle and parts imports are produced by subsidiaries of U.S. firms, with a much smaller portion coming from Japan-owned auto parts assembly plants, which themselves rely principally on U.S.-made components. A large portion of such imports were entered under both NAFTA and the production-sharing provisions of HTS chapter 98 in 1997. The implementation of NAFTA forced the Mexican auto parts industry to dramatically improve quality, modernize, and consolidate in order to survive an open and free transportation market in North America.³⁷ However, U.S.-owned assembly plants continue to account for the bulk of Mexico's exports in this sector. The production of wiring harnesses for motor

³⁷Guillermo Lira, "Vital Parts," *Business Mexico*, Oct. 1997, pp. 26-31.

vehicles is especially labor-intensive. Consequently, the final assembly process has moved from the United States to Mexico, with U.S. imports of wiring harnesses rising by \$729 million (19 percent) in 1997 to \$4.5 billion.

The only substantial U.S. import category from Mexico besides television transmission apparatus to experience a decline in 1997 was crude petroleum, down by \$468 million (7 percent) to \$6.6 billion. The world price for crude petroleum decreased by an average of about \$2 per barrel during 1997, resulting in the decrease in the value of Mexico's exports. In terms of quantity, a more accurate measure of crude petroleum trade, Mexico's exports to the United States and Europe increased by about 2 percent in 1997.

U.S. exports

A recovering Mexican economy and vigorous intra-industry trade combined to boost U.S. exports to \$68.4 billion, making Mexico the second-largest market for U.S. exports in 1997, surpassing Japan. Mexico accounted for 11 percent of total U.S. exports. Tariffs and quotas continue to be reduced and/or phased out under the NAFTA, easing access for U.S. exports. At the same time, regional intra-industry trade and the continued growth of the maquiladora industry contributed to demand for many U.S. products. U.S. sector exports experiencing the greatest growth included transportation equipment, electronic products, apparel, and petroleum products (table 3-4).

High demand for motor vehicles in the United States, combined with rising demand in Mexico, led to an increase of \$2.8 billion (38 percent) to \$10.3 billion in U.S. exports of all motor vehicle equipment and parts (including engines and wiring harnesses) to Mexico in 1997. With many plants in Mexico running at full capacity to satisfy demand,³⁸ U.S. exports of certain motor-vehicle parts, internal combustion piston engines, and tires increased by 36 percent, 48 percent, and 74 percent, respectively (table 3-4). Producers of engines and parts also expanded their production capacity in Mexico. A NAFTA-related change in the maquiladora law further encouraged investment in assembly plants in Mexico as well as additional exports of U.S.-made parts.³⁹ Changes in the law also improved access to the Mexico market for replacement parts. The reduction of quantitative restrictions and export performance specifications, liberalized investment rules, and preferential rules of origin required by NAFTA,⁴⁰ combined with an improvement in the purchasing power of many Mexicans, also boosted direct U.S. exports of motor vehicles by \$778 million (67 percent) in 1997 to \$1.9 billion.

Mexico was one of the largest U.S. trading partners in electronic products in 1997, in addition to Canada and Japan,⁴¹ mainly because of a high volume of intra-industry trade, much of it under Mexico's Maquiladora Program. A number of U.S., Canadian, European, and Asian electronics firms have invested in Mexican assembly plants in recent years to reduce their labor costs and improve their price competitiveness. The peso devaluation, by lowering the cost of Mexican labor, furthered this trend. Asian firms, in particular, were attracted to Mexico by its proximity to the electronics and computer industries in California, Arizona, and Texas--sources of components, capital equipment, and engineers and managerial staff.

Table 3-4
Leading changes in U.S. exports to Mexico, 1996-97

³⁸Maria Carlino, "Auto Parts Revving Up U.S. Exports to Mexico," *The Journal of Commerce*, Oct. 22, 1997, p. 4C.

³⁹This change permitted a higher percentage of auto parts assembled in Mexico from U.S. components to be sold directly to motor vehicle assembly plants in Mexico without being shipped back to the United States first.

⁴⁰"Auto Industry Thriving in NAFTA Marketplace," *NAFTA Works*, vol. 2, No. 9, Sept. 1997, pp. 1, 2, and 5.

⁴¹"NAFTA Leads to Record U.S.-Mexico Trade in Electrical Products Industry," *NAFTA Works*, vol. 2, No. 9, Sept. 1997, p. 2.

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Transportation equipment:				
Certain motor-vehicle parts (MT039)	3,725	5,074	1,350	36
Motor vehicles (MT038)	1,159	1,938	778	67
Internal combustion piston engines ¹ (MT002)	987	1,462	475	48
Electronic products:				
Semiconductors (ST016)	2,091	2,660	569	27
Computer hardware (ST018)	1,947	2,479	532	27
Electrical circuit apparatus (ST013)	2,424	2,944	520	22
Television picture tubes (ST014)	988	1,334	345	35
Certain measuring instruments (ST030)	781	1,102	320	41
Electrical capacitors and resistors (ST012)	907	1,217	310	34
Telephone and telegraph apparatus (ST002)	589	862	273	46
Radio transmission and reception apparatus (ST007)	492	660	168	34
Apparel (CH060-CH078)	1,699	2,205	506	30
Other:				
Petroleum products (CH005)	1,082	1,521	439	41
Electrical transformers, converters, and inductors (MT029)	556	777	221	40
Miscellaneous rubber and plastic products (CH045)	1,103	1,324	220	20
Pneumatic tires and rubbers (new) ¹ (CH040)	293	511	217	74
Wiring harnesses and parts ¹ (MT036)	1,623	1,832	209	13
Cattle and beef (AG002)	204	407	203	99
Miscellaneous organic chemicals (CH012)	591	792	201	34
Air conditioning equipment and parts (MT004)	494	676	182	37
Decreases:				
Cereals (AG030)	1,812	880	-933	-52
Industrial fasteners of base metal (MM032)	514	298	-216	-42
All other	28,625	35,438	6,813	24
Total	54,686	68,393	13,707	25

¹Chiefly for use in motor vehicles.

Note.--Calculations based on unrounded data.

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

U.S. exports of semiconductors, used in a wide range of electronic products such as computers, communications equipment, and automotive parts, experienced the most significant sector increase, rising by \$569 million (27 percent) to \$2.7 billion in 1997. Exports of apparatus for making, breaking, protecting, or connecting electrical circuits (electrical circuit apparatus), electrical capacitors and resistors, and computer hardware exhibited similar percentage increases in 1997 for many of the same reasons. U.S. exports of parts for use in the assembly of telephone and telegraph apparatus and radio transmission and reception apparatus also experienced sharp increases in 1997. With an estimated \$20 billion to be spent on Mexico's telecommunications infrastructure, demand for U.S. exports of finished telecommunications equipment as well as parts for assembly should continue to rise.⁴² U.S. exports of television picture tubes to Mexico also increased substantially in 1997, in part, reflecting the requirement that televisions imported from Mexico have a North-American-made picture

⁴²U.S. Department of Commerce, *U.S. Industry and Trade Outlook '98*, "Telecommunications and Navigation Equipment" (New York: McGraw-Hill, 1998), pp. 31-37.

tube in order to qualify for duty-free entry under NAFTA.⁴³

The only substantial decline in U.S. exports to Mexico in 1997 was in cereals, which dropped by \$933 million (52 percent) to \$880 million. A severe drought in Mexico during 1995-96 reduced production of cereals there and generated sharply increased demand for U.S. exports of corn, wheat, and soybeans in 1996. The \$679 million (66 percent) decline in U.S. exports of corn in 1997, accounting for 73 percent of that decline in cereals, is indicative of the recovery in Mexican production after the drought. Another serious drought in early 1998 associated with El Nino is likely to boost U.S. exports of these cereals in 1998.

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⁴³Tijuana is considered to be the television capital of North America. Many of the world's largest television manufacturers, such as Daewoo, JVC, Matsushita, Sony, and Sanyo, have manufacturing facilities in this border town. Mary Sutter, "Maquiladoras Face Loss of Advantage," *The Journal of Commerce*, Dec. 19, 1997, pp. 1A and 7A. Thomson Consumer Electronics (RCA), Zenith, and Philips (Magnavox) assemble televisions in Juarez, Reynosa, and Matamoros.

China

Total U.S. merchandise trade with China increased by \$11.5 billion (18 percent) to \$74.5 billion in 1997 (5 percent of total U.S. merchandise trade). The U.S. bilateral merchandise trade deficit with China grew by \$10.1 billion (26 percent) to \$49.5 billion⁴⁴ in 1997. The rise in the trade deficit with China nearly matched the increase in the U.S. merchandise trade deficit with all other countries in 1997 (\$10.9 billion) and more than offset the reduction in the trade deficit with Latin America that year (\$9.3 billion). The United States registered a deficit in its merchandise trade with China for the 14th consecutive year in 1997, as the \$10.8 billion (21 percent) growth in U.S. imports from China dwarfed the \$732 million (6 percent) increase in U.S. exports. At \$62.0 billion, imports from China were nearly five times as large as U.S. exports to that country (\$12.5 billion). China accounted for 7 percent of total U.S. imports in 1997, but only 2 percent of U.S. exports.

China continued to be one of the world's fastest growing major economies during 1997, with a real GDP growth rate of 8.8 percent.⁴⁵ During 1996-97, the Chinese Government was able to engineer a "soft landing-soft take-off" for its economy, achieving retail and consumer price inflation rates of less than 4 percent, a growing trade surplus, and sustained economic growth.⁴⁶ China reported that its foreign trade grew to \$325.1 billion in 1997, representing an increase of 12 percent over 1996.⁴⁷ The growth in the Chinese economy, however, has not translated into a commensurate expansion in U.S. exports to China. While China exports a broad variety of articles to the United States, particularly consumer goods that are manufactured in labor-intensive processes, U.S. exports to China have been inhibited by Chinese policies that restrict imports and by competition from suppliers in the Asian Pacific Rim region.

The United States Trade Representative (USTR) reported that China "maintains one of the most protectionist trade regimes in the world" and its markets remained relatively closed to U.S. imports in 1997.⁴⁸ China continued to restrict imports through a variety of mechanisms including high tariffs and other taxes, nontariff measures (NTMs), limitations on which enterprises can import, and other barriers.⁴⁹ The USTR also asserted that as long as China continues to use exports and foreign investment to foster growth, while protecting selected export-oriented industries, "U.S. exports will be deprived of a level playing field on which to compete."⁵⁰

Chinese policies have also pressured producers in industrialized countries, such as the United States and Japan, to establish manufacturing operations in China for technologically advanced goods in order to gain access to the Chinese market. Production from these Chinese factories displaces imports from the United States and other industrialized nations and export performance requirements often associated with these investments lead to increased Chinese exports to the United States and third countries. Another factor contributing to the increasing U.S. trade deficit with China is the on-going relocation of low-wage and low-tech production of

⁴⁴According to China's official trade statistics, its 1997 trade surplus with the United States is much smaller than the \$49.5 billion recorded in official U.S. statistics. China maintained that the United States should not count goods from U.S.- and other foreign-owned processing ventures in China that are shipped to the United States via Hong Kong as Chinese exports. China considers these transshipments to be Hong Kong's exports to the United States. See USITC, *Shifts in U.S. Merchandise Trade in 1996*, USITC publication 3051, July 1997, p. 3-19.

⁴⁵*China's Economic Development in 1997*, prepared by Embassy of the People's Republic of China-USA, Mar. 9, 1998, found at Internet address <http://www.china-embassy.org>, retrieved Mar. 19, 1998.

⁴⁶U.S. Department of State, *People's Republic of China, 1997 Country Reports on Economic Policy and Trade Practices*, Jan. 1998, found at Internet address <http://www.state.gov>, retrieved Mar. 17, 1998.

⁴⁷*China's Economic Development in 1997*, prepared by Embassy of the People's Republic of China.

⁴⁸USTR, House Ways & Means Trade Subcommittee Hearing, Renewal of MFN Status for China, Statement of United States Trade Representative Charlene Barshefsky, June 17, 1997.

⁴⁹China levies a VAT tax, ranging between 13 percent and 17 percent, on the sum of the import duty plus all other applicable consumption taxes.

⁵⁰Testimony of Susan G. Esserman, General Counsel, USTR, before the House Ways and Means Committee, Subcommittee on Trade, Nov. 4, 1997.

products such as toys, clothing, and inexpensive electrical goods from Taiwan, Japan, and Korea to China.⁵¹

U.S. imports

China accounted for the third-largest bilateral increase in U.S. imports in 1997, behind Canada and Mexico. Chinese exporters were able to take advantage of a robust U.S. economy, high consumer demand and purchasing power, and falling U.S. tariff rates in 1997. The U.S. trade deficit with China swelled as Chinese exporters reportedly sold excess inventories into the international market and as they waged an aggressive price campaign in 1997 to remain competitive in the U.S. and other foreign markets.⁵²

As the following tabulation shows, U.S. demand for consumer and some industrial products from China remained strong in 1997. The leading U.S. imports from China consisted of electrical machinery (particularly telecommunications equipment, audio and video equipment, household appliances, and transformers); toys, games, and sporting goods; footwear; machinery and mechanical appliances (especially computer hardware); and textiles and apparel.

<u>Sector description</u> ¹	Value of U.S. imports from China <i>(million dollars)</i>	Percent of all U.S. imports from China
Electrical machinery and equipment (HTS 85)	10,426	17
Toys, games, and sporting goods (HTS 95)	9,363	15
Footwear (HTS 64)	7,354	12
Non-electrical machinery and mechanical appliances (HTS 84)	5,970	10
Textiles and apparel (CH048-CH078)	<u>8,813</u>	<u>14</u>
Total	41,926	68

¹Sector description may not be inclusive of all the products covered in these groupings.

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

According to official Chinese Customs statistics, the United States became China's second-largest foreign market in 1997, behind Japan, accounting for 18 percent of its total merchandise exports during the

⁵¹"Petering Out in the U.S. Market," *Business Korea*, Sept. 1997, p. 11. For more details, see USITC, *Shifts in U.S. Merchandise Trade in 1995*, USITC publication 2992, Sept. 1996, pp. 2-31 through 2-32.

⁵²William J. Holstein with Brian Palmer, "Slow Boat in China," *U.S. News & World Report*, Dec. 15, 1997, found at Internet address <http://www.usnews.com>, retrieved Mar. 13, 1998. "Outlook for 1997-98: Soft Landing Continues," Country Reports: China, Economist Intelligence Unit (EIU), Aug. 21, 1997.

January-September period of 1997.⁵³ With the exception of certain electronic products, China's exports to the United States during 1997 consisted principally of low-cost, labor-intensive goods.⁵⁴

Products experiencing the largest increases in U.S. imports from China in 1997 were textiles and apparel, computer hardware, toys, and footwear (table 3-5). Other important increases were registered in furniture, radio reception apparatus, office machines (excluding computers), and luggage, handbags, and, flat goods.

Table 3-5
Leading increases in U.S. imports from China, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Textiles and apparel (CH048-CH078)	7,378	8,813	1,435	19
Computer hardware (ST018)	3,030	4,307	1,277	42
Toys and models (MM060)	4,142	5,364	1,223	30
Footwear and footwear parts (CH079)	6,367	7,354	987	16
Furniture (MM054)	1,110	1,546	436	39
Radio reception apparatus (HTS 8527)	1,562	1,943	382	24
Office machines (excluding computers) (ST001)	802	1,122	320	40
Luggage, handbags, and flatgoods (MM046)	1,665	1,917	252	15
Games (MM061)	634	853	219	35
Telephone and telegraph apparatus (ST002)	1,134	1,332	198	18
Electrical circuit apparatus (ST013)	501	696	195	39
Dolls (MM059)	1,082	1,273	191	18
Electrical household appliances; certain heating equipment (MT007)	1,027	1,195	169	16
Lamps and lighting fittings (MM056)	1,285	1,447	162	13
Sporting goods (MM062)	857	1,016	159	19
Electrical transformers, static converters, and inductors (MT029)	419	573	154	37
All other	18,214	21,245	3,031	17
Total	51,209	61,996	10,787	21

Note.--Calculations based on unrounded data.

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

U.S. exports

As discussed earlier, U.S. exports to China grew only modestly in 1997 (table 3-6). Like many developing nations, China's imports consist principally of goods needed to develop its manufacturing base and modernize its infrastructure that cannot be manufactured domestically. A major proportion of China's imports from the United States was shipped to U.S. and other foreign-owned processing ventures operating in China's special enterprise zones. These companies import components for inclusion in goods manufactured for export.

⁵³U.S. Department of State telegram No. 037986, "Trade Surplus With U.S. up 61.6 Percent Year-On-Year: China Customs Data," prepared by U.S. Embassy, Beijing, Oct. 23, 1997.

⁵⁴"Overseas Companies Boost China's Trade Surplus," *Asian Wall Street Journal*, Apr. 8, 1997, U.S. Department of Commerce, National Trade Data Bank (NTDB), found at Internet address <http://www.stat-usa.gov>, retrieved Mar. 17, 1998.

In 1997, these companies reportedly accounted for nearly 75 percent of China's total external trade.⁵⁵ Industry sources reported that a slip in China's demand for industrial equipment during 1997 reflected a leveling off in China's manufacturing sector.⁵⁶ As China's economy began to slow during the fourth quarter of 1997, demand for imports also declined as unemployment began to rise, inventories of inexpensive consumer goods started to build, and disposable income and consumer demand began to stagnate.⁵⁷

Table 3-6
Leading changes in U.S. exports to China, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Aircraft and spacecraft (HTS 8802)	1,444	1,874	430	30
Certain motor-vehicle parts (MT039)	67	239	172	258
Fertilizers (HTS 3100)	891	1,050	159	18
Construction and mining equipment (MT012)	200	305	105	53
Crude petroleum (CH004)	16	119	102	623
Boilers, turbines, and related machinery (MT027)	134	227	94	69
Decreases:				
Wheat (HTS 1001)	426	44	-383	-90
Cotton, not carded or combed (AG064)	727	572	-155	-21
Unrecorded magnetic tapes, discs, and other media (ST005)	105	21	-84	-80
All other	7,791	7,904	113	1
Total	11,801	12,355	732	6

Note.--Calculations based on unrounded data.

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

As shown in the following tabulation, the leading U.S. export sectors to China during 1997 consisted of high technology and specialized machinery items such as aircraft and parts; medical, scientific, and optical equipment (such as optical fibers and fiber bundles, oscilloscopes, spectrum analyzers, hydrographic and hydrological meters); and electrical machinery and equipment (electric motors and generators, electronic integrated circuits, and parts). Technology-intensive merchandise and resource commodities dominated China's imports during 1997.⁵⁸ Other exports of importance included agricultural products (especially cotton, corn, and soybeans); and chemicals and related products (notably fertilizers, plastics, and inorganic chemicals).

⁵⁵U.S. Department of Commerce, NTDB, "China to Import More in 1998," *China Economic Information*, Dec. 12, 1997, found at Internet address <http://www.stat-usa.gov>, retrieved Mar. 17, 1998.

⁵⁶"Exports to Traditional Markets Rise Sharply," Country Report: China, EIU, Dec. 2, 1997.

⁵⁷Steven Mufson, "Economy of China is Cooling," *Washington Post*, Nov. 29, 1997, p. A1.

⁵⁸"China's Economic Development in 1997," prepared by Embassy of the People's Republic of China-USA, Mar. 9, 1998, found at Internet address <http://www.china-embassy.org>, retrieved Mar. 19, 1998.

<u>Sector description</u> ¹	<u>Value of U.S. exports to China</u> (million dollars)	<u>Percent of all U.S. exports to China</u>
Non-electrical machinery and mechanical appliances (HTS 84)	2,429	19
Aircraft, spacecraft, and parts (HTS 88)	2,121	17
Electrical machinery and equipment (HTS 85)	1,447	12
Fertilizers (HTS 31)	1,050	8
Cotton (HTS 52)	577	5
Measuring and testing instruments (HTS 90)	572	5
Oilseeds and oleaginous fruits, etc. (HTS 12)	428	3
Plastics (HTS 39)	<u>423</u>	<u>3</u>
Total	9,047	72

¹Sector description may not be inclusive of all the products covered in these groupings.

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

To offset its growing trade surplus with the United States, China has indicated its intention to elevate its imports of U.S. products ranging from aircraft and crude oil, to fertilizers, to electrical generation equipment.⁵⁹ Prior to the October 1997 summit between Presidents Clinton and Jiang Zemin, a Chinese trade delegation set out on a presummit buying trip to the United States. Chinese officials sealed commercial contracts with Boeing and other U.S. companies for goods and services valued at \$4.0 billion.⁶⁰ Despite several good harvests during 1996-97, China also continued to import wheat, albeit in much lower levels, from the United States as a way of reducing its trade deficit with the United States. The Chinese trade delegation pledged to purchase an additional 700,000 tons of wheat during 1997-98.⁶¹

China also introduced a number of market-opening measures, including tariff reductions and the elimination of, and reduction in, phase-out periods of selected NTMs (barriers such as licenses, quotas, tendering) in 1997 that further opened China's market to U.S. exports.⁶² Progress was also made in addressing bilateral issues of contention, such as intellectual property rights (IPR) protection and China's agricultural restrictions.⁶³ China lowered its import duties on 1,000 tariff lines in April 1997 and an additional 4,800 tariff lines in October 1997, thereby lowering the average level of its nominal MFN tariff from 23 percent to 17 percent. The October tariff adjustment affected about three-quarters of China's tariff schedule of approximately 6,600 lines and

⁵⁹U.S. Department of State telegram No. 035618, "Pre-summit Chinese buying mission to the United States led by SPC Vice-Chairman Zeng Peiyang," prepared by U.S. Embassy, Beijing, Sept. 26, 1997.

⁶⁰"Historic China Purchase Viewed as Bellwether," *Aviation Week & Space Technology*, Nov. 3, 1997, p. 33.

⁶¹"China to Buy U.S. Wheat and Boeing Planes," prepared by Embassy of the People's Republic of China-USA, Mar. 9, 1998, found at Internet address <http://www.china-embassy.org>, retrieved Mar. 19, 1998.

⁶²At the end of 1997, China still maintained NTMs, primarily import quotas, on 385 tariff lines. Vice Minister Long asserted that China would eliminate all WTO-illegal NTMs by 2020. In July 1997, China offered to phase out NTMs on 385 products within an 8-year period of joining the WTO. U.S. Department of State telegram No. 151620, "China WTO Accession--July Working Party Meetings," prepared by U.S. Department of State, Washington, DC, Aug. 13, 1997. U.S. Department of State telegram No. 159937, "China WTO Accession," prepared by U.S. Department of State, Washington, DC, Aug. 31, 1997. U.S. Department of State telegram No. 164671, "China WTO Accession - Bilateral Meetings in China," prepared by U.S. Embassy, Beijing, Sept. 8, 1997.

⁶³China and the United States successfully concluded market access agreements for textiles, grapes from four California counties, and sweet cherries in 1997. On May 13, 1997, USTR Barshefsky lauded the agreement as another positive "step in our on-going efforts to increase market access for U.S. agricultural exports." U.S. Department of State telegram No. 015335, "USTR Trade Negotiator Scher Visit to China," May 12-16, 1997, prepared by U.S. Embassy, Beijing, May 6, 1997.

officials of China's Customs Department noted that the categories covered by these tariff adjustments included minerals, chemicals, machinery, textiles, and agricultural products.⁶⁴

A \$430 million (30-percent) increase in shipments of aircraft to \$1.9 billion accounted for nearly three-fifths of the total growth in U.S. exports to China in 1997 (table 3-6). A sharp rise in exports of certain motor-vehicle parts (from \$67 million to \$239 million) reflects increased shipments to vehicle assembly plants in China established by U.S. motor-vehicle producers to penetrate the local market. Other leading growth categories for U.S. exports to China in 1997 were fertilizers, construction and mining equipment, crude petroleum, and boilers, turbines, and related machinery. At the same time, there were sharp decreases in exports of wheat (better weather in China), cotton (competition from third-country suppliers), and unrecorded magnetic media (table 3-6). The latter decline may reflect an effort by the Chinese government to crack down on the unauthorized production of copyrighted music and video tapes and compact discs.

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United Kingdom

Total U.S. merchandise trade with the United Kingdom grew by \$9.1 billion (16 percent) in 1997 to \$66.4 billion (4 percent of total U.S. merchandise trade). Among its top 10 trading partners in 1997, the United States enjoyed a merchandise trade surplus with only the United Kingdom (\$1.6 billion) and Korea (\$1.3 billion) (table 2-2). Growth in U.S. exports to the United Kingdom of \$5.3 billion (19 percent) outpaced a rise in U.S. imports from the United Kingdom of \$3.8 billion (13 percent), which were constrained by falling prices for crude petroleum. The United Kingdom was the fourth-largest single-country market for U.S. exports in 1997 and the seventh-largest U.S. merchandise import source.

The United States maintained its position as the leading trading partner for the United Kingdom in 1997. The United States received 13 percent of the value of total United Kingdom exports and supplied 14 percent of the value of total imports that year.⁶⁵ These shares were relatively stable compared with those of the previous year, when they were 12 percent and 15 percent, respectively.

Strong economic growth and private demand in both countries contributed to the rise in trade between the United States and the United Kingdom in 1997. The real GDP of the United Kingdom grew 3.4 percent in 1997, compared with 2.3 percent in 1996,⁶⁶ while that of the United States expanded 3.8 percent in 1997, compared with 2.8 percent the previous year.⁶⁷ Private consumption in the United Kingdom grew

⁶⁴U.S. Department of State telegram No. 035993, "China's October 1, 1997 Tariff Cuts," prepared by U.S. Embassy, Beijing, Sept. 30, 1997.

⁶⁵Eurostat, *External and Intra-European Union Trade*, monthly statistics, Feb. 1998, pp. 168-169. Data for imports are through November 1997 and for exports through October 1997. Received via facsimile from the Delegation of the European Commission, Washington, DC, Apr. 2, 1998. Includes intra-EU trade.

⁶⁶The Economist Intelligence Unit Limited (EIU), *West European Business Intelligence, Country Forecasts, United Kingdom*, "Data Summary," Jan. 23, 1998, CD ROM.

⁶⁷U.S. Department of Commerce, Bureau of Economic Analysis (BEA), National Accounts Data, found at Internet address <http://www.bea.doc.gov/bea/dn/nipubl-d.htm>, retrieved Mar. 31, 1998.

by 4.1 percent in 1997, compared with 3.6 percent in 1996.⁶⁸ Growth in U.S. personal consumption stood at 2.0 percent in 1997, down from 2.8 percent the previous year.⁶⁹

The improvement in the U.S. trade balance with the United Kingdom was augmented by exchange-rate movements, with the United Kingdom's pound appreciating relative to the U.S. dollar by nearly 5 percent in 1997.⁷⁰ Strengthening of the pound against the dollar resulted from a combination of factors, including the policy of the United Kingdom on European Monetary Union and expectations of a tight United Kingdom monetary policy.⁷¹ However, the effect of the appreciation on the United Kingdom's trade was mitigated by two major factors. First, exporters in the United Kingdom reportedly have accepted lower profit margins in export markets in order to maintain market share.⁷² Also, exporters engaged in currency arbitrage for 1997 trade contracts negotiated in advance back in 1996.⁷³

A prominent feature of U.S.-United Kingdom trade is intra-industry trade, with many of the aggregate product categories exhibiting significant trade shifts in 1997 being the same for both imports and exports. Significant import and export growth was noted for trade in aircraft, aircraft engines, computer hardware, and medicinal chemicals. Such intra-industry trade is common among industrialized trading partners.⁷⁴

U.S. imports

The largest absolute gain in U.S. imports from the United Kingdom was registered by aircraft engines and gas turbines, which rose by \$1.1 billion (68 percent) in 1997 to \$2.7 billion (table 3-7). This followed a 26-percent increase the previous year. The United Kingdom accounted for one-third of total U.S. imports of aircraft engines and gas turbines in 1997. Most of the rise in imports in this category was accounted for by turbojets of a thrust exceeding 25 kilonewtons. Such imports rose by \$784 million (90 percent) to \$1.7 billion in 1997. The United Kingdom, by far, is the largest supplier of such imports and accounted for 71 percent of the total value in 1997. These engines, manufactured by Rolls-Royce, are used for large civil aircraft (LCA). A sustained strong global market for U.S.-produced LCA contributed to the rise in U.S. imports of aircraft engines from the United Kingdom. U.S. LCA shipments increased by 39 percent, in terms of quantity, in 1997.⁷⁵ Contracts for export sales of LCA often require the U.S. aircraft producers to use certain parts manufactured in the country that the aircraft customer is based in. Many of the engines imported from the United Kingdom in 1997 may have been incorporated in U.S.-assembled aircraft that were exported to the United Kingdom that year. Such exports rose by \$2.8 billion in 1997.

Table 3-7

Leading changes in U.S. imports from the United Kingdom, 1996-97

⁶⁸EIU, *Country Forecasts, United Kingdom*.

⁶⁹BEA, National Accounts Data.

⁷⁰International Monetary Fund (IMF), *International Financial Statistics*, Mar., 1998, p. 714. Calculated based on market rate "rh," which represents the period average (in this case, annual), in U.S. dollars per United Kingdom pound.

⁷¹EIU, *Crossborder Monitor, United Kingdom*, "Business Outlook: UK," Jan. 28, 1998, CD ROM; and, EIU, *Country Reports, United Kingdom*, Jan. 23, 1998, CD ROM.

⁷²EIU, *Country Reports, United Kingdom*, "Foreign Trade and Payments: Trade Deficit Widens," Oct. 27, 1997, CD ROM.

⁷³Ibid.

⁷⁴See, for example, Paul R. Krugman, *Rethinking International Trade* (Cambridge, MA: The MIT Press, 1990), pp. 38-52.

⁷⁵Aerospace Industries Association of America, Inc., *1997 Year-end Review and Forecast - An Analysis*, received by facsimile, Apr. 1, 1998. Data for 1997 updated by telephone conversation with an official of the Aerospace Industries Association of America, Inc., Apr. 1, 1998. The rise in shipments reflects orders generally made 18-24 months in the past. See "Aircraft Engines and Gas Turbines" in ch. 12 for more information.

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Aircraft engines and gas turbines (MT001)	1,632	2,733	1,100	68
Medicinal chemicals (CH026)	2,172	2,555	384	18
Aircraft (MT042)	935	1,188	253	27
Construction and mining equipment (MT012)	434	679	245	56
Decreases:				
Crude petroleum (CH004)	1,440	946	-494	-34
Petroleum products (CH005)	1,241	1,087	-154	-12
All Other	20,720	23,224	2,504	12
Total	28,574	32,412	3,838	13

Note.--Calculations based on unrounded data.

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

U.S. imports of aircraft from the United Kingdom increased in value by \$253 million (27 percent) to \$1.2 billion in 1997 (table 3-7). This was the third-largest gain in terms of aggregate product categories. The United Kingdom ranked fourth as a U.S. import supplier, falling a position from the previous year. The bulk of the gain was accounted for by imports of parts of airplanes and helicopters (other than propellers, rotors, and undercarriages). Such imports rose by \$245 million (48 percent) in 1997. The United Kingdom was the third-leading supplier of such imports that year, accounting for 17 percent of the total value.⁷⁶

U.S. imports of medicinal chemicals from the United Kingdom increased by \$384 million (18 percent) in 1997 to \$2.6 billion (table 3-7). The United Kingdom maintained its position as the leading supplier of U.S. imports of medicinal chemicals in 1997, accounting for 18 percent of the total value that year. Imports of medicaments in dosage or retail form provided most of the gain. Such imports increased by \$152 million (16 percent) to \$1.1 billion in 1997. The United Kingdom maintained its position as the second-leading U.S. import source of such medicaments, accounting for 22 percent of the total value of U.S. imports in 1997. Continued outsourcing of production by U.S. firms to more efficient facilities located in the United Kingdom contributed to this trend.⁷⁷

U.S. imports of construction and mining equipment from the United Kingdom rose by \$245 million (56 percent) to \$679 million in 1997 (table 3-7), as the United Kingdom became the second-leading supplier of such imports. Substantial increases were registered by imports of self-propelled backhoes, shovels, clamshells, draglines, and front-end loaders; vehicles and chassis for off-highway use; and parts for such equipment. Continued U.S. growth in home building, commercial construction, and highway and other public works construction, as well as depressed European markets in 1997, contributed to the rise.⁷⁸

The greatest absolute decline in U.S. imports from the United Kingdom in 1997 was accounted for by crude petroleum, which fell by \$494 million (34 percent) to \$946 million, and by petroleum products, which dropped \$154 million (12 percent) to \$1.1 billion. The United Kingdom was the ninth-leading supplier of U.S. crude petroleum imports in 1997 and the sixth-leading supplier of U.S. imports of petroleum products. Most of the decline was accounted for by a combination of falling global crude-petroleum prices and the shutdown of

⁷⁶See "Aircraft, Spacecraft, and Related Equipment" in ch. 12 for more information.

⁷⁷See "Medicinal Chemicals" in ch. 7 for more information.

⁷⁸See "Construction and Mining Equipment" in ch. 12 for more information.

North Sea oil wells for routine maintenance.⁷⁹

U.S. exports

The leading product category showing an absolute gain in U.S. exports to the United Kingdom in 1997 was aircraft, spacecraft, and related equipment. Such exports increased in value by \$2.8 billion (125 percent) to \$5.1 billion in 1997 (table 3-8). This followed an increase of 31 percent the previous year. The United Kingdom overtook Japan to become the leading U.S. export market for this category in 1997. The share of the total U.S. export market accounted for by the United Kingdom nearly doubled, from 7 percent in 1996 to 13 percent in 1997. Large civilian-aircraft accounted for the bulk of the rise, with U.S. exports to the United Kingdom increasing by \$2.5 billion (202 percent) to \$3.8 billion in 1997. U.S. exports of aircraft parts (except engines) to the United Kingdom also rose in 1997, by \$216 million (23 percent) to \$1.2 billion. Continued strength of the airline industry in the United Kingdom was the principal factor in the increases.⁸⁰

Table 3-8
Leading changes in U.S. exports to the United Kingdom, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
----- Million dollars -----				
Increases:				
Aircraft (MT042)	2,258	5,087	2,829	125
Computer hardware (ST018)	3,348	4,181	833	25
Aircraft engines and gas turbines (MT001)	1,011	1,238	227	23
Decreases:				
Precious metals and related articles (MM020)	2,806	1,784	-1,022	-36
All Other	19,255	21,697	2,442	13
Total	28,678	33,987	5,309	19

Note.--Calculations based on unrounded data.

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

U.S. exports of computer hardware to the United Kingdom expanded by \$833 million (25 percent) in 1997 to \$4.2 billion (table 3-8). This reversed a decline in the 1996 level. The United Kingdom was the third-leading U.S. export market in 1997, accounting for 10 percent of total exports. Most of the increase in value was accounted for by printed circuit assemblies, which rose by \$275 million (29 percent) to \$1.2 billion in 1997; miscellaneous readers and transcribers, which grew by \$188 million (238 percent) to \$267 million in 1997; computer storage units, which increased by \$143 million (107 percent) to \$277 million in 1997; and, computer parts and accessories, which expanded by \$133 million (29 percent) to \$585 million in 1997. The overall rise in U.S. computer hardware exports to the United Kingdom in 1997 resulted from a combination of a strong economy; increasing demand for and use of computers by government, businesses, and private households in the United Kingdom and other markets in continental Europe; and a proliferation of U.S. and Asian-owned assembly plants for computers and peripherals to supply both the United Kingdom and continental European markets.⁸¹

⁷⁹See "Crude Petroleum" and "Petroleum Products" in ch. 8 for more information.

⁸⁰See "Aircraft, Spacecraft, and Related Equipment" in ch. 12 for more information.

⁸¹See "Automatic Data Processing Machines" in ch. 13 for more information.

U.S. exports of aircraft engines and gas turbines rose by \$227 million (23 percent) to \$1.2 billion in 1997 (table 3-8). All of the increase was accounted for by parts of turbojets, turbopropellers, and gas turbines. U.S. exports of such parts to the United Kingdom expanded in 1997 by \$231 million (38 percent) to \$834 million. Robust demand for United Kingdom aircraft engines largely contributed to the increase.⁸²

U.S. exports of precious metals and related articles to the United Kingdom contracted by \$1.0 billion (36 percent) to \$1.8 billion in 1997 (table 3-8). All of the decline was accounted for by nonmonetary unwrought gold bullion, as such U.S. exports to the United Kingdom dropped by \$1.2 billion (58 percent) to \$909 million in 1997. This followed an increase of 286 percent the preceding year. Such annual fluctuations are not unusual and generally reflect transfers of gold held in foreign accounts by the U.S. Federal Reserve Bank and private accounts of the Bank of England.⁸³

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Japan

Total U.S. merchandise trade with Japan increased by \$4.3 billion (2 percent) to \$182.6 billion in 1997 (12 percent of total U.S. merchandise trade). The U.S. merchandise trade deficit with Japan expanded by \$7.2 billion (14 percent) in 1997 to \$58.4 billion, after contracting by \$10.3 billion (17 percent) in 1996. The deficit increased as U.S. imports of Japanese goods grew by \$5.7 billion (5 percent) to \$120.5 billion, led by video and arcade games (table 3-9), and U.S. exports to Japan declined by \$1.5 billion (2 percent) to \$62.1 billion, led by motor vehicles, logs, and lumber (table 3-10). The widening of the U.S.-Japan trade imbalance reflected Japan's traditional reliance on export-led economic growth, particularly during difficult economic times.

As the U.S. economy remained strong throughout 1997, the Japanese economy became progressively weaker. Japan's inability to recover from a prolonged recession was aggravated by recent economic events, including the failure of several banks due to the accumulation of bad loans issued and the failure of several financial and trading firms due to bad investments. These events were symptomatic of a host of related economic effects including a weakening yen, a severe drop in consumer confidence, an all-time high rate of bankruptcy filings, and declining industrial output. In addition, the Asian financial crisis exacerbated Japan's economic difficulties, which continued into 1998.⁸⁴

Japan's financial troubles preceded the Asian currency crisis, which began in July 1997. In 1996, the world's second-largest economy appeared to be recovering from a 7-year recession as GDP grew 3.4 percent.⁸⁵ However, Japan's economic growth fluctuated throughout 1997 due to consumer response to a national sales tax and depressed demand resulting from diminished consumer confidence. In anticipation of the new sales tax, robust spending by Japanese consumers drove economic growth to almost 6 percent in the first quarter of 1997. Once the tax took effect on April 1, consumption froze and the Japanese economy contracted by 11 percent in the second quarter. Third-quarter spending barely revived; and, by yearend, annual real GDP had grown by only 0.9 percent.

⁸²See "Aircraft Engines and Gas Turbines" in ch. 12 for more information.

⁸³See "Precious Metals and Related Articles" in ch. 10 for more information.

⁸⁴Southeast Asia (Korea, Taiwan, Thailand, Singapore, Malaysia, Brunei, Philippines, Indonesia, and Hong Kong) accounted for 30 percent of Japan's total merchandise trade in 1997. If China was included, this group would have accounted for 38 percent of Japan's total merchandise trade in 1997. Japan Tariff Association, *Japan Exports and Imports, Commodity by Country*, Dec. 1997.

⁸⁵Economic Planning Agency Statistics, "Main Economic Indicators of Japan," Apr. 1998.

The extent of problems in the banking sector was demonstrated when four major financial institutions closed in November 1997. The closings prompted the Japanese Government to recognize the need for comprehensive economic reform. Some Western analysts were encouraged that, rather than prop up weak financial institutions, the Japanese Government allowed some to fail.⁸⁶ The resolve of U.S. Government officials to support Japanese economic reform was strengthened in the weeks following the bank closings. The measures taken by the Japanese Government in December 1997, including a \$77 billion bank rescue plan and corporate and consumer tax cuts, were intended to encourage economic growth. However, some Western officials called the measures inadequate because the bank bail-out plan did not provide enough funds to address the problem, and the tax cuts were only temporary. According to these officials, it was clear that a fundamental restructuring of the Japanese economy and financial system was necessary.⁸⁷

President Clinton and Japanese Prime Minister Hashimoto signed an agreement in June 1997 titled the Enhanced Initiative on Deregulation and Competition Policy. In it, the United States and Japan agreed to work out concrete measures to increase market access for competitive foreign goods in Japan through structural and sectoral regulatory reforms.⁸⁸ The reforms would address domestic business practices and Government policies shielding the Japanese market from foreign competition and reducing the impact of external market forces. The removal of regulatory barriers that limit market access was expected to create a more dynamic Japanese market because heightened competition and domestic demand would play a greater role in determining economic growth.⁸⁹ The need for deregulation and economic stimulation seemed more urgent as Japan experienced the effects of its bank closings coupled with the Asian financial crisis. In May 1998, U.S. and Japanese officials agreed to a plan for achieving the Enhanced Initiative goals in four primary areas--telecommunications, housing, financial services, and medical devices and pharmaceuticals.⁹⁰ However, some outstanding issues remain and a new "expert-level" group is to be established to discuss deregulation issues in the energy sector.⁹¹

The U.S.-Japan trade balance also widened in 1997 because of the financial crisis in Southeast Asia as Japan's exports to Southeast Asian countries fell, especially during the final quarter of 1997.⁹² As Japan's largest

⁸⁶Speculations on some of the reasons for the bank closings included an excess of easy loans issued during the boom years of the 1980s, a lack of reforms after the collapse of the bubble economy in 1991 which left a fundamentally weak banking system, and questionable bank reporting practices. For example, following the Yamaichi collapse, the practice of keeping financial losses hidden was discovered by the legislative panel investigating the bank closure. See "Bailing Out of the Bailout Game," *New York Times*, Nov. 11, 1997, p. D1; "Japan's Yamaichi Securities Considering Shutdown: Regulators Set Tuesday Deadline," *Washington Post*, Nov. 22, 1997, p. C1; "Big Japanese Securities Firm Falls, Putting the System in Doubt," *New York Times*, Nov. 24, 1997, p. A6; and "Ex-Yamaichi Official Knew of Violations," *Washington Post*, Nov. 28, 1997.

⁸⁷Ibid.

⁸⁸The United States-Japan Framework for a New Economic Partnership, signed in 1993, was the basis for the Enhanced Initiative. In addition to Japan's own efforts to deregulate its economy, the Enhanced Initiative is a forum for cooperation between U.S. and Japanese officials to discuss and agree on measures needed to be taken to achieve a more open Japanese market. The initiative addresses sectoral reform for telecommunications, housing, medical devices and pharmaceutical products, and financial services; and structural reforms concerning competition policy, market distribution, and transparency. See USTR, "United States and Japan Reach Agreement of Deregulation Initiative," press release, June 19, 1997. See USTR, *1998 National Trade Estimate on Foreign Trade Barriers* (Washington DC: USTR), 1998, pp. 193-242.

⁸⁹U.S. officials encouraged Japan to stimulate domestic demand as the means to jump-start economic growth rather than accumulating a greater trade surplus by implementing export-led growth, "In Letter, Rubin Warns Japan It Must Bolster Limp Economy," *New York Times*, Nov. 3, 1997, p. D1.

⁹⁰USTR, "U.S.-Japan Initiative Delivers Progress on Deregulation," press release, May 15, 1998.

⁹¹U.S. Department of State telegram No. 097022, "U.S.-Japan Deregulation Initiative: First Year Results," prepared by U.S. Department of State, June 1, 1998.

⁹²See Japanese Tariff Association, *Japanese Exports and Imports Commodity by Country*, Dec. 1996 and 1997.

export market, the United States market absorbed some of the decline Japan experienced in Asian export sales. Despite the urging of U.S. officials to refrain from exporting as a means to economic recovery, Japan's trade surplus with the United States climbed steeply in the third quarter and steadily in the fourth.⁹³

U.S. imports

U.S. imports from Japan grew by \$5.7 billion (5 percent) to \$120.5 billion in 1997 (table 3-9). The largest change was a \$1.1 billion (79 percent) increase in imports of video games to \$2.6 billion. The surge in imports was due to the greater market demand for home video games that operate with advanced, 64-bit technology once the price for the consoles on which the games are played dropped below \$200 per unit early in 1997.⁹⁴ All three of the leading producers of home video games (Nintendo, Sega, and Sony) are based in Japan; there is no production of the game consoles in the United States.⁹⁵

The growth of Japan's trade surplus with the United States was also bolstered by a rise in U.S. motor-vehicle imports from Japan, which increased by \$1.1 billion (4 percent) to \$27.6 billion, reversing a 2-year decline in U.S. imports in the sector. U.S. demand for sport utility vehicles produced in Japan remained strong in 1997, and the strength of the U.S. economy contributed to high consumer confidence which encouraged spending. Soft domestic demand for automobiles in Japan and the weak yen encouraged Japanese manufacturers to sell overseas.⁹⁶ Continued strength in the U.S. economy coupled with lower prices contributed to a \$852 million (9-percent) rise in U.S. imports of computers from Japan to \$10.3 billion.

The largest absolute decline in U.S. imports from Japan occurred in electronic integrated circuits, microassemblies, and parts as imports in this sector fell by \$992 million (13 percent) to \$6.7 billion. This followed a \$2.0 billion decline in imports of semiconductors made in Japan in 1996. An agreement concluded in 1996 may have contributed to this decline. The agreement varied from the 1991 U.S.-Japan semiconductor trade arrangement that was primarily a government-monitored arrangement to increase the foreign share in Japan's semiconductor market. Under the 1996 agreement, the Semiconductor Council was established by U.S. and Japanese industries. The European Union and Korea joined the Council in 1997. The partnership is a forum for the exchange of information on topics such as market access, technological research, environmental and safety standards, and manufacturing processes for the potential benefit of the global semiconductor industry.⁹⁷ The \$354 million (11-percent) contraction in U.S. imports of televisions and related parts and apparatus from Japan in 1997 to \$2.9 billion may reflect a shift in the production of products destined for the U.S. market from Japan to Mexico (television receivers) and the United States (picture tubes).⁹⁸

Table 3-9
Leading changes in U.S. imports from Japan, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent

⁹³See "Rubin Warns of Asia Trade Backlash," *New York Times*, Sept. 21, 1997, p. 18.

⁹⁴For more information on the sector, see "Games and Fairground Amusements" in ch. 14.

⁹⁵U.S. production in the video game industry is limited to coin-operated arcade games and components and software for home video games.

⁹⁶"Upsurge in Japanese Exports Angers U.S. Carmakers," *Financial Times*, July 18, 1997, p. 1.

⁹⁷See USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers*, pp. 241-242.

⁹⁸Under NAFTA rules of origin, televisions assembled in Mexico can qualify for duty-free entry into the United States if the picture tube is of North American origin. Almost all "North American" picture tubes are made in the United States.

	<i>Million dollars</i>			
Increases:				
Video games (HTS 9504)	1,438	2,576	1,138	79
Passenger vehicles (HTS 8703)	26,443	27,565	1,122	4
Computer hardware, excluding parts (HTS 8471)	9,411	10,263	852	9
Aircraft and spacecraft parts (HTS 8803)	766	1,231	465	61
Certain measuring instruments (ST030)	1,569	1,785	217	14
Molds and molding machinery (MT046)	602	804	201	33
Benzenoid specialty chemicals (CH011)	835	1,032	196	24
Construction and mining equipment (MT012)	999	1,192	193	19
Discrete semiconductors ¹ (HTS 8541)	966	1,158	192	20
Steel (MM025)	1,418	1,605	187	13
Decreases:				
Electronic integrated circuits, microassemblies, and parts (HTS 8542)	7,665	6,673	-922	-13
Certain motor-vehicle parts (MT039)	3,774	3,493	-281	-7
Television apparatus ²	3,210	2,856	-354	-11
Air-conditioning equipment and parts (MT004)	855	710	-146	-17
All Other	54,811	57,537	2,726	5
Total	114,762	120,480	5,718	5

¹Diodes, transistors, photosensitive semiconductor devices, light-emitting diodes, mounted piezoelectric crystals, similar semiconductor devices, and parts thereof.

²Television apparatus includes receivers, monitors, picture tubes, cameras, camcorders, and cable apparatus (ST009, ST010, ST014).

Note.--Calculations based on unrounded data.

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

U.S. exports

U.S. exports to Japan dipped slightly in 1997, by \$1.5 billion (2 percent) to \$62.1 billion (table 3-10). The decline was preceded by a \$2.6 billion increase (4 percent) in exports between 1995 and 1996. This reversal is indicative of the lack of Japanese demand for U.S. products due to the relatively weak yen and the almost stagnant economic growth of the Japanese economy.

Table 3-10
Leading changes in U.S. exports to Japan, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Aircraft and spacecraft (HTS 8802)	1,500	2,628	1,128	75

Certain motor-vehicle parts (MT039)	1,050	1,337	286	27
Radioactive chemical elements and isotopes (HTS 2844)	571	829	258	45
Medicinal chemicals (CH026)	946	1,162	216	23
Parts for radio and television transmission and reception equipment (HTS 8529)	777	964	187	24
Electronic integrated circuits, microassemblies, and parts (HTS 8542)	2,111	2,294	183	9
Aircraft engines (HTS 8411)	696	841	145	21
Aircraft and spacecraft parts (HTS 8803)	1,456	1,592	136	9
Decreases:				
Automobiles, trucks, and buses (MT038)	2,562	1,559	-1,003	-39
Logs, roughwood products and lumber (AG046)	2,990	2,189	-801	-27
Corn (HTS 1005)	2,462	1,920	-542	-22
Military weapons, munitions of war, and ammunition (HTS 9301 and HTS 9306)	435	240	-195	-45
Frozen fish (AG007)	1,136	943	-193	-17
Unrough aluminum (MM037)	383	212	-172	-45
All Other	44,510	43,381	-1,129	-3
Total	63,585	62,091	-1,493	-2

Note.--Calculations based on unrounded data.

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

U.S. exports to Japan increased in 1997 in some sectors, although there was a net decline. The single largest increase was \$1.1 billion (75 percent) in aircraft and spacecraft, which includes satellites (aircraft and spacecraft), to \$2.6 billion. The growth is attributable to orders for aircraft placed several years in advance, inasmuch as it takes 18 to 24 months for delivery.⁹⁹ U.S. exports of electronic integrated circuits, microassemblies, and parts also increased in 1997.

The most pronounced drop in U.S. exports to Japan was in motor vehicles, which fell by \$1.0 billion (39 percent) to \$1.6 billion in 1997. The steep decline was attributable to tight spending by Japanese consumers.¹⁰⁰ Not only was demand for U.S. products weak in the Japanese market, but demand for domestic products was also very depressed. This lowered demand further for U.S. exports to Japan.

U.S. exports of logs, rough wood products, and lumber declined by \$801 million (27 percent) to \$2.2 billion in 1997. Reduced levels of housing construction in Japan and excess inventories accounted for some of the decline in lumber exports. Lower priced materials from Russia and Scandinavia also displaced U.S. exports to Japan.¹⁰¹ The value of U.S. exports of corn also declined as Japan turned to China to supply a less expensive grain; however, the total volume of Japan's corn imports did not change in 1997 (table 3-10). In addition, the price of corn fell on the commodities market increasing the apparent decline in the value of total U.S. corn exports.

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⁹⁹U.S. exports of several Boeing 747s account for the rise.

¹⁰⁰For more information on the sector, see "Motor Vehicles" in ch. 12.

¹⁰¹See *Export*, the report on global markets for wood products, vol. 30, No. 24, Dec. 3, 1997; and *Japan Lumber Journal*, vol. 38, No. 23, Dec. 20, 1997; and vol. 39, No. 2, Jan. 31, 1998 and Mar. 31, 1998.

Taiwan

Total U.S. merchandise trade with Taiwan increased by \$4.6 billion (10 percent) to \$51.4 billion in 1997 (3 percent of total U.S. merchandise trade). The United States registered a \$13.6 billion trade deficit with Taiwan in 1997, up by \$715 million (6 percent). U.S. exports to Taiwan increased by \$2.0 billion (12 percent) to \$18.9 billion in 1997. U.S. imports from Taiwan rose by \$2.7 billion (9 percent) to \$32.5 billion. In 1997, the United States was Taiwan's largest trading partner, followed closely by Hong Kong and Japan.¹⁰¹ The expansion in U.S.-Taiwan trade primarily reflected large increases in U.S. exports of aircraft, U.S. imports of computer hardware, and two-way trade in semiconductors.

Taiwan's customary global trade surplus declined 44 percent in 1997, to \$7.6 billion, the lowest since 1983.¹⁰² Taiwan's global imports grew by 12 percent, to \$114.4 billion, largely fueled by demand for electrical machinery and precision instruments to upgrade domestic industries, as well as consumer demand for more, better quality goods. Taiwan's real GDP grew by 6.9 percent in 1997,¹⁰³ with industrial growth primarily in petrochemicals, computers, electronic components, and consumer goods industries. Its exports to the world grew by 6.7 percent to \$123.7 billion.¹⁰⁴ Most of the increase in Taiwan's exports was accounted for by communication equipment, electronics, and electrical machinery. Analysts believe that Taiwan's exports would have risen even more had its shipments of pork, primarily to Japan, not been severely curtailed by an outbreak of foot-and-mouth disease that necessitated destroying much of Taiwan's hog herd. Trade analysts believe that Taiwan's trade in 1997 was not significantly affected by the Asian currency crisis because the crisis deepened only in the final months of the year and because the countries most severely affected by the crisis are not among Taiwan's major trading partners.

U.S. imports

The leading growth areas in U.S. imports from Taiwan in 1997 were largely computer hardware, which grew by \$1.7 billion (21 percent) to \$9.8 billion, and electronic integrated circuits, microassemblies, and parts, which grew by \$216 million (8 percent) to \$2.9 billion (table 3-11). Together imports in these two sectors accounted for 39 percent of total 1997 imports from Taiwan, and were up by 17 percent from the previous year. They accounted for \$1.9 billion (81 percent) of total 1997 growth in U.S. imports from Taiwan. Other leading growth sectors in U.S. imports from Taiwan were television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus (television apparatus, except receivers and monitors); electric transformers, static converters, and inductors; and printed circuits. As with the top two imported goods, these had traditionally been important products imported from Taiwan and together accounted for \$333 million (12 percent) of absolute import growth. Increased imports of cable apparatus were largely responsible for the 47-percent rise in imports of television apparatus in 1997 and reflected expanded penetration of cable television in U.S. homes. After several years of steady declines, textile and apparel imports from Taiwan increased by \$187 million (7 percent) in 1997 to \$3.0 billion.

U.S. imports of sporting goods, games, footwear, and luggage, handbags, and flat goods from Taiwan all declined in 1997, collectively falling by \$372 million (27 percent) to \$1.0 billion (table 3-11). This decline

¹⁰¹About 70 percent of Taiwan's trade with Hong Kong is believed to be goods shipped through Hong Kong to or from China. U.S. Department of State, "Taiwan Trade Trends," *Market Research Reports*, Jan. 23, 1998, p. 4.

¹⁰²*Ibid.*, pp. 1-2.

¹⁰³International Monetary Fund, *World Economic Outlook* (Washington, DC: IMF, May 1998) ch. II and statistical index. Taiwan real GDP grew by 6.8 according to the Asian Development Bank. See Asian Development Bank, "Asian Financial Crisis Clouds Global Growth Prospects," press release No. 26198, Apr. 23, 1998.

¹⁰⁴U.S. Department of State, "Taiwan: Economic Policy and Trade Practices Report (1997)," found at Internet address http://www.state.gov/www/issues/ec...e_reports/eastasia97/taiwan97.html, retrieved Apr. 14, 1998.

reflects a long term shift in the production of these labor-intensive items from Taiwan to China and other lower cost countries. Sporting goods and games were among the sectors leading the growth in U.S. imports from China in 1997 (see the section on China earlier in this chapter).

Table 3-11
Leading changes in U.S. imports from Taiwan, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Computer hardware (ST018)	8,155	9,826	1,671	21
Electronic integrated circuits, microassemblies, and parts (HTS 8542)	2,728	2,943	216	8
Television apparatus, except receivers and monitors (ST010)	364	533	169	47
Textiles and apparel (CH048-CH078)	2,770	2,957	187	7
Electric transformers, static converters, and inductors (HTS 8504)	502	587	85	17
Printed circuits (HTS 8534)	506	586	79	16
Decreases:				
Sporting goods (MM062)	729	562	-168	-23
Footwear and parts (CH079)	256	183	-73	-28
Games (HTS 9504)	142	74	-68	-48
Luggage, handbags, and flat goods (MM046)	246	184	-63	-25
All Other	14,103	14,830	727	5
Total	29,797	32,474	2,677	9

Note.--Calculations based on unrounded data.

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

U.S. exports

U.S. exports of aircraft and spacecraft to Taiwan more than doubled to \$1.6 billion in 1997, after having dropped by \$443 million (36 percent) to \$772 million in 1996 (table 3-12). The 1997 increase reflects the expansion of Taiwan's civilian and military air fleets, for which orders are placed on a long term basis; the decline in 1996 and the subsequent increase in 1997 do not reflect any significant long-term trade shifts.¹⁰¹ Exports of electronic integrated circuits, microassemblies, and parts and semiconductor manufacturing equipment both rose sharply in 1997, together growing by \$705 million (33 percent) to \$2.9 billion, accounting for 15 percent of total U.S. exports to Taiwan. Fuel for nuclear reactors accounted for the largest percentage increase of the top 20 exported goods, rising by 470 percent (\$113 million) to \$137 million, following the expansion of Taiwan's nuclear power plant capacity.¹⁰²

¹⁰¹U.S. Department of State, "Taiwan--Commercial Aerospace Industry," *Market Research Reports*, Aug. 10, 1997, pp. 1-2, and *China Airline News*, "China Airlines to Expand Fleet," found at Internet address <http://w3.china-airlines.com/cnews/cnews97/cnww0530e.html>, retrieved Apr. 10, 1998.

¹⁰²American Institute in Taiwan, "General Electric Awarded Nuclear Power Plant Order," press release, dated May 25, 1996, found at Internet address <http://www.ait.org.tw/ait/pr/pr9626e.htm>, retrieved Apr. 10, 1998.

Table 3-12
Leading changes in U.S. exports to Taiwan, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Aircraft and spacecraft (HTS 8802)	772	1,611	839	109
Electronic integrated circuits, microassemblies, and parts (HTS 8592)	1,582	2,019	437	28
Semiconductor manufacturing equipment and robotics (MT023)	570	838	268	47
Non-metalworking machine tools and parts (MT022)	246	417	172	70
Parts for office machines and computers (HTS 8473)	272	414	142	52
Certain measuring instruments (ST030)	498	636	138	28
Radioactive chemical elements and isotopes (HTS 2844)	24	137	113	470
Aircraft and spacecraft parts (HTS 8803)	422	510	88	21
Decreases:				
Corn (HTS 1005)	962	693	-270	-28
Automobiles, trucks, and buses (MT038)	544	336	-208	-38
Benzenoid commodity chemicals (CH010)	371	186	-185	-50
Soybeans (HTS 1201)	777	649	-128	-16
All Other	9,880	10,437	557	6
Total	16,920	18,883	1,963	12

Note.--Calculations based on unrounded data.

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

The largest absolute decline in U.S. exports to Taiwan was of corn, down by \$270 million (28 percent) to \$603 million. This decline was caused by the need to destroy most of Taiwan's hog population due to an outbreak of foot-and-mouth disease and the subsequent decline in demand for feed.¹⁰³ As Taiwan purchases a considerable amount of U.S. corn, these exports are expected to rebound as Taiwan's hog population is brought back to normal levels. Exports to Taiwan of motor vehicles continued their steady decline since at least 1993, dropping by \$208 million (38 percent) to \$336 million in 1997 and from \$1.1 billion in 1993. This ongoing decline reflects the increasing share of the Taiwanese automobile market accounted for by other sources, particularly Japan and Korea.

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¹⁰³Purdue University, Agricultural Extension Service, "Foot-and-Mouth Disease Plagues Taiwan Swine Industry," found at Internet address http://www.aes.purdue.edu/aganswers/1997/4-04swine_disease.html, retrieved Apr. 10, 1998.

Germany

Total U.S. merchandise trade with Germany increased by \$4.5 billion (7 percent) to \$65.9 billion in 1997 (4 percent of total U.S. trade). The U.S. merchandise trade deficit with Germany grew by \$2.6 billion (15 percent) in 1997 to \$19.7 billion, in part reflecting the effects of the appreciation of the U.S. dollar against the German deutschemark and German efforts to use exports to improve the German economy. U.S. imports from Germany grew by \$3.6 billion (9 percent) to \$42.8 billion, while exports to Germany grew by \$945 million (4 percent) to \$23.1 billion. The United States imported nearly twice as much from Germany as it exported to Germany in 1997.

The German economy struggled with unemployment of 11.5 percent in 1997 and a postwar high of 11.9 percent in December,¹⁰⁴ which, along with modest nominal wage gains and higher contributions to social programs, added to depressed domestic demand. Public consumption continued to be constrained by the austerity measures needed to meet the convergence criteria for the economic and monetary union and a single European currency.¹⁰⁵ As companies downsized to maintain their global competitiveness, they contributed to unemployment rather than creating new opportunities. The only industry that created employment in 1997 was the services industry, which added nearly 170,000 new positions.¹⁰⁶

Real GDP growth of 2.2 percent¹⁰⁷ resulted from improved productivity and increased German exports. German producers were able to take advantage of the relative weakness of the German deutschemark against the U.S. dollar to promote exports. Overall, Germany recorded its largest trade surplus since reunification in 1990.¹⁰⁸ Germany is the largest economy in Europe and the third-largest in the world.

U.S. imports

The increase in U.S. imports from Germany in 1997 was led by motor vehicles, which accounted for two-fifths of the total growth in U.S. imports from Germany, followed by medicinal chemicals, aircraft engines, machine tools, and semiconductor manufacturing equipment (table 3-13). Sales of German motor vehicles to the United States in 1997 rose by \$1.4 billion (17 percent) to \$9.8 billion, compared with a \$686 million increase in 1996. German automakers were aided by the continued strength of the U.S. economy, a rise in domestic demand for German luxury cars, and the relative weakness of the deutschemark against the dollar. During the same period, imports of motor-vehicle parts decreased by \$60 million (7 percent) to \$812 million as German automakers increased their purchases from U.S. suppliers for their U.S. and German production facilities.

U.S. imports of medicinal chemicals from Germany grew by \$964 million (69 percent) to \$2.4 billion. Medicinal chemicals include chemicals presented for treating or preventing disease in humans or animals, in bulk and dosage form. This shift reflects a growing trend among U.S. pharmaceutical companies to look to European third-party sources of fine chemicals and custom manufacturings to supplement U.S. capabilities in certain

¹⁰⁴ U.S. Department of State telegram No. 000973, "Financial and Economic Developments," prepared by U.S. Embassy, Bonn, Jan. 30, 1998.

¹⁰⁵ The European Union is set to introduce a common European currency, the euro, on Jan. 1, 1999. In preparation for the euro, all countries wishing to participate in Economic and Monetary Union must meet certain criteria, including government deficits of not more than 3 percent of GDP. These criteria have resulted in a tightening of fiscal policy at the Federal, State, and local levels.

¹⁰⁶ U.S. Department of State telegram No. 000733, "German Economic Forecast: January 1998," prepared by U.S. Embassy, Bonn, Jan. 23, 1998.

¹⁰⁷ International Monetary Fund, *World Economic Outlook* (Washington, DC: IMF, May 1998) ch. II and statistical index.

¹⁰⁸ Peter Norman, "Germany Reports Record Trade Surplus," *Financial Times*, Feb. 19, 1998, p. 2.

processes.¹⁰⁹ The leading German producers include BASF, Bayer, and Hoechst. Total trade with Germany in medicinal chemicals amounted to \$3.5 billion, of which U.S. imports accounted for 68 percent.

Other significant increases in imports from Germany included machine tools for cutting metal and parts, which grew by \$142 million (28 percent) to \$651 million, reflecting Germany's status as the second-largest producer of machine tools behind the United Kingdom and the United States' position as a major machine tool market. Imports of semiconductor manufacturing equipment and robotics grew by \$90 million (31 percent) to \$381 million and imports of nuclear materials, led by enriched uranium fluoride, increased by \$59 million (215 percent) to \$86 million.

Table 3-13
Leading changes in U.S. imports from Germany, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Motor vehicles (MT038)	8,346	9,761	1,415	17
Medicinal chemicals (CH026)	1,391	2,355	964	69
Aircraft engines and gas turbines (MT001)	686	852	166	24
Machine tools for cutting metal and parts (MT020)	510	651	142	28
Semiconductors manufacturing equipment and robotics (MT023)	290	381	90	31
Nuclear materials (CH002)	27	86	59	215
Decreases:				
Metal rolling mills and parts thereof (MT019)	150	70	-81	-54
Farm and garden machinery (MT014)	418	347	-71	-17
Certain motor-vehicle parts (MT039)	873	812	-60	-7
Fruit and vegetable juices (AG036)	90	60	-30	-33
All Other	26,434	27,418	984	4
Total	39,215	42,793	3,578	9

Note.--Calculations based on unrounded data.

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

The expansion of U.S. imports from Germany in 1997 was partially offset by reduced imports of metal rolling mills and parts, farm and garden machinery, and fruit and vegetable juices. Imports of metal rolling mill parts decreased by \$81 million (54 percent) to \$70 million as several greenfield minimill plant construction and brownfield integrated modification projects were completed in 1996 and 1997.¹¹⁰ Farm and garden machinery imports declined as Case Corp. closed its Neuss, Germany, tractor factory in 1997.¹¹¹ The decrease in the fruit and vegetable juice sector was led by a reduction in imports of apple juice as the United States enjoyed a large domestic apple crop, and low demand from the fresh apples market resulted in more apples being pressed into juice, putting downward pressure on the price of apple juice concentrate.¹¹²

U.S. exports

¹⁰⁹Bruce Gain, "U.S. Lags Europe in Outsourcing Capability," *Chemical Week*, Sept. 10, 1997, p. 44.

¹¹⁰Minimills with new facilities include Gallatin Steel, Tuscaloosa Steel, IPSCO, Steel Dynamics, Nucor, Delta Steel, and Trico. Integrated plants which have modified facilities include Geneva Steel, Armco Inc., and Acme Steel.

¹¹¹See "Farm and Garden Machinery and Equipment," in ch. 12 for more information.

¹¹²Tim Gibney, "Glut Weakens Apple Juice," *Foodnews*, Dec. 12, 1997, p. 1.

Overall, U.S. exports to Germany increased by only 4 percent in 1997 as the dollar strengthened against the deutschemark and the German economy faced restrained demand. However, aircraft and spacecraft exports to Germany more than doubled, growing by \$534 million to \$1.0 billion (table 3-14). During 1997, Lufthansa received delivery of four Boeing 747-400s, reportedly one of the world's most modern and fuel-efficient aircraft, while other regional airlines received seven Boeing 737-300 aircraft.¹¹³ The growth in exports of finished aircraft accounted for over one-half of the total rise in U.S. exports to Germany in 1997. Collectively, U.S. exports of aircraft engines and aircraft parts rose by \$130 million (10 percent) to \$1.5 billion.

Table 3-14
Leading changes in U.S. exports to Germany, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Aircraft and spacecraft (HTS 8802)	497	1,031	534	107
Medicinal chemicals (CH026)	1,025	1,133	108	11
Certain measuring instruments (ST030)	809	917	108	13
Nuclear materials (CH002)	32	131	99	312
Aircraft engines and gas turbines (MT001)	657	729	72	11
Internal combustion piston engines, other than for aircraft (MT002)	125	182	57	45
Aircraft and spacecraft parts (HTS 8803)	693	751	57	8
Printing, typesetting, and bookbinding machinery and printing plates (MT017)	91	145	54	59
Electrical circuit apparatus (ST013)	242	294	52	22
Decreases:				
Computer hardware (ST018)	3,278	2,681	-597	-18
Edible nuts (AG020)	303	225	-78	-26
Soybeans (HTS 1201)	389	330	-60	-15
Ammunition and munitions of war (HTS 9306)	131	74	-57	-44
Semiconductors (ST016)	632	580	-53	-8
All Other	13,287	13,933	646	5
Total	22,191	23,136	945	4

Note.--Calculations based on unrounded data.

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

Additional sectors with substantial export improvement included nuclear materials, primarily enriched uranium oxide, which increased by \$99 million (312 percent) to \$131 million; auto engines, which grew by \$57 million (45 percent) to \$182 million; and printing machinery, led by the need for parts, which increased by \$54 million (59 percent) to \$145 million (table 3-14).

The leading sectors that experienced a decline in exports to Germany included computer hardware, edible nuts, soybeans, and ammunition and munitions of war (such as bombs, grenades, and rockets). U.S. exports of

¹¹³Boeing, "Commercial Airplanes Order and Delivery Summary," found at Internet address <http://www.boeing.com/commercial/info/orders>, retrieved Apr. 6, 1998.

computers were reduced in part by restrained demand in Germany and the establishment of U.S. assembly plants in Central Europe to take advantage of the proximity and preferred access to major European markets and the availability of a skilled workforce at lower labor costs.¹¹⁴ The change in the edible nuts sector occurred as German demand for almonds was met by Spanish growers whose production doubled in 1997.¹¹⁵ Exports of ammunition and munitions of war decreased by \$57 million (44 percent) to \$74 million, primarily due to a reduction in exports of guided missile parts.

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France

U.S. merchandise trade with France rose by \$3.8 billion (12 percent) to \$35.2 billion in 1997 (2 percent of total U.S. merchandise trade). The U.S. trade deficit with France increased by \$634 million (15 percent) to \$5.0 billion in 1997, largely due to a \$2.2 billion (12 percent) increase in U.S. imports from France to \$20.1 billion. U.S. exports to France also increased in 1997, rising by \$1.6 billion (12 percent) to \$15.1 billion. France is the 10th-largest trading partner of the United States, based on total trade of both imports and exports. Articles related to the aircraft industry, including complete aircraft, aircraft engines, and aircraft parts, are the single largest trade category between both nations, accounting for 20 percent of U.S. imports from France and 17 percent of U.S. exports to France in 1997. Growing trade in such products between the two nations has emerged in recent years due to the growing influence of Airbus Industrie in world export markets and the joint U.S.-French ownership of aircraft engine manufacturer, CFM International (CFMI).¹¹⁶

French real GDP grew at a rate of 2.4 percent in 1997,¹¹⁷ a slight increase over the 1996 rate of 1.5 percent, while the underlying rate of inflation remained at 1 percent during 1997.¹¹⁸ Economic growth was largely attributable to a strengthening of foreign demand for French goods resulting from the substantial depreciation of the franc relative to the Italian lire, the British pound, and the U.S. dollar.¹¹⁹ Overall, French exports grew 7 percent in 1997 over 1996 levels. However, the pace of economic growth in France was viewed as insufficient to significantly reduce the country's unemployment rate below the yearend level of 12.2 percent, without additional steps to stimulate the domestic economy and without labor market reform to reduce labor costs to levels comparable to those of foreign trading partners.¹²⁰ In May 1998 the French Government

¹¹⁴Drew Wilson, "Paving the Road to Central Europe," *Electronic Business*, Nov. 1998, found at Internet address <http://www.eb-mag.com/registrd/issues/9711/1197east.htm>, retrieved Apr. 9, 1998.

¹¹⁵Industry contact, telephone interview by USITC staff, Apr. 3, 1998.

¹¹⁶France's state-owned Aerospatiale owns a 37.9 percent stake in Airbus Industrie, which is also owned by Daimler-Benz Aerospace (Germany), British Aerospace (United Kingdom), and CASA (Spain), while France's state-owned SNECMA and General Electric Co., are equal partners in CFM International.

¹¹⁷International Monetary Fund, *World Economic Outlook* (Washington, DC: IMF, May 1998) ch. II and statistical index.

¹¹⁸Country chapter on France, *OECD Economic Outlook*, Dec. 1997, p. 77.

¹¹⁹The foreign exchange value of the French franc declined 16 percent in average value versus the U.S. dollar between 1996 and 1997 (*International Financial Statistics*, IMF, Nov. 1997).

¹²⁰U.S. Department of State telegram No. 019620, "Forecast of the French Economy," prepared by U.S. Department of State, Washington, DC, Aug. 1997.

adopted legislation to reduce the work week to 35 hours without reducing salaries; the impact of this development on the French economy remains uncertain.¹²¹

NTMs existed in 1997 in both wine and aerospace trade, as reported by the United States Trade Representative (USTR). Current EU regulations require imported wines to be produced with only those oenological practices (wine-treating materials and processes), which are authorized for the production of EU wines.¹²² Since the mid-1980s, U.S. wines have been permitted entry to EU markets through a series of extensions to temporary EU regulatory exemptions.¹²³ As a result, entry to the EU market and export expansion by U.S. wine producers depends on these arbitrary extensions. Government support for Airbus Industrie by partner governments has facilitated the company's growth and has sheltered Airbus' national partner companies from commercial risks faced by U.S. manufacturers.¹²⁴

U.S. imports

The growth in U.S. imports from France in 1997 was driven largely by an increase in imports of aircraft equipment (including complete aircraft engines and aircraft parts), which accounted for 42 percent of the gain (table 3-15). The increase in U.S. imports of aircraft-related items reflects the revitalization of the French aerospace industry. A series of events, including an upturn in the commercial transport market, adoption of productivity-enhancing and cost-reducing efforts by major French aircraft manufacturers, more favorable exchange rates between the French franc and the currencies of major trading partners, and increased international competitiveness of French aircraft products.¹²⁵ At the same time, the French aerospace industry benefited from the strong sales performance of Airbus Industrie, which nearly doubled its annual aircraft production rate to 182 aircraft in 1997,¹²⁶ partly in response to major contracts with US Airways and Northwest Airlines. French aerospace component sales also benefited from the activities of U.S.-French engine manufacturer CFMI, which increased its production of CFM turbofan engines to 730 in 1997 from 400 in 1996: 1998 production is expected to increase to 1,000 engines.¹²⁷ CFMI engines are mainly designed for Boeing and Airbus narrow-body transports.

Additional import increases included works of art, collectors' pieces, and antiques. Imports from this group increased \$406 million (44 percent) to \$1.3 billion, largely related to auctions of the estates of U.S. Ambassador to France, Pamela Harriman, and of the Duke and Duchess of Windsor; the bulk of these properties was titled in France.¹²⁸ U.S. imports of farm and garden machinery from France increased by \$189 million in 1997 (99 percent) to \$381 million, due to increased supplies to the United States of track-laying type tractors for farm and construction uses from production facilities of U.S. producers in France.¹²⁹

¹²¹Telephone conversation with representative of *Agence France-Presse*, Washington, DC, June 10, 1998.

¹²²USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers* (Washington, DC: USTR, 1998), p. 101.

¹²³U.S. wine exports to France expanded by \$3 million (89 percent) in 1997 to \$6.3 million.

¹²⁴USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers* (Washington, DC: USTR, 1998), pp. 124-125.

¹²⁵Pierre Sparaco, "French Industry Makes Efficiency Gains," *Aviation Week & Space Technology*, June 9, 1997, pp. 62-64.

¹²⁶In 1997, Airbus Industrie's firm orders rose 50 percent to a record 460 jets valued at \$29.6 billion. Airbus press release found at Internet address <http://www.airbus.com>, retrieved Jan. 6, 1998.

¹²⁷Pierre Sparaco, "Brisk CFM56 Sales Boost Snecma's Position," *Aviation Week & Space Technology*, Jan. 26, 1998, pp. 48-50.

¹²⁸Telephone interview by USITC staff with official of Sotheby International, Mar. 25, 1998.

¹²⁹See "Farm and Garden Machinery and Equipment" in ch. 11 for more information.

Table 3-15
Leading changes in U.S. imports from France, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
----- Million dollars -----				
Increases:				
Aircraft engines and gas turbines (MT001)	1,297	1,890	593	46
Aircraft and spacecraft (HTS 8802)	1,525	1,811	286	19
Works of art, collector's pieces, and antiques (HTS 97)	913	1,319	406	44
Farm and garden machinery and equipment (MT014)	192	381	189	99
Wine (from grapes) (HTS 2204)	616	756	140	23
Medicinal chemicals (CH026)	497	598	101	20
Miscellaneous organic chemicals (CH012)	304	368	65	21
Pesticide products and formulations (CH024)	132	191	59	44
Petroleum products (CH005)	214	270	56	26
Aircraft and spacecraft parts (HTS 8803)	253	306	53	21
Decreases:				
Semiconductors (ST016)	820	658	-163	-20
Nuclear materials (CH002)	268	153	-115	-43
Steel (MM025)	692	621	-70	-10
Computer hardware, excluding parts (HTS 8471)	267	176	-91	-34
All Other	9,924	10,628	704	7
Total	17,914	20,126	2,212	12

Note.--Calculations based on unrounded data.

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

Finally, imports of wine from France increased by \$140 million (23 percent) to \$756 million, as European wine producers experienced robust demand for their product. Growth was propelled by a strong U.S. economy and favorable health news related to wine consumption, combined with selected shortages of California wines.¹³⁰

The most significant declines in U.S. imports from France in 1997 occurred in semiconductors, which fell by \$163 million (20 percent) to \$658 million, and nuclear materials, which fell by \$115 million (43 percent) to \$153 million. France is a significant supplier of enriched uranium to public utilities in the United States, and industry shipments are typically subject to 18-month or 24-month cycles, depending on electric utility requirements for enriched fuel. The length and timing of the uranium-use cycle by utilities often causes large annual fluctuations in nuclear deliveries.¹³¹

U.S. exports

The rise in U.S. exports to France in 1997 reflected the French economic recovery and the competitiveness of certain U.S. products in world markets. The principal category responsible for the increase in U.S. exports to France was aircraft engines and aircraft and spacecraft parts, accounting for 43 percent of the

¹³⁰Terri Allan, "Manic Times for U.S. Wineries," *Brandweek*, June 30, 1997, pp. 23-24.

¹³¹Telephone interview by USITC staff with industry officials of Cogema Inc., Apr. 2, 1998.

total gain (table 3-16). The partnership between General Electric Aircraft Engines and SNECMA of France to form CFMI, which produces CFM56 series engines, has generated strong annual increases in trade in engine components between France and the United States. In 1996, Air France decided to order aircraft from Boeing as well as from Airbus Industrie, representing a potentially important long-term market for U.S. exports.¹³² Air France anticipates spending nearly \$6 billion over the next five years, largely dedicated to replacing its fleet of Boeing 737-200 and 747-200 aircraft.¹³³

U.S. exports to France of medical goods and medicinal chemicals increased by \$200 million (17 percent) to \$1.4 billion, reflecting the competitive strength of U.S. manufacturers in these industries. Trade in medical goods and medicinal chemicals was also encouraged by the conclusion of the GATT Uruguay Round Agreements, under which most industrialized countries agreed to reduce tariffs on the majority of such products to zero.

U.S. exports of telephone and telegraph apparatus increased by \$100 million (47 percent) to \$315 million in 1997. In 1996, the French Government moved to fully deregulate its telecommunications industry by January 1, 1998, resulting in an increased number of foreign license holders in the French telecommunications sector. The move to deregulate was taken to comply with EU policy and to promote telecommunications competition and greater network usage in France.¹³⁴

Table 3-16
Leading changes in U.S. exports to France, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Aircraft engines and gas turbines (MT001)	1,182	1,656	474	40
Aircraft and spacecraft parts (HTS 8803)	560	753	193	34
Medical goods (ST024)	635	755	120	19
Telephone and telegraph apparatus (ST002)	215	312	97	45
Medicinal chemicals (CH026)	537	618	80	15
Semiconductors (ST016)	321	401	80	25
Benzenoid specialty chemicals (CH011)	114	190	75	66
Photographic film in rolls, unexposed (HTS 3702) . . .	89	148	59	67
Miscellaneous chemical products (CH013)	123	179	56	46
Decreases:				
Waste and scrap of precious metals (HTS 7112)	381	156	-226	-59
Computer hardware (ST018)	1,795	1,585	-209	-12
Aircraft and spacecraft (HTS 8802)	208	150	-58	-28
Semiconductor manufacturing equipment and robotics (MT023)	252	199	-53	-21
Petroleum products (CH005)	172	122	-50	-29
All Other	6,970	7,898	928	13
Total	13,554	15,122	1,568	12

Note.--Calculations based on unrounded data.

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

¹³²Ronald D. Green, "Aircraft, Aircraft Engines, and Aircraft Parts," *U.S. Industry & Trade Outlook 1998*, U.S. Department of Commerce, pp. 21-23.

¹³³Julian Moxon, "Air France Must ... 'Spend More Money' on New Aircraft," *Flight International*, Dec. 3-9, 1998, p. 5.

¹³⁴Daniel W. Edwards, "Telephone Services," *U.S. Industry & Trade Outlook 1998*, U.S. Department of Commerce, pp. 30-39.

The most significant U.S. export declines in 1997 occurred in waste and scrap of precious metals, which fell by \$226 million (59 percent) to \$156 million, largely resulting from the decline in gold prices registered during the second half of 1997,¹³⁵ and a decline in U.S. exports of computer hardware, which fell by \$209 million (12 percent) to \$1.6 billion. Most of this latter decrease was accounted for by a drop in exports of parts of computers, by \$148 million (15 percent) to \$826 million, largely attributable to weakening of computer hardware prices in certain market segments.

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Brazil

Total U.S. merchandise trade with Brazil rose by \$3.7 billion (18 percent) in 1997 to \$24.5 billion (1.6 percent of total U.S. trade). The U.S. trade surplus with Brazil expanded by \$2.4 billion (80 percent) to \$5.5 billion due to increases in both exports to and imports from Brazil. U.S. exports climbed by \$3.1 billion (26 percent) to \$15.0 billion in 1997, while U.S. imports increased by \$639 million (7 percent) to \$9.5 billion.

The U.S. bilateral trade balance with Brazil shifted from a \$1.4 billion deficit in 1993 to a \$5.5 billion surplus in 1997. The U.S. trade surplus with Brazil in 1997 was the third-largest U.S. bilateral trade surplus (after the Netherlands and Australia). Brazil was the eleventh-leading destination for U.S. exports, accounting for 2.3 percent of all U.S. exports in 1997 and 5 percent of the total increase in U.S. exports.

Growing demand in Brazil for imports is being fueled in part by generally lower tariffs and reduced NTMs,¹³⁶ as well as the strength of the Brazilian currency relative to the dollar.¹³⁷ The Brazilian government's stabilization plan, referred to as the "Real Plan," was introduced in mid-1994, and has succeeded in restraining Brazil's chronically high inflation. The plan included the introduction of a new currency, the Real, and tied its value to the U.S. dollar. Inflation has dropped from a 1993 high of 2300 percent to under 10 percent.¹³⁸ Brazil's total trade increased 80 percent in 4 years (1993-1997),¹³⁹ and its overall trade balance has gone from \$13.3 billion surplus in 1993 to \$8.4 billion deficit in 1997.¹⁴⁰

U.S. imports

U.S. imports from Brazil consisted primarily of manufactured products; mechanical and electrical machinery, footwear, iron and steel products, motor vehicles, aircraft products, and organic chemicals, accounting for 51 percent of all imports. Major categories of primary products imported from Brazil included coffee, gold, lumber, wood pulp, and tobacco.

¹³⁵The average annual 1997 London Final fix for gold declined from \$368 per troy ounce at the beginning of 1997 to a price of \$290 per troy ounce at the end of 1997. World Gold Council, *Gold Demand Trends*, No. 22, pp. 14-15.

¹³⁶USTR, *1998 National Trade Estimate Report on Foreign Trade Barriers* (Washington, DC: USTR, 1998), p. 21.

¹³⁷U.S. Foreign Commercial Service and U.S. Department of State, *Country Commercial Guide-Brazil, Fiscal Year 1997*, Executive summary.

¹³⁸Caspar W. Weinberger, "Brazil in 1997," *Forbes*, July 28, 1997, p. 37.

¹³⁹Central Bank of Brazil, *Boletim do Banco Central do Brasil* (Feb. 1998), table IV.7.

¹⁴⁰*Ibid.*

Coffee imports increased by \$204 million (80 percent) in 1997 to \$459 million and accounted for nearly one-third of the total growth in U.S. imports from Brazil (table 3-17). However, over one-half of the increase in coffee imports was due to higher prices as the average customs value per kilogram rose from \$2.28 to \$3.27 (44 percent). Coffee imports in 1996 had been reduced due to crop damage caused by frosts and drought. For further discussion of coffee imports, refer to chapter 5.

Table 3-17
Leading changes in U.S. imports from Brazil, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Coffee (HTS 0901)	255	459	204	80
Aircraft and spacecraft (HTS 8802)	126	282	156	124
Gold (HTS 7108)	229	351	122	53
Internal combustion engines for motor vehicles (MT002)	370	459	89	24
Soybeans (HTS 1201)	0	59	59	(¹)
Decreases:				
Footwear (HTS 6403)	1,149	1,061	-88	-8
Fruit juice (HTS 2009)	205	126	-79	-39
All Other	6,537	6,713	176	3
Total	8,871	9,510	639	7

¹Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

Increased U.S. imports of aircraft and spacecraft from Brazil reflect both the competitiveness of the Brazilian aerospace industry and continued strong demand by the U.S. market. U.S. imports of aircraft and spacecraft from Brazil grew by \$156 million (53 percent) to \$282 million in 1997. Empresa Brasileira de Aeronautica SA (EMBRAER), the only civil jet aircraft manufacturer in Latin America, was privatized in 1995 and competes in the same markets as Canadian producer Bombardier. Since then EMBRAER has become a major global supplier of 50-seat jets for both private and commercial markets, including aircraft for Continental Express and American Eagle.¹⁴¹

The increased global output of gold, particularly from new cost-efficient mines in Peru, reduced gold prices by 14 percent in 1997. Responding to lower prices, U.S. imports of gold from Brazil and the rest of the world increased. Imports from Brazil rose 78 percent in weight, and \$122 million (53 percent) to \$351 million in value (table 3-17). U.S. imports have been taking an increasing share of Brazil's gold and represented about one-half of Brazil's annual production of gold bullion in 1997. Although production by Brazil's established, large-scale mining industry has been stable, output from the informal mining industry has fallen due to the depletion of accessible near-surface reserves, lower local prices, and increasing government environmental control.¹⁴²

¹⁴¹EMBRAER, "EMBRAER RJ145 Fact Sheet," press release found at Internet address <http://www.embraer.com/ing/mar15.htm>, retrieved June 25, 1998.

¹⁴²Earle Amey, "Gold" in *Minerals Yearbook, Volume I*, U.S. Geological Survey, 1997.

U.S. imports of footwear fell by \$87 million (8 percent) in 1997 to \$1.1 billion, continuing a multiyear trend of declining imports. Nevertheless, footwear accounted for 11 percent of total U.S. imports from Brazil (table 3-17). The United States is the largest importer of footwear from Brazil, taking 64 percent of Brazil's exports in 1997.¹⁴³ However, despite strong demand in the United States marked by an overall increase of 9 percent in imports and 7 percent in U.S. production, the Brazilian footwear industry lost U.S. market share, primarily to China.¹⁴⁴

Frozen orange juice is another large export category for Brazil. Europe, followed by the United States and the Far East, are the main export markets. The orange harvest in Florida increased 11 percent for the 1996/97 crop year over 1995/96 and was expected to increase another 12 percent for 1997/98.¹⁴⁵ Coupled with near record production in Brazil, prices fell and the value of U.S. imports dropped.¹⁴⁶ U.S. imports of Brazilian frozen orange juice dropped \$78 million (43 percent) in 1997 to \$104 million. Much of the decline was due to lower prices, as the average customs value dropped from \$0.24 to \$0.18 per liter¹⁴⁷ (27 percent), and the quantity dropped 22 percent to 589 thousand liters.

The United States and Brazil are the two largest producers of soybeans in the world, with the United States producing about one-half of the world's total, and Brazil producing about one-fifth. Soybeans and soy products are the largest export crop of Brazil and, in 1997, accounted for 11 percent of its total exports. The shipping seasons of the United States and Brazil peak at different times of the year. Brazil's strong export program, coupled with a growing domestic soybean crushing industry, supports U.S. imports of soybeans on a seasonal basis.¹⁴⁸ The United States provides a substantial part of this growing seasonal need, and increased its exports to Brazil by \$106 million (201 percent) in 1997 to \$158 million (table 3-18). However, in June 1997, in an unusual move that shocked the soybean market, Cargill, a major grain trader, imported several vessels of soybeans to fulfill a commitment at the end of the U.S. season. At the time, soybean inventories were projected to fall to 20-year lows, and Cargill indicated that the imports were needed to meet commitments to expanding poultry and livestock operations in the southeastern United States.¹⁴⁹ As a result, U.S. imports of soybeans from Brazil climbed from zero in 1996 to \$59 million in 1997 (table 3-17). A Cargill spokesperson said, "We're going to bring in the soybeans to get through the tight period. Then, after the projected good harvest, we will be selling beans back to Brazil."¹⁵⁰

U.S. exports

U.S. exports to Brazil are dominated by shipments of capital goods to Brazil's rapidly growing industrial base, particularly parts for Brazil's expanding automotive and aircraft industries. Mechanical and electrical equipment and various instruments made up about one-half of the U.S. exports to Brazil in 1997. Computer hardware led the list of categories increasing in trade value, growing by \$359 million (26 percent) to \$1.7 billion, as growth of computer use in Brazil followed the worldwide trend of double-digit growth (table 3-18). Exports to Brazil of radio transmission and reception apparatus grew by \$216 million (51 percent) to \$640 million, while television apparatus, except receivers and monitors climbed by \$105 million (280 percent) in 1997 to \$142

¹⁴³Central Bank of Brazil, *Boletim do Banco*, table IV.3.

¹⁴⁴USITC, *Nonrubber Footwear Statistical Report, 1997*, USITC publication 3094, 1998.

¹⁴⁵Tim Gibney, "Florida Heading for Record Orange Crop," *Foodnews*, Oct. 17, 1997.

¹⁴⁶Tim Gibney, "Orange Juice Prices Slump," *Foodnews*, Nov. 29, 1996.

¹⁴⁷Although frozen orange juice is shipped in concentrated form, the quantity is measured in units of reconstituted juice.

¹⁴⁸U.S. Department of Agriculture, Foreign Agricultural Service, *Oilseeds: World Markets and Trade*, July 1997 and Jan. 1998.

¹⁴⁹Charles House, "Import Plans Drive Down Soybeans," *Feedstuffs*, June 7, 1997, p. 1.

¹⁵⁰*Ibid.*

million, accounting for a large portion of U.S. exports in the electronic products sector. Exports of engines and other aircraft parts to Brazil's aircraft industry, which is globally competitive in the commuter aircraft market, climbed by \$227 million (62 percent) in 1997 to \$591 million.

Table 3-18
Leading changes in U.S. exports to Brazil, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Computer hardware (ST018)	1,389	1,749	359	26
Radio transmission and reception apparatus (ST007)	424	640	216	51
Aircraft (MT042)	517	716	200	39
Aluminum mill products (MM038)	86	254	168	195
Aircraft engines and gas turbines (MT001)	196	351	155	79
Parts for construction and mining equipment (HTS 8431)	308	438	131	43
Motor-vehicle parts (HTS 8708)	295	404	108	37
Soybeans (HTS 1201)	52	158	106	201
Television apparatus, except receivers and monitors (ST010)	37	142	105	280
Decreases:				
Refined petroleum products (HTS 2710)	243	121	-122	-50
Wheat (HTS 1001)	174	(¹)	-173	-100
All Other	8,199	10,028	1,829	22
Total	11,920	15,001	3,081	26

¹Less than \$0.5 million.

Note.--Calculations based on unrounded data.

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

Aluminum mill product exports to Brazil grew by \$168 million (195 percent) to \$254 million in 1997. The increases were primarily in flat-rolled aluminum can body and lid stock for the rapidly growing market for beverage cans. Three U.S. aluminum beverage can producers¹⁵¹ have opened new can plants in Brazil since September 1996; all three are importing nearly all their aluminum sheet from the United States.¹⁵² The boom in exports is likely to be short-lived, however, because Alcan Aluminum Ltd. has announced a \$350 million investment to boost aluminum sheet output in Brazil to 250,000 tons from 100,000 tons annually by the year 2000. When the expansion is complete, the can producers will likely buy most of their can body stock from the local Alcan plant.¹⁵³ U.S. exports of aluminum foil for the growing consumer market in Brazil also contributed to the increase.

Brazil was once a major market for U.S. wheat, but since the establishment of Mercosur most of Brazil's wheat requirement have been met by its Mercosur partners, primarily Argentina. Brazil imports about 6 million

¹⁵¹American National Can, Ball (in conjunction with the local BBM group), and Crown Cork & Seal (in conjunction with the local Petropar group).

¹⁵²Michael Kepp, "Brazil Launches Ambitious UBC Recycling Program," *American Metal Market*, May 26, 1997.

¹⁵³Ibid.

tons of wheat per year, of which about 4.5 million tons is from within Mercosur. The remaining 1.5 million tons is imported primarily from Canada. Brazil recently imposed a ban on the import of U.S. wheat due to concerns about TCK, a smut disease.¹⁵⁴ U.S. exports fell from \$174 million in 1996 to zero in 1997.

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Philippines

U.S. merchandise trade with the Philippines accelerated in 1997, rising by \$3.6 billion (25 percent) over the 1996 level to \$17.6 billion (1 percent of total U.S. trade). In 1996, total trade had grown by \$1.9 billion (16 percent). The 1997 growth was accompanied by a substantial increase in the U.S. bilateral trade deficit, which widened by \$931 million (40 percent) to \$3.3 billion, compared with an increase in the deficit of \$432 million (23 percent) in 1996. The widening of the bilateral trade deficit in 1997 resulted from a significant increase in U.S. imports, which outpaced the large gain in U.S. exports. Imports grew by \$2.2 billion (28 percent) to a record \$10.4 billion and exports rose by \$1.3 billion (23 percent) to a high of \$7.1 billion. The United States is the Philippines' largest trading partner, accounting for about 35 percent of its exports and 20 percent of its imports in recent years.¹⁵⁵

Philippine economic activity, after stagnating during 1990-92, accelerated for 4 consecutive years before slowing down in 1997.¹⁵⁶ The growth is partly a result of economic reforms adopted by the Philippines in the early 1990s to, among other things, liberalize its trade, foreign exchange, and investment regimes.¹⁵⁷ A reduction in most-favored-nation tariffs, from an average of 23.5 percent in 1993 to 13.4 percent in 1997, and other market liberalization schemes spurred growth in trade, especially with other Asian nations.¹⁵⁸ The 1997 economic slowdown is partly attributable to competitive pressures arising from trade liberalization and global competition, particularly in labor-intensive industries such as apparel.¹⁵⁹ The financial crisis that has engulfed Southeast Asia since July 1997 and the El Niño weather phenomenon, which has hit the Philippine agricultural sector especially hard, also contributed to the economic slowdown. According to the Asian Development Bank (ADB), the financial crisis and El Niño will have their greatest impact on the Philippine

¹⁵⁴U.S. Department of State, "Annual Report: Agricultural Situation," AGR # BR9724A, U.S. Embassy, Brasilia, Nov. 17, 1997.

¹⁵⁵U.S. Department of State telegram No. 007953, "U.S.-Philippine Trade Doubles in Four Years to USD 13 Billion; U.S. Trade Gap Narrows to One Billion," prepared by U.S. Embassy, Manila, July 2, 1997.

¹⁵⁶The Philippine economy, as measured by GDP in constant 1985 prices, grew by 2.1 percent in 1993, 4.4 percent in 1994, 4.8 percent in 1995, 5.5 percent in 1996, and 5.1 percent in 1997. See the Asian Development Bank (ADB), "Economic and Social Statistics - Philippines," found at Internet address <http://internotes.asiandevbank.org/-notes/phi1/PHINACT.htm>, and "ADB Expects Philippine GNP Growth to Fall to 2.9 Percent," press release No. 28/98, Apr. 23, 1998, found at Internet address <http://www.asiandevbank.org/news98/-nr028-98.htm>, retrieved May 26, 1998.

¹⁵⁷U.S. Department of State telegram No. 012283, "Philippine Economic Outlook, September 1997," prepared by U.S. Embassy, Manila, Oct. 1, 1997.

¹⁵⁸U.S. Department of State telegram No. 003820, "Philippine Trade With Asia," prepared by U.S. Embassy, Manila, Mar. 30, 1998.

¹⁵⁹U.S. Department of State telegram No. 012283, "Philippine Economic Outlook, September 1997," prepared by U.S. Embassy, Manila, Oct. 1, 1997.

economy in 1998.¹⁶⁰ While acknowledging that the economic outlook for Southeast Asia is highly uncertain, the ADB forecasts that the Philippine GDP will increase by 2.4 percent in 1998,¹⁶¹ compared with a decrease of 0.4 percent for Southeast Asia overall.¹⁶² Trade sources credit the economic reforms imposed by the IMF on the Philippines during the 1980s to alleviate a financial crisis with establishing a more solid economic foundation than its neighbors.¹⁶³

The slowing of the Philippines' economy led to a slowdown in the growth of its imports, from 22 percent in 1996 to 11 percent in 1997, when they totaled \$35.9 billion.¹⁶⁴ The import slowdown is partly attributable to a tapering off of Philippine demand for capital equipment and to the devaluation of the Philippine peso, which has led to higher financing rates and production costs, prompting manufacturers to defer import purchases and to wait for more stable rates.¹⁶⁵ The peso devaluation, which has resulted in a considerable increase in import costs, is expected to curb import growth further in 1998.¹⁶⁶ Philippine industries such as electronics, one of the country's major sources of export earnings, rely heavily on imported inputs; components for electronic manufactures accounted for 16 percent of Philippine imports in 1997.¹⁶⁷ Also contributing to the 1997 import slowdown, in value terms, were lower world prices for agricultural goods such as wheat and corn¹⁶⁸ and manufactured goods like paper and paper products, and iron and steel.¹⁶⁹

Philippine exports accelerated in 1997, rising by 23 percent to \$25.2 billion, compared with a gain of 18 percent in 1996.¹⁷⁰ Exports consist mostly of high-technology goods, led by electronics. Philippine exports of such goods rose by 41 percent to \$15 billion in 1997, more than offsetting shortfalls in exports of coconut oil and mineral products and a small decline in apparel exports.¹⁷¹ Apparel is the Philippines' second-leading export after electronics with exports of \$2.4 billion in 1997, down by 2 percent from 1996. The Philippine

¹⁶⁰The ADB estimates that El Niño, a phenomenon caused by the warming of the surface waters of the eastern Pacific Ocean, will cut Philippine economic output by 1 percent in 1998. See the ADB, "Asian Financial Crisis Clouds Global Growth Prospects," news release No. 26/98, Apr. 23, 1998, found at Internet address <http://www.asiandevbank.org/news98/nr026-98.htm>, retrieved May 26, 1998.

¹⁶¹Philippine GDP grew by 1.7 percent in the first quarter of 1998, as reported by G. Pierre Goad, "Weak Economic Numbers Deepen Gloom Across Asia," *Wall Street Journal*, June 1, 1998.

¹⁶²ADB, *Asian Development Report*, released Apr. 23, 1998, as reported in U.S. Department of State telegram No. 004982, "Philippine Financial Crisis Wrap-Up - Apr. 20-24, 1998," prepared by U.S. Embassy, Manila, Apr. 24, 1998.

¹⁶³EIU, *Country Reports*, "Philippines--Outlook for 1998-99: A Thai-Style Meltdown is Unlikely," Oct. 1, 1997, CD ROM.

¹⁶⁴U.S. Department of State telegram No. 003820, "Philippine Trade With Asia," prepared by U.S. Embassy, Manila, Mar. 30, 1998.

¹⁶⁵U.S. Department of State telegram No. 002875, "Biweekly Philippine Economic & Financial Update (Feb. 26 - Mar. 6, 1998)," prepared by U.S. Embassy, Manila, Mar. 9, 1998.

¹⁶⁶From the end of June 1997 to the end of December 1997, the Philippine peso depreciated by 34 percent, based on the nominal market exchange rate. See International Monetary Fund, *International Financial Statistics*, Washington, DC, May 1998, p. 565.

¹⁶⁷U.S. Department of State telegram No. 003820, "Philippine Trade With Asia," prepared by U.S. Embassy, Manila, Mar. 30, 1998.

¹⁶⁸Prices fell by 27 percent for corn and 20 percent for wheat, as world supplies improved. See U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. International Transaction, Fourth Quarter and Year 1997," *Survey of Current Business*, Apr. 1998, p. 64.

¹⁶⁹U.S. Department of State telegram No. 002875, "Biweekly Philippine Economic & Financial Update (Feb. 26 - Mar. 6, 1998)," prepared by U.S. Embassy, Manila, Mar. 9, 1998.

¹⁷⁰U.S. Department of State telegram No. 003820, "Philippine Trade With Asia," prepared by U.S. Embassy, Manila, Mar. 30, 1998.

¹⁷¹*Ibid.* See, also, U.S. Department of State telegram No. 002975, "Biweekly Philippine Economic & Financial Update (Feb. 26 - Mar. 6, 1998)," prepared by U.S. Embassy, Manila, Mar. 9, 1998.

apparel industry, which is heavily dependent on imported fabrics, is experiencing difficulty as a result of structural problems and, more recently, the effects of the Asian financial crisis.¹⁷²

The pattern of U.S. trade with the Philippines largely reflects changes in the electronic products sector, which accounted for almost 60 percent of total trade and for 88 percent of the overall increase in trade in 1997. Two-way trade in electronic products in 1997 grew by \$3.1 billion (34 percent) over the 1996 level to \$10.4 billion, as U.S. exports grew by \$1.2 billion (46 percent) to \$4.0 billion and U.S. imports rose by a slightly larger \$1.9 billion (41 percent) to \$6.4 billion. As a result, the U.S. bilateral trade deficit in electronic goods widened by \$630 million (34 percent) to \$2.5 billion, or three-fourths of the overall U.S. trade deficit with the Philippines in 1997. The remainder of the U.S. bilateral trade deficit was concentrated in textiles and apparel, the deficit for which widened by \$84 million (5 percent) to \$1.7 billion.

U.S. trade with the Philippines in electronic products largely involves production-sharing activity in semiconductors, in which U.S. firms ship the unfinished article to the Philippines for assembly, and either market the assembled article in the region or re-export it to the United States. Intense competition in the global electronics market has spurred a number of U.S. producers in the electronics sector, as well as other multinational firms, to set up assembly operations in the Philippines to reduce production costs and also to gain access to the growing market in the Asia Pacific Rim. The Philippines offers relatively low labor costs; a large semi-skilled workforce; a developed infrastructure, including new industrial parks and port facilities at Subic Bay; improved political stability; increasingly liberal trade and investment regulations; and greater proximity to the United States than competing Asian export-processing countries.¹⁷³

U.S. imports

Most of the 1997 increase in U.S. imports from the Philippines occurred in electronic products, which accounted for 62 percent of total imports from that country. The leading imports from the Philippines are semiconductors and computer hardware. In 1997, imports of semiconductors and related devices grew by \$806 million (32 percent) to \$3.3 billion and imports of computer hardware rose by \$869 million (94 percent) to \$1.8 billion (table 3-19). The growth in Philippine shipments of semiconductors and computer hardware (e.g., disk drives, digital processing units, keyboards, and monitors) reflected continued strong U.S. demand for computers in 1997. The third-largest electronics import from the Philippines, telephone and telegraph apparatus, also grew significantly in 1997 by \$169 million (42 percent) to \$571 million, as the U.S. market for these products continued to expand rapidly.

U.S. apparel imports from the Philippines, as well as other products manufactured with mature technologies, grew much slower than electronic product imports in 1997, rising by \$81 million (5 percent) to \$1.7 billion in 1997. In March 1997, the United States increased quotas for selected apparel articles from the Philippines.¹⁷⁴ U.S. imports of agricultural products from the Philippines rose by \$64 million (9 percent) to \$771 million in 1997. Much of this increase came in imports of canned fish, which rose by \$19 million to \$86 million; shellfish, by \$15 million to \$47 million; and fats and oils, by \$14 million to \$292 million. Imports of luggage, handbags, footwear, and certain other leather goods rose by a combined \$59 million (25 percent) to \$297 million. Imports of furniture grew by \$28 million (16 percent) to \$197 million.

¹⁷²U.S. Department of State telegram No. 007023, "Working Conditions in the Philippine Apparel Industry," prepared by U.S. Embassy, Manila, June 10, 1998.

¹⁷³Keith B. Richburg, "Philippines Thriving Amid Asia's Economic Wreckage," *Washington Post*, Feb. 22, 1998, p. A26.

¹⁷⁴The United States is the principal market for Philippine exports of apparel, accounting for 62 percent of the total, or \$1.5 billion, in 1996. See U.S. Department of State telegram No. 007953, "U.S.-Philippine Trade Doubles in Four Years...", prepared by U.S. Embassy, Manila, July 2, 1997.

Table 3-19
Leading increases in U.S. imports from the Philippines, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
Computer hardware (ST018)	926	1,795	869	94
Semiconductors (ST016)	2,507	3,312	806	32
Telephone and telegraph apparatus (ST002)	402	571	169	42
Apparel (CH060-CH078)	1,569	1,650	81	5
All other	2,770	3,091	320	12
Total	8,174	10,419	2,245	28

Note.--Calculations based on unrounded data.

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

U.S. exports

U.S. exports of electronic products accounted for all but a small part of the total increase in U.S. shipments to the Philippines in 1997, rising by \$1.2 billion (46 percent) to almost \$4.0 billion. A substantial share of the electronic exports consisted of semiconductors for assembly there and subsequent re-export, often back to the United States. U.S. exports of semiconductors rose by \$994 million (49 percent) to \$3.0 billion (table 3-20). Other electronic products showing significant export gains included certain measuring instruments (used in processes to produce semiconductors and other high-tech products), which increased by \$92 million (101 percent) to \$184 million; radio transmission and reception apparatus, which expanded by \$54 million (52 percent) to \$157 million; and computer hardware, which rose by \$57 million (37 percent) to \$215 million. Other notable export gains were semiconductor manufacturing equipment and robotics, which grew by \$56 million (88 percent) to \$120 million, and boilers, turbines, and related machinery, which grew by \$81 million (572 percent) to \$95 million.

Significant declines in U.S. exports to the Philippines occurred in aircraft (\$139 million), energy products (\$72 million), and agricultural goods (\$33 million) in 1997. U.S. exports of aircraft to the Philippines have fluctuated widely during the past 5 years, ranging from a low of \$28 million in 1994 to a high of \$368 million in 1993. In 1997, aircraft exports dropped by 59 percent from the 1996 level to \$98 million (table 3-20), as shipments of large civil aircraft fell from \$145 million to \$5 million. The decline in exports of energy-related products to the Philippines was concentrated in petroleum products, exports of which fell by \$66 million (69 percent) to \$30 million.

Table 3-20
Leading changes in U.S. exports to the Philippines, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Semiconductors (ST016)	2,043	3,036	994	49
Certain measuring instruments (ST030)	92	184	92	101
Boilers, turbines, and related machinery (MT027) ...	14	95	81	572
Computer hardware (ST018)	157	215	57	37
Semiconductor manufacturing equipment and robotics (MT023)	64	120	56	88
Radio transmission and reception apparatus (ST007)	103	157	54	52
Decreases:				
Aircraft (MT042)	237	98	-139	-59
Petroleum products (CH005)	96	30	-66	-69
Cereals (AG030)	405	325	-80	-20
All other	2,612	2,870	258	10
Total	5,823	7,137	1,314	23

Note.--Calculations based on unrounded data.

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

The decline in agricultural exports to the Philippines of 4 percent, to \$878 million, resulted mainly from smaller shipments of cereals, the principal agricultural export to that market with 37 percent of the total in 1997, down from 45 percent a year earlier. Cereal exports fell by \$80 million (20 percent) to \$325 million, reflecting declines in corn shipments of \$58 million (83 percent) to \$12 million, and wheat sales of \$17 million (5 percent) to \$308 million. U.S. grain shipments to the Philippines may rebound in 1998 because of that country's need to import more grains as a result of El Niño. Exports of animal feeds to the Philippines, by contrast, grew by \$27 million (19 percent) to \$167 million.

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OTHER TRADE DEVELOPMENTS

The East Asian Financial Crisis

As 1997 began, the East Asian “economic miracle” appeared as healthy as ever. Growth in the region over the last three decades averaged almost 8 percent a year.¹⁷⁵ Originally limited to the four “tigers”—Hong Kong, Singapore, Taiwan, and Korea--the economic expansion had spread to other countries in the region. For example, in 1996 GDP grew by 8 percent in Malaysia, 6 percent in Thailand, 8 percent in Indonesia, and 6 percent in the Philippines.¹⁷⁶ However, the growth of exports of certain East Asian countries slowed dramatically during 1995-96 compared with the early 1990s.¹⁷⁷ Then beginning in July 1997, a wave of currency depreciations swept across East Asia. This discussion of the East Asian financial crisis will focus on the five most affected countries: Indonesia, Korea, Malaysia, Philippines, and Thailand.

During the 1990s, trade between the United States and East Asian countries rose along with the region’s economic boom. Combined U.S. exports to Korea, Indonesia, Malaysia, the Philippines, and Thailand rose by \$2.7 billion (8 percent) to \$55.2 billion from 1996-97. Both imports from and exports to these 5 countries accounted for 8 percent of the U.S. total (table 3-21). Combined U.S. imports from these same countries increased by \$5.2 billion (5 percent) to \$73.4 billion. As a share of nominal U.S. GDP, U.S. exports to these five countries amounted to 0.66 percent and U.S. imports 0.91 percent in 1997.

Table 3-21
U.S. trade with Indonesia, Korea, Malaysia, the Philippines, and Thailand, 1997, by value and percent, in current dollars

Country	U.S. exports (million dollars)	Percent of total exports	U.S. imports (million dollars)	Percent of total imports
Indonesia	4,430	0.7	9,055	1.0
Korea	24,287	3.8	22,939	2.7
Malaysia	10,331	1.6	17,888	2.1
Philippines	7,137	1.1	10,419	1.2
Thailand	7,160	1.1	12,546	1.5
Total	53,345	8.3	72,847	8.4

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

¹⁷⁵“Tigers Adrift,” in “Frozen Miracle,” *Economist*, a survey, Mar. 7, 1997, p. 3.

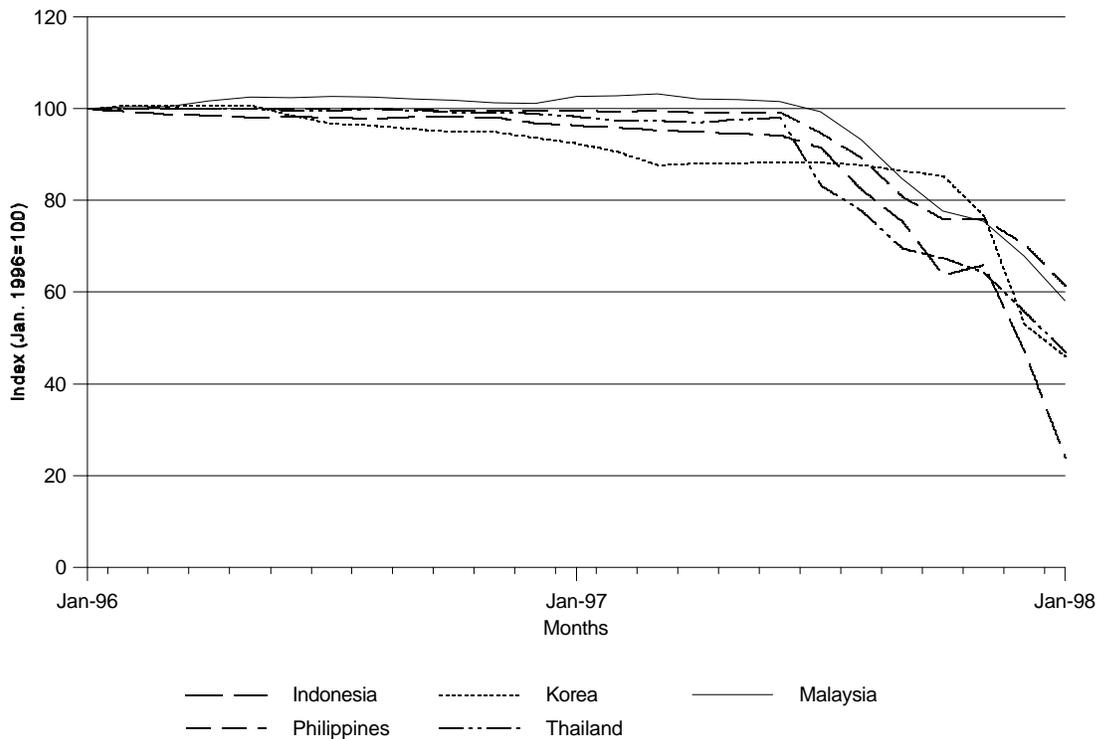
¹⁷⁶USDOC, Country Commercial Guides for Malaysia, Thailand, Indonesia, and the Philippines, found at Internet address <http://www.stat-usa.gov/BEN/ebb2/ccg/ccg.html>, retrieved Apr. 15, 1998.

¹⁷⁷ Based upon data from the International Monetary Fund’s *International Financial Statistics*, for example, Thailand’s exports rose by only 0.5 percent during 1995-96, compared with double-digit growth from 1991-95. Other countries that showed a dramatic slowdown in export growth during 1995-96 were China, Hong Kong, Indonesia, Korea, Malaysia, and Singapore.

Background of the financial crisis

The Thai baht was the first to fall, followed by the Philippine peso, the Indonesian rupiah, the Malaysian ringitt, and the Korean won.¹⁷⁸ From January 1996 through January 1998, the currencies of these five countries depreciated between 38 and 76 percent in nominal terms (figure 3-3).¹⁷⁹ However, it is the real exchange rate--which accounts for inflation--that affects trade flows.¹⁸⁰ The real depreciations were probably slightly less than the nominal depreciations due to higher inflation in the East Asian economies; however, data on inflation rates in East Asia for 1997 are unreliable given the dramatic changes in foreign exchange rates, interest rates, and consumer prices.

Figure 3-3: Indices of nominal exchange rates of U.S. dollar per foreign currency unit, monthly average, Jan. 1996-Jan. 1998



Compiled from data from the International Monetary Fund, *International Financial Statistics*.

Source:

¹⁷⁸The Japanese yen, the Singapore dollar, and the New Taiwan dollar also depreciated, though to a lesser extent.

¹⁷⁹The nominal exchange rate is the price of one currency in terms of another. Exchange rates quoted in the financial press are referred to as nominal exchange rates. Data compiled by USITC staff from International Monetary Fund's *International Financial Statistics* for monthly averages of nominal exchange rates.

¹⁸⁰The real exchange rate is a measure of the purchasing power of a currency in terms of goods and services, correcting for relative price differences between countries. See app. D for a detailed analysis of how exchange rates affect trade flows.

There are differing opinions as to the cause of the financial crisis in East Asia. Some analysts believe that a financial panic developed with the devaluation of the Thai baht, which spread throughout the region. They opine that the situation was exacerbated by Asian government policy mistakes, and “poorly designed” rescue programs by the International Monetary Fund (IMF) and the international financial community.¹⁸¹ These analysts also believe that the depth and extent of the financial crisis were beyond what would have been expected solely on the basis of weak and imbalanced macro- and microeconomic fundamentals.

Another view suggests that the crisis reflected a deterioration of macroeconomic fundamentals and poor economic policies in the countries in the region.¹⁸² In this view, overreaction and financial panic caused by the markets led to an exaggerated plunge in East Asian foreign exchange rates and asset prices that were larger than would be expected given the performances of the affected economies in early 1997.

The IMF states that private sector expenditures and financing decisions led to the crisis, and not primarily the macroeconomic imbalances.¹⁸³ The IMF believes that the crisis was worsened by government participation in the private sector and the lack of financial and economic data availability and transparency for investors, and further, that weaknesses in the financial systems of these countries drew in foreign capital that was used in poor-quality investments.¹⁸⁴

Korea, Indonesia, Malaysia, the Philippines, and Thailand are often treated as a group. However, clear differences existed among these countries’ financial situations in 1997. First, the countries had varying levels of short-term debt¹⁸⁵ as a percentage of foreign exchange reserves. As of June 1997, Malaysia stood at 80 percent, the Philippines 90 percent, Thailand 160 percent, Indonesia 180 percent, and Korea 340 percent.¹⁸⁶ Second, certain countries regulated their banking systems more rigorously than others. For example, the Philippines had been relatively strict, Thailand relatively more lax.¹⁸⁷ Third, the type of investment undertaken differed by country: speculative real estate ventures were common in Thailand; government-directed industrial loans were prevalent in Korea.

U.S. imports and exports

The East Asian financial crisis may directly affect up to about 8 percent of either U.S. imports or U.S. exports (see table 3-21). The crisis is predicted to affect U.S. trade in two ways. First, U.S. exports are expected to fall due to sharp economic downturns in the East Asian economies. Slower East Asian growth will translate

¹⁸¹Steven Radelet and Jeffery Sachs, Harvard Institute for International Development, “The Onset of the East Asian Financial Crisis,” Mar. 30, 1998, found at Internet address <http://www.hiid.harvard.edu/pub/other/eaonset2.pdf>, retrieved June 25, 1998.

¹⁸²Giancarlo Corsetti, Paolo Pesenti, and Nouriel Roubini, “What Caused the Asian Currency and Financial Crisis?,” Mar. 1998, found at Internet address <http://www.stern.nyu.edu/~nroubini/asia/AsianCrisis.pdf>, retrieved June 23, 1998. For another view consistent with the above, see Paul Krugman, “What Happened to Asia?” found at Internet address <http://web.mit.edu/krugman/www/DISINTER.html>, retrieved June 23, 1998.

¹⁸³International Monetary Fund, “The IMF’s Response to the Asian Crisis,” Apr. 1998, found at Internet address <http://www.imf.org/External/np/exr/facts/asia.HTM>, retrieved June 24, 1998.

¹⁸⁴For a more detailed discussion of the Asian crisis, see International Monetary Fund, *World Economic Outlook 1998*, May 1998, found at Internet address <http://www.imf.org/external/pubs/ft/weo/weo0598/index.htm>, retrieved June 25, 1998.

¹⁸⁵Japanese banks lent the most to the five Asian countries (\$97.2 billion), followed by German (\$32.7 billion), French (\$24.6 billion), and American banks (\$23.8 billion). See Shawn Tulley, “Despite Asia’s Woes, U.S. Banks are Standing Tall,” *Fortune*, Feb. 16, 1998, found at Internet address <http://www.pathfinder.com/fortune/1998/980216/fst2.html>, retrieved Feb. 18, 1998.

¹⁸⁶“On the Rocks?” in “Frozen Miracle,” *Economist*, Chart 5 in a survey, Mar. 7, 1997, p. 6.

¹⁸⁷*Ibid.*

into lower demand for U.S. products in those East Asian economies directly affected by currency devaluations. Second, at the same time, U.S. exports are expected to fall while their prices rise as a result of the real dollar appreciating against these currencies in late 1997 and early 1998. The real appreciation of the dollar against the East Asian currencies will render U.S. exports relatively more expensive for East Asian consumers and some East Asian exports relatively less expensive for U.S. consumers. However, East Asian exports may not become as cheap as expected because while labor costs have become significantly lower for some East Asian industries, other costs for these firms, such as interest payments on foreign debt and imported product inputs--usually denominated in U.S. dollars--have risen dramatically.¹⁸⁸ These trade effects stemming from the Asian crisis have not been immediate. The economic downturns in East Asia lagged behind the currency depreciations. The five Asian countries' current account balances may actually worsen in the short term due to the lag that occurs as firms adjust their export prices as expressed in foreign currencies to account for the exchange rate changes.¹⁸⁹

U.S. imports from Indonesia, Korea, Malaysia, the Philippines, and Thailand are quite diverse. However, the largest import category by far, when considered collectively, is semiconductors and computer hardware, reflecting the large amount of lower-end processing undertaken in East Asia (table 3-22). The value of these two import categories totaled \$28.7 billion or 39 percent of total imports from these countries in 1997.

Table 3-22
Certain selected U.S. imports from Indonesia, Korea, Malaysia, the Philippines, and Thailand in 1997

Sector/commodity	U.S. imports (million dollars)
Semiconductors (ST016)	15,740
Computer hardware (ST018)	12,971
Tape recorders, tape players, VCRs, turntables, and CD players (ST004)	2,413
Shirts and blouses (CH064)	2,222
Telephone and telegraph apparatus (ST002)	2,028
Automobiles, trucks, and buses (MT038)	1,901
Radio transmission and reception apparatus (ST007)	1,812
Footwear and footwear parts (CH079)	1,808
Shellfish (AG009)	1,254
Natural rubber (CH047)	1,155
All Other	29,543
Total	72,847

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

In 1997, U.S. imports from these five countries together generally exceeded 1996 levels (figure 3-4). However, the last quarter of 1997 shows only a slight rise in, and not a dramatic surge of, imports from these five countries as compared with the corresponding period of 1996. During the fourth quarter of 1997, total U.S.

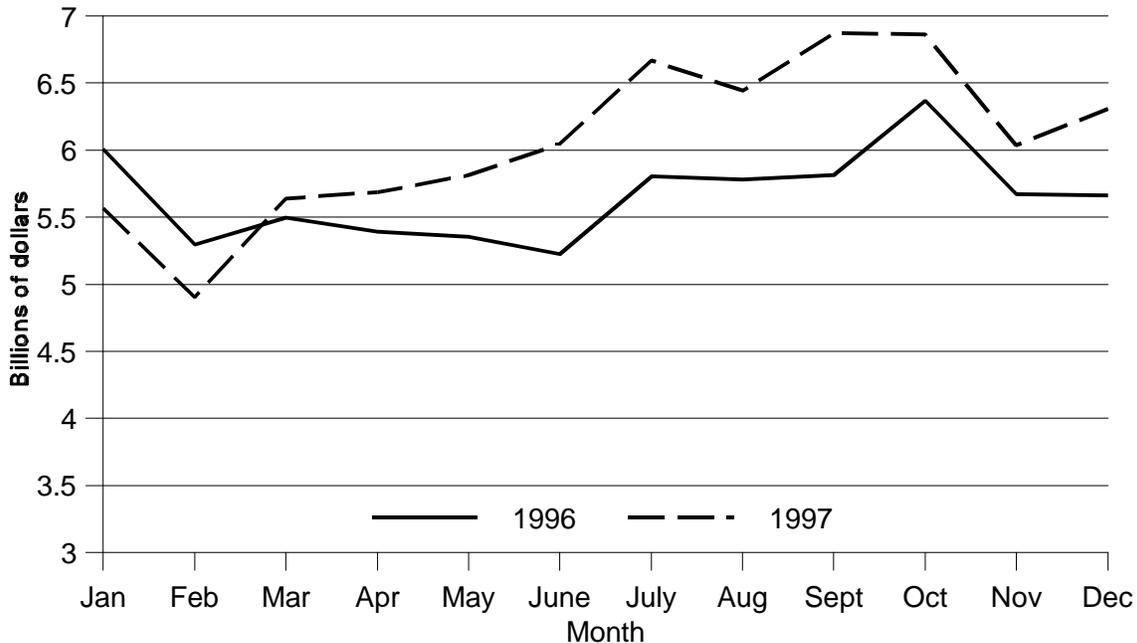
¹⁸⁸John P. Sweeny, policy analyst, The Heritage Foundation, written statement for a hearing before the Subcommittee on Trade, House Committee on Ways and Means, U.S. House of Representatives, Feb. 25, 1998, p. 2.

¹⁸⁹Initially, when foreign exchange rates move and firms have not yet adjusted their prices, the merchandise trade balance may move in the opposite direction to its longer run tendency. For a discussion of this phenomenon known as the "j-curve," see app. D.

imports from these five countries fell by \$559 million (8 percent) to \$6.3 billion. Comparing the fourth quarter of 1996 (\$17.7 billion) with the fourth quarter of 1997 (\$19.2 billion), total U.S. imports from these five countries rose by 8 percent. From September 1997 to October 1997, U.S. imports remained nearly constant (from \$6.87 billion to \$6.86 billion). In November 1997, U.S. imports actually fell by 12 percent to \$6.04 billion. Then in December 1997, U.S. imports rose by 9 percent to \$6.31 billion.

Several affected Asian countries faced a disruption of trade due to financing difficulties. Some Asian firms, for example, had trouble obtaining letters of credit. Moreover, letters of credit from Asian banks were viewed somewhat warily abroad. As a result, the affected countries struggled to import essential inputs and capital equipment for export industries.¹⁹⁰ On February 21, 1998, the Group of Seven (G-7) export credit agencies (ECAs) announced a concerted initiative to “continue provision of, and where appropriate expand, short-term insurance, guarantees, and reinsurance to creditworthy buyers in the region.”¹⁹¹ The initiative received the support of ECAs from 12 other countries. According to Export-Import Bank Chairman James Harmon, the Export-Import Bank of the United States could commit up to \$3 billion in additional short-term financing for the purchase of U.S. products by Indonesia, Korea, and Thailand.¹⁹²

Figure 3-4: U.S. imports from Indonesia, Korea, Malaysia, the Philippines, and Thailand, 1996 and 1997



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

Looking toward 1998, the effect of the Asian currency depreciations on U.S. imports is expected to focus primarily on two sectors: electronic products, and textiles and apparel. Korea, Malaysia, the Philippines,

¹⁹⁰Nancy Dunne and Peter Mantagnon, “Export Finance: U.S. Plan Aims to Ease Asian Credit Squeeze,” *Financial Times*, Feb. 5, 1998, found at Internet address <http://www.ft.com>, retrieved Feb. 10, 1998.

¹⁹¹Export-Import Bank of the United States, press release, Feb. 21, 1998, found at Internet address <http://www.exim.gov/press/feb2198.html>, retrieved Apr. 9, 1998.

¹⁹²Export-Import Bank of the United States, press release, Feb. 23, 1998, found at Internet address <http://www.exim.gov/press/feb2398.html>, retrieved Apr. 9, 1998.

Thailand, and Indonesia all produce far more electronic products than they consume. As a result, they are highly export-oriented. Faced with shrinking domestic markets, Asian firms are expected to increase exports to the United States. U.S. firms may also shift more production to the region to profit from lower labor costs. As lead times for textile and apparel shipments to the United States are roughly 6 to 8 months, U.S. trade sources believe that import increases attributable to the Asian currency depreciations would appear in the third quarter of 1998. However, U.S. imports of textiles from Indonesia, Korea, Malaysia, the Philippines, and Thailand are subject to quotas under the Multifiber Agreement. These quotas are expected to temper any significant increases in sector imports.¹⁹³

U.S. exports to Indonesia, Korea, Malaysia, the Philippines, and Thailand were principally capital goods and agricultural products. Semiconductors represent the largest export category, totaling \$10.8 billion (20 percent) in 1997 (table 3-23). There is a great deal of intra-industry trade in semiconductors. The preponderance of U.S. semiconductors are fabricated in the United States but are assembled and tested in East Asia, particularly in Malaysia. Other major export categories included aircraft and computer hardware. Cereals and oilseeds were the main agricultural products exported to these five countries.

Table 3-23
Certain selected U.S. exports to Indonesia, Korea, Malaysia, the Philippines, and Thailand in 1997

Commodity/sector	U.S. exports (million dollars)
Semiconductors (ST016)	10,840
Aircraft (MT042)	5,326
Computer hardware (ST018)	2,670
Certain measuring instruments (ST030)	1,640
Semiconductor manufacturing equipment (MT023)	1,143
Cereals (AG030)	1,109
Telephone and telegraph apparatus (ST002)	966
Oilseeds (AG032)	932
Radio transmission and reception apparatus (ST007)	906
Hides, skins, and leather (AG044)	741
All Other	27,072
Total	53,345

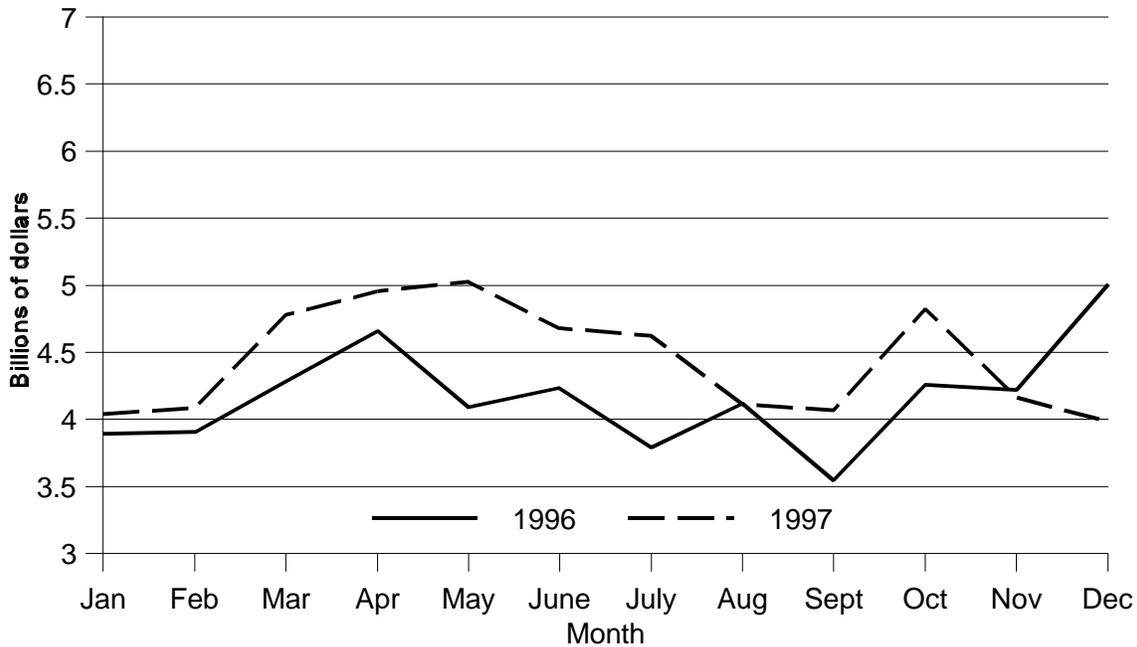
Source: Compiled from official statistics of the U.S. Department of Commerce.

The initial effect of the Asian crisis on U.S. exports appeared in November and December 1997, departing from an otherwise strong year relative to 1996 (figure 3-5). From October 1997 through December 1997, U.S. exports to Indonesia, Korea, Malaysia, the Philippines, and Thailand fell by \$840 million (17 percent)

¹⁹³Jennifer Owens, "Asia Woes' Effect On U.S. Unsure, Says AAMA Panel," *Women's Wear Daily*, Mar. 10, 1998.

to \$4.0 billion. Comparing the fourth quarter of 1996 (\$13.5 billion) with the fourth quarter of 1997 (\$13.0 billion), total U.S. exports to the five countries declined by 4 percent.

Figure 3-5: U.S. exports to Indonesia, Korea, Malaysia, the Philippines, and Thailand, 1996 and 1997



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

Looking at the fourth quarter of 1996 and 1997, the greatest declines in U.S. export trade with these economies occurred in several product categories. Exports of aircraft and spacecraft (HTS 8802) fell by \$300 million (22 percent) to \$1.1 billion. Civilian aircraft exports are often volatile, but sales to East Asia are widely expected to slow. Boeing, for example, has noted that as many as 60 orders from Asian airlines could be delayed over the next 3 years. Asian airlines currently account for 20 percent of Boeing's scheduled deliveries between 1998 and 2000.¹⁹⁴ U.S. exports of transmission apparatus for radiotelephony, radiotelegraphy, radio broadcasting or television (HTS 8525) also declined by \$115 million (47 percent) to \$131 million. East Asian economies have been aggressively modernizing their telecommunications infrastructure. With the onset of the crisis, governments began reducing purchases. For example, Qualcomm received a partial cancellation or postponement of two large Korean second-quarter orders for application specific integrated circuits (ASICs); the company also concluded that a previously announced order for 1800 MHZ QTM phones will not be fulfilled.¹⁹⁵

U.S. export declines were also registered in certain agricultural products, including corn, cotton, meat, and apples. Comparing the final quarter of 1996 and 1997, U.S. corn exports (HTS 1005) to the five countries fell by \$416 million (85 percent) to \$75 million. Cotton exports (HTS 5201) decreased by \$211 million (60

¹⁹⁴Phil Condit, Chairman and CEO of Boeing, Testimony before the House Ways & Means Committee, Subcommittee on Trade, Feb. 24, 1998.

¹⁹⁵"Qualcomm Provides Update on Korean Market Impact and Other Events - Company Expects Reduction in Second Quarter Earnings from Prior Quarter," press release, Feb. 5, 1998, found at Internet address <http://www.newsedge.com>, retrieved Apr. 8, 1998.

percent) to \$140 million. Bovine meat exports (HTS 0201) dropped by \$7 million (54 percent) to \$6 million. Apple exports (HTS 0808) decreased by \$12 million (51 percent) to \$11 million. As a result of the financial crisis, U.S. exports of both bulk items (corn, cotton, wheat, soybeans) and “high value” items (meat, fruit, nuts, processed foods) have begun to slow. However, the high value items may face a greater decline in 1998 as Asian consumers revise their spending habits.¹⁹⁶

Outlook

In response to the financial crisis, the IMF signed financial aid agreements with the Governments of Thailand (\$17 billion), Indonesia (\$35 billion), and Korea (\$57 billion). The IMF takes the lead in such negotiations but the Fund itself provides only part of each financial package; the World Bank, multilateral development banks, and individual country contributions supply the remainder. These packages are meant to give the countries time to implement necessary structural reforms¹⁹⁷ while maintaining monetary and fiscal austerity.

However, the IMF intervention is not without controversy. Criticism of the IMF has come from many (sometimes contradictory) directions, and generally may be divided into three categories:¹⁹⁸ (1) efficiency of financial markets--financial markets are seen to work best either without any government intervention or with stricter multilateral regulation; (2) U.S. funding of bailouts--these concerns either focus on moral hazard¹⁹⁹ or the belief that the United States should not bailout its competitors; and (3) bad conditionality--the IMF is criticized for having imposed excessive fiscal and monetary austerity while lacking expertise in structural reform. IMF supporters counter that hindsight always reveals some imperfections, but contend the assistance packages remain the best available policy option to revive the East Asian economies. East Asia would then be able to purchase more U.S. goods and services, supporting U.S. job growth and strengthening the U.S. economy.²⁰⁰

Trade liberalization is continuing in East Asia despite the financial crisis. The IMF packages for Korea and Indonesia, for example, include several provisions on trade reform. Highlights of these reforms are contained in table 3-24.

Table 3-24
Indonesian and Korean provisions for trade reform

Country	Trade reform provision
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¹⁹⁶Michele Kayal, “Exports Down, Down on the Farm,” *Journal of Commerce*, Feb. 12, 1998, p. 9.

¹⁹⁷Structural reforms include better regulation of the banking system, bankruptcy reform, and increased transparency.

¹⁹⁸Jeffrey Frankel, Council of Economic Advisers, seminar at the USITC on Apr. 16, 1998.

¹⁹⁹Moral hazard is the notion that people will behave irresponsibly if they do not bear the consequences of their actions. The moral hazard debate has focused on international investors as well as East Asian governments.

²⁰⁰Lawrence Summers, Deputy Secretary of the Treasury, testimony before the Senate Finance Committee, Feb. 4, 1998.

Indonesia ¹	<ul style="list-style-type: none"> • Import monopolies have been eliminated for wheat and wheat flour, soybeans, and garlic. • All special tax, customs, or credit privileges granted to the National Car Program are to be eliminated. Indonesia will implement quickly the ruling of the WTO dispute panel.² (The National Car Program has been challenged in the WTO by the United States, the European Union, and Japan.) • The local content program for motor vehicles will be phased out by 2000. • Tariffs on all food items have been cut to a maximum of 5 percent. • Punitive export taxes, including those on leather, cork, and ores, will be phased out.
Korea	<ul style="list-style-type: none"> • Four trade-related subsidies are to be abolished. • The economic rationale of all existing subsidy programs will be reviewed. • All 113 items included in the Import Diversification Program are to be liberalized. • The number of items subject to “adjustment tariffs” are to be reduced from 62 to 38. • Import certification procedures are to conform with international practice.

¹The IMF agreement may be renegotiated due to the political uncertainty surrounding the resignation of President Suharto in May 1998. Source: Jim Della-Giacoma, *Reuters*, “Habibie Sets Positive Tone for IMF Visit,” May 26, 1998, found at Internet address <http://dailynews.yahoo.com/headlin...526/news/stories/indonesia-71.html>, retrieved May 26, 1998.

²On March 26, 1998, USTR Charlene Barshefsky announced that the WTO had ruled against Indonesia. See USTR press release 98-34, found at Internet address <http://www.ustr.gov/releases/1998/index.html>, retrieved Apr. 9, 1998.

Source: Indonesian Letter of Intent, dated Jan. 15, 1998, found at Internet address <http://www.imf.org/external/np/loi/011598.htm>, retrieved Apr. 8, 1998; and Korean Letter of Intent, Feb. 7, 1998, found at Internet address <http://www.imf.org/external/np/loi/020798.htm>, retrieved Apr. 8, 1998.

Indonesia, Korea, Malaysia, the Philippines, and Thailand also have commitments to trade liberalization through the Asia-Pacific Economic Cooperation (APEC) forum, of which all five countries are members. The 18 members of APEC²⁰¹ are currently engaged in Early Voluntary Sectoral Liberalization (EVSL). The EVSL seeks to eliminate tariffs and nontariff measures on eight sectors: environmental goods and services; medical equipment; forest products; fish and fish products; toys, gems and jewelry; chemicals; and energy commodities, equipment, and services. In addition, the APEC countries have agreed to work toward a Mutual Recognition Agreement²⁰² for telecommunications and information technology equipment. At the 1997 summit in Vancouver, APEC heads of state pledged that the financial crisis would not lead to protectionism. Instead, members would “continue to pursue trade and investment liberalization that fosters further growth.”²⁰³

The U.S. trade deficit is widely expected to increase in 1998, largely as a reflection of trade ripple effects associated with the financial problems in Southeast Asia. However, the magnitude of the effect is not clear. Much depends on how the East Asian countries themselves react individually to the crisis; swift reforms could limit the slowdown. Another unknown is how much of the nominal depreciation will translate into a real depreciation (the “pass-through” rate).²⁰⁴ The IMF projected in the December 1997 *World Economic Outlook* that the U.S. current account deficit would reach \$230.2 billion in 1998, up from \$177.5 billion in 1997. The IMF also revised its projection for U.S. GDP growth in 1998 to 2.3 percent, a reduction of one-fourth to one-half a percentage point due to the Asian crisis.

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²⁰¹Peru, Russia, and Vietnam may be seated at 1998 APEC Ministerial meeting in Kuala Lumpur, Malaysia. This would bring total membership to 21.

²⁰²A MRA allows equipment to be tested in the country of manufacture for the standards of the importing country.

²⁰³APEC Vancouver Leaders Declaration, Nov. 25, 1997, found at Internet address <http://club.jpn.net/infomofa/apecinfo/1997/release25.html>, retrieved Apr. 8, 1998.

²⁰⁴For a discussion of the pass-through rate, see app. D.

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Mercosur²⁰⁵

The Mercosur trading bloc, one of the largest integrated markets in the developing world, encompasses roughly 200 million people with a combined GDP greater than \$1 trillion. In 1997, Mercosur accounted for nearly one-third of Latin America's total trade, 70 percent of South America's GDP, and roughly 55 percent of U.S. trade with South America. Total U.S. merchandise trade with the Mercosur trading bloc was \$33.9 billion in 1997, or 2 percent of total U.S. trade. As shown in the following tabulation, the United States enjoyed a trade surplus with Mercosur in each of the last 5 years; from 1996-97, it increased by \$3.8 billion (62 percent) to \$10.0 billion.²⁰⁶

	<u>U.S. imports from Mercosur</u>	<u>U.S. exports to Mercosur</u>	<u>Trade balance</u>
	————— <i>million dollars</i> —————		
1993	9,267	9,909	642
1994	10,746	12,845	2,099
1995	10,972	16,038	5,066
1996	11,400	17,556	6,156
1997	11,974	21,923	9,949
1996/97 absolute change	574	4,367	3,793
	————— <i>percent change</i> —————		
1996/97	5	25	62

The growth in the U.S. trade surplus with the Mercosur bloc can be attributed to economic expansion in the region that reflected a combination of factors, including reduced trade barriers, liberalized foreign investment rules, privatization of government-owned industries, and efforts to modernize production facilities. In addition, stable rates of currency exchange, lower rates of inflation, greater availability of consumer credit, and pent-up demand all combined to expand domestic markets in the Mercosur bloc and led to a significant rise in imports from the United States and other countries outside the region.

²⁰⁵Mercosur (the Spanish acronym for the Southern Common Market) is the customs union formed in 1991 joining Argentina, Brazil, Paraguay, and Uruguay. Mercosur reached full implementation in 1995 as a set of common external tariffs (CET) on imports from nonmembers was added to the intraregional free-trade policies adopted earlier. Chile and Bolivia became associate members on Oct. 1, 1996 and Apr. 1, 1997, respectively.

²⁰⁶According to Brazil's official trade statistics, its 1997 trade deficit with the United States was lower than that reported by the United States. According to the U.S. Department of State, "Brazil's import and export statistics display no consistent relationship to corresponding U.S. statistics." In 1997, Brazilian data indicate a trade deficit with the United States that is \$1.3 billion less than U.S. data indicate. U.S. Department of State telegram No. 000934, "Perception and Reality: Comparison of U.S.-Brazil Trade Figures, 1992-97," prepared by U.S. Embassy, Brasilia, Mar. 10, 1998.

Mercosur is not a union of equals. Although Argentina has a higher per capita GDP, Brazil dominated the Mercosur region in terms of economic activity (70 percent of bloc GDP), land area, population, and trade volume. Consequently, Brazilian economic policies influenced the pace of Mercosur's overall trade liberalization program. Brazil's shift away from protectionist trade policies and implementation of market-oriented economic reforms has been influenced by similar steps taken by Chile and Argentina. Lower barriers to trade and investment and the privatization of state enterprises throughout Mercosur have also opened new areas of economic activity to foreign participation.

Mercosur trade

Total foreign trade for Argentina, Brazil, and Uruguay increased to an estimated \$170.6 billion in 1997, representing an increase of 16 percent over 1996.²⁰⁷ These three bloc members also recorded an overall trade deficit which increased by \$11.0 billion in 1997, or by 19 percent from 1996. Since the inception of Mercosur, intrabloc trade and cross-border investment has become increasingly more important to member nations. Intra-Mercosur trade was considerably more important for Argentina than for Brazil, accounting for approximately 30 percent of Argentina's total foreign trade in 1997, but only 16 percent of Brazil's total.²⁰⁸

In 1997, Argentina, Brazil, and Uruguay posted real GDP growth rates of 8 percent, 3.2 percent, and 5 percent, respectively, while the economy of Paraguay contracted somewhat.²⁰⁹ Whereas Brazil and Uruguay were able to lower their inflation rates to 4.7 percent and 16 percent, respectively, in 1997, Argentina enjoyed some of the world's lowest interest rates as consumer prices increased by only 0.3 percent.²¹⁰

Total Argentine, Brazilian, and Uruguayan exports increased by \$8.9 billion (13 percent) in 1997 to \$79.8 billion.²¹¹ In 1997, Brazil reported that its total exports increased by 11 percent to \$53 billion and that its principal export markets during 1997 were the EU (27 percent), the United States (18 percent), and Mercosur partners (17 percent).²¹² Brazil's fastest growing export destination in 1997 was the markets of its Mercosur partners; their demand for Brazilian goods grew by 17 percent.²¹³ Within Mercosur, Brazil's shipments to Argentina increased by 31 percent to \$6.9 billion in 1997, with Argentina accounting for 13

percent of Brazil's total exports. Brazil's exports to the United States grew by \$639 million (7 percent) in 1997 to \$9.5 billion.²¹⁴ Manufactured goods dominated Brazil's imports in 1997, accounting for 55 percent of the total. Brazilian products showing the most significant levels of export growth in 1997 included basic products such as coffee and soybeans (22 percent), manufactured goods (11 percent), aircraft (140 percent), autos (136 percent), trucks (60 percent), and earthmoving machinery (40 percent).

²⁰⁷U.S. Department of State, *Country Reports on Economic Policy and Trade Practices*, 1997 & 1998, found at Internet address <http://www.tcc.nist.gov>, retrieved Apr. 8, 1998. Data on Paraguay were not available.

²⁰⁸U.S. Department of State telegram No. 000856, "Argentine Trade Policy: Fast Track, Mercosur Integration and the FTAA," prepared by U.S. Embassy, Buenos Aires, Feb. 17, 1998. U.S. Department of State telegram No. 000512, "Brazil 1997 Trade Profile," prepared by U.S. Embassy, Brasilia, Feb. 9, 1998.

²⁰⁹The Government of Paraguay undertook measures to cut public and private spending in 1997 after a surge in imports from Mercosur partners in 1996 depleted foreign exchange reserves.

²¹⁰U.S. Department of State telegram No. 000115, "Brazil Keeps Chugging Along the Right Track," prepared by U.S. Embassy, Brasilia, Jan. 13, 1998. U.S. Department of State telegram No. 00781, "Argentina Economic Trends, Feb. 1998," prepared by U.S. Embassy, Buenos Aires, Feb. 10, 1998.

²¹¹U.S. Department of State, *Country Reports on Economic Policy and Trade Practices*, 1997 & 1998.

²¹²U.S. Department of State telegram, "Brazil 1997 Trade Profile," Feb. 9, 1998.

²¹³Ibid.

²¹⁴Based on data for U.S. imports for consumption, U.S. Department of Commerce.

In 1997, exports accounted for less than 10 percent of Argentina's total GDP. Argentine exports grew by 9 percent to \$29.5 billion in 1997.²¹⁵ Since the inception of Mercosur, Brazil has emerged as Argentina's leading trading partner. Argentina's exports to the United States were virtually flat in 1997, falling by \$31 million (1 percent) to 2.2 billion.²¹⁶ In 1997, high-value-added manufactured goods dominated Argentina's exports to Mercosur (51 percent), whereas they accounted for only 28 percent of Argentina's exports to the rest of the world.

Uruguay reported that its exports increased from \$2.4 billion in 1996 to an estimated \$2.7 billion in 1997, or by 13 percent. Uruguay's exports to the United States, however, fell by \$31 million (12 percent) in 1997 to \$229 million,²¹⁷ and accounted for only 7 percent of Uruguay's total exports in 1997.²¹⁸ Paraguay's exports to the United States dropped by \$2.7 million (6 percent) in 1997 to \$40 million.

Brazil reported that its total imports increased to an estimated \$63.2 billion in 1997, or by 19 percent.²¹⁹ Brazil indicated that its principal suppliers for imports during 1997 were the United States (23 percent), the EU (21 percent), and its Mercosur partners (16 percent). Raw and intermediate materials dominated Brazil's imports accounting for 45 percent of the total. Products showing the most significant rates of import growth during 1997 included petroleum products (12 percent), consumer goods (15 percent), and machinery and mechanical equipment (18 percent).

Argentina's economy continued to rebound in 1997, growing by 8 percent. Growth had slowed considerably in 1995 following the devaluation of the Mexican peso amid fears that Argentina and other South America nations would follow a similar path (the "Tequila Effect"). Austerity measures that reduced Argentine imports in 1995 promoted investor confidence and permitted a strong recovery in imports the following 2 years. Argentina reported that its total imports grew by \$6.3 billion (27 percent) in 1997 to \$30 billion.²²⁰ Uruguay reported that its imports increased by 18 percent to \$3.3 billion in 1997. Argentina and Uruguay indicated that imports from the United States accounted for 17 percent and 13 percent, respectively, of their total imports in 1997.

U.S. imports

The Mercosur trade bloc was the United States' 13th-leading source of imports during 1997. U.S. imports from the Mercosur bloc grew by \$574 million (5 percent) to \$12.0 billion in 1997.²²¹ Mercosur exporters

²¹⁵U.S. Department of State telegram No. 000705, "Argentina Economic Trends-February 1998," prepared by U.S. Embassy, Buenos Aires, Feb. 9, 1998.

²¹⁶Based on data for U.S. imports for consumption, U.S. Department of Commerce.

²¹⁷Ibid.

²¹⁸Based on estimated exports from Uruguay.

²¹⁹U.S. Department of State, *Country Reports on Economic Policy and Trade Practices*, 1997 and 1998. U.S. Department of State telegram, "Brazil 1997 Trade Profile," Feb. 9, 1998.

²²⁰U.S. Department of State telegram, "Argentina Economic Trends-February 1998," Feb. 9, 1998.

²²¹Some analysts attribute the relatively modest growth in Mercosur exports to the United States in 1997 to overvalued currencies in Argentina and Brazil, which made exports less competitive in world markets. Also, the rapid growth in the domestic markets in the region may have influenced some Mercosur producers to shift their focus from

(continued...)

were able to take advantage of a robust U.S. economy, characterized by high consumer demand and strong purchasing power. As shown in the following tabulation, Brazil dominated total U.S. imports from Mercosur in 1997.

	<u>U.S. imports</u>	
	<i>(million dollars)</i>	<i>(percent of total)</i>
Argentina	2,195	18
Brazil	9,510	79
Paraguay	40	(1)
Uruguay	<u>229</u>	<u>2</u>
Total	11,974	100

¹Less than 1 percent.

Note.--Because of rounding total may not equal 100.

As the following tabulation shows, U.S. imports from Mercosur consisted of a wide range of industrial, agricultural, and consumer goods in 1997. U.S. imports consisted principally of agricultural products (especially coffee, tobacco, fruit juices, sugar, nuts, and processed and frozen beef and seafood); non-electrical machinery and mechanical appliances (principally engines, transmissions, and fuel pumps for the motor vehicle industry); footwear; and iron and steel.

<u>Sector description</u> ¹	<u>Selected U.S. imports from Mercosur</u>	
	<i>(million dollars)</i>	<i>(percent of total)</i>
Agricultural products (AG001-045; AG062-064)	2,709	23
Non-electrical machinery and mechanical appliances (HTS 84)	1,277	11
Footwear (HTS 64)	1,167	10
Iron and steel (HTS 72)	1,146	10
Mineral fuels and oils (HTS 27)	709	6
Electrical machinery and equipment (HTS 85)	518	4
Wood and articles of wood (HTS 44)	446	4
Gold (HTS 7108)	394	3
Leather (HTS 4104)	<u>366</u>	<u>4</u>
Total	8,732	73

¹Sector description may not be inclusive of all the products covered in these groupings.

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

Brazil was the only Mercosur country from which U.S. imports increased in 1997. Not surprisingly, Brazil was responsible for most of the significant increases in U.S. imports of specific commodities from the Mercosur bloc (coffee, aircraft, gold, motor-vehicle engines and parts, soybeans, and telecommunications equipment). See the section of this report on bilateral trade with Brazil for a discussion of important shifts in U.S. trade with Brazil. Argentina, however, with its large cattle industry, was responsible for almost all of the \$85 million (30 percent) rise in U.S. imports of leather from the Mercosur bloc in 1997 to \$366 million (table 3-25). Argentina, the largest Mercosur exporter of petroleum, was also responsible for virtually all of the \$242

²²¹(...continued)
export markets to local consumers.

million (37 percent) decline in U.S. imports of crude petroleum from the Mercosur bloc to \$418 million. Most of the decline, however, was the result of a drop in world prices for crude petroleum in 1997 rather than a decrease in the volume of petroleum shipped from Argentina. Argentina also accounts for virtually all uncarded cotton imported from the Mercosur bloc; such imports dropped from \$86 million in 1996 to \$1,000 in 1997 (table 3-25).

Table 3-25
Leading changes in U.S. imports from Mercosur, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Coffee (HTS 0901)	255	459	205	81
Aircraft and spacecraft (HTS 8802)	125	287	161	128
Gold (HTS 7108)	249	394	145	58
Motor vehicle engines and parts ¹ (MT002)	380	470	90	24
Leather (HTS 4104)	281	366	85	30
Soybeans (HTS 1201)	(²)	65	65	17,290
Radio transmission and reception apparatus (ST007)	227	280	52	23
Decreases:				
Crude petroleum (CH004)	660	418	-242	-37
Cotton (AG064)	86	(²)	-86	-100
Fruit and vegetable juices (AG036)	375	290	-84	-23
Footwear (CH079)	1,220	1,167	-54	-4
All other	7,542	7,778	236	3
Total	11,400	11,974	574	5

¹Parts accounted for about 70 percent of U.S. imports in this category in 1997; complete engines accounted for the remaining 30 percent.

²Less than \$500,000.

Note.--Calculations based on unrounded data.

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

U.S. exports

Mercosur was the 11th-largest U.S. export market in 1997. U.S. exports to the Mercosur trading bloc increased by \$4.4 billion (25 percent) to \$21.9 billion. Although Mercosur's share of U.S. exports (total value) remained modest at 3 percent, U.S. exports to the region grew significantly faster over 1996-97 than U.S. exports to other important markets. The strong growth in U.S. exports to the Mercosur bloc can be attributed to an overall market expansion resulting from trade liberalization, local government policies encouraging modernization and improved competitiveness of domestic industries, reduced trade barriers, liberalized foreign investment rules, and the privatization of government-owned industries.²²² Bloc imports also showed a strong demand for consumer goods, especially automobiles, appliances, and electronic products, and capital goods which together accounted for 44 percent of Argentina's total imports in 1997. A significant portion of U.S. exports to Argentina and Brazil are in the form of parts for final assembly by subsidiaries or joint ventures of U.S. producers. The

²²²U.S. Department of State telegram No. 000733, "1998 NTE Update-Brazil," prepared by U.S. Embassy, Brasilia, Feb. 25, 1998.

finished goods are then distributed to markets throughout the region. As shown in the following tabulation, Brazil was the leading destination for total U.S. exports to the Mercosur trade bloc in 1997.

	U.S. exports	
	<i>(million dollars)</i>	<i>(percent of total)</i>
Argentina	5,553	25
Brazil	5,001	68
Paraguay	886	4
Uruguay	<u>514</u>	<u>2</u>
Total	21,954	100

Note.--Because of rounding total may not equal 100.

As shown in the following tabulation that lists the leading U.S. export products to Mercosur, machinery and equipment (both electrical and non-electrical) accounted for nearly one-half of U.S. exports to Mercosur in 1997. Within these product groupings, the top performing export categories were computers (\$1.4 billion) and parts (\$1.4 billion); transmission apparatus for radio-telecommunications (\$780 million); parts for radio, television, and telecommunication equipment (\$533 million); parts for construction and mining equipment (\$575 million); and aircraft engines (\$418 million).

<u>Sector description</u> ¹	<u>Selected U.S. exports to Mercosur</u>	
	<i>(million dollars)</i>	<i>(percent of total)</i>
Non-electrical machinery and mechanical appliances (HTS 84)	6,262	29
Electrical machinery and equipment (HTS 85)	3,647	17
Organic chemicals (HTS 29)	1,271	6
Measuring and testing instruments (HTS 90)	1,121	5
Motor vehicles (HTS 87)	1,120	5
Plastics and articles of plastic (HTS 39)	1,025	5
Aircraft, spacecraft, and parts (HTS 88)	877	4
Mineral fuels and oils (HTS 27)	597	3
Miscellaneous chemical products (HTS 38)	<u>576</u>	<u>3</u>
Total	16,495	75

¹Sector description may not be inclusive of all the products covered in these groupings.

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

Product areas experiencing the greatest increases in exports to Mercosur in 1997 were capital goods (such as computer hardware, radio transmission and reception apparatus, aluminum mill products, and certain measuring instruments); transportation equipment (including motor vehicles and parts, aircraft and parts, and equipment and parts for construction and mining); and certain chemical products (especially pesticides and medicinal chemicals) (table 3-26). Significant growth also occurred in exports of television apparatus and soybeans. The growth in demand for capital goods reflects a strong push on the part of Mercosur's governments to modernize and improve the technological base of important industries.

Brazil accounted for much of the rapid expansion in U.S. exports to the Mercosur bloc in 1997, as exports to Brazil rose by \$3.1 billion (26 percent) to \$15.0 billion. See the section on Brazil for a discussion of

the factors responsible for the largest commodity and sectoral increases in exports to Brazil. U.S. exports to Argentina rose at an even faster rate in 1997, climbing by \$1.2 billion (29 percent) to \$5.6 billion. Exports to Uruguay grew at a more modest rate, \$52 million (11 percent) in 1997 to \$514 million; while exports to Paraguay declined slightly, by \$2 million (0.2 percent) to \$886 million. Slower growth in exports to Uruguay and Paraguay reflects the use of facilities in Brazil and Argentina by U.S. firms to produce or assemble goods (often from U.S.-origin parts) for distribution throughout the region. For the most part, the portfolio of U.S. exports to Argentina mirrors that of exports to Brazil. Top increases in U.S. exports to Argentina in 1997 included soybeans, up from \$145,000 in 1996 to \$125 million in 1997; telephone and telegraph apparatus, up \$143 million (162 percent) to \$231 million; computer hardware, up \$93 million (20 percent) to \$565 million; radio-telecommunications transmission and reception apparatus, up \$67 million (70 percent) to \$163 million; and certain motor-vehicle parts, up \$82 million (121 percent) to \$151 million.

Table 3-26
Leading changes in U.S. exports to Mercosur, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Computer hardware (ST018)	2,282	2,745	463	20
Radio transmission and reception apparatus (ST007)	564	861	297	53
Aircraft (MT042)	604	876	272	45
Soybeans (HTS 1201)	53	283	231	438
Telephone and telegraph apparatus (ST002)	427	722	295	69
Aircraft engines and gas turbines (MT001)	241	426	185	77
Aluminum mill products (MM038)	129	306	177	137
Certain motor-vehicle parts (MT039)	357	534	177	49
Construction and mining equipment (MT012)	539	682	143	27
Television apparatus, except receivers and monitors (ST010)	64	183	119	187
Certain measuring instruments (ST030)	283	397	114	40
Pesticide products and formulations (CH024)	295	406	111	38
Motor vehicles (MT038)	286	384	97	34
Medicinal chemicals (CH026)	336	428	93	28
Decreases:				
Wheat (HTS 1001)	174	(¹)	-174	-100
Petroleum products (CH005)	400	302	-99	-25
All other	10,522	12,338	1,816	17
Total	17,556	21,923	4,367	25

¹Less than \$500,000.

Note.--Calculations based on unrounded data.

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

Outlook

In contrast to the trend in 1996-97, U.S. exports to the region in 1998 may be affected by Mercosur's 3-percent tariff hike agreed to in the fourth quarter of 1997 on imports of goods from outside the bloc (common external tariff), effectively raising the tariff ceiling from 20 percent to 23 percent.²²³ Reacting to a growing trade

²²³Exempted from the duty increase are goods that are zero-rated under the Mercosur CET, such as certain agricultural products, capital goods, and petroleum products. U.S. Department of State telegram No. 05149, "Further (continued...)"

deficit, precipitated in part by the Asian financial crisis, Brazil also implemented a series of austerity measures to slow the flow of imports. Brazil placed new restrictions on import finance and consumer credit and expanded the official export credit program.²²⁴ The new measures required importers to procure foreign exchange to “pay for most imports upon importation or 180 days in advance, rather than when the payment is due under the contract.”²²⁵ Some analysts, however, are “cautiously optimistic” that Brazil’s measures restricting spending and import trade will be of short duration. They point to gains from privatization, growth in the motor vehicle and telecommunications industries, control over inflation, and gains from intra-Mercosur trade as strengths that will enable Brazil and the rest of the Mercosur bloc to weather the Asian financial crisis.²²⁶

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Sub-Saharan African Countries

Trade, market, and foreign investment-policy reforms initiated by Sub-Saharan African (SSA)²²⁷ countries since the late 1980s are beginning to affect trade flows with the region. Total trade with all SSA countries increased by \$892 million (4 percent) to \$22.1 billion in 1997. The U.S. trade deficit with all of the SSA countries expanded by \$844 million (9 percent) to \$9.9 billion in 1997. A trade surplus with 19 countries was reported in 1997. While U.S. exports essentially remained flat in 1997, U.S. imports from the region increased slightly, especially of energy-related products and minerals and metals, causing the U.S. trade position to decline. Trade patterns continued to reflect U.S. reliance upon the region as a source of primary commodities and the SSA countries’ need for equipment and machinery, as well as basic foodstuffs (table 3-27).

Growth in most countries is continuing the upward trend established in the past 3 years,²²⁸ with 31 countries experiencing increased per-capita income growth in 1996.²²⁹ Since 1995, regional economic growth has increased at a rate greater than the rate of the population, an indication of sustainable growth. Real GDP growth averaged 3.4 percent in 1995, 5.6 percent in 1996, and is estimated at 4.5 percent for 1997.²³⁰ The relationship between positive economic growth resulting from domestic and trade policy reforms became more apparent in the trade flows of selected SSA countries. For example, Kenya and Uganda initiated changes that

²²³(...continued)

Study of Brazil’s Tariff Increases; List,” Nov. 21, 1997. Argentina waited until January 1998 to implement the increase.

²²⁴U.S. Department of State, *Brazil - Country Reports on Economic Policy and Trade Practices*, 1998.

²²⁵*Ibid.*

²²⁶Sergio R. Bustos, “Will Brazil Thrive?” *Latin Trade*, June 1998, p. 30ff.

²²⁷The 48 Sub-Saharan African countries are: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo-Brazzaville, Congo-Kinshasa (formerly Zaire), Côte d’Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Saõ Tomè and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, and Zimbabwe.

²²⁸As with most data, statistics, and some anecdotal information on SSA, the most current information is frequently older than one year. In all cases the information used in this section is the most current available at the time of publication.

²²⁹World Bank, *International Trade Finance*, Feb. 1998.

²³⁰World Bank, *Annual Report*, July 1997.

improved export competitiveness, observed in increased trade between the United States and these two countries in 1997.

U.S. imports

U.S. imports from the 48 SSA countries increased by \$867 million (6 percent) to \$16.0 billion in 1997. The leading import product sectors from the region continued to be energy-related products and minerals and metals (table 3-27). In 1997, imports of these products totaled \$13.3 billion, or 83 percent of all U.S. imports from the region. Other significant sector imports from the region were agricultural products and chemicals and related products. Increased U.S. imports of products in these sectors reflected continued U.S. reliance on the region's energy, mineral, and agricultural resources. Twenty-six countries increased their exports to the United States at a rate greater than the regional rate of 6 percent.

Energy-related products from SSA dominated the imports from the region, accounting for 69 percent of total imports from SSA in 1997. Imports of petroleum and petroleum products from Nigeria, Angola, and Gabon accounted for 35 percent of all U.S. imports in 1997, for a total of \$10.5 billion; more than half the total originated in Nigeria (\$5.7 billion). Nigeria was the fifth-largest worldwide source of U.S. petroleum imports, followed by Angola.²³¹ Additional suppliers of crude petroleum and petroleum products included Congo-Brazzaville, Congo-Kinshasa, Côte d'Ivoire, and Cameroon. Recent discoveries of petroleum reserves made Equatorial Guinea a minor supplier in the energy-related products sector in 1996 and 1997; however, imports declined by \$41 million (59 percent) to \$29 million in 1997. Imports from Benin, Cameroon, and Guinea also declined in 1997. Togo more than tripled its exports of petroleum products to the United States in 1997, increasing from \$1 million in 1996 to \$4 million in 1997. Imports of energy-related products from South Africa rose by \$4 million (9 percent) to \$44 million in 1997. However, the dominant products in this sector from South Africa were nuclear materials, followed by coke and coal, as opposed to the petroleum and petroleum products supplied by most other SSA countries.

The second-largest import sector from SSA countries continued to be minerals and metals, especially precious metals, diamonds, and bauxite. Sector imports grew by \$91 million (4 percent) to \$2.3 billion in 1997, despite lower precious-metals prices, and accounted for 14 percent of all U.S. imports from the region. Minerals and metals imports are dominated by one country, with 75 percent (\$1.7 billion) of U.S. sector imports originating in South Africa. Precious metals (primarily gold and platinum-group metals) were the predominant imports from South Africa, accounting for 35 percent of all minerals and metals originating in the region. Ghana was the only other significant source of precious metals, with a total of \$1.3 million. Gemstone imports accounted for 17 percent of the value of this sector in 1997, up 1 percent from 1996, with South Africa, Ghana, and Congo-Kinshasa being the dominant suppliers. Minor suppliers included Sierra Leone, Congo-Brazzaville, Botswana, and Guinea. Bauxite imports from the region increased \$18 million (20 percent) to \$109 million from the 1996 value with Guinea as the dominant supplier and South Africa as a secondary supplier.

Table 3-27
Sub-Saharan African countries: U.S. import and export trends by sector, 1996-97

Sector	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Imports:				

²³¹U.S. Department of Energy, Energy Information Administration, Feb. 1997. Venezuela, Canada, Saudi Arabia, and Mexico rank as the first four suppliers to the United States.

Agricultural products	858	915	57	7
Forest products	114	102	-12	-11
Chemicals and related products	526	836	310	59
Energy-related products	10,694	11,014	320	3
Textiles and apparel	396	471	76	19
Footwear	1	1	(¹)	35
Minerals and metals	2,178	2,269	91	4
Machinery	79	68	-11	-14
Transportation equipment	71	80	9	13
Electronic products	52	31	-21	-40
Miscellaneous manufactures	58	87	29	50
Special provisions	101	120	19	19
Total	15,128	15,996	867	6
Exports:				
Agricultural products	892	756	-136	-15
Forest products	204	205	1	1
Chemicals and related products	689	741	52	8
Energy-related products	241	224	-17	-7
Textiles and apparel	201	205	4	2
Footwear	14	17	3	21
Minerals and metals	281	250	-30	-11
Machinery	763	815	52	7
Transportation equipment	1,707	1,728	21	1
Electronic products	729	769	40	6
Miscellaneous manufactures	64	77	12	19
Special Provisions	260	282	22	8
Total	6,046	6,069	24	(²)

¹Less than \$500,000.

²Less than one percent.

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

Agricultural imports increased by \$57 million (7 percent) to \$915 million, accounting for 6 percent of total imports across product sectors from SSA. Significant shifts occurred in two product groupings -- coffee and cocoa. Imports of coffee in 1997 more than doubled in value from 1996 levels, increasing from \$91 million to \$185 million. In 1997 coffee accounted for 20 percent of all agricultural product imports from the region, increasing from 11 percent in 1996. In contrast, cocoa imports from the region decreased. In 1996, cocoa products accounted for 38 percent of all agricultural products, but declined to 25 percent in 1997. Imports from Côte d'Ivoire and Ghana, the two largest suppliers, declined from \$286 million and \$29 million, respectively, during 1996-97, to \$208 million and \$8 million, respectively, due to crop losses caused by adverse weather conditions.

Chemicals and related product imports increased by \$310 million (59 percent) to \$836 million in 1997, accounting for 5 percent of total imports from the SSA region. The only notable shift in this grouping was the rise of U.S. imports of primary aromatics, which increased \$100 million (115 percent) to \$187 million. Primary aromatics accounted for 16 percent of the sector totals in 1996, rising to 22 percent in 1997.

Nigeria, Angola, and Gabon ranked among the top four suppliers of U.S. imports as a result of their petroleum reserves (table 3-28). South Africa, the third-leading SSA supplier to the U.S. market, is the most economically developed of the 48 SSA countries, and has the most diverse export base. Congo-Brazzaville and Congo-Kinshasa export smaller amounts of energy-related products to the United States; however, both countries supply significant quantities of minerals and metals. Côte d'Ivoire has been a traditional supplier of coffee and cocoa to the United States and is likely to remain so. Mauritius, Ghana, and Zimbabwe were newer but important suppliers of goods to the United States. Mauritius has steadily increased the products sent to the United States

as it has diversified its economy away from agriculture into manufactured goods, primarily apparel. Ghana and Zimbabwe have undergone considerable domestic reforms, including privatization of state-owned companies and market liberalization and economic growth for both countries.

Table 3-28
Sub-Saharan African countries: U.S. imports from top suppliers, by value, 1996-97

Country	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Nigeria	5,877	6,000	123	2
Angola	2,693	2,925	232	9
South Africa	2,320	2,495	175	8
Gabon	1,842	2,022	180	10
Congo-Brazzaville	303	461	158	52
Côte d'Ivoire	404	286	-118	-29
Congo-Kinshasa	263	263	1.0	(¹)
Mauritius	216	235	19	9
Ghana	171	154	-17	-10
Zimbabwe	124	134	10	8
All other	915	1,021	106	12
Total	15,128	15,996	867	6

¹Less than one percent.

Note.--Calculations based on unrounded data.

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

U.S. exports

U.S. exports to SSA countries remained flat in 1997, increasing by \$24 million (less than 1 percent) to \$6.1 billion. The largest export sector continued to be transportation equipment in 1997 (28 percent of total exports to SSA), although exports increased only slightly from 1996-97, by \$21 million (1 percent) to \$1.7 billion. U.S. exports to Kenya increased by \$83 million (366 percent) in this sector resulting from the purchase of two commercial airplanes after the privatization of the Kenyan Airways in December 1996. Saõ Tomè purchased commercial airline equipment as well, accounting for \$11 million in U.S. sales to that country.

The other main export categories are machinery, electronic products, agricultural products, and chemicals and related products (table 3-29). In 1997, exports of products in these five sectors totaled \$4.8 billion, or 79 percent, of all U.S. exports to the region. Except for agricultural products, exports of these products increased during 1996-97, which reflected ongoing efforts to meet the region's infrastructure development needs and its lack of adequate domestic production capacity in these sectors.

Table 3-29
Leading markets in Sub-Saharan Africa for U.S. exports by value, 1996-97

Country	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
South Africa	3,057	2,926	-131	-4
Nigeria	796	811	15	2

Ghana	294	313	18	6
Angola	265	279	14	5
Kenya	101	223	122	120
Côte d'Ivoire	140	150	9	7
Cameroon	70	122	52	74
Ethiopia	145	120	-25	-17
Guinea	87	82	-5	-5
Gabon	56	81	25	46
All other	1,035	962	-73	-7
Total	6,046	6,069	24	(¹)

¹Less than one percent.

Note.--Calculations based on unrounded data.

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

U.S. exports of agricultural products to SSA declined by \$136 million (15 percent) to \$756 million in 1997, accounting for the most significant drop in all sectors. Exports of agricultural products to the countries of SSA are dominated by grains, primarily wheat, of which food aid is a component; food aid varies annually, according to harvests, droughts, and emergencies. Aid continued to decline in 1997 due to good harvests throughout most of the region and the decline in food aid needed by countries suffering from civil strife. Also, exports of cereals to the two largest countries in the region, South Africa and Nigeria, declined by \$154 million from 1996 levels.

South Africa continues to be the largest SSA market for U.S. exports, although exports fell slightly, by \$131 million (4 percent) to \$2.9 billion in 1997 (table 3-29). Other significant U.S. export markets in SSA include Nigeria and Ghana.

Outlook

Opportunities for trade between the United States and SSA countries will likely increase as trade and economic reform continues. Democratization, elections, and corruption remain key social issues, and for some countries, barriers to expanded economic activity, including foreign trade, are prevalent. While supporters of increased U.S. trade with SSA highlight the untapped economic potential of the region, challenges to increasing trade with various SSA countries include: the lack of quality information, fluctuating currencies, the extensive bureaucracies, political instability, corruption, lack of infrastructure, lack of capital, and NTMs that remain in place in most SSA countries. However, structural adjustment programs established in 35 countries in conjunction with the World Bank²³² have begun to strengthen the economies of a number of SSA countries. Duty reductions and privatization of state enterprises have increased trade in various sectors for a number of countries in the region. Furthermore, as debt is reduced and economies grow, the composition and amount of trade will continue to increase.²³³

Regional trade groups continue to help promote development, investment, and trade. Only 7.5 percent

²³²U.S. Department of State, Bureau of African Affairs, "Africa: Macroeconomic Overview," Mar. 28, 1998.

²³³For a sector-by-sector explanation, see USITC, *U.S.-Africa Trade Flows and Effects of the Uruguay Round Agreements and U.S. Trade and Development Policy*, USITC publication 3067, Oct. 1997.

of the African trade was intra-regional, while 80 percent is with industrial countries. The most active regional groups were the Common Market for Southern and Eastern Africa (COMESA),²³⁴ and the Southern African Development Community (SADC)²³⁵ in the southern and central areas of SSA. In West Africa, the Economic Community of West African States (ECOWAS),²³⁶ continued to seek ways of expanding trade for its member countries. In 1996, SADC signed a trade protocol designed to establish a free-trade area within 8 years during which time tariff and NTMs will be reduced. Since the signing of the protocol, little action has occurred but discussions continue and the protocol holds promise for both intra-SADC trade, and stable markets for trade with the United States. U.S. direct investment in SSA countries continued to grow in recent years, and has generated high returns. U.S. investment in African countries in the region at yearend 1995 stood at more than \$5 billion, with South Africa accounting for a quarter of the total. According to USAID, in 1994, U.S. direct investment by nonbank affiliates of U.S. companies generated a 30 percent return on book value, compared with 11 percent worldwide. Since 1990, the average annual return on book value of U.S. direct investment in Africa was nearly 28 percent, three times the global rate of return.²³⁷

Emphasis continues to be placed on trade-related programs by the U.S. Government and multilateral agencies. The U.S. House of Representatives passed legislation entitled the *African Growth and Opportunity Act*, H.R. 1432 on March 11, 1998; similar legislation is pending in the U.S. Senate (S. 778). This bill complements the *President's Partnership for Economic Growth and Opportunity in Africa*, which was announced by the White House in December 1997. Under the President's *Partnership* program, free-trade agreements may be considered for countries with open market economies.

The *African Growth and Opportunity Act* would expand trade preferences to the majority of SSA countries. The bill has various levels to the program under which countries can participate. The 42 SSA countries eligible for the U.S. Generalized System of Preferences Program²³⁸ (GSP) would be eligible to participate in the partnership's basic program (Level 1) with expanded GSP concessions. Level 2 of the program could provide additional economic incentives to countries with outstanding economic-reform records. Level 2 programs would include participation in an annual Cabinet-level Economic Cooperation Forum, potential debt-forgiveness, expanded programs for technical assistance, economic policy reform, and agricultural market liberalization. Additional concessions for duty-free and quota-free entry under the GSP program for various sensitive products currently excluded under the GSP program would also be offered under Level 2.

The Multilateral Investment Guarantee Agency (MIGA) was created to supplement other World Bank activities in an effort to provide investment risk insurance programs. Another World Bank program, the Heavily Indebted Poor Countries (HIPC) trust fund, established in 1996, accorded the first debt-relief package to Uganda in March 1998. Other countries likely to benefit from this program include Mozambique, Burkina Faso, and Côte d'Ivoire.

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²³⁴COMESA members include Angola, Botswana, Congo-Kinshasa, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Swaziland, Seychelles, South Africa, Tanzania, Zambia, and Zimbabwe.

²³⁵SADC members include Angola, Burundi, Comoros, Congo-Kinshasa, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Rwanda, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe.

²³⁶ECOWAS members include Nigeria, Ghana, and members of the French West Africa group.

²³⁷U.S. Agency for International Development, *Global Technology Network Newsletter*, Apr. 13, 1998.

²³⁸Eritrea is in the GSP application process; Nigeria, Gabon, Sudan, Mauritania, and Liberia are not currently eligible for the GSP program.

CHAPTER 4

Factors Affecting Trends in Selected Industries/Commodities

Important trade developments or trends have had a particular impact on certain industries/commodities. Those addressed in this chapter have been affected by recent trade agreements between the United States and certain major trading partners (beef with the North America Free-Trade Agreement (NAFTA) partners); subject to special import access arrangements (flat glass with Japan); and subject to antidumping/countervailing duty orders in the U.S. market (cut-to-length carbon steel plate and drill pipe). In addition, updates of certain articles presented last year are included at the end of the chapter, including fresh-market tomatoes from Mexico, and automobiles and automobile parts from Japan. Both products were subject to special bilateral agreements negotiated by the United States and its respective trading partner. In addition, the textile and apparel sector, subject to changes because of multilateral agreements, is also revisited. The purpose of these analyses is to highlight trade shifts or other developments that have occurred in these product areas.

BEEF¹

Recent trade agreements have affected the U.S. beef industry and were the subject of a USITC study completed in July 1997 under section 58 of the Miscellaneous Trade and Technical Corrections Act of 1996.² This article examines trends and developments affecting the U.S. beef industry, as well as the outlook for U.S. beef trade.

The Commission's study assessed the impact of the NAFTA and the Uruguay Round Agreements (URA) on U.S. imports and exports of live cattle for slaughter and fresh, chilled, or frozen beef; the Commission also analyzed the steps that have been taken by the United States, since the enactment of the NAFTA, to prevent the transshipment of live cattle and fresh, chilled, or frozen beef through Mexico and Canada for importation into the United States.³

The Commission investigation found that, among other things, the NAFTA has enhanced U.S. exports of beef to Mexico primarily as a result of the preferential tariff rate treatment enjoyed by the United States under the NAFTA. Also, primarily as a result of trade liberalization associated with the United States-Canada Free-Trade Agreement, the NAFTA does not appear to have resulted in measurable changes in U.S.-Canadian trade in beef. The Commission also noted that during the URA negotiations, the United States and Korea entered into a Record of Understanding that included an immediate increase in Korea's global beef import quota and elimination of the quota by the year 2001.

Industry Trends And Developments

The U.S. cattle and beef sector is subject to the so-called "cattle cycle," a business cycle that typically lasts about 10 years. The expansion phase of the cattle cycle is characterized by several years of increasing cattle numbers and restrained beef production as animals are kept for breeding purposes rather than slaughtered. The contraction phase of the cattle cycle is typically characterized by a few years of contracting cattle numbers and increased beef production.⁴ As of mid-1998 the United States appears to be in the contraction phase of the most recent cattle cycle.

Beef is produced throughout the United States but production is concentrated in the Corn Belt and Western States--Nebraska and Kansas combined accounted for 39 percent of cattle slaughter in 1996 and Texas accounted for an additional 19 percent;⁵ the beef industry employed approximately 84,000 people in 1996.⁶ Consumption of fresh, chilled, or frozen beef and veal⁷ increased irregularly from 24.2 billion pounds in 1993 to 25.7 billion pounds in 1997 (table 4-1).

¹For purposes of this report, beef is defined as the fresh, chilled, or frozen edible muscle of bovine animals, except bison, and is provided for in headings 0201 and 0202 of the *Harmonized Tariff Schedule of the United States (HTS)*.

²The Commission instituted the investigation on November 6, 1996 (investigation No. 332-371) under section 332 (g) of the Tariff Act of 1930 (19 U.S.C. 1332 (g)).

³USITC, *Cattle and Beef: Impact of the NAFTA and Uruguay Round Agreements*, investigation No. 332-371, USITC publication 3048, July 1997.

⁴For a detailed discussion of the cattle cycle see USITC, *The Competitive Position of Canadian Live Cattle and Beef in U.S. Markets*, USITC publication 1996, July 1987, pp. 35-39.

⁵American Meat Institute, (AMI), *1997 Meat & Poultry Facts*, p. 17.

⁶USITC estimate based on the share of meat accounted for by fresh, chilled, or frozen beef and total employment in the meat processing sector as reported by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, *Annual Survey of Manufactures, Statistics for Industry Groups and Industries*.

⁷Almost all U.S. consumption, production, imports, and exports consisted of beef and will be referred to as beef in subsequent text references.

Table 4-1**Fresh, chilled, or frozen beef and veal: U.S. production, imports for consumption, exports of domestic merchandise, and apparent consumption, by year, 1993-97***(million pounds, carcass-weight equivalent)*

Year	Production	Imports for consumption	Exports of domestic merchandise	Apparent consumption
1993	23,334	2,102	1,219	24,217
1994	24,697	2,068	1,547	25,218
1995	25,507	1,839	1,736	25,610
1996	25,903	1,808	1,742	25,969
1997	25,738	2,091	2,090	25,739

Source: Production derived from official statistics of the U.S. Department of Agriculture; imports and exports derived from official statistics of the U.S. Department of Commerce.

The quantity of U.S. production of fresh, chilled, or frozen beef was relatively stable during 1995-97. However, 1996 production, at 25.9 billion pounds and 1997 production at 25.7 billion pounds, were both about 10 percent more than the 23.3 billion pounds produced in 1993 (table 4-1). The value of U.S. shipments of fresh, chilled, or frozen beef was \$25.1 billion⁸ in 1996. Beef accounted for 53 percent of the total value of \$47.1 billion of all U.S. shipments of fresh, chilled, or frozen meat in that year.⁹

Although the quantity of U.S. production of fresh, chilled, or frozen beef increased irregularly during 1993-97, the value of shipments declined as shown in the following tabulation:

<u>Year</u>	<u>Value of shipments</u>
	<i>(million dollars)</i>
1993	29,436.9
1994	27,087.0
1995	26,307.5
1996	25,083.1
1997	¹ 25,000.0

¹Estimated.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

The value of shipments in 1997 did not change significantly because the quantity of production in 1997 was nearly the same as 1996 and the price of boxed beef¹⁰ in 1997 was less than 1 percent more than that in 1996. Relatively large supplies of beef, in addition to relatively large supplies of pork and poultry, have put downward pressure on beef prices.

The average annual price for boxed beef generally declined during 1993-97; the trend is presented below:

⁸Fresh, chilled, or frozen beef (including veal) as reported by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census, *Annual Survey of Manufactures, Value of Product Shipments*.

⁹Pork accounted for most of the remainder; veal accounted for only about 1 percent of the value.

¹⁰United States Department of Agriculture (USDA), Economic Research Service (ERS), *Livestock, Dairy, and Poultry Monthly*, LDP-M-50, Feb. 19, 1998, p. 3.

<u>Year</u>	<u>Average annual price for boxed beef</u> <i>(dollars per 100 lbs.)</i>
1993	118.74
1994	108.47
1995	106.68
1996	103.09
1997	103.26

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

The share of U.S. beef consumption supplied by imports declined from 8.7 percent in 1993 to 7.0 percent in 1996 but increased to 8.1 percent in 1997. U.S. imports of fresh, chilled, or frozen beef declined from 2.1 billion pounds (\$1.7 billion) in 1993 to 1.8 billion pounds (\$1.1 billion) in 1996 (table 4-2). However, in 1997 such imports increased to 2.1 billion pounds, valued at \$1.4 billion, as rising imports from Canada, Australia, and New Zealand more than offset declining imports from Central America and Mexico. Uruguay was granted approval by the USDA to ship fresh, chilled, or frozen beef to the United States in mid-November 1995 and Argentina was approved effective August 25, 1997. U.S. imports from Uruguay were 61 million pounds (carcass-weight equivalent) in 1996 and 57 million pounds in 1997 and U.S. imports from Argentina were 16 million pounds in 1997.

Most U.S. imports of beef consisted of lean meat derived from grass-fed cattle; whereas, most U.S. exports consisted of beef derived from grain-fed animals. The types of beef imported and exported reflect, in part, the comparative advantage that the United States has in the production of grain and the comparative advantage some other countries (notably Australia and New Zealand) have in the production of grass. The imported beef was typically mixed with relatively high-fat content trimmings from domestic beef and processed into beef patties.¹¹ U.S. beef imports, except such imports from NAFTA countries, are subject to a tariff-rate quota, and the tariff rates applicable to above-quota quantities are generally considered to be prohibitive.¹²

Australia and New Zealand have traditionally been the leading suppliers of U.S. imports of beef, but in 1996 and 1997 Canada was the leading supplier. In 1997 Canada supplied 43 percent of the value of the subject imports, Australia supplied 25 percent, and New Zealand supplied 23 percent.

¹¹USITC, *Cattle and Beef*, USITC publication 3048, p. 2-24.

¹²Ibid., ch. 6, for a detailed discussion of the tariff-rate quota system.

Table 4-2
Fresh, chilled, or frozen beef and veal: U.S. imports for consumption, carcass weight-equivalent, by principal sources, 1993-97

Country	1993	1994	1995	1996	1997
)))))) Quantity (1,000 lbs. carcass weight-equivalent)))))					
Canada	396,679	447,319	439,420	579,530	704,477
Australia	905,576	876,079	670,207	544,531	638,943
New Zealand	560,619	526,462	577,775	502,110	574,587
Uruguay ¹	0	0	381	60,808	57,046
Costa Rica	68,398	65,239	58,366	54,196	33,161
Nicaragua	59,479	60,369	51,348	35,810	40,158
Argentina ²	0	0	0	0	16,285
Honduras	47,487	47,706	17,665	18,124	16,213
Mexico	3,207	2,775	5,631	10,295	8,831
Japan	13	71	19	17	24
All other	60,230	41,719	18,020	2,808	1,341
Total	2,101,688	2,067,739	1,838,832	1,808,229	2,091,066
)))))) Value (1,000 dollars)))))					
Canada	357,452	367,315	352,560	454,306	603,022
Australia	685,702	604,198	385,565	281,735	353,576
New Zealand	457,671	412,562	357,378	269,626	327,570
Uruguay ¹	0	0	257	35,446	37,598
Costa Rica	60,396	53,755	45,154	37,950	26,807
Nicaragua	51,909	49,811	37,719	22,467	25,786
Argentina ²	0	0	0	0	13,622
Honduras	40,456	39,885	14,057	12,008	10,297
Mexico	2,565	3,198	5,915	8,760	7,440
Japan	327	449	425	460	678
All other	48,729	34,209	15,249	3,564	1,747
Total	1,705,207	1,565,382	1,214,279	1,126,322	1,408,143

¹USDA sanitary and phytosanitary regulations prohibited U.S. imports of fresh, chilled, or frozen beef from Uruguay prior to 1995.

²USDA sanitary and phytosanitary regulations prohibited U.S. imports of fresh, chilled, or frozen beef from Argentina prior to 1997.

Note.--Because of rounding, figures may not add to the total shown.

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

Canada accounted for 34 percent (704 million pounds) of the quantity of such imports, in 1997. Canadian beef production increased in 1997 as the Canadian cattle industry, like its counterpart in the United States, was in the contraction phase of the cattle cycle. Also, there was a shift from exporting live cattle to the United States to exporting beef. The shift in product was likely influenced by additional cattle slaughtering capacity in two large-volume plants in Alberta.¹³ However, the shift was hindered by a worker strike at one of the plants in July 1997. There appear to be no significant changes in U.S. demand or consumption that have influenced imports from Canada.

¹³USDA, Foreign Agricultural Service (FAS), *Livestock Annual*, CA7042, Aug. 6, 1997, p. 4.

Australia supplied 31 percent (639 million pounds) of U.S. imports of fresh, chilled, or frozen beef in 1997 and was the second-leading U.S. supplier. Drought in Australia that contributed to increased cattle slaughter, a decrease in exports of live cattle to Indonesia associated with the Indonesian currency devaluation, and a decline in the Australian dollar in relation to the U.S. dollar all contributed to the increase in U.S. imports.¹⁴ Similarly, a decline in New Zealand sales of beef to Indonesia and a decrease in the New Zealand dollar contributed to an increase in U.S. imports.¹⁵ New Zealand accounted for 27 percent (575 million pounds) of U.S. imports of fresh, chilled, or frozen beef and was the third-leading U.S. supplier.

U.S. exports of fresh, chilled, or frozen beef increased from 1.2 billion pounds (\$1.9 billion) in 1993 to 2.1 billion pounds (\$2.4 billion) in 1997 (table 4-3). Japan has been the leading U.S. export market for beef, accounting for 56 percent of the total value in 1997. Other leading U.S. export markets include Mexico (12 percent), Korea (12 percent), and Canada (11 percent). A large share of the increase in U.S. exports in 1997 from 1996 occurred from increased shipments to Mexico that accounted for a 147-million-pound rise in U.S. exports. Relatively low import tariffs associated with the NAFTA and reduced Mexican beef production contributed to the increase in U.S. exports of beef in 1997.¹⁶

Table 4-3
Fresh, chilled, or frozen beef and veal: U.S. exports, by principal markets, 1993-97

Country	1993	1994	1995	1996	1997
)))))) Quantity (1,000 lbs., carcass weight-equivalent)))))))					
Japan	715,025	826,892	995,718	972,600	1,041,472
Mexico	103,986	201,393	84,702	163,739	310,352
Korea	112,484	175,321	265,390	195,640	265,383
Canada	219,775	259,076	282,843	264,158	258,277
All other	67,375	84,154	107,455	146,313	214,968
Total	1,218,645	1,546,836	1,736,108	1,742,450	2,090,452
)))))) Value (1,000 dollars)))))))					
Japan	1,228,578	1,328,841	1,680,332	1,489,794	1,368,674
Mexico	112,063	227,408	84,682	161,577	297,104
Korea	151,134	226,975	319,239	243,104	290,964
Canada	320,560	336,027	337,777	295,398	275,266
All other	129,035	132,200	170,243	185,492	201,353
Total	1,941,370	2,251,451	2,592,273	2,375,365	2,433,361

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

U.S. exports to Japan and Korea also increased in 1997. U.S. exports to Japan and Korea in 1996 were apparently restrained by perceived health concerns and Korean shelf-life regulations.¹⁷ In 1997, Korean imports of beef were at the level that the United States and Korea agreed to in the previously mentioned Record of Understanding, and in 1998 imports are projected to be limited to the amounts specified in the Record of

¹⁴USDA, FAS, *Livestock Annual*, AS8009, Feb. 2, 1998, p. 1.

¹⁵USDA, FAS, *Livestock Annual*, NZ8003, Feb. 3, 1998, p. 6.

¹⁶Meat Export Research Center, *U.S. Meat Export Analysis and Trade News*, vol. 6, No. 2, Feb. 1998, p. 6.

¹⁷USITC, *Cattle and Beef*, USITC publication 3048, pp. 3-16 to 3-18.

Outlook

Declines in the economies of Asian countries in 1997 are expected to have important direct and indirect effects on U.S. trade in beef, likely causing a decrease in U.S. exports.¹⁹ However, the magnitude of the expected drop in such exports is unclear. Diminished purchasing power in Korea and Japan, including that caused by currency devaluations, is expected to limit demand. Also, the decline in the Australian dollar in relation to the U.S. dollar will afford Australian beef a comparative advantage over U.S. beef.²⁰ Australian beef is the leading competitor with U.S. beef in those markets.

In contrast, U.S. imports of beef from Australia and New Zealand are expected to increase in part because beef that might otherwise go to Asian countries will be exported to the United States. Mexico is projected to continue to be an increasingly important market for U.S. beef.

U.S. imports of fresh, chilled, or frozen beef are expected to increase in 1998.²¹ Australia is projected to reclaim its role as the leading supplier of U.S. beef imports in 1997. The Australian Bureau of Agricultural and Resource Economics (ABARE) predicts that U.S. imports from Australia will increase modestly because of tightening supplies of manufacturing beef²² in the United States and a depreciation of the Australian dollar relative to the U.S. dollar.²³

U.S. beef imports from New Zealand are expected to increase in 1998. Indeed, New Zealand has reinstated a tariff-rate quota certification program in anticipation of supplying all of the quantity (about 470 million pounds, product weight) eligible to receive the lower in-quota tariff rate as provided for under the URA.²⁴ The certification program is intended to preclude above-quota imports that would be charged the higher tariff rate. However, there may be a moderate decline in U.S. imports from Canada, especially if U.S. exports of beef to Asian markets decline.²⁵ A relatively large share of U.S. imports of beef from Canada consists of meat derived from grain-fed animals. Consequently, a decline in U.S. exports of such beef to Asian markets would be expected to increase the U.S. supply, and reduce demand for Canadian beef.

U.S. export credit guarantees are expected to influence U.S. beef sales to Korea. The USDA Commodity Credit Corporation administers export credit guarantee programs for commercial financing of U.S. exports of beef. The National Cattlemen's Beef Association, a trade association representing cattle farmers and ranchers, contends that guarantees are of critical importance in supporting U.S. exports of beef.²⁶ The program for fiscal year 1998 provided guarantees for \$100 million for meats, including beef.²⁷

U.S. exports of fresh, chilled, or frozen beef to Canada are expected to be reduced from 1997 levels, reflecting a reduction in the exchange rate of the Canadian dollar in relation to the U.S. dollar. Also, the two

¹⁸USDA, FAS, *Livestock Annual*, KS8007, Jan. 9, 1998, p. 6.

¹⁹USDA, ERS, *Livestock, Dairy, and Poultry Monthly*, LDP-M-50, Feb. 19, 1998, p. 4.

²⁰Ibid.

²¹USDA, ERS, *Livestock, Dairy, and Poultry Monthly*, LDP-M-50, Feb. 19, 1998, p. 5.

²²Manufacturing beef includes beef that is suitable for processing into beef patties.

²³USDA, FAS, *Livestock Annual*, AS8009, Feb. 2, 1998, p. 4.

²⁴USITC staff interview with officials of the New Zealand Embassy in Washington, DC, and the New Zealand Meat Producers Board, Feb. 7, 1998.

²⁵USDA, FAS, *Livestock Annual*, CA8009, Feb.10, 1998, p. 6.

²⁶National Cattlemen's Beef Association, news release, *Exports depend on GSM, IMF, Fast Track*, Feb. 20, 1998.

²⁷USDA, FAS, news release, *USDA Increases Operational GSM-102 Credit Guarantees to S. Korea*, Mar. 17, 1998.

plants in Alberta that expanded beef production during 1997 are projected to increase marketings of boxed beef to Eastern Canada which will compete with U.S. exports.²⁸

The previously noted relatively low Mexican import tariffs on beef associated with the NAFTA, and reduced Mexican beef production that contributed to the increase in U.S. exports of beef in 1997, are projected to contribute further to increased exports in 1998.²⁹ The United States enjoys a 20-percent ad valorem import tariff advantage over non-NAFTA countries for fresh or chilled beef and a 25 percent ad valorem advantage for frozen beef and supplies virtually all of Mexico's imports of the subject products.³⁰ A drought that contributed to depleted Mexican cattle inventories during the early and mid-1990s ended in the late 1990s, and Mexican cattlemen have begun to rebuild cattle inventories in part by retaining cattle for breeding purposes that might otherwise be sold for beef.³¹ The long-term outlook is that Mexico will continue to be an important market for U.S. exports of beef.³²

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FLAT GLASS

In 1995, the United States and Japan reached agreement³³ on Japanese market access for imports of flat glass.³⁴ The agreement continues until the end of 1999 and seeks to increase access through a variety of means, such as increased adoption of nondiscriminatory technical and performance standards for construction competition, and expanded promotion of the use of safety and insulating glass. One of the goals of the agreement is to increase sales of foreign flat glass in Japan although the agreement specifies no numerical targets.³⁵

The quantity of Japanese imports of flat glass from all countries increased by 79 percent in the first year of the agreement, before declining by 9 percent from 1995-96 (figure 4-1). Japanese imports from the United States grew steadily during the 1994-96 period, more than doubling in volume to almost 6 million square meters valued at \$99.8 million.

At the second annual review of the U.S.-Japan Glass Agreement in Washington on May 14, 1997, the

²⁸USDA, FAS, *Livestock Annual*, CA8009, Feb.10, 1998, p. 7.

²⁹USDA, FAS, *Livestock Annual*, MX8010, Jan. 2, 1998, pp. 2-5.

³⁰USITC, *Cattle and Beef*, USITC publication 3048, p. 4-1.

³¹USDA, FAS, *Livestock Annual*, MX8010, Jan. 2, 1998, pp. 2-5.

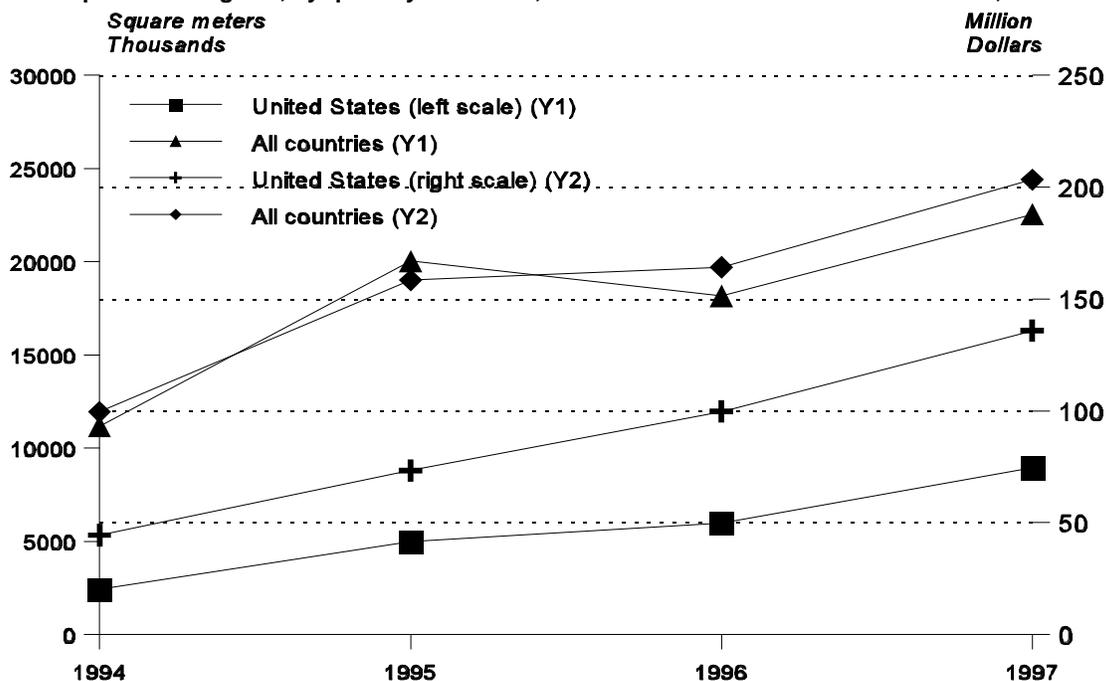
³²*Ibid.*, appendix I.

³³"Measures by the Government of Japan and the Government of the United States of America Regarding Flat Glass," U.S. Trade Representative (USTR), facsimile of agreement, received Feb. 2, 1995.

³⁴Flat glass is largely unworked; it may be surface ground or polished and have an absorbent, reflecting or non-reflecting coating, but it has not been tempered, laminated, bent, edge-worked, engraved, drilled, enameled, or otherwise worked. Safety glass (tempered or laminated) and insulating glass are also covered under the U.S.-Japanese agreement on flat glass.

³⁵U.S. producers have participated in the global trend to establish production facilities (primarily joint ventures) in Asia, e.g., Guardian Industries, Corp., has invested in plants in India and Thailand, and PPG Industries, Inc., has invested in plants in China. Such facilities give firms the option of servicing the Japanese market from relatively nearby countries.

Figure 4-1
Japanese imports of flat glass, by quantity and value, from the United States and all countries, 1994-97



Source: Compiled from official statistics of the Ministry of Trade and Industry, Japan.

United States rated the results over the past year (1996) as “poor,”³⁶ citing little progress in opening Japan’s highly controlled glass distribution system, despite improved efforts by U.S. glass firms. As a result, the USTR warned that the United States was considering seeking another Japan Fair Trade Commission (JFTC) investigation³⁷ or citing the Japan glass issue in USTR’s super 301 report. In July 1997, 26 members of the United States Senate and 53 members of the United States House of Representatives requested the President to urge Japan to significantly improve its performance during the remainder of the 5-year U.S.-Japan Agreement on Flat Glass.

The USTR subsequently did include this issue in its 301 report, issued on October 1, 1997,³⁸ citing the low volume of foreign glass within the Japanese glass distribution system, the virtual lack of growth in the overall use of insulated glass, and a decline in the use of safety glass. The USTR indicated that it would continue to pursue U.S. concerns on the matter in consultations with the Japanese in late October.

Discussions held in Tokyo in October 1997 failed to address U.S. concerns.³⁹ The U.S. Government requested an examination of whether the relationship between Japanese glass manufacturers and distributors constitutes a violation of anti-monopoly law; the Japanese saw no indication of such a violation and did not support such a study. The Japanese pointed out that the share of all imports in the Japanese flat glass market increased from 7.88 percent in 1994 to 14.23 percent in the first half of 1997, and the share of imports from the

³⁶U.S. Department of State telegram No. 005113, “Glass: Second Annual Review of the Agreement,” prepared by U.S. Embassy, Tokyo, June 12, 1997.

³⁷Previous reviews of the glass industry by the JFTC have not revealed antitrust behavior. Ibid.

³⁸USTR, “Identification of Trade Expansion Priorities Pursuant to Executive Order 12901,” found at Internet address <http://www.ustr.gov/reports/12901report97.pdf>, retrieved Oct. 10, 1997.

³⁹U.S. Department of State telegram No. 09261, “Glass: Press on Review Meeting,” prepared by U.S. Embassy, Tokyo, Oct. 23, 1997.

United States increased from 1.71 percent to 5.15 percent.⁴⁰ The U.S. Government responded that the share of imports is still low, and while there has been an increase in imports by companies that have capital affiliation with Japanese companies, there has been little increase in imports by U.S. companies without such ties.⁴¹ Discussion of this matter resumed at the annual session held in Washington, DC on May 27-28, 1998. At the review, Japan opposed a U.S. proposal to open the Japanese market through encouraging the use of an anti-monopoly compliance manual by Japanese manufacturers and distributors.

Although the quantity of Japanese imports of flat glass from all countries increased by 24 percent during 1996-97 and those from the United States increased by 50 percent to almost 9 million square meters (\$135.9 million), demand for imported glass in the Japanese market is weakening, with both the depressed economy in Japan and the Asian financial crisis likely contributing factors. The average monthly quantity and value of Japanese imports from all countries changed during 1997; after increasing by 25 and 24 percent, respectively, during the first 7 months of 1997, imports (quantity and value) decreased by less than 1 percent during the August through December period. Japanese imports from the United States performed somewhat better than average, increasing in quantity and value by 38 percent and 31 percent, respectively, during the first 7 months of 1997, and continuing to increase by 8 percent and 4 percent during the remainder of 1997.

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⁴⁰Ibid.

⁴¹Ibid.

CARBON STEEL PLATE⁴²

Shifts in commodity trade flows often follow the filing of antidumping (AD) and countervailing-duty (CVD) petitions. Since 1992, the USITC and the USDOC have conducted two separate sets of investigations of carbon steel cut-to-length plate (plate)⁴³ and changes in the overall levels of plate imports and the import shares of individual countries have followed each set of cases.⁴⁴ These shifts occurred against a background of generally rising import market share.

Domestic producers of plate filed the first set of these AD and CVD petitions against 14 countries in 1992, resulting in AD and/or CVD orders on plate imports from 12 countries in 1993.⁴⁵ Between 1992 and 1994, imports from these 12 foreign producers fell from 677,290 metric tons (mt) to 266,975 mt (61 percent); imports of plate from the 12 accounted for 80 percent of total U.S. imports in 1992, falling to 22 percent of the total in 1994. At the same time, imports increased from new sources and total U.S. imports of plate rose, from 844,107 mt in 1992 to 1,618,611 mt in 1996 (92 percent). Also, the total import share of consumption rose from 15.7 percent in 1994 to 23.2 percent in the first quarter of 1997.⁴⁶ Most of this U.S. import growth was accounted for by China, Russia, South Africa, and Ukraine, as U.S. imports from these four countries increased from 84,579 mt to 1,146,138 mt during 1992-96, rising from 10 percent to 71 percent of total U.S. imports of plate (table 4-4). Two U.S. producers filed a second set of petitions in November 1996, alleging that a U.S. industry was materially injured or threatened with material injury by reason of LTFV imports of plate from China, Russia, South Africa, and Ukraine. The Commission made preliminary affirmative determinations in December 1996.⁴⁷ In 1997, imports of plate declined sharply, as depicted in figure 4-2.

⁴²The information in this section is based on limited public sources and should not be viewed as indicating how the Commission might analyze issues or might conclude in an investigation under the antidumping or countervailing duty laws or any other statutory provision.

⁴³The definition of the imported product subject to the investigations (scope) was identical in the 1992-93 and 1996-97 investigations. Cut-to-length carbon steel plate (plate) is a hot-rolled, flat-rolled nonalloy steel product with a minimum thickness of 4.75 millimeters (mm) or 4.0 mm if rolled on a universal mill and a minimum width exceeding 150 mm or a maximum width of 1,250 mm if rolled on a universal mill, with a rectangular shape and solid cross section. Included in this definition is plate that has been painted, varnished, or coated with plastics or other nonmetallic substances. Floor plate, plate in coils, plate clad or coated with metal, and grade X-70 plate were excluded from the scope of the investigations.

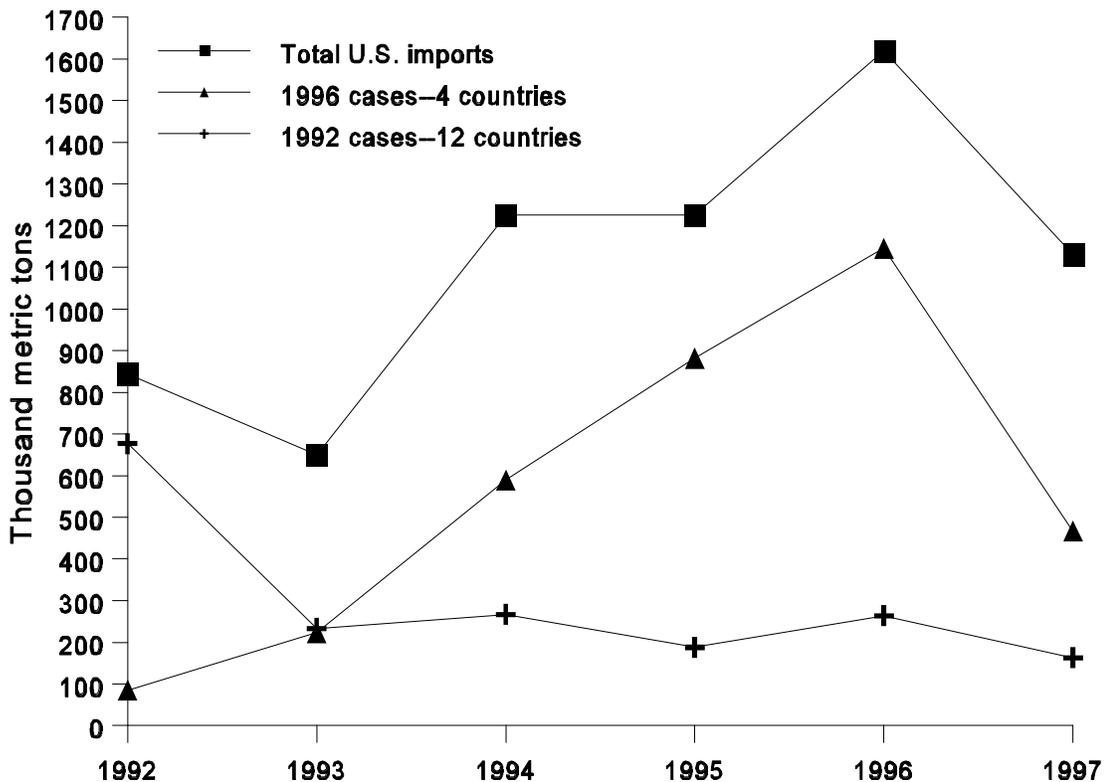
⁴⁴In addition, Geneva Steel and Gulf States Steel are the plaintiffs in a private action filed Sept. 11, 1996 against the defendants Ranger Steel Supply Corp. of Texas and Thyssen of Germany under the 1916 Antidumping Act in Federal District Court in Utah. In June 1998, the European Union requested consultations under Article XXIII regarding the consistency of the 1916 Act with respect to the United States WTO commitments.

⁴⁵The Commission determined that the domestic industry was being injured or threatened with material injury by reason of less than fair value (LTFV) or subsidized imports of plate from Belgium, Brazil, Canada, Finland, Germany, Korea, Mexico, Poland, Romania, Spain, Sweden, and the United Kingdom. The Commission made negative determinations with respect to imports from France and Italy. The USDOC calculated margins of dumping or subsidization ranging from 1.5 percent to 105.6 percent and from 0.5 percent to 44.7 percent (margins differed by country and by company), respectively. See, USITC, *Certain Flat-Rolled Carbon Steel Products from Argentina, Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, and the United Kingdom*, Investigations Nos. 701-TA-319-332, 334, 336-342, 344, and 347-353 (Final) and Investigations Nos. 731-TA-573-579, 581-592, 594-597, 599-609, and 612-619 (Final), USITC publication 2664, Aug. 1993.

⁴⁶USITC, *Certain Carbon Steel Plate from China, Russia, South Africa, and Ukraine*, Investigation Nos. 731-TA-753-756 (Final), USITC publication 3076, Dec. 1997, p. C-11.

⁴⁷USITC, *Certain Carbon Steel Plate From China, Russia, South Africa, and Ukraine*, Investigations Nos. 731-TA-753-756 (Preliminary), USITC publication 3009, Dec. 1996.

Figure 4-2: U.S. carbon steel plate imports by selected group, 1992-97



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

While these shifts in trade were underway, several domestic plate producers took steps to modernize their plate facilities and add new production capacity. IPSCO began producing commercial quantities of both cut-to-length and coiled plate at its new \$360 million mill in Muscatine, IA by the end of 1997, and four other mills⁴⁸ took measures to increase capacity or to modernize their existing mills. Also, three mills producing coiled plate entered the market during 1994-96⁴⁹ and a number of steel service centers installed cut-to-length lines in their facilities which can uncoil hot-rolled steel in certain plate thicknesses and transform it into cut-to-length plate.⁵⁰ Despite these efforts to modernize facilities and improve competitiveness, the U.S. industry's share of the domestic market fell from 83 percent in 1994 to 73 percent in the first quarter of 1997, a period during which U.S. consumption increased due to strong demand in the construction and equipment markets (table 4-4).⁵¹

⁴⁸Geneva Steel (Provo, UT), Tuscaloosa Steel (Tuscaloosa, AL), Oregon Steel Mills (Portland, OR), and Lukens, Inc. (Coatesville, PA) modernized their plate mills. Some aging capacity was closed as well (Inland Steel halted production at its East Chicago, IN, facility and Oregon Steel Mills closed its Fontana, CA, mill in 1995, for example).

⁴⁹Nucor (Crawfordsville, IN), Gallatin Steel (Ghent, KY), and Steel Dynamics, Inc. (Butler, IN) entered the coil market.

⁵⁰In addition, IPSCO (Montpelier, IA) and Oregon Steel Mills began production of coiled plate in the third quarter of 1997.

⁵¹Most carbon steel plate is used in capital investment projects where mass and strength are of primary concern. The construction industry, as well as manufacturers of storage tanks and pressure vessels, machinery, barges, and railcars are significant consumers of carbon steel plate. According to data of the American Iron and Steel Institute, plate

(continued...)

Table 4-4
U.S. imports of carbon steel plate, 1993-97

Item	1993	1994	1995	1996	1997
	<i>Metric tons</i>				
China	0	7,838	164,872	273,659	148,352
Russia	28,591	208,796	212,515	228,972	143,800
South Africa	93,176	104,752	50,902	73,975	7,208
Ukraine	100,988	268,326	453,839	569,534	167,482
Total 4 subject	222,755	589,711	882,127	1,146,140	466,842
All Other	425,887	636,510	343,123	472,471	664,636
Total ..	648,642	1,226,221	1,225,250	1,618,611	1,131,478

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

The removal of traditional import suppliers from the U.S. plate market, combined with a near-collapse of steel demand in Russia and Ukraine following the breakup of the former Soviet Union, preceded the efforts of producers in those countries to increase their participation in the U.S. market. In addition, certain barriers to U.S. imports from Russia, Ukraine, and South Africa had recently been reduced. For example, imports from Russian and Ukrainian mills gained most-favored nation duty status in 1992, resulting in large tariff reductions. Steel plate imports from South Africa had been subject to prohibitions under the Comprehensive Anti-Apartheid Act, which were lifted in July 1991. Although imports from China had not been subject to similar constraints, Chinese producers increased exports for several reasons. Chinese producers reportedly wanted to verify the quality of their plate in a competitive international market such as the United States, garner export earnings in hard currency, and test the U.S. market for other, more technically demanding products such as cold-rolled steel sheet or galvanized steel.⁵²

Discussions with industry sources indicate that they believe that part of the 1996 increase in U.S. imports was due to importers increasing their shipments in advance of the widely-rumored filing of the AD petition. Imports of plate from the four countries in the fourth quarter of 1996 were more than 100 percent higher than the same period in 1995, for example. Imports from Ukraine accounted for a large share of the overall increase and more than half of the U.S. plate imports from the four countries.⁵³ Although the petition was filed in November 1996 and the Commission's affirmative preliminary determination was made in December 1996, the first-quarter-1997 peak in imports represents deliveries that had already been contracted for (the typical lead time for offshore imports is approximately four months). On a monthly and quarterly basis, imports from the four countries reached a high point during January-February 1997. However, imports fell significantly the following month, from 100,138 mt in February 1997 to 5,327 mt in March 1997. Plate imports from the four countries continued at a relatively low level throughout the remainder of 1997.⁵⁴

⁵¹(...continued)

consumption in these infrastructure-related industries grew during 1994-97.

⁵²Discussions with industry contacts, fall 1997.

⁵³Ukrainian industry representatives report that much of the production of plate in the Ukraine was the result of tolling operations whereby international metals trading firms supplied the raw material inputs and paid a tolling fee to Ukrainian steelmakers in return for receiving cut-to-length plate.

⁵⁴While U.S. imports of coiled plate increased during 1996-97, a review of monthly import data indicates that of the four countries, U.S. imports increased only from Russia. Also, these imports vary widely from month-to-month and generally declined after April 1997.

As the investigations drew near to final determinations, USDOC negotiated suspension agreements (shaded box) with the governments of China, Russia, and Ukraine (nonmarket economy countries), and with Highveld and Iscor (two steel companies in South Africa that accounted for substantially all of the exports from that country) in October 1997. These agreements set quantitative ceilings and minimum prices for imports from the three nonmarket countries and initiated quarterly monitoring of South African imports.

Unlike some earlier suspension agreements, the cases were continued at the request of the domestic industry. Following USDOC's final affirmative AD duty determinations in November 1997, the USITC made final affirmative injury or threat of injury determinations in December 1997. The final margins and certain details of the suspension agreements are shown in table 4-5. Should there be a violation of any suspension agreement, the AD duties would be imposed without reopening the investigation.

Suspension Agreements

The USDOC may suspend a CVD investigation on the basis of one of three types of agreements entered into with the foreign government or with exporters who account for substantially all of the imports under investigation. The three types of agreements are (1) an agreement to eliminate the subsidy completely or to offset completely the amount of the net countervailable subsidy within 6 months after suspension of the investigation; (2) an agreement to cease exports of the subsidized merchandise to the United States within 6 months of suspension of the investigation; and (3) an agreement to eliminate completely the injurious effect of subsidized exports to the United States (which, unlike under the AD law, may be based on quantitative restrictions).

The USDOC may suspend an AD investigation on the basis of one of three types of agreements entered into with exporters who account for substantially all of the imports under investigation: (1) an agreement to cease exports of the merchandise to the United States within 6 months of suspension of the investigation; (2) an agreement to revise prices to eliminate completely any sales at less than fair value; and (3) an agreement to revise prices to eliminate completely the injurious effect of exports of such merchandise to the United States. Unlike CVD cases, AD investigations cannot generally be suspended on the basis of quantitative restriction agreements. The one exception is where the AD investigation involves imports from a non-market economy country.

The USDOC may not, however, accept any suspension agreement in either an AD or CVD investigation unless it is satisfied that suspension of the investigation is in the public interest, and effective monitoring of the agreement is practicable. When the USDOC decides to suspend the investigation, the USITC also suspends its investigation.

If, within 20 days after notice of suspension is published, the USDOC receives a request for continuation of the investigation from a domestic interested party or from exporters accounting for a significant proportion of exports of the merchandise, then both the USDOC and USITC must continue their investigations.

Source: U.S. House, Committee on Ways and Means, *Overview and Compilation of U.S. Trade Statutes*, 105th Cong., 1st sess., 1997, WMCP 105-4, p. 74.

Table 4-5

Carbon steel plate: Final antidumping margins and status of suspension agreements, by country

Country	Producer/Exporter	Commerce Margin (Percent)	Suspension Agreement export limit and reference price
China	Anshan (AISCO/Anshan International/Sincerely Asia Ltd.)	30.68	Export limit: 150,000 mt of A36 grade only; export limits specified for certain thicknesses. Reference price: \$350 per mt FOB.
	Baoshan (Bao/Baoshan International/Bao Steel Metals Trading Corp.)	34.44	
	Liaoning	17.33	
	Shanghai Pudong	38.16	
	WISCO (Wuhan/International Economic and Trading Corp./Cheerwu Trader Ltd.)	128.59	
	All Others	128.59	
Russia	Severstal	53.81	Export limit: 100,000 mt.
	All Others	185.00	Reference price(s): Grade A36--\$300 per mt and Grade A572--\$325 per mt, both FOB.
South Africa	Highveld Steel and Vanadium Corp Ltd.	26.01	Export limit and reference price: None specified; quarterly monitoring in order to prevent dumping.
	Iskor Ltd.	50.87	
	All Others	38.36	
Ukraine	Azovstal	81.43	Export limit: 158,000 mt; export limits specified for certain thicknesses. Reference prices (by grade): A36--\$359, A572--\$387, A516--\$390, API-2H--\$530, all per mt, FOB.
	Ilyich	155.00	
	All others	237.91	

Source: U.S. Department of Commerce, *Notice of Final Determination of Sales at Less than Fair Value: Certain Cut-to-Length Carbon Steel Plate from China, Russia, Ukraine, and South Africa*, Oct. 27, 1997; and *Suspension of Antidumping Duty Investigation: Certain Cut-to-Length Carbon Steel Plate from China, Russia, Ukraine, and South Africa*, Oct. 27, 1997.

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DRILL PIPE⁵⁵

Drill pipe is a special purpose steel tubular product used in the drilling of oil and gas wells. It forms the connection between the drilling rig and the drill bit in the well. As drilling progresses and the hole becomes deeper, lengths of drill pipe are added on at the top to allow drilling to progress. When drilling is complete, the drill pipe is removed from the well and later reused. Drill pipe is one of three special tubular products: drill pipe, casing, and tubing,⁵⁶ that are used in the drilling and completion of oil and gas wells. The three products are collectively known as “oil country tubular goods” (OCTG).

In August 1995, following final determinations by the USITC and the USDOC, the USDOC issued antidumping orders on imports of drill pipe from three countries:⁵⁷

<u>Country</u>	<u>USDOC final margins</u> (percent)
Argentina	1.36
Japan	44.20
Mexico	23.79

Industry Trends

Since the imposition of AD duties, well-drilling activity for oil and gas has increased. As shown in table 4-6, the average annual number of oil and gas rotary drilling rigs in service in the United States⁵⁸ has increased 27 percent in the last 2 years. During the last week of 1997, the rig count stood at 1,007.

Growth in drilling activity increases demand for drill pipe. Significant increases in imports from Singapore, the United Kingdom, Germany, the Netherlands, Brazil, China, France, and India were registered from 1993 to 1997, contributing to an overall increase of \$9.2 million (240-percent) to \$13.0 million from 1993 to 1997. Despite the AD duty orders facing their products, Japanese and Mexican producers have continued to export drill pipe to the United States. Imports for consumption from Japan were \$2.6 million in 1997, equal to their 1993 level, and imports for consumption from Mexico increased by \$1.1 million (138 percent) to \$1.9 million during 1993-97 (figure 4-3).⁵⁹

⁵⁵The information in this section is based on limited public sources and should not be viewed as indicating how the Commission might analyze issues or might conclude in an investigation under the antidumping or countervailing duty laws or any other statutory provision.

⁵⁶Casing is used to line the inside of the well to prevent it from collapsing and to prevent ground water from leaking into the well. Tubing is placed in a well to convey the oil or gas to the surface.

⁵⁷On June 30, 1994, seven U.S. producers filed petitions with the USDOC and the USITC alleging that a U.S. industry was materially injured and/or threatened with material injury by reason of subsidized imports of OCTG from Austria and Italy and imports at less than fair value from Argentina, Austria, Italy, Japan, Korea, Mexico, and Spain. In June 1995, USDOC made final affirmative CVD duty and AD duty determinations on all the foregoing countries, and on July 24, 1995, the USITC made final determinations of material injury or the threat of material injury by reason of unfairly traded imports in all cases except Austria, Spain, and drill pipe from Italy and Korea.

⁵⁸The highest U.S. rig count recorded since 1947 was 4,530 on Dec. 28, 1981. The lowest rig count was 596, recorded on June 12, 1992. Source: Baker Hughes, North American Rig Count.

⁵⁹Significantly greater amounts of drill pipe were recorded as general imports. In 1997, general imports of drill pipe from Japan were \$9.5 million, and from Mexico were \$2.3 million. The difference represents drill pipe that is re-exported, often after being processed. All import data in this section refer to HTS numbers 7304.20.8030, 7304.20.8045, and 7304.20.8060 (1993 and 1994) and 7304.21.3000 and 7304.21.6030, 7304.21.6045, and

(continued...)

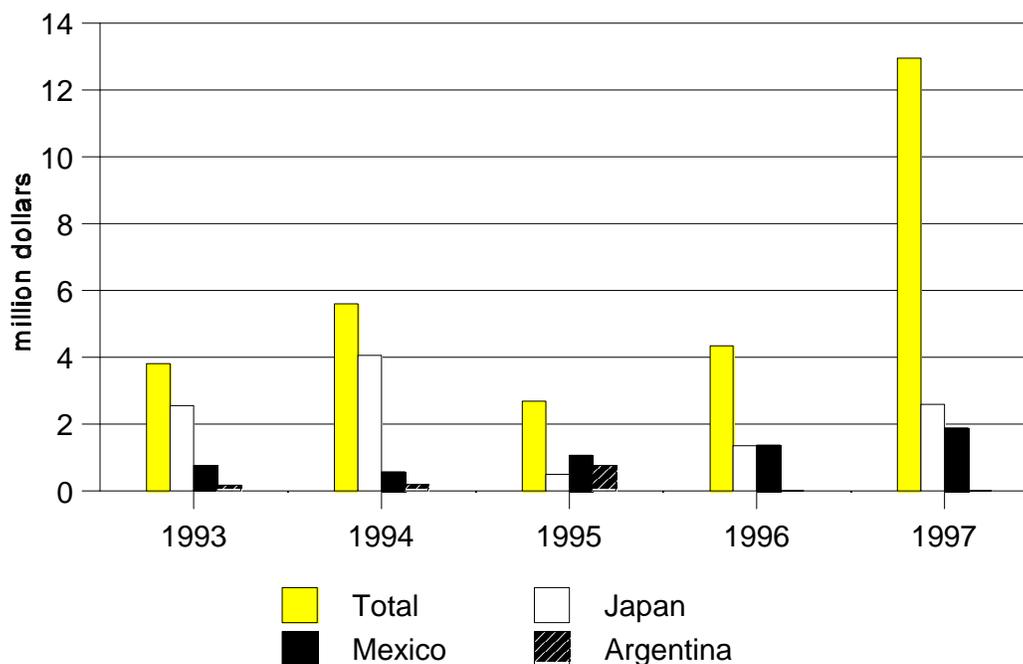
Table 4-6
Drill pipe: Average U.S. rotary drilling rig count, U.S. imports, and U.S. exports, 1993-97

Year	1993	1994	1995	1996	1997
Average U.S. rotary rig count	751	774	722	774	919
U.S. trade in drill pipe:	<i>(million dollars)</i>				
Imports	4	6	3	4	13
Exports	63	59	90	121	115

Source: Baker Hughes North American Rig Count and official statistics of the U.S. Department of Commerce.

Worldwide drilling activity has also been strong,⁶⁰ and the United States is a leading supplier of drill pipe to the world market, with exports far exceeding imports. But in 1997, exports declined by \$6 million (5 percent) to \$115 million. Because of higher prices, this change represented a decline of 17 percent in quantity. The overall decline in exports was led by lower shipments to Venezuela, the leading U.S. market for drill pipe. Exports to the rest of the world, particularly to Canada, increased.

Figure 4-3
Drill pipe: U.S. imports for consumption, 1993-97



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

⁵⁹(...continued)

7304.21.6060 (1995-97). Corresponding export numbers are 7304.20.7000 and 7304.20.8000 (1993-95) and 7304.21.3000 and 7304.21.6000 (1996-97). Finished drill pipe with tool joints attached may be imported under HTS number 8431.43.8010, which covers parts for oil and gas field machinery.

⁶⁰The number of drill rigs in operation in the world, except Russia and onshore China, was 24 percent higher in 1997 compared to 1993. Source: Baker Hughes International Rig Count.

The increase in drilling activity has improved business for U.S. drill pipe processors.⁶¹ These processors, capable of manufacturing tool joints and welding them to unfinished drill pipe, are few in number. Grant-Prideco, a division of EVI, Inc., is the largest producer of finished drill pipe in the world, with operations in the United States, Mexico, Canada, Scotland, Singapore, the Netherlands, and India.⁶² Its production and sales of finished drill pipe account for most of the U.S. production. The company's sales of finished drill pipe increased from \$156.5 million in 1996 to \$249.7 million (60 percent) in 1997.⁶³ Its sales backlog for drill pipe and other tubular products grew from \$170 million on December 31, 1996, to \$360 million on December 31, 1997, an increase of 112 percent.⁶⁴ The company states: "Market conditions for drill pipe have significantly improved over the past 2 years with the decline in excess inventories of used pipe and the associated increase in demand for new drill pipe. This improvement has resulted in higher sales, prices, and margins."⁶⁵

As implied by Grant-Prideco's statement, an important part of the supply of drill pipe has been the availability of used drill pipe. The thousands of drill rigs that were taken out of service since the early 1980s were stocked with drill pipe. The supply of used drill pipe from that source and from the repair of damaged pipe has been a constraint on the market for new drill pipe for many years.

Other Developments

In June 1997, the International Association of Drilling Contractors (IADC) asked the USDOC to remove drill pipe from the AD order, stating that "Domestic oil and gas drilling contractors are not able to obtain their drill pipe from domestic sources in a timely manner without interrupting drilling programs..."⁶⁶ An industry source said that there is a critical shortage of drill pipe, and drilling contractors must currently wait 18 months for delivery.⁶⁷

On March 13, 1998, the USDOC replied to IADC that it was "unable to consider [your] request further at this time," citing, among other reasons, plans by domestic processors to increase finishing capacity.⁶⁸ Grant Prideco, OMSCO Industries, the second-largest domestic producer, and Drill Tube International are all expanding their capacity,⁶⁹ and John Gandy Corp., will start up a new drill tube finishing plant by late August 1998.⁷⁰ On May 8, 1998, the USDOC announced that it would initiate a "changed circumstances" review of the AD order with regard to drill pipe from Mexico. However, USDOC stated that it will not revoke the order unless domestic

⁶¹In use, a length of drill pipe has a tool joint welded on each end. These joints connect each length of pipe to the one below it as the well is drilled. The manufacture of the tool joints and the welding of the tool joints on the ends of the pipe are specialized operations performed by companies that have special equipment and expertise. These "processors" convert an unfinished steel product ("green tubes") into finished drill pipe. The drill pipe industry includes both tube mills, which manufacture unfinished drill pipe, and processors, which manufacture finished drill pipe.

⁶²EVI, Inc., *Annual Report on Form 10-K for the fiscal year ended December 31, 1997*. The operation in India is through an exclusive manufacturing arrangement with Oil Country Tubular Limited.

⁶³Ibid.

⁶⁴Ibid. and Energy Ventures, Inc., *Annual Report on Form 10-K for the fiscal year ended December 31, 1996*. (The corporate name to EVI, Inc., was changed in 1997.)

⁶⁵EVI, Inc. *1997 Report*.

⁶⁶Letter from Gary Green, Chairman, IADC Government Affairs Committee, to USDOC, quoted in *Inside U.S. Trade*, Aug. 29, 1997.

⁶⁷"Commerce Mulls First New Request for Changed Circumstances Review," *Inside U.S. Trade*, Aug. 29, 1997.

⁶⁸Letter from Robert S. LaRussa, Assistant Secretary of Commerce for Import Administration, U.S. Department of Commerce, to Gary Green, Chairman, IADC Government Affairs Committee, reprinted in *Inside U.S. Trade*, Mar. 27, 1998.

⁶⁹"Commerce Rejects Request for Review of Dumping Case on Drill Pipe," *Inside U.S. Trade*, Mar. 27, 1998.

⁷⁰Scott Robertson, "Suppliers, Not Supply, Called Crucial Factor," *American Metal Market*, Mar. 30, 1998, p. 1.

producers accounting for substantially all of the like product have expressed lack of interest in maintaining it.⁷¹

The U.S. rotary rig count had declined to 876 as of May 15, 1998, which should have reduced demand somewhat. With reduced demand and the increased supply, lead times for delivery of drill pipe have already begun to drop.⁷²

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FRESH-MARKET TOMATOES⁷³

Tomatoes are one of the most important fresh-market vegetables, in terms of volume, sold in the United States. Florida and Mexico traditionally have been the only important suppliers of tomatoes during the months of November to June. In recent years, fresh tomatoes have been the subject of a number of trade actions.⁷⁴ In May 1996, the Commission made an affirmative injury determination in the preliminary phase of an antidumping investigation on fresh tomatoes from Mexico.⁷⁵ In October 1996, the U.S. Department of Commerce made a preliminary affirmative finding of dumping against fresh-market tomatoes imported from Mexico. Subsequently, Commerce and Mexican exporters signed an agreement suspending the antidumping investigation effective November 1, 1996. As part of the suspension agreement, Commerce and exporters of Mexican tomatoes agreed to a minimum f.o.b. wholesale price, assessed at the port of entry, of \$5.17 per 25-pound carton for Mexican fresh tomatoes entering the U.S. market.

Industry Developments Since The Suspension Agreement Was Signed

Monthly average unit values of 25-pound cartons imported from Mexico during November 1996-June 1997, the first full season immediately following the enactment of the suspension agreement, were consistently below the unusually high values during nearly every corresponding month of the November 1995-June 1996 period. However, they were higher than many monthly import unit values during the November 1994-June 1995 period preceding the agreement and well above the \$5.17 per carton unit value established in the agreement (table 4-7).

During November 1997-January 1998, monthly average unit values were significantly above unit values during the corresponding months of 1996-97. Whereas some industry experts might point to rising unit values as a definite link to the floor price, others point to reduced overall product availability at any given time in the

⁷¹69 F.R. 25449, May 8, 1998.

⁷²Staff telephone interview with industry analyst, June 18, 1998 and EVI, Inc., *Quarterly Report 10-Q for quarterly period ended March 31, 1998*.

⁷³The information in this section is based on limited public sources and should not be viewed as indicating how the Commission might analyze issues or might conclude in an investigation under the antidumping or countervailing duty laws or any other statutory provision.

⁷⁴For additional information on recent Commission investigations on tomatoes, see USITC, *Shifts in U.S. Merchandise Trade in 1996*, USITC publication 3051, July 1997, pp. 4-1 to 4-5.

⁷⁵USITC, *Fresh Tomatoes from Mexico*, Investigation No. 731-TA-747 (Preliminary), USITC publication 2967, May 1996.

marketplace as perhaps a more important factor.⁷⁶ According to industry sources, a greater share of imports accounted for by shipments of higher quality products may have resulted from the agreement, leading in turn to higher unit values of product entered.⁷⁷

Table 4-7

Fresh-market tomatoes: U.S. imports from Mexico, by month, Nov. 1994-Oct. 1995, Nov. 1995-Oct. 1996, Nov. 1996-Oct. 1997, and Nov. 1997-Jan. 1998

Month	1994/95		1995/96		1996/97		1997/98	
	Volume (1,000 cartons)	Unit value (dollars per carton)	Volume (1,000 cartons)	Unit value (dollars per carton)	Volume (1,000 cartons)	Unit value (dollars per carton)	Volume (1,000 cartons)	Unit value (dollars per carton)
November . .	1,138	9.35	2,824	6.61	3,055	6.52	2,953	8.70
December . .	2,431	11.25	4,699	11.22	4,712	6.95	5,183	11.49
January	5,798	9.34	7,539	7.58	8,043	6.92	8,471	8.91
February . . .	8,023	10.67	9,126	6.66	9,873	7.16		
March	8,405	6.14	9,429	6.62	10,830	12.67		
April	6,159	6.31	8,527	17.75	5,283	8.46		
May	3,290	6.64	3,775	20.71	4,315	8.10		
June	3,505	6.40	2,748	18.03	3,703	7.91		
July	2,253	6.26	2,935	6.45	2,272	7.58		
August	2,263	6.36	3,035	6.15	1,906	7.67		
Sept	2,636	6.18	2,685	5.34	1,881	6.84		
October . . .	2,442	6.30	2,923	6.36	2,013	7.24		

Note.-- A carton holds 25 pounds (11.34 kilograms). Imports include all products reported under HTS Subheading 0702.00.

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

U.S. imports of fresh tomatoes from Mexico during November 1995-June 1996, the season immediately preceding enactment of the suspension agreement, amounted to 48.7 million cartons, up 26 percent from the level in November 1994-June 1995 (table 4-7). During November 1996-June 1997, the first season following enactment of the agreement, imports amounted to 49.8 million cartons, up by 2 percent from the level in the preceding season. Imports were up by 5 percent during November 1997-January 1998 as compared with imports during the corresponding period in 1996-97. The reference price appears to have had a dampening effect on the quantity of imports entered from Mexico since November 1996.⁷⁸ Florida tomato industry officials have recently stated that the suspension agreement has been helpful to them in competing with imports from Mexico this

⁷⁶“Antidumping Investigations a Necessary Evil for Industry,” *The Packer*, vol. 105, No. 15 (Lenexa, KS: Vance Publishing, Corp., Apr. 13, 1998), p. 1B.

⁷⁷Ibid.

⁷⁸“Fresh Tomato Market Watch: Dosis por Dos,” *NFAPP Newsletter*, Mar. 1998, pp. 1-2.

season.⁷⁹ In 1997, U.S. fresh-market tomato production amounted to \$1.2 billion, up by 29 percent from the 1996 level and 40 percent over that in 1995. Florida production amounted to \$610 million in 1997, up 36 percent from that in 1996. Monthly prices for U.S.-grown tomatoes during the November 1996-June 1997 season were above prices for most of the comparable months of 1995-96.⁸⁰ The tomato industries in both Florida and Mexico are believed to be continuing in their efforts to improve on existing technology and introduce new production and handling methods.

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AUTOMOBILES AND AUTOMOBILE PARTS

The automobile and auto-parts industry was designated a priority sector in the 1993 U.S.-Japan Framework Agreement, leading to extensive discussions between the two countries focusing on efforts to liberalize access to the Japanese auto market for U.S. auto and auto-parts manufacturers. The United States and Japan concluded their negotiations on June 28, 1995, with the signing of the U.S.-Japan Agreement on Autos and Auto Parts (the Agreement).⁸¹ As part of the Agreement, the Government of Japan made commitments in three important areas: improving market access for foreign motor vehicles; eliminating regulations that limit U.S. auto parts sales in Japan; and enhancing sales opportunities for U.S. original equipment (OE) parts producers with Japanese automakers in the United States and Japan.⁸² The 10-member Compliance Group,⁸³ which evaluates agreement achievements, publishes its findings every 6 months in a report to the President.⁸⁴

The December 1997 status report to the President highlighted areas of progress that had been made in bilateral automotive trade since the Agreement's implementation as well as several trends requiring additional effort. In particular, the report noted a 20-percent decline in sales of North American-produced Big Three (General Motors, Ford, and Chrysler) motor vehicles in Japan from January-September 1997 compared to the same period in 1996,⁸⁵ a 14-percent increase in U.S. exports of auto parts to Japan during January-June 1997 as compared to January-June 1996, and the establishment of only 39 new sales outlets for U.S. motor vehicles during the year.⁸⁶ In response to this performance, the report echoes the concerns that the U.S. Government formally expressed during the October 1997 annual consultations on the Agreement regarding the lack of progress in automotive sales, dealership growth, and aftermarket deregulation.⁸⁷

⁷⁹*Florida Tomato Review*, Florida Tomato Committee, Orlando, FL, vol. 28, No. 8, Apr. 1998.

⁸⁰USDA, *Vegetables and Specialties: Situation and Outlook Report* (Washington, DC: USDA, Nov. 1997) VGS-273, p. 31.

⁸¹For more information, see USDOC and USTR, *Report to President William Jefferson Clinton of the Interagency Enforcement Team Regarding the U.S.-Japan Agreement on Autos and Auto Parts*, Apr. 12, 1996 and Oct. 21, 1996.

⁸²The agreement includes 15 quantitative and qualitative criteria specific to motor vehicles, OE parts, and aftermarket parts, as well as two general qualitative criteria, all of which are designed to measure progress in reaching joint objectives in these sectors.

⁸³The Compliance Group was established on Sept. 6, 1995 by the USTR and USDOC.

⁸⁴The most recent analysis was submitted on Dec. 4, 1997.

⁸⁵Measured by the number of import vehicle registrations in Japan, by make and model, as compiled by the Japan Automobile Manufacturers Association from data sources of the Japan Automobile Dealers Association and the Japan Automobile Importers' Association.

⁸⁶As of December 1996, 103 new sales outlets had opened. *Report to President William Jefferson Clinton*, Dec. 4, 1997, pp. 1-2.

⁸⁷*Ibid.*, p. 3.

Since the third-quarter reporting period, new import vehicle registrations of U.S. passenger cars and trucks in Japan recorded an overall decline of 31 percent from the 1996 level of 147,683 units to 102,226 units in 1997.⁸⁸ Registrations for U.S. trucks fell by 25 percent, and registrations of U.S. passenger cars declined by 32 percent compared to the previous year. In contrast, the value of U.S. auto parts exported to Japan rose by 13 percent to \$2.3 billion in 1997, up from the 1996 level of \$2 billion.⁸⁹ Since the December 1997 review, the Big Three auto manufacturers reported the addition of 27 new sales outlets through February 1998 for a total of 177 dealerships in Japan, according to the American Automobile Manufacturers Association.⁹⁰

In the area of deregulation, two new types of automotive repair facilities--Specialized Certified Garages and Special Designated Garages--were introduced to encourage competition and improve access for foreign aftermarket parts suppliers in Japan. The U.S. Government asked that regulations regarding the certification of mechanics employed by these garages be revised so that mechanics employed by these new facilities would only need to be trained in the systems their garages are certified to repair.⁹¹ The failure to modify this certification system has reportedly slowed the establishment of the new garages.⁹² Since that time, the Ministry of Transportation (MOT) held hearings in February 1998 on the establishment of a special certified mechanics system and collected foreign and domestic industry views on the proposal. No date was set for a final decision on this issue.⁹³ With respect to Japan's "critical parts list," no further deregulation was recorded inasmuch as the Japanese Government did not remove any automotive parts from the list in 1997. U.S. automotive interests have indicated that removal of components from the critical parts list is a major focus for aftermarket parts producers.⁹⁴

The deterioration of the dollar/yen exchange rate appears to have played a key role in the lack of progress in some of the market access goals identified in the U.S.-Japan Agreement on Autos and Auto Parts, and continues to be a concern for the U.S. automotive industry. Following a January 1998 U.S. automotive industry/government meeting, U.S. parts and vehicle makers cited the current exchange rate situation as the principal obstacle to greater sales in Japan.⁹⁵ U.S. automakers have also cited the weak Japanese economy as a contributing factor in the failure to achieve greater gains in the Japanese automotive market. As a result, the U.S. automotive industry has supported the Bank of Japan's intervention to bolster the Japanese yen and continues to press for greater deregulation of the Japanese economy.⁹⁶ The U.S. Government has also cited the need to boost U.S. motor-vehicle sales in Japan, and is encouraging measures such as the liberalization of the Japanese

⁸⁸Table entitled "1997 New Import-Vehicle Registrations, December & YTD," *Japan Automotive News*, Feb. 1, 1998, p. 7.

⁸⁹Although not a measurement criteria specified in the agreement, U.S. imports of auto parts from Japan fell by nearly 12 percent to \$11.8 billion in 1997.

⁹⁰"Japan's Economic Hesitation is Top Story of AAMA's 'Global Automotive Trade Report'," Mar. 20, 1998, American Automobile Manufacturers Association, found at Internet address <http://www.aama.com/new/GATRMAR.HTM>, retrieved Apr. 23, 1998.

⁹¹*Report to President William Jefferson Clinton*, Dec. 4, 1997, pp. 2 and 31.

⁹²"U.S. Auto Parts Associations Testify in Japan in Support of Further Deregulation," Feb. 10, 1998, found at Internet address <http://www.newsedge>, retrieved Feb. 17, 1998.

⁹³U.S. Department of State telegram No. 101100, "Autos: MOT Hearings on USG Mechanics Proposal," prepared by U.S. Embassy, Tokyo, Feb. 1998, and "U.S. Auto Parts Associations Testify in Japan," Feb. 10, 1998.

⁹⁴"Japan to Review Aftermarket Mechanics Position," *The Autoparts Report*, Nov. 3, 1997, p. 1.

⁹⁵"Auto Meeting Breaks Little New Ground in Pressing Japan on 1995 Pact," Jan. 16, 1998, found at Internet address http://www.insidetrade.com/sec-cgi/as_web.exe?SEC_current+B+trade9829#trade9829, retrieved Jan. 16, 1998.

⁹⁶"AAMA Welcomes Bank of Japan's Intervention to Strengthen Yen," Apr. 9, 1998, found at Internet address <http://www.aama.com/new/4998.html>; "Automakers Endorse G-7 Comments on Japan's Economy," Apr. 16, 1998, found at Internet address <http://www.aama.com/new/JAPAN416.HTM>; and "Japan Hesitates on Economy, Deregulation," *Global Automotive Trade Report*, vol. 1, No. 2, Mar. 1998, found at Internet address <http://www.aama.com/trade/martrade98.html>, American Automobile Manufacturers Association, press releases, retrieved Apr. 23, 1998.

market and implementation of a fiscal stimulus package to strengthen the flagging Japanese economy.⁹⁷

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TEXTILES AND APPAREL

Multilateral and bilateral agreements have historically had a particularly important impact on U.S. trade in textiles and apparel. In the past these agreements tended to limit trade activity between the United States and its partners. Recent agreements, however, such as the multilateral 1995 WTO Agreement on Textiles and Clothing (ATC) and the bilateral 1997 Memorandum of Understanding with China opening the Chinese market to U.S. exports of textiles and apparel, have been established and are being implemented to open and facilitate trade. The specific effects of these agreements and other developments on 1997 sector trade and their influence on shaping the future direction of sector trade are highlighted in the following discussion.

WTO Agreement on Textiles and Clothing

Significant shifts in the supply of U.S. sector imports and the markets for U.S. sector exports will continue to occur as a result of the ATC, which became effective on January 1, 1995, as part of the WTO agreements. The ATC replaced the international Multifiber Arrangement (MFA) system of quotas, which had governed world textile and apparel trade since 1974. Under the ATC, the four WTO members that maintained MFA quotas (Canada, the European Union (EU), Norway, and the United States), agreed to remove the quotas over a 10-year period that ends on January 1, 2005. At that time, all textiles and apparel will be “integrated” into the GATT regime, that is, brought under GATT discipline and subject to the same trade rules as goods of other sectors.

The quotas on textiles and apparel are being phased out in three stages. The first stage began on January 1, 1995, when WTO countries were required to integrate at least 16 percent of their sector trade into the GATT regime, based on 1990 import volume. In addition, WTO countries were required to increase the annual growth rates for quotas still in place by 16 percent⁹⁸ for major suppliers and by 25 percent for small suppliers.⁹⁹ The second stage began on January 1, 1998, when another 17 percent of the trade was integrated into the GATT regime and the annual growth rates for quotas still in place were increased by 25 percent for major suppliers and by 27 percent for small suppliers. The third stage begins on January 1, 2002, when another 18 percent of the trade is to be integrated with a 27-percent increase in the annual growth rate for quotas still in place. The remaining 49 percent of the trade is scheduled for integration at the end of the 10-year period on January 1, 2005.

All WTO countries are subject to the disciplines of the ATC, and only WTO countries are eligible for the ATC’s benefits. Included in the ATC is a special transitional safeguard mechanism (article 6) designed to

⁹⁷“Fisher to Travel to Japan on Autos, Deregulation Initiative,” Feb. 27, 1998, found at Internet address http://www.insidetrade.com/sec-cgi/as_web.exe?SEC_current+B+trade98823#trade98823, retrieved Feb. 27, 1998.

⁹⁸For example, an annual quota growth rate of 6 percent under the MFA in 1994 became 6.96 percent a year in the first stage (1995-97) and 8.7 percent a year in the second stage (1998-2001), and will increase to just over 11 percent a year in the third stage (2002-04).

⁹⁹Small suppliers are those accounting for 1.2 percent or less of an importing country’s total quotas as of December 31, 1991. Small suppliers subject to U.S. quotas include Bahrain, Bulgaria, Colombia, Costa Rica, Czech Republic, Dominican Republic, Egypt, El Salvador, Fiji, Guatemala, Hungary, Jamaica, Kenya, Kuwait, Macau, Mauritius, Poland, Qatar, Romania, Slovak Republic, United Arab Emirates, and Uruguay.

protect WTO countries against damaging surges in imports during the 10-year transition period. The safeguard may be applied to restrict imports of textile or apparel products that are not yet integrated into the GATT regime and are not subject to quotas in the importing country. The safeguard quota may remain in place for up to 3 years or until the product is integrated into the GATT.

In 1997, the United States initiated four requests for consultations with foreign supplying countries for the purpose of establishing new quotas. Two of these consultation requests, or “calls,” were safeguard actions under the ATC involving WTO countries; the other two were initiated under section 204 of the Agricultural Act of 1956 for two non-WTO members. The first call under the ATC in 1997, involving imports of combed cotton yarn from Pakistan, was allowed to expire without further action. The second call resulted in an annual quota on artificial staple yarn (rayon) from Thailand of 2,200,000 kilograms. The section 204 calls resulted in annual quotas on imports of cotton terry and other pile towels from Nepal of 4,089,480 towels and on cotton gloves from Cambodia of 1,250,841 dozen pairs. The 4 calls in 1997 were up from the 2 calls initiated by the United States in 1996, but were down from the 28 calls initiated during 1995, the first year the ATC was in force.¹⁰⁰

United States-China Textile Trade Agreements

On February 1, 1997, the United States and China reached a series of new agreements governing trade in textiles and apparel. One agreement extended U.S. import quotas on textiles and apparel from China for 4 years retroactive to January 1, 1997, and reduced quotas in product areas where China had made repeated transshipment violations.¹⁰¹ The two countries also concluded a visa arrangement. The United States requires visas for textile and apparel imports from many countries, including China. Issued by the quota regulatory authority of the country in which the goods originate, a visa is a stamp on a paper document that certifies the origin of the goods, specifies the product type and quantity, and authorizes the shipment. The U.S. Customs Service uses the information to charge imports against quotas and to help eliminate unlawful transshipments.

The United States and China also agreed to extend U.S. quotas on Chinese silk products for 1 more year to December 31, 1997, when they were allowed to expire. Silk products can now be imported from China into the United States free of quota, but must still be accompanied by a visa. In January 1998, U.S. importers of textiles and apparel called on the Clinton administration to eliminate the visa requirement for silk products which they consider now unnecessary because the silk products are no longer subject to quota. The elimination of U.S. import quotas on silk products from China will not significantly affect the U.S. market since the quotas were significantly underutilized in 1997. The silk apparel group filled to only 55.1 percent.¹⁰² U.S. imports of silk products from China in 1997 rose by 16 percent over the 1996 level to \$1.4 billion, or 82 percent of total U.S. imports of silk products.¹⁰³

The two countries also concluded a Memorandum of Understanding (MOU) in which, “[f]or the first

¹⁰⁰Citing changing market conditions, the United States rescinded 15 of the 28 calls made in 1995. All of the calls rescinded were made with WTO members.

¹⁰¹Transshipment of textiles and apparel through third countries, especially by China, to evade quotas remains a concern of the United States. On May 1, 1998, the U.S. Department of State announced that the United States would charge China’s textile quotas with three times the quantities charged--totaling approximately \$5 million for illegal “transshipment” practices. On May 5, 1998, the Committee for the Implementation of Textile Agreements (CITA) issued a directive to the Commissioner of Customs charging transshipments to 1998 limits. For more information, see *Federal Register*, vol. 63, No. 88, May 7, 1998, p. 25202.

¹⁰²Data from an official of the U.S. Department of Commerce, Office of Textiles and Apparel, provided in a June 1, 1998 electronic-mail message.

¹⁰³Data from the U.S. Department of Commerce, Office of Textiles and Apparel; data represent U.S. general imports of silk products covered by the United States-China silk agreement.

time, the United States obtained significant market opening commitments from China for export of U.S.-manufactured textile and apparel products.”¹⁰⁴ The terms of the MOU are being applied provisionally pending a formal exchange of notes between the United States and China. Although there has been no formal exchange of notes as of June 1, 1998, a USTR official indicated that China is in compliance with the terms of the MOU.¹⁰⁵

Although China’s vast market and economic expansion in recent years have presented U.S. exporters of textiles and apparel with opportunities for sales growth,¹⁰⁶ China’s high tariff rates and nontariff barriers have impeded market entry. China cut tariffs on U.S. exports of textiles and apparel as well as many other products over a 2- to 4-year period and it agreed to bind these tariffs at the lower rates. Effective on October 1, 1997 the simple average tariff level for textiles exports from the United States and other MFN countries was reduced to 27 percent.¹⁰⁷ Chief among products affected are those that U.S. producers believe have the greatest export potential to the Chinese market, including cotton and manmade fiber yarns and fabrics, knit fabrics, and printed fabrics; T-shirts, sweatshirts, and underwear; and advanced specialty textiles used in building and highway construction, and filtration products.

NAFTA Parity for CBERA Countries

Since NAFTA’s entry into force in 1994, U.S. trade in textiles and apparel with Mexico has increased substantially, especially production-sharing activity in which U.S. firms ship garment parts there for assembly and re-import the completed goods under the 9802 tariff provision. Some trade sources contend that part of the increased sector imports from Mexico may have contributed to a slowing of sector import growth from CBERA countries.¹⁰⁸ Whereas imports of apparel assembled in Mexico from U.S.-made and -cut fabric enter free of both quota and duty, similar CBERA goods enter under preferential quotas known as guaranteed access levels (GALs) but are still subject to duty on the value added offshore.¹⁰⁹ As a result, Mexico has a significant competitive advantage over the CBERA nations in such apparel trade. Legislation was introduced in the 105th Congress--H.R. 2644, the United States-Caribbean Trade Partnership Act--which would make available NAFTA-like treatment to qualifying apparel and all other goods currently exempted from duty-free entry under the CBERA. The legislation did not pass in the House (by a vote of 234-182 on November 4, 1997); in April 1998, the Clinton administration reaffirmed its commitment to seeking congressional approval for NAFTA parity.¹¹⁰

Increased U.S. Market Access for Textiles and Apparel from Sub-Saharan Africa

Legislation was introduced in the 105th Congress on April 24, 1997--H.R. 1432, the African Growth and Opportunity Act--which would authorize a new trade and investment policy for SSA. In part, the bill provides for increased access to U.S. markets for textiles and apparel from certain eligible SSA countries. The

¹⁰⁴U.S. Department of State telegram No. 040894, “Textiles/China: Exchange of Notes,” Washington, DC, Mar. 5, 1997.

¹⁰⁵USTR, telephone conversation with USITC staff, May 27, 1998.

¹⁰⁶Based on estimates attributed to the China National Textile Council (CTNC), by the year 2000, China’s overall domestic demand for textile products will reach 6.5 million tons; fiber consumption per capita will rise by 9 percent over the 1995 level to 5 kilograms; and retail clothing sales will increase by 88 percent over 1996 levels. See U.S. Department of Commerce website at <http://www.stat-usa.gov/BENinqprogs2/web...public/market/3601>.

¹⁰⁷U.S. Department of State telegram No. 034878, “China/Tariffs: Another Round of Tariff Cuts (and possible increases) to be Implemented on October 1, 1997,” prepared by U.S. Embassy, Beijing, Sept. 22, 1997.

¹⁰⁸For more information on this trade growth, see the section on bilateral trade in ch. 9.

¹⁰⁹For every \$10 in f.o.b. value, a typical CBI garment entered under the HTS 9802 provision contains \$6.40 in duty-free U.S. components and \$3.60 in dutiable, foreign value added. Applying the 1997 trade-weighted average duty on apparel of 15.5 percent to the foreign value added yields an average duty of \$0.56, or an ad valorem equivalent of 5.6 percent.

¹¹⁰Secretary of State Madeleine K. Albright, “Press Conference following Caribbean Ministerial Meeting and Signing of Memorandum of Understanding,” Port of Spain, Trinidad and Tobago, Apr. 6, 1998.

bill eliminates existing U.S. quotas on imports of textiles and apparel from SSA countries (Mauritius and Kenya) and would authorize the President to grant duty-free treatment under the Generalized System of Preferences (GSP) to such imports from SSA countries. The articles must be imported directly from the eligible SSA country. The value added in that country must be at least 35 percent of the value of the article; up to 15 percent of the total value of the article attributable to U.S.-made materials may count toward the 35 percent requirement.

The bill sets forth several findings of Congress regarding the competitiveness of SSA in the global market. First, it notes that SSA has limited capacity to produce textiles and apparel, and this capacity is projected to grow at a modest rate; accordingly, it will be difficult for SSA to supply more than 3 percent of annual U.S. textile and apparel imports during the next 10 years. Further, the bill stipulates that if imports of textiles and apparel from SSA grow to “around 3 percent” of total U.S. sector imports, they will not represent a threat to U.S. producers, workers, or consumers. In 1997, U.S. imports of textiles and apparel from SSA countries covered by the legislation totaled \$471 million. On March 11, 1998, the House of Representatives passed H.R. 1432 by a vote of 233-186. The companion bill in the Senate, S. 778, has not been voted on as of May 1998. Some U.S. textile industry representatives have expressed concern about the legislation, claiming that the proposed duty- and quota-free treatment for textiles and apparel could lead to substantial transshipment of such products from Asia through Africa to avoid U.S. duties and quotas and could cause many American workers to lose their jobs.¹¹¹

At the request of the House Ways and Means Committee in January 1997, the USITC conducted an investigation concerning the likely impact of providing quota-free and duty-free entry to textiles and apparel from SSA.¹¹² The Commission estimated that allowing duty-free and quota-free entry for textiles and apparel from SSA would result in a decrease in domestic producers’ apparel shipments of about 0.1 percent and would have a negligible effect on shipments of the domestic textile industry.

Developments in the Rules of Origin for Textiles and Apparel

As provided for by section 334 of the Uruguay Round Agreements Act, the United States implemented new rules of origin on July 1, 1996. The new, and current, rules affect country-of-origin determinations for U.S. imports of textiles and apparel that are subject to manufacturing and processing operations in, or contain components from, more than one country. The U.S. textiles and apparel industry had sought the rules change because foreign suppliers were dividing their production operations among various countries as a means of avoiding U.S. import quotas.¹¹³ Under the section 334 rules, the country of origin for apparel assembled in one country from parts cut to shape in another country generally would be where the assembly occurs, rather than the country where the cutting took place, as was the usual case under the previous rules. For “flat goods” such as scarves and bed linens, it is the country where the fabric was made, rather than the country where the fabric was cut to size, hemmed, and otherwise sewn, as was previously the case. For fabrics, the country of origin is the one where the fabrics were made (e.g., woven or knitted), even if the fabrics undergo dyeing, printing, and other finishing operations in another country.

U.S. trading partners have expressed concern about the section 334 rules for textiles and apparel. In May 1997, the EU filed a request with the WTO for formal consultations with the United States, stating that the new

¹¹¹American Textile Manufacturers Institute, press releases, “Statement by John C. Adams, President, American Textile Manufacturers Institute, Regarding the Sub-Saharan Africa Trade Bill,” Mar. 12, 1998, found at Internet address <http://www.atmi.org/graphic/pr-08-98.html> and “ATMI Board Reaffirms Commitment to defeat Sub-Saharan Africa Bill,” Mar. 27, 1998, found at Internet address <http://www.atmi.org/graphic/pr-12-98.html>.

¹¹²USITC, *Likely Impact of Providing Quota-Free and Duty-Free Entry to Textiles and Apparel From Sub-Saharan Africa* (investigation No. 332-379), USITC publication 3056, Sept. 1997.

¹¹³U.S. House of Representatives, Committee on Ways and Means, *Overview and Compilation of U.S. Trade Statutes*, 105th Cong., 1st sess. (Washington, DC: U.S. Government Printing Office, June 25, 1997), WMCP: 105-4, p. 121.

rules adversely affected its exports of fabrics, scarves, and other flat goods to the U.S. market. The EU stated that as a result of the U.S. rules change, its exports of such goods are no longer recognized in the United States as being of EU origin and the goods lose their quota-free access to the U.S. market. For example, for EU exports to the United States of “discharge printed fabric” made from unfinished cloth from Egypt, Indonesia, Malaysia, Thailand, and Turkey, the section 334 rules stipulate that the country of origin is the one of these countries in which the fabric was formed rather than in the EU where the fabric was processed. Consequently, whereas in the past European producers had unrestricted access to the U.S. market for their products, the section 334 rules require them to comply with any U.S. quotas or visa requirements applied to their suppliers of the unfinished fabric. Similarly, the section 334 rules stipulate that EU exports to the United States of silk scarves made from Chinese fabric are the product of China rather than Italy or France, even though about 80 percent of the total processing cost of the silk scarves originated in the EU.¹¹⁴

Acknowledging that a return to the previous U.S. rules of origin for flat goods would require a legislative change (i.e., an amendment to the U.S. statute), the United States and the EU agreed to postpone formal WTO dispute settlement proceedings and accept an interim solution.¹¹⁵ The United States agreed to create an exemption from the marking requirements for imported silk scarves (HTS subheading 6214.10.10) and silk fabrics (HTS heading 5007),¹¹⁶ thus allowing silk scarves to be imported with modified appellations.¹¹⁷ In addition, to help alleviate the alleged impact of the rules change on EU exports of discharge printed fabric,¹¹⁸ the United States agreed to exempt certain discharge printed fabrics from quotas and visa requirements with respect to Egypt, Indonesia, Malaysia, Thailand, and Turkey. On February 25, 1998, the United States formally notified the WTO of its agreement with the EU concerning the exemptions from the country-of-origin marking requirements for silk fabrics and scarves. If the WTO rules-of-origin harmonization process is not completed by July 1998, the United States has agreed that within 1 month it will introduce legislation to restore the rules of origin for flat goods that existed before July 1, 1996.¹¹⁹

Argentina’s Duties on Textiles and Apparel Breach WTO Rules

In October 1996, the USTR initiated an investigation on certain measures of Argentina regarding the imposition of (1) specific duties on apparel, footwear, and textiles; (2) a discriminatory statistical tax; and (3) a burdensome labeling requirement on apparel and textiles.¹²⁰ The United States also requested formal WTO consultations. Through consultations, the parties resolved their differences on the labeling requirement. In

¹¹⁴EU manufacturers claimed the changes in the country-of-origin label would also eliminate the prestige and lower the appeal that U.S. consumers often associate with European goods, leading to lower sales. See U.S. Department of State telegram No. 146388, “Textiles/Rules of Origin: Agreement with the EU,” Washington, DC, Aug. 5, 1997.

¹¹⁵Ibid.

¹¹⁶On February 26, 1998, Congressman Matsui introduced H.R. 3294, To Modify the Marking of Certain Silk Products and Containers. The bill was referred to the Committee on Ways and Means.

¹¹⁷The appellations included: “Designed in Italy,” “Dyed and Printed in Italy,” “Cut and Sewn in Italy,” “Fashioned in Italy,” “Crafted in Italy,” “Created in Italy,” “Gucci of Italy,” “Designed and Printed by Gucci in Italy,” “Crafted by Gucci in Italy,” and “Created by Gucci in Italy.”

¹¹⁸Discharge printed fabrics refer to fabrics that are processed as follows: dyed, not tinted, a single uniform color other than white; further processed using a method whereby chlorine or other color-destroying chemicals are applied to discrete portions of the dyed fabric to bleach out or discharge the dye. The fabrics are then printed in those discrete portions, thereby yielding a different colored pattern on the previously dyed ground; and or are subjected to two or more of the following finishing operations: bleaching, shrinking, filling, napping, decatizing, permanent stiffening, weighting, permanent embossing, or moireing.

¹¹⁹The WTO Agreement on Rules of Origin calls for the multilateral harmonization of rules of origin used for non-preferential trade regimes so as to provide more certainty in the conduct of world trade. To this end, the Agreement calls for a 3-year work program that is scheduled to be completed in July 1998.

¹²⁰USTR, “WTO Panel Rules in Favor of United States in Challenge to Argentina’s Specific Duties and Tax on Imports,” press release 97-99, Nov. 25, 1997, found at Internet address <http://www.ustr.gov>.

February 1997, a WTO dispute settlement panel was established to resolve the remaining complaints of the United States. In its report, circulated in November 1997, the panel found that the specific duties on textiles and apparel violated Argentina's tariff bindings under GATT article II and that the statistical tax violated GATT article VIII. That decision was upheld in March 1998 when the Appellate Body of the WTO ruled that Argentina's specific duties and 3-percent statistical tax violated WTO rules and Argentina's Uruguay Round commitments.¹²¹ Effective April 3, 1998, the USTR determined that Argentina's specific duties on textiles and apparel and statistical tax on almost all imports violate the GATT 1994. This determination is based on the report of a dispute settlement panel convened under the auspices of the WTO at the request of the United States and the report of the WTO Dispute Settlement Body (DSB) on April 22, 1998. Expecting that Argentina will conform its specific duties and statistical tax to meet its obligations under the GATT 1994, the USTR terminated its investigation. The USTR will monitor Argentina's steps to implement the WTO reports and will take action under section 301 of the Trade Act if Argentina fails to implement the rules and recommendations of the WTO report.¹²²

U.S. exports of textiles and apparel to Argentina declined from \$99.7 million in 1992 to \$61.9 million in 1995, and then rebounded to \$66.6 million in 1996 and \$73.1 million in 1997. Chief among the U.S. textile products exported to Argentina during 1992-97 were synthetic staple fibers of polypropylene, carpets of manmade fibers, and synthetic filament yarns.

New U.S. Trade Program for Textiles and Apparel from Israel and Jordan¹²³

U.S. legislation enacted in October 1996 provided, in part, for the establishment of "qualifying industrial zones" (QIZs) in Israel and Egypt or Israel and Jordan from which goods can enter the United States free of duty.¹²⁴ The President issued Proclamation No. 6955 to provide for such duty-free treatment and to delegate to the USTR the authority to designate an area as a QIZ.¹²⁵ In November 1997, Israel and Jordan signed an agreement to establish a QIZ in Irbid, Jordan, for the purpose of jointly producing goods for export to the United States. Following implementation of the agreement by both countries, the USTR designated the industrial park in Irbid as the first QIZ from which goods can now enter the United States free of duty, effective March 13, 1998.¹²⁶

Among the goods likely to be exported from the QIZ to the United States are textiles and apparel, which already are a major source of economic activity in the zone. In recent years, a number of Israeli textile and apparel firms, faced with rising foreign competition, have moved sewing operations to Jordan to cut production costs. Wage rates in Israel average more than \$8 an hour, compared with less than \$1 an hour in Jordan. The cost of sewing apparel in Jordan reportedly is 30 to 40 percent less than that in Israel, reducing the total cost of

¹²¹USTR, "WTO Appellate Body Upholds Win for United States in Challenge to Argentina's Specific Duties and Tax on Imports," press release 98-35, Mar. 27, 1998, found at Internet address <http://www.ustr.gov>.

¹²²For more information, see *Federal Register*, May 8, 1998 (63 *F.R.* 25539).

¹²³For more information on the program, see USITC, "Textiles and Apparel: New U.S. Trade Program Likely to Spur Imports from Israel and Jordan," *Industry Trade and Technology Review*, USITC publication 3099, Mar. 1998.

¹²⁴Public Law 104-234, approved Oct. 2, 1996, amended the United States-Israel Free-Trade Area Implementation Act, Public Law 99-47, approved June 11, 1985, 19 U.S.C. 2112.

¹²⁵President, Proclamation 6955 of November 13, 1996, "To Provide Duty-Free Treatment to Products of the West Bank and the Gaza Strip and Qualifying Industrial Zones," published in the *Federal Register* of Nov. 18, 1996 (61 *F.R.* 58759).

¹²⁶USTR, "United States-Israel Free Trade Area Implementation Act Designation of Qualifying Industrial Zone," *Federal Register*, Mar. 13, 1998, p. 12572 (63 *F.R.* 12572).

garment production for Israeli firms by about 15 percent.¹²⁷

U.S. imports of textiles and apparel from Israel, which enter free of duty and quota under the FTA, have shown little growth in recent years. After rising from \$271 million in 1992 to \$430 million in 1995, the Israeli shipments totaled \$420 million in 1996 and \$429 million, or less than 1 percent of total U.S. textile and apparel imports in 1997. Jordan is a very small supplier of textiles and apparel to the United States; imports of such goods from Jordan peaked at \$20 million in 1994 and then fell to just under \$4 million in 1997. U.S. textile and apparel imports from Jordan, like Israel, enter free of quota; however, the Jordanian goods are still subject to duty (except those from the QIZ), which averaged 16 percent for its apparel shipments in 1997.

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¹²⁷U.S. Department of State telegram, No. 001859, "Jordanian Firms Seek QIZ Status," prepared by U.S. Embassy, Amman, Mar. 3, 1998.

CHAPTER 5

Agricultural Products

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The U.S. trade surplus in agricultural products deteriorated by \$8.1 billion (29 percent) to \$19.5 billion in 1997 (table 5-1). This followed a slight decline in the trade balance (less than 1 percent) the previous year. The agricultural products sector typically maintains the largest U.S. trade surplus among major industry commodity sectors. Total U.S. trade in agricultural products increased by \$562 million (less than 1 percent) to \$111.1 billion in 1997 (table 5-1). A 5-percent decline in the total value of U.S. agricultural products exports combined with a 10-percent increase in the total value of U.S. agricultural products imports led to the erosion of the 1997 trade surplus.

U.S. exports of agricultural products declined by \$3.8 billion (5 percent) to \$65.3 billion in 1997 (table 5-2). This followed an increase of \$3.6 billion the previous year. All of the absolute decline was accounted for by cereals, mainly wheat and corn. Increased foreign production and shifts to competing exporters coupled with lower export grain prices (mainly because of plentiful global supplies) resulted in the decrease in exports. Significant declines were also registered by exports of cigarettes, frozen fish, edible nuts, and canned and other fish. U.S. exports of the principal products in these groups (cigarettes; frozen, whole Pacific salmon; almonds; and various fish products) were adversely affected by a shift in U.S. cigarette production by U.S. producers to some foreign markets coupled with lower consumption in certain markets;¹ lower U.S. harvests of certain salmon and groundfish coupled with increased competition from third-country competitors in Asian fish markets;² and by ample European supplies of almonds.³ Overall U.S. agricultural exports to Asia were also affected by currency devaluations in Thailand, Indonesia, Malaysia, the Philippines, and Korea during the last quarter of 1997 and by other economic problems in Japan and Taiwan.⁴

Despite the overall decline in U.S. exports of agricultural products, significant increases occurred in 1997 in exports of edible preparations, animal feeds, animal or vegetable fats and oils, unmanufactured tobacco, and seeds. A wide range of edible preparations registered increased exports, including protein isolates (mainly to Switzerland), baked products (primarily to Canada), and soups (mostly to Mexico). Increased U.S. supplies of soybeans coupled with strong foreign demand, particularly in Europe, Asia, and South America, led to the rise in U.S. exports of animal feeds (mainly soy oilcake) as well as animal or vegetable fats and oils

¹U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *Tobacco Yearbook*, Dec. 17, 1997, found at Internet address http://mann77.mannlib.cornell.edu/reports/erssor/field/ocs-bby/oil_crops_yearbook_summary_10.27.97, retrieved Apr. 9, 1998.

²USDA, Foreign Agricultural Service (FAS), "Seafood," U.S. Embassy, Seoul, No. KS7067, Nov. 7, 1997, p. 2; USDA, FAS, "Seafood," prepared by U.S. Embassy, Seoul, No. KS7061, Oct. 15, 1997, pp. 1, 5; USDA, FAS, "Seafood," U.S. Embassy, Tokyo, No. JA7051, Oct. 21, 1997, p. 1.

³USDA, FAS, "Tree Nuts," prepared by U.S. Embassy, Madrid, No. SP7036, Aug. 20, 1997, p. 4.

⁴USDA, ERS, "Events in Asia Lower Prospects for U.S. Farm & Rural Economy," by Greg Gajewski and Suchada Langley, *Agricultural Outlook*, Feb. 1998, pp. 9-12.

Table 5-1

Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	6,565	7,222	656	10.0
Japan	14,830	13,401	-1,430	-9.6
Mexico	5,559	5,354	-204	-3.7
Korea	4,186	3,221	-964	-23.0
Netherlands	2,155	2,039	-116	-5.4
Taiwan	3,132	2,801	-331	-10.6
China	2,181	1,745	-436	-20.0
Italy	865	829	-36	-4.1
United Kingdom	1,273	1,350	76	6.0
Thailand	645	583	-62	-9.6
All Other	27,655	26,750	-905	-3.3
Total	69,046	65,295	-3,752	-5.4
EU-15	10,953	10,496	-457	-4.2
OPEC	2,822	2,954	132	4.7
Latin America	10,848	10,789	-59	-0.5
CBERA	2,519	2,606	87	3.5
Asian Pacific Rim	30,116	26,913	-3,204	-10.6
ASEAN	3,491	3,186	-305	-8.7
Central and Eastern Europe	458	352	-106	-23.2
U.S. imports for consumption:				
Canada	8,466	9,345	879	10.4
Japan	376	458	82	21.8
Mexico	4,392	4,825	432	9.8
Korea	184	189	6	3.0
Netherlands	1,174	1,267	93	7.9
Taiwan	347	369	22	6.4
China	877	1,009	132	15.0
Italy	1,555	1,648	92	5.9
United Kingdom	1,033	1,062	28	2.7
Thailand	1,739	1,767	28	1.6
All Other	21,383	23,901	2,519	11.8
Total	41,526	45,839	4,313	10.4
EU-15	8,128	8,643	514	6.3
OPEC	1,106	1,330	224	20.2
Latin America	13,748	15,650	1,902	13.8
CBERA	3,216	3,739	523	16.3
Asian Pacific Rim	7,519	8,371	853	11.3
ASEAN	3,760	4,192	432	11.5
Central and Eastern Europe	249	228	-21	-8.3
U.S. merchandise trade balance:				
Canada	-1,901	-2,123	-223	-11.7
Japan	14,454	12,943	-1,511	-10.5
Mexico	1,166	530	-637	-54.6
Korea	4,002	3,032	-970	-24.2
Netherlands	982	772	-209	-21.3
Taiwan	2,785	2,431	-353	-12.7
China	1,304	737	-567	-43.5
Italy	-690	-818	-128	-18.5
United Kingdom	240	288	48	20.0
Thailand	-1,094	-1,184	-90	-8.2
All Other	6,272	2,849	-3,424	-54.6
Total	27,520	19,455	-8,065	-29.3
EU-15	2,825	1,854	-972	-34.4
OPEC	1,716	1,624	-92	-5.3
Latin America	-2,899	-4,861	-1,961	-67.6
CBERA	-697	-1,133	-435	-62.4
Asian Pacific Rim	22,598	18,542	-4,056	-17.9
ASEAN	-270	-1,006	-737	-273.2
Central and Eastern Europe	209	123	-86	-41.0

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

Table 5-2
Leading changes in U.S. exports of agricultural products, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
----- Million dollars -----				
Increases:				
Edible preparations (AG034)	3,353	4,029	676	20
Animal feeds (AG013)	4,375	4,837	462	11
Animal or vegetable fats and oils (AG033)	1,826	2,173	346	19
Unmanufactured tobacco (AG041)	1,390	1,553	163	12
Seeds (AG015)	648	776	127	20
Decreases:				
Cereals (AG030)	16,751	11,106	-5,645	-34
Cigarettes (AG043)	4,736	4,409	-326	-7
Frozen fish (AG007)	1,557	1,371	-186	-12
Edible nuts (AG020)	1,666	1,491	-175	-11
Canned fish and other fish (AG008)	426	326	-100	-24
All other	32,318	33,224	906	3
Total	69,046	65,295	-3,752	-5

Note.--Calculations based on unrounded data.

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

(primarily soybean oil).⁵ Unmanufactured tobacco exports rose as well, mainly to the major markets of Turkey, Germany (because of expanding cigarette production), and the Dominican Republic (owing to rising cigar production destined for the U.S. market).⁶ U.S. seed exports increased principally to Argentina (mainly corn) and Egypt (mainly wheat). Argentina traditionally has been a major U.S. seed export market; exports of food wheat to Egypt may be misclassified as seed.⁷

U.S. imports of agricultural products rose by \$4.3 billion (10 percent) to \$45.8 billion in 1997 (table 5-3). Significant increases were registered by imports of coffee, shellfish, cattle and beef, wine and certain other fermented beverages, and edible preparations. U.S. imports of coffee increased in 1997 from most major sources (including Colombia, Mexico, Brazil, and Guatemala), largely the result of relatively high world coffee prices coupled with strong domestic demand leading to increased import quantities.⁸ The increase in the value of U.S. imports of shellfish in 1997, driven largely by shrimp from Ecuador, resulted from a continuing strong U.S. economy which fueled demand.⁹ The increase in the value of U.S. imports of live cattle and beef in 1997 was caused mainly by imports of fresh, chilled, or frozen unprocessed boneless beef cuts from Australia, New Zealand, and Canada, as production increased in those countries and the U.S. demand for beef was bolstered by

⁵USDA, ERS, *Oil Crops Yearbook--Summary*, Oct. 27, 1997, found at Internet address http://mann77.mannlib.cornell.edu/reports/erssor/field/ocs-bby/oil_crops_yearbook_summary_10.27.97, retrieved Apr. 9, 1998.

⁶USDA, ERS, *Tobacco Yearbook*, Dec. 17, 1997, found at Internet address http://mann77.mannlib.cornell.edu/reports/erssor/field/ocs-bby/oil_crops_yearbook_summary_10.27.97, retrieved Apr. 9, 1998.

⁷USDA representative, telephone interview by USITC staff, Apr. 10, 1998.

⁸USDA, FAS, *Tropical Products: World Markets and Trade*, Circular Series FTROP 4-97, Dec., 1997, found at Internet address <http://www.fas.usda.gov/http/tropical/1997/97-12/dec97trop.html>, retrieved Apr. 10, 1998. Also based on official statistics of the U.S. Department of Commerce.

⁹Shrimp are eaten principally in restaurants; restaurant sales are closely tied to economic conditions.

a strong economy.¹⁰ The rise in U.S. imports of wine and other fermented beverages was driven by wine from the major sources of France, Italy, Australia, and Chile, as increased production in those sources combined with robust U.S. demand caused by a strong economy and reports of beneficial health effects of wine.¹¹ The increase in the value of U.S. edible preparations imports was accounted for by a large range of items (most prominently cookies; prepared cereals, pasta, and soups); most of the rise was supplied by the primary source of Canada owing to increased related-party transactions and a relatively strong U.S. dollar.

Table 5-3
Leading changes in U.S. imports of agricultural products, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
————— Million dollars —————				
Increases:				
Coffee and tea (AG028)	2,958	4,071	1,113	38
Shellfish (AG009)	3,741	4,472	730	20
Cattle and beef (AG002)	2,248	2,534	286	13
Wine and certain other fermented beverages (AG039)	1,435	1,716	281	20
Edible preparations (AG034)	1,943	2,139	196	10
Decreases:				
Cotton, not carded or combed (AG064)	283	3	-280	-99
Dairy produce (AG010)	1,198	1,109	-89	-7
Sugar and other sweeteners (AG012)	1,407	1,321	-87	-6
Fruit and vegetable juices (AG036)	929	856	-73	-8
Ethyl alcohol for nonbeverage purposes (AG062)	160	119	-41	-26
All other	25,224	27,499	2,275	9
Total	41,526	45,839	4,313	10

Note.--Calculations based on unrounded data.

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

U.S. imports of cotton, not carded or combed, declined sharply by \$280 million (99 percent) to \$3 million. Although imports dropped from most sources, most of the decrease was accounted for by imports from Uzbekistan. Ample U.S. supplies, owing to continued high crop levels, reduced the demand for imports in 1997.¹² Decreases in U.S. imports of most other agricultural products categories were relatively minor in absolute and/or percentage terms (table 5-3).

Trade statistics for all commodity/industry groups in the agricultural products sector are presented in

¹⁰USDA, FAS, *Livestock and Poultry: World Markets and Trade*, Mar. 1998, found at Internet address http://www.fas.usda.gov/dlp/circular/98-03lp/beef_98.html, retrieved Apr. 10, 1998.

¹¹USDA, FAS, *World Horticultural Trade and U.S. Export Opportunities*, "Northern Hemisphere Wine Situation and Outlook," found at Internet address <http://www.fas.usda.gov/http/circular/1998/98-03/nowine.html>, retrieved Apr. 28, 1998; Wine Institute, *Research News Bulletin*, "Worldwide Studies Report on Wine Antioxidant's Effect," Mar. 1996, found at Internet address http://www.wineinstitute.org/res_ed/res_news_bulletin/rnb_world_antiox.htm, retrieved Apr. 28, 1998.

¹²USDA, ERS, *Cotton and Wool Yearbook--Summary*, Nov. 20, 1997, found at Internet address http://mann77.mannlib.cornell.edu/reports/erssor/field/cws-bby/cotton_and_wool_yearbook_summary_11.20.97, retrieved Apr. 9, 1998.

table 5-5 at the end of the chapter.

U.S. BILATERAL TRADE

Most major trading partners had a U.S. agricultural products surplus trade balance that decreased in terms of value. The principal U.S. trading partners in the agricultural products sector in 1997 were Canada, Japan, Mexico, Korea, the Netherlands, and Taiwan (table 5-4). Shifts in the ranking of U.S. agricultural products trading partners in 1997 were registered by Japan, which fell from the top position in 1996 to second, replaced by Canada; Taiwan, which slipped to sixth, replaced by the Netherlands; the United Kingdom, which rose to ninth after trailing the top ten in 1996, displacing Thailand; and Germany, which fell from the top ten.

The largest absolute decline in the trade position of U.S. agricultural products in 1997 among the top-10 suppliers was accounted for by Japan. The U.S. agricultural products trade surplus with Japan declined by \$1.5 billion (11 percent) to \$12.9 billion in 1997 (table 5-1). This followed a slight increase in the surplus the previous year. Japan historically has been a relatively minor supplier of agricultural products to the United States with most trade comprised of U.S. exports. The principal decline was registered by U.S. exports of cereals, which fell by \$617 million (18 percent) to \$2.9 billion in 1997. Significant declines were also registered by U.S. exports of frozen fish, certain miscellaneous animals and meats, and cattle and beef. These declines exceeded relatively small gains in U.S. exports of animal feeds, edible preparations, and cigarettes. The fall in the U.S. trade surplus with Japan in agricultural products in 1997 resulted largely from increased Japanese production and a shift to third country suppliers for these product categories.

The country that had the second-largest absolute decline in the U.S. trade position for agricultural products in 1997 was Korea, the fourth-leading trading partner for such products. Korea's trade surplus fell by \$970 million (24 percent) to \$3.0 billion in 1997 (table 5-1). This followed a slight increase in the surplus the previous year. Korea is also a relatively minor supplier of U.S. imports of agricultural products, trade with it being virtually all U.S. exports. Grains accounted for nearly all of the absolute decline, as U.S. exports fell by \$931 million (58 percent) to \$678 million in 1997. This decline was largely caused by adverse economic conditions and a weak currency which caused a shift to lower cost suppliers of cereals and feed grains.¹³

The U.S. agricultural products trade surplus with Mexico, the third-leading U.S. partner, declined by \$637 million (55 percent) to \$530 million in 1997 (table 5-1). This was the third-largest absolute decline in the trade position for such products that year and compared with a \$2.0 billion rebound to a surplus of \$1.2 billion the previous year. The gain in 1996 was unusually large owing to Mexico's recovery from severe economic conditions the previous year resulting from a currency devaluation as well as to adverse weather conditions in the northern part of the country which required the importation of grain.¹⁴ Agricultural trade in 1997 returned to more normal patterns, as domestic grain production increased. U.S. exports of cereals to Mexico declined by \$932 million (52 percent) to \$880 million in 1997. This decrease was greater than the total drop in the surplus with Mexico, but it was mitigated by gains in U.S. exports of cattle and beef, which increased by \$203 million (99 percent) to \$407 million and by lesser increases in exports of cotton, not carded or combed, and hides, skins, and leather. In terms of U.S. imports, significant increases occurred in malt beverages and coffee and tea while declines occurred in fresh, chilled, or frozen vegetables and certain fresh fruit.

The U.S. trade surplus with China, the seventh-largest partner, fell by \$567 million (44 percent) to \$737 million in 1997 (table 5-1). Most of the decline was accounted for by a \$397 million (90 percent) drop in U.S. exports of cereals to \$44 million in 1997. Virtually all of the shift was accounted for by wheat (other than durum

¹³USDA, FAS, "Impact of Korean Financial Crisis on U.S. Food Exports," prepared by U.S. Embassy, Seoul, No. KS7080, Dec. 31, 1997.

¹⁴USDA, FAS, "1997 Mexico Agricultural Situation and Outlook," prepared by U.S. Embassy, Mexico City, No. MX7099, Sept. 26, 1997, p. 1.

or seed). Chinese wheat production has increased substantially in recent years to near self-sufficient levels, and China has largely exited the wheat import market.¹⁵ The leading U.S. imports and exports of agricultural products for major trading partner countries are presented in table 5-4.

Table 5-4
Agricultural products: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Live cattle Fresh or chilled beef Fresh, chilled, or frozen pork Wheat	Preparations used in animal feeding Miscellaneous food preparations Bread, pastry, cakes, etc. Fresh or chilled beef
Japan (')		Corn Cigars, cigarettes, etc. Soybeans Fresh or chilled beef
Mexico	Coffee Fresh or chilled tomatoes Beer Fresh, chilled, salted, or cooked crustaceans	Soybeans Cotton, not carded or combed Corn Grain sorghum
Korea	Prepared or preserved crustaceans, molluscs, or other aquatic invertebrates Pasta, prepared or not Fresh, chilled, salted, or cooked crustaceans	Fresh or preserved raw hides and skins of bovine or equine animals Corn Soybeans Frozen beef
		chilled, or salted molluscs or other aquatic invertebrates and flours, meals, etc.
	of the foregoing	

¹⁵USDA, FAS, *Grains: World Markets and Trade, Part One*, Nov. 12, 1997, found at Internet address <http://www.fas.usda.gov/grain/circular/97-11/nov97gfd1.htm>.

Netherlands	Beer Bulbs, tubers, etc., chicory plants and roots Cut flowers and buds for bouquets Unsweetened cocoa powder	Soybeans Starch manufacturing residues, waste/residues from sugar manufacturing, and brewing/distilling dregs Unmanufactured tobacco Miscellaneous nuts
Taiwan	Frozen fish Bird skins and other feathered parts and down Fresh, chilled, or frozen fish fillets and other fish meat Fresh, chilled, or salted molluscs or other aquatic invertebrates and flours, meals, etc. of the foregoing	Corn Soybeans Fresh or preserved raw hides and skins of bovine or equine animals Wheat

¹Not a significant import supplier.

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Cereals (Food and Feed Grains)¹⁶

The U.S. trade surplus in food and feed grains declined by \$5.8 billion (37 percent) in 1997 to \$10.1 billion as exports declined sharply and imports rose. This surplus was by far the largest among the industry/commodity groups in the agricultural products sector. Food and feed grain exports fell by \$5.6 billion (34 percent) to \$11.1 billion in 1997. On a volume basis, U.S. food and feed grain exports experienced a sharp decline of 17 percent to 74 million metric tons in 1997. Exacerbating the volume decline, grain export prices dropped; U.S. wheat prices fell in 1997 by 23 percent, and U.S. corn prices by 29 percent.¹⁷ Meanwhile, U.S. imports of grain increased in 1997 as Canadian wheat entered in larger volumes.

U.S. imports

Increased imports from Canada, which supplied about three-quarters of U.S. grain imports, also contributed to the smaller U.S. trade surplus in grain in 1997. U.S. imports of grain from all countries rose by \$193 million (25 percent) to \$984 million; imports from Canada grew by \$102 million (16 percent) to \$724 million. Imports of Canadian wheat increased during 1996-97 by \$114 million, a result of both higher Canadian production and strong U.S. demand by wheat mills.

U.S. exports

U.S. grain exports to most markets dropped in 1997, with a combined loss of \$3.3 billion in five leading markets: Japan, Mexico, Korea, Taiwan, and Egypt. Sales to Mexico and Korea of U.S. grain dropped by \$1.0 billion each, and to Japan by \$617 million. Most foreign markets in 1997 reduced their purchases of U.S. grain either because of their increased production of grain or a shift to third-country suppliers. In some countries, such as Taiwan, fewer farm animals lowered the demand for feed grain, and thus reduced imports of U.S. corn, a primary feed grain. Third-country wheat and feed grain exporters in 1997 had abundant supplies, undercutting U.S. exports in most markets of the world.

Wheat, corn, rice, and sorghum accounted for nearly all of the \$11.1 billion of U.S. grain exports in 1997: corn accounted for 47 percent; wheat, 37 percent; rice, 8 percent; and sorghum, 5 percent. Corn exports fell in 1997 by \$3.1 billion (38 percent) to \$5.1 billion as much lower corn prices and plentiful third-country supplies (particularly in key U.S. markets) undercut U.S. corn sales. U.S. wheat exports declined in 1997 by \$2.2 billion (35 percent) to \$4.1 billion, with lower exports to Japan, Egypt, Korea, and Mexico. Rice exports decreased by \$98 million (9 percent) to \$932 million in 1997, and sorghum exports fell by \$145 million (20 percent) to \$594 million.

Among the leading foreign markets in 1997, Mexico and Korea experienced the sharpest drop (on a value basis) in purchases of U.S. grain. Mexico's corn, wheat, and sorghum crops rebounded in part from drought-reduced production in 1996 to much higher levels in 1997, reducing the need for imports.¹⁸ Korea, meanwhile, turned to other lower priced and more abundant feed grains, such as feed wheat, and to Chinese corn. China,

¹⁶Grains include rice, wheat, barley, corn, sorghum, oats, and rye. Milled grain products, such as flour, are not included.

¹⁷The average export price (f.o.b. vessel, Gulf ports) of U.S. wheat dropped from \$5.63 per bushel in 1996 to \$4.35 per bushel in 1997; the average price of U.S. corn fell from \$4.17 to \$2.97 per bushel, respectively. Source: USDA, *Agricultural Outlook*, Apr. 1998.

¹⁸USDA, ERS, *Feed Situation and Outlook Yearbook*, Mar. 1997, p. 20.

which in 1996 had been an important market for U.S. corn, became in 1997 a major net exporter of corn by increasing its net exports of corn by about 5 million metric tons (MMT).¹⁹

Furthermore, U.S. grain exporters experienced diminished 1997 sales to Japan (by \$617 million or 18 percent), Taiwan (down \$336 million or 28 percent), and Egypt (by \$327 million or 30 percent). The value of Japanese imports of U.S. corn declined because of the lower U.S. prices as the volume of U.S. corn exports actually rose. Taiwan also reduced its overall imports of feed grain in 1997 as a result of its lower hog production after an outbreak of foot-and-mouth disease.²⁰ The Asian currency and economic crisis further eroded the competitiveness of U.S. grain in the Asian markets by the fourth quarter of 1997.²¹

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Coffee and Tea

The customary U.S. trade deficit for coffee and tea grew by \$1.1 billion (40 percent) to \$3.8 billion in 1997 (table 5-5). This was the largest absolute deficit and the second-largest decline in trade position among industry/commodity groups in the agricultural products sector. Virtually all of the growth in the deficit was accounted for by a rise in imports, as exports were unchanged between 1996 and 1997. Coffee, not roasted, not decaffeinated (green coffee), was, by far, the primary imported product, accounting for 79 percent of the value of total U.S. imports of coffee and tea. Imports dominate the U.S. market, as the United States produces a relatively minor amount of unprocessed coffee and tea.

U.S. imports

U.S. imports of coffee and tea increased by \$1.1 billion (38 percent) to \$4.1 billion in 1997 (table 5-5), representing by far the largest absolute rise in imports among industry/commodity groups that year. U.S. imports of green coffee rose by \$970 million (43 percent) to \$3.2 billion in 1997. This increase resulted from a combination of moderately greater quantities of green coffee imports from most foreign suppliers as well as substantially higher prices. The quantity of total U.S. imports of green coffee rose by 5 percent in 1997, while the average unit value of imports increased by \$0.83 per kilogram (37 percent) to \$3.08 per kilogram in 1997. The quantity rose in part because of increased production in major supplying countries in 1997 following a subpar level the previous year and because U.S. roasters rebuilt stocks during the second half of the year.²² Global coffee bean production increased by 14 percent during the 1996/97 marketing year, reversing a decline of 5 percent the previous season.²³

¹⁹In crop year 1996/97, China exported 3.8 MMT tons net, whereas in 1995/96, it had imported 1.2 MMT net. Thus, its net exports rose by about 5 MMT. Source: USDA, FAS, *Grain: World Markets and Trade*, Mar. 1998, p. 30.

²⁰USDA, *Outlook for U.S. Agricultural Exports*, June 10, 1997, p. 3.

²¹USDA, *Outlook for U.S. Agricultural Exports*, Feb. 23, 1998, pp. 8-9.

²²U.S. roasters generally have been reducing stocks in recent years as they shifted to just-in-time inventory methods. However, owing to relatively low production levels the past few years, stocks were unusually low in 1996 and roasters replenished them in 1997. U.S. coffee stocks exceeded year-earlier levels beginning in July 1997. USITC staff conversation with an official of the USDA, Apr. 17, 1998.

²³USDA, FAS, *Tropical Products: World Markets and Trade*, Dec. 1997, found at Internet address <http://www.fas.usda.gov/hp/tropical/1997/97-12/dec97trop.html>, retrieved Apr. 10, 1998. The coffee-marketing year begins in either April, July, or October, depending on the country.

New York spot prices for mild arabica coffees from Colombia, the principal U.S. import supplier, averaged 198.92 cents per pound in 1997, up by 52 percent from the previous year, while prices for arabica coffee from Brazil, the third-leading import supplier, averaged 166.80 cents per pound in 1997, 39 percent higher than the previous year.²⁴ Higher prices in 1997 mainly resulted from early-season weather-related uncertainty and labor conditions in Brazil and Colombia²⁵ and from stable demand in the U.S. coffee market. The average annual retail price for coffee in the U.S. market increased by \$0.68 per pound (20 percent) to \$4.11 per pound in 1997, while U.S. coffee consumption rose slightly from 18.0 million bags in 1996 to an estimated 18.1 million bags in 1997.²⁶

Colombia displaced Mexico to become the leading U.S. import source for coffee and tea in 1997 after ranking second the previous year. Imports from Colombia increased by \$275 million (54 percent) to \$785 million, accounting for 19 percent of the total value of U.S. imports of coffee and tea in 1997. The bulk of such imports consisted of green coffee beans. Colombia increased export volumes during 1997 in response to rising prices caused by strong global demand.²⁷ The United States competed mainly with Germany and Japan for Colombian green coffee beans and accounted for about a quarter of total Colombian exports.²⁸ Imports from Mexico increased in value at a lower rate than did those from Colombia, accounting for 16 percent of total U.S. imports of coffee and tea in 1997. As was the case with Colombia, the bulk of such imports were green coffee beans. U.S. imports from Mexico were lower in quantity in 1997 as a result of a decline in Mexican production due to dry weather and hurricanes,²⁹ but relatively high prices led to an increase in the total value. The U.S. market accounts for about two-thirds of the quantity of Mexican exports of green coffee beans.³⁰

U.S. exports

U.S. exports of coffee and tea increased by \$17 million (7 percent) to \$254 million in 1997 (table 5-5). A \$13 million (11-percent) decline in the principal export category of roasted, uncaffeinated coffee was exceeded by increases in most other categories, principally instant coffee and other coffee extracts. Setting this trend were exports to Canada, which increased in value by \$3 million (2 percent) to \$133 million in 1997. Canada retained its leading market position for U.S. exports of coffee and tea in 1997, accounting for 52 percent of the total value. The remainder of the market is relatively fragmented, and substantial shifts occurred in the rankings among the smaller markets. Hong Kong, the 10th-leading U.S. coffee and tea export market in 1996 ranked second in 1997, as exports increased by \$15 million (335 percent) to \$19 million. Russia fell from second to tenth, as exports dropped by \$8 million (43 percent) to \$10 million in 1997. Most of the change in both markets was accounted for by extracts, essences, and concentrates of coffee, other than unflavored instant coffee.

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²⁴Ibid.

²⁵USDA, FAS, *Tropical Products: World Markets and Trade*, June 1997, found at Internet address <http://www.fas.usda.gov/htp/tropical/1997/97-06/coffee.htm>, retrieved Apr. 14, 1998.

²⁶USITC staff telephone conversation with an official of the International Coffee Organization, Apr. 17, 1998. Data for 1997 are preliminary estimates. One bag equals 60 kilograms.

²⁷USDA, FAS, "Coffee--Annual Report," prepared by U.S. Embassy, Bogota, No. CO7012, May 15, 1997, p. 1.

²⁸Ibid., p. 9.

²⁹USDA, FAS, "Mexican Coffee on an Export High in 1997," prepared by U.S. Embassy, Mexico City, No. MX7113, Nov. 3, 1997, p. 4.

³⁰USDA, FAS, "Mexico's Coffee Production Tendencies for 1997," prepared by U.S. Embassy, Mexico City, No. MX7042, Apr. 9, 1997, p. 9.

Table 5-5

Agricultural products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
AG001	Certain miscellaneous animals and meats:				
	Exports	1,895	1,848	-47	-2.5
	Imports	1,146	1,262	115	10.1
	Trade balance:	748	586	-162	-21.7
AG002	Cattle and beef:				
	Exports	2,447	2,573	126	5.1
	Imports	2,248	2,534	286	12.7
	Trade balance:	199	39	-160	-80.3
AG003	Swine and pork:				
	Exports	918	943	25	2.7
	Imports	742	792	49	6.6
	Trade balance:	176	152	-24	-13.9
AG004	Sheep and meat of sheep:				
	Exports	21	65	44	211.2
	Imports	119	144	25	21.2
	Trade balance:	-98	-78	19	19.7
AG005	Poultry:				
	Exports	2,589	2,515	-74	-2.9
	Imports	35	43	8	22.7
	Trade balance:	2,554	2,472	-82	-3.2
AG006	Fresh or chilled fish:				
	Exports	263	238	-24	-9.3
	Imports	885	1,025	140	15.8
	Trade balance:	-623	-787	-164	-26.4
AG007	Frozen fish:				
	Exports	1,557	1,371	-186	-11.9
	Imports	1,344	1,446	102	7.6
	Trade balance:	213	-75	-288	(³)
AG008	Canned fish and other fish:				
	Exports	426	326	-100	-23.5
	Imports	694	736	42	6.1
	Trade balance	-268	-411	-142	-53.1
AG009	Shellfish:				
	Exports	739	720	-19	-2.6
	Imports	3,741	4,472	730	19.5
	Trade balance:	-3,003	-3,752	-749	-25.0
AG010	Dairy produce:				
	Exports	506	618	112	22.1
	Imports	1,198	1,109	-89	-7.4
	Trade balance:	-693	-492	201	29.0
AG011	Eggs:				
	Exports	207	207	(⁴)	-0.1
	Imports	24	19	-5	-20.2
	Trade balance:	183	188	5	2.5
AG012	Sugar and other sweeteners:				
	Exports	381	359	-22	-5.7
	Imports	1,407	1,321	-87	-6.2
	Trade balance	-1,027	-961	65	6.4
AG013	Animal feeds:				
	Exports	4,375	4,837	462	10.6
	Imports	779	783	4	0.5
	Trade balance:	3,595	4,054	459	12.8
AG014	Live plants:				
	Exports	92	117	25	27.1
	Imports	312	336	24	7.8

See footnote(s) at end of table.

Table 5-5--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Trade balance:	-220	-219	1	0.2
AG015	Seeds:				
	Exports	648	776	127	19.6
	Imports	298	361	63	21.3
	Trade balance:	350	414	64	18.3
AG016	Cut flowers:				
	Exports	48	49	1	2.6
	Imports	573	595	22	3.9
	Trade balance:	-525	-546	-21	-4.0
AG017	Miscellaneous vegetable substances:				
	Exports	449	470	21	4.7
	Imports	792	855	63	7.9
	Trade balance	-344	-386	-42	-12.1
AG018	Fresh, chilled, or frozen vegetables:				
	Exports	1,070	1,178	108	10.1
	Imports	1,840	1,857	17	.9
	Trade balance:	-770	-678	91	11.8
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports	1,332	1,433	101	7.6
	Imports	981	1,074	93	9.5
	Trade balance:	351	359	8	2.3
AG020	Edible nuts:				
	Exports	1,666	1,491	-175	-10.5
	Imports	570	630	59	10.4
	Trade balance:	1,096	861	-235	-21.4
AG021	Tropical fruit:				
	Exports	79	70	-9	-10.9
	Imports	1,391	1,466	75	5.4
	Trade balance:	-1,312	-1,396	-84	-6.4
AG022	Citrus fruit:				
	Exports	700	735	35	5.0
	Imports	177	201	24	13.7
	Trade balance:	524	535	11	2.1
AG023	Deciduous fruit:				
	Exports	731	780	49	6.7
	Imports	197	187	-10	-4.9
	Trade balance:	534	592	58	11.0
AG024	Other fresh fruit:				
	Exports	507	557	50	9.8
	Imports	744	717	-27	-3.6
	Trade balance:	-237	-160	77	32.4
AG025	Dried fruit other than tropical:				
	Exports	388	386	-3	-0.7
	Imports	58	61	3	4.3
	Trade balance:	330	325	-5	-1.6
AG026	Frozen fruit:				
	Exports	79	79	(⁴)	0.1
	Imports	82	88	6	7.7
	Trade balance:	-3	-9	-6	-229.4
AG027	Prepared or preserved fruit:				
	Exports	173	182	9	5.1
	Imports	484	545	61	12.6
	Trade balance:	-311	-363	-52	-16.8

See footnote(s) at end of table.

Table 5-5--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
AG028	Coffee and tea:				
	Exports	237	254	17	7.4
	Imports	2,958	4,071	1,113	37.6
	Trade balance:	-2,721	-3,816	-1,095	-40.2
AG029	Spices:				
	Exports	55	58	3	5.9
	Imports	349	416	67	19.3
	Trade balance:	-294	-358	-64	-21.8
AG030	Cereals:				
	Exports	16,751	11,106	-5,645	-33.7
	Imports	791	984	193	24.5
	Trade balance:	15,961	10,122	-5,839	-36.6
AG031	Milled grains, malts, and starches:				
	Exports	425	429	4	1.0
	Imports	175	167	-8	-4.3
	Trade balance	250	262	12	4.6
AG032	Oilseeds:				
	Exports	7,638	7,700	63	0.8
	Imports	279	335	55	19.9
	Trade balance:	7,358	7,365	7	0.1
AG033	Animal or vegetable fats and oils:				
	Exports	1,826	2,173	346	18.9
	Imports	1,480	1,517	37	2.5
	Trade balance:	346	656	310	89.4
AG034	Edible preparations:				
	Exports	3,353	4,029	676	20.2
	Imports	1,943	2,139	196	10.1
	Trade balance	1,410	1,890	480	34.1
AG035	Cocoa, chocolate, and confectionery:				
	Exports	586	662	76	13.0
	Imports	1,806	1,910	104	5.8
	Trade balance:	-1,220	-1,248	-28	-2.3
AG036	Fruit and vegetable juices:				
	Exports	642	677	36	5.6
	Imports	929	856	-73	-7.9
	Trade balance:	-287	-178	109	38.0
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports	244	299	55	22.4
	Imports	430	524	94	22.0
	Trade balance:	-186	-226	-40	-21.4
AG038	Malt beverages:				
	Exports	362	319	-44	-12.0
	Imports	1,301	1,480	179	13.8
	Trade balance:	-939	-1,162	-223	-23.7
AG039	Wine and certain other fermented beverages:				
	Exports	320	415	95	29.5
	Imports	1,435	1,716	281	19.6
	Trade balance:	-1,115	-1,301	-186	-16.7
AG040	Distilled spirits:				
	Exports	392	390	-2	-0.4
	Imports	1,843	1,966	123	6.7
	Trade balance:	-1,451	-1,576	-125	-8.6
AG041	Unmanufactured tobacco:				
	Exports	1,390	1,553	163	11.7

See footnote(s) at end of table.

Table 5-5--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
		<i>Million Dollars</i>			
	Imports	923	1,089	167	18.1
	Trade balance	468	464	-4	-0.8
AG042	Cigars and certain other manufactured tobacco:				
	Exports	503	547	44	8.8
	Imports	207	419	212	102.1
	Trade balance:	295	128	-167	-56.7
AG043	Cigarettes:				
	Exports	4,736	4,409	-326	-6.9
	Imports	38	44	6	16.6
	Trade balance:	4,698	4,365	-333	-7.1
AG044	Hides, skins, and leather:				
	Exports	2,216	2,310	94	4.2
	Imports	1,054	1,133	79	7.5
	Trade balance	1,162	1,177	15	1.3
AG045	Furskins:				
	Exports	224	222	-2	-1.0
	Imports	107	115	8	7.2
	Trade balance:	117	107	-10	-8.5
AG062	Ethyl alcohol for nonbeverage purposes:				
	Exports	128	123	-5	-4.2
	Imports	160	119	-41	-25.8
	Trade balance:	-32	4	36	(³)
AG063	Wool and other animal hair:				
	Exports	20	17	-3	-16.0
	Imports	173	179	6	3.3
	Trade balance:	-154	-163	-9	-5.7
AG064	Cotton, not carded or combed:				
	Exports	2,715	2,682	-33	-1.2
	Imports	283	3	-280	-98.9
	Trade balance	2,432	2,679	247	10.1

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

²This 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.

³Not meaningful for purposes of comparison.

⁴Less than \$500,000.

Note.--Calculations based on unrounded data.

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

CHAPTER 6

Forest Products

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The trade deficit in forest products expanded by \$1.0 billion (30 percent) to \$4.5 billion in 1997 (table 6-1). Total forest product trade rose by \$1.5 billion (3 percent) to \$56.0 billion in 1997 as both imports and exports increased. U.S. exports of forest products rose slightly, by \$455 million (2 percent) to \$26.0 billion, due to stable or increasing prices for a variety of wood and paper products. Exports for most product groups increased in 1997. However, exports of logs and rough wood products declined by \$489 million (17 percent) to \$2.4 billion. The decline in log exports resulted from lower construction activity in Japan, the principal market for log exports. Log exports also met increased competition from lower priced logs originating in Russia and New Zealand.¹ Exports of wood pulp and waste paper, and newsprint, also fell, declining by \$166 million and \$130 million, respectively.

After falling pulp and paper product prices in 1996 broke a 5-year growth trend in U.S. forest product imports, the value of U.S. imports increased by \$1.5 billion (5 percent) to \$30.5 billion in 1997. Imports of lumber (up by \$531 million) and moldings, millwork, and joinery (up by \$423 million) posted the largest increases. Strong domestic demand for housing construction in 1997 led to this growth. Imports of industrial paper and paperboard, printing and writing papers, and printed matter had modest increases. The only notable decline in imports was registered by newsprint, which fell by \$473 million (12 percent) to \$3.6 billion. Imports of forest products increased steadily over the 5 years prior to 1996.

Trade statistics for all commodity/industry groups are presented in table 6-3 at the end of this chapter.

¹“Demand Estimates on American Timber for 1998,” *Japan Lumber Journal*, vol. 38, No. 24, Dec. 1997, p. 2.

Table 6-1

Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	6,086	6,774	688	11.3
Japan	4,975	3,963	-1,011	-20.3
Mexico	2,267	2,526	259	11.4
United Kingdom	1,191	1,334	143	12.0
Germany	880	933	53	6.1
China	489	485	-4	-0.8
Brazil	384	429	45	11.7
Korea	1,014	945	-69	-6.8
Italy	653	720	67	10.2
Hong Kong	608	651	43	7.0
All Other	6,963	7,204	241	3.5
Total	25,509	25,964	455	1.8
EU-15	4,621	5,036	415	9.0
OPEC	583	617	34	5.8
Latin America	4,356	4,834	477	11.0
CBERA	911	970	59	6.4
Asian Pacific Rim	9,254	8,184	-1,070	-11.6
ASEAN	1,005	967	-38	-3.8
Central and Eastern Europe	51	56	5	10.6
U.S. imports for consumption:				
Canada	19,944	20,687	743	3.7
Japan	420	491	71	16.8
Mexico	847	967	121	14.3
United Kingdom	702	726	24	3.4
Germany	560	594	34	6.0
China	816	965	149	18.3
Brazil	679	735	56	8.2
Korea	133	161	29	21.5
Italy	305	322	17	5.5
Hong Kong	350	348	-2	-0.7
All Other	4,202	4,461	259	6.2
Total	28,957	30,456	1,499	5.2
EU-15	3,304	3,487	183	5.5
OPEC	533	573	40	7.4
Latin America	1,997	2,280	284	14.2
CBERA	101	98	-3	-3.1
Asian Pacific Rim	3,228	3,503	275	8.5
ASEAN	1,161	1,147	-14	-1.2
Central and Eastern Europe	16	24	7	45.5
U.S. merchandise trade balance:				
Canada	-13,858	-13,913	-55	-0.4
Japan	4,555	3,472	-1,082	-23.8
Mexico	1,420	1,559	138	9.7
United Kingdom	489	608	119	24.3
Germany	320	339	20	6.2
China	-327	-480	-153	-46.8
Brazil	-295	-306	-11	-3.7
Korea	881	783	-98	-11.1
Italy	348	398	50	14.3
Hong Kong	258	304	45	17.4
All Other	2,761	2,744	-17	-0.6
Total	-3,448	-4,492	-1,044	-30.3
EU-15	1,316	1,549	233	17.7
OPEC	50	44	-6	-11.9
Latin America	2,360	2,553	194	8.2
CBERA	810	872	62	7.6
Asian Pacific Rim	6,026	4,681	-1,345	-22.3
ASEAN	-156	-179	-24	-15.3
Central and Eastern Europe	35	33	-2	-5.9

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

U.S. BILATERAL TRADE

The United States posted a positive trade balance in forest products among the top-10 trading countries, except for Canada, China, and Brazil (table 6-1). In 1997, almost 70 percent of all forest product imports came from Canada. U.S. imports from Canada rose slightly, by \$743 million (4 percent) to \$20.7 billion. Canada traditionally supplies the United States with softwood lumber (\$6.6 billion in 1997), newsprint (\$4.0 billion), wood pulp and wastepaper (\$2.2 billion), and printing and writing papers (\$2.4 billion). U.S. exports to Canada increased by \$688 million (11 percent) to \$6.8 billion in 1997. The major U.S. exports to Canada are printed matter, printing and writing papers, sanitary papers, lumber, and paperboard boxes.

The U.S. trade deficit with China grew by \$153 million (47 percent) to \$480 million in 1997 and was primarily the result of increased U.S. imports from China of miscellaneous wood manufactures, wickerwork, and certain converted paper products. The trade deficit with Brazil increased slightly in 1997 and was primarily the result of U.S. imports of Brazilian lumber and lumber products.

After Canada, the largest U.S. trading partners were Japan, Mexico, and the United Kingdom. U.S. exports of forest products to Japan decreased by \$1.0 billion in 1997 (20 percent) to \$4.0 billion, still the largest trade balance surplus with any major partner. This was by far the largest bilateral U.S. export decrease among major trading partners. Declining construction activity in Japan, higher prices for U.S. logs, and a weakening yen were the principal causes of the decrease. U.S. exports of logs, lumber, wood chips, and builders joinery decreased by \$829 million (26 percent) to \$2.3 billion. Exports of wood pulp and waste paper declined \$52 million (9 percent) to \$522 million. Mexico imported \$2.5 billion of forest products from the United States in 1997. About one-quarter of Mexico's imports consisted of packing containers. The United Kingdom purchased \$1.3 billion of forest products from the United States, an increase of \$143 million (12 percent); the imports were mainly printed matter, chemical wood pulp, and lumber.

The leading U.S. import and export forest products for major trading partner countries are presented in table 6-2.

Table 6-2

Forest products: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick Newsprint, in rolls or sheets Chemical woodpulp, soda or sulphate Uncoated paper and paperboard for writing, printing, etc., and punch card stock and tape paper	Books, brochures, and similar printed matter Newspapers, journals, and periodicals Paper and paperboard, coated with kaolin or other inorganic substance Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick
Japan (1)		Wood in the rough, whether or not stripped of bark or sapwood Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick Fuel wood in logs, etc., wood in chips, etc. Chemical woodpulp, soda or sulphate
Mexico	Paper and paperboard registers, account books, stationary, and similar articles Wood continuously shaped (tongued, grooved, etc.) along any face Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick Toilet paper, towels, and like household or sanitary items	Cartons, bags and other containers of paper, paperboard, etc., and office paper products Chemical woodpulp, soda or sulphate Paper and paperboard, coated with kaolin or other inorganic substance Other paper, paperboard, cellulose wadding and webs of cellulose fibers and other articles of paper pulp, etc.
United Kingdom	Books, brochures, and similar printed matter Wallpaper and similar wallcoverings Paper, paperboard, wadding, and webs of cellulose fibers, surface-prepared Paper and paperboard, coated with kaolin or other inorganic substance	Books, brochures, and similar printed matter Chemical woodpulp, soda or sulphate Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick Kraft paper and paperboard, uncoated

Table 6-3

Forest products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
Germany	Paper, paperboard, wadding, and webs of cellulose fibers, surface-prepared Paper and paperboard, coated with kaolin or other inorganic substance Books, brochures, and similar printed matter		Wood sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or finger-jointed over 6mm thick Chemical woodpulp, dissolving grades Chemical woodpulp, soda or sulphate Veneer sheets, etc., not over 6mm thick		
China	Basketwork, wickerwork of plaits, etc. Paper and paperboard registers, account books, stationary, and similar articles Wood marquetry and inlaid wood; wood cases for jewelry, cutlery, etc., and wood ornaments Miscellaneous articles of wood		Kraft paper and paperboard, uncoated Chemical woodpulp, soda or sulphate Waste and scrap of paper or paperboard Paper and paperboard, coated with kaolin or other inorganic substance		

¹Not a significant supplier.

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

AG046	Logs and rough wood products:				
	Exports	2,909	2,420	-489	-16.8
	Imports	419	427	8	2.0
	Trade balance	2,490	1,993	-498	-20.0
AG047	Lumber:				
	Exports	2,430	2,532	102	4.2

See footnote(s) at end of table.

Table 6-3--Continued

Forest products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Imports	6,829	7,360	531	7.8
	Trade balance:	-4,399	-4,828	-429	-9.8
AG048	Moldings, millwork, and joinery:				
	Exports	563	642	78	13.9
	Imports	1,171	1,594	423	36.1
	Trade balance	-607	-952	-344	-56.7
AG049	Structural panel products:				
	Exports	994	1,166	172	17.3
	Imports	2,152	2,249	97	4.5
	Trade balance	-1,158	-1,083	75	6.5
AG050	Wooden containers:				
	Exports	85	112	27	32.2
	Imports	253	348	95	37.8
	Trade balance:	-168	-236	-68	-40.6
AG051	Tools and tool handles of wood:				
	Exports	24	37	13	54.8
	Imports	114	117	3	2.7
	Trade balance	-90	-80	10	11.0
AG052	Miscellaneous articles of wood:				
	Exports	179	185	6	3.5
	Imports	617	733	116	18.8
	Trade balance	-438	-547	-110	-25.1
AG053	Cork and rattan:				
	Exports	82	76	-6	-7.2
	Imports	407	407	(³)	0.1
	Trade balance:	-325	-332	-6	-1.9
AG054	Wood pulp and wastepaper:				
	Exports	4,059	3,893	-166	-4.1
	Imports	2,665	2,656	-9	-0.4
	Trade balance	1,394	1,237	-157	-11.2
AG055	Paper boxes and bags:				
	Exports	1,204	1,296	92	7.7
	Imports	658	674	16	2.4
	Trade balance:	546	622	76	14.0
AG056	Industrial papers and paperboards:				
	Exports	5,064	5,407	343	6.8
	Imports	1,830	2,044	215	11.7
	Trade balance:	3,234	3,363	129	4.0
AG057	Newsprint:				
	Exports	652	522	-130	-19.9
	Imports	4,063	3,590	-473	-11.6
	Trade balance:	-3,411	-3,068	343	10.1
AG058	Printing and writing papers:				
	Exports	1,394	1,431	37	2.7
	Imports	3,565	3,773	207	5.8
	Trade balance	-2,171	-2,341	-170	-7.8
AG059	Certain specialty papers:				
	Exports	773	760	-13	-1.6
	Imports	774	808	34	4.4
	Trade balance:	-1	-48	-47	-3,145.1
AG060	Miscellaneous paper products:				
	Exports	987	1,196	208	21.1
	Imports	875	956	81	9.3
	Trade balance	112	239	127	113.6

See footnote(s) at end of table.

Table 6-3--Continued

Forest products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC		Change, 1997 from 1996			
code²	Industry/commodity group	1996	1997	Absolute	Percent
<i>Million Dollars</i>					
AG061	Printed matter:				
	Exports	4,109	4,287	178	4.3
	Imports	2,564	2,719	154	6.0
	Trade balance:	1,545	1,569	24	1.5

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

²This 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.

³Less than \$500,000.

Note.--Calculations based on unrounded data.

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

CHAPTER 7

Chemicals and Related Products

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During 1996-97, the U.S. trade surplus for chemicals and related products increased by \$796 million (7 percent) to \$12.2 billion (table 7-1). Due to strong economic growth in the United States and many of its trading partners, U.S. exports of these products increased by \$8.5 billion (12 percent) to \$78.3 billion, while U.S. imports rose by \$7.7 billion (13 percent) to \$66.1 billion. Since this sector comprises many products, such as plastic tubing, coatings, adhesives, plastics, and pigments, that are used in the production of manufactured goods, the performance of the industry is strongly linked to the general health of the economy.

Within the overall U.S. sector, all subsectors of chemicals and related products contributed to the growth in exports (table 7-2). Plastics and rubber (raw materials and finished products) exports increased the most by value, rising by \$3.3 billion (13 percent) to \$28.2 billion, followed by exports of pharmaceuticals, which increased by \$1.8 billion (21 percent) to \$10.3 billion, and general organic chemicals, with an increase of \$1.6 billion (10 percent) to \$16.8 billion. Similarly, U.S. imports increased for all types of chemicals and related products in 1997. Pharmaceuticals had the largest increase, rising by \$3.0 billion (27 percent) to \$14.2 billion, followed by general organic chemicals, which grew by \$2.1 billion (18 percent) to \$13.8 billion, and plastic and rubber (raw materials and finished products), which was up by \$1.5 billion (7 percent) to \$21.2 billion.

Although the U.S. trade surplus rose during 1997, the trade position fluctuated significantly across the different types of chemicals and related products. The only trade deficit was in the pharmaceuticals industry, where the existing trade deficit fell by \$1.2 billion (45 percent) to \$3.8 billion in 1997. The trade surplus in general organic chemicals decreased during 1997, falling by \$562 million (16 percent) to \$3.1 billion. The trade surpluses in all other areas continued to grow. The largest increase by value was registered in plastics and rubber (raw materials and finished products), where the trade surplus increased by \$1.8 billion (35 percent) to \$7.0 billion.

Trade statistics for all commodity/industry groups in the chemicals and related products sector are presented in table 7-4 at the end of this chapter.

Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	14,548	16,399	1,851	12.7
Japan	5,782	6,117	335	5.8
Mexico	7,172	8,932	1,760	24.5
Germany	2,447	2,799	352	14.4
United Kingdom	2,780	3,207	427	15.4
China	1,769	1,978	209	11.8
France	1,695	2,054	360	21.2
Netherlands	3,050	3,796	746	24.5
Belgium	3,229	3,530	300	9.3
Brazil	2,475	2,976	502	20.3
All Other	24,850	26,491	1,641	6.6
Total	69,796	78,279	8,483	12.2
EU-15	16,211	18,824	2,613	16.1
OPEC	1,876	2,085	209	11.2
Latin America	15,129	17,773	2,644	17.5
CBERA	1,621	1,814	192	11.9
Asian Pacific Rim	19,763	20,424	660	3.3
ASEAN	3,673	3,922	249	6.8
Central and Eastern Europe	205	251	46	22.7
U.S. imports for consumption:				
Canada	11,093	12,463	1,370	12.4
Japan	7,737	8,209	472	6.1
Mexico	2,276	2,689	413	18.1
Germany	5,502	6,568	1,066	19.4
United Kingdom	4,147	4,857	710	17.1
China	2,936	3,371	434	14.8
France	2,632	2,959	327	12.4
Netherlands	1,191	1,143	-48	-4.0
Belgium	1,189	1,404	215	18.1
Brazil	664	683	18	2.8
All Other	19,010	21,719	2,710	14.3
Total	58,378	66,065	7,687	13.2
EU-15	20,168	23,470	3,302	16.4
OPEC	2,706	3,417	711	26.3
Latin America	4,804	5,585	781	16.3
CBERA	868	799	-69	-8.0
Asian Pacific Rim	16,438	17,518	1,080	6.6
ASEAN	2,781	2,753	-27	-1.0
Central and Eastern Europe	250	302	52	20.6
U.S. merchandise trade balance:				
Canada	3,455	3,936	481	13.9
Japan	-1,955	-2,092	-137	-7.0
Mexico	4,896	6,243	1,347	27.5
Germany	-3,055	-3,769	-714	-23.4
United Kingdom	-1,367	-1,650	-283	-20.7
China	-1,167	-1,392	-225	-19.3
France	-937	-905	33	3.5
Netherlands	1,858	2,652	794	42.7
Belgium	2,040	2,126	86	4.2
Brazil	1,810	2,294	484	26.7
All Other	5,841	4,772	-1,069	-18.3
Total	11,418	12,214	796	7.0
EU-15	-3,958	-4,646	-689	-17.4
OPEC	-831	-1,332	-501	-60.3
Latin America	10,325	12,188	1,863	18.0
CBERA	753	1,015	262	34.7
Asian Pacific Rim	3,326	2,906	-420	-12.6
ASEAN	892	1,168	276	30.9
Central and Eastern Europe	-46	-51	-5	-11.6

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

Table 7-2

Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major types, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Plastics, rubber, and products thereof	24,924	28,181	3,257	13.1
General organic chemicals	15,280	16,849	1,568	10.3
General inorganic chemicals	5,454	6,024	570	10.5
Pharmaceuticals	8,546	10,344	1,798	21.0
Consumer and industrial products	7,251	7,679	428	5.9
Fertilizers and pesticides	5,163	5,414	250	4.8
Dyes, pigments, paints, and inks	3,177	3,789	612	19.3
Total	69,796	78,279	8,483	12.2
U.S. imports for consumption:				
Plastics, rubber, and products thereof	19,751	21,221	1,470	7.4
General organic chemicals	11,664	13,795	2,131	18.3
General inorganic chemicals	5,299	5,620	322	6.1
Pharmaceuticals	11,189	14,184	2,994	26.8
Consumer and industrial products	4,337	4,741	404	9.3
Fertilizers and pesticides	3,642	3,680	38	1.0
Dyes, pigments, paints, and inks	2,497	2,825	328	13.1
Total	58,378	66,065	7,687	13.2
U.S. merchandise trade balance:				
Plastics, rubber, and products thereof	5,174	6,961	1,787	34.5
General organic chemicals	3,616	3,054	-562	-15.6
General inorganic chemicals	155	404	249	160.4
Pharmaceuticals	-2,643	-3,840	-1,197	-45.3
Consumer and industrial products	2,915	2,938	24	0.8
Fertilizers and pesticides	1,522	1,734	212	14.0
Dyes, pigments, paints, and inks	680	964	284	41.8
Total	11,418	12,214	796	7.0

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

Note.--Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

The United States' primary trading partner in chemicals and related products is Canada, largely due to physical proximity, the fostering of regional integration of the industries and markets, and the establishment of mutually favorable tariff rates under the CFTA and the NAFTA. In 1997, Canada was the leading source of products imported by the United States as well as the leading market for U.S. exports in this sector. The U.S. bilateral trade surplus with Canada increased by \$481 million (14 percent) to \$3.9 billion (table 7-1).

The largest improvement in the value of the U.S. bilateral trade position was with Mexico, the third-largest partner, where the trade surplus increased by \$1.3 billion (28 percent) to \$6.2 billion. U.S. exports to Mexico increased by \$1.8 billion (25 percent) to \$8.9 billion, while imports from Mexico only grew by \$413 million (18 percent) to \$2.7 billion. Growth in U.S. exports to Mexico can be attributed to both the development of downstream manufacturing industries that utilize chemicals and related products as well as the rising value of the peso, which has made U.S. products more price competitive in Mexican markets. After the economic difficulties of 1994-95, the Mexican chemical industry maintained itself through exports. Now that the economy has largely recovered to the 1994 level, there is demand in Mexico for the goods formerly

shipped abroad, although capacity has not changed measurably.¹ This accounts for the relatively small growth in U.S. imports compared with U.S. exports.

Total trade in chemicals and related products between the EU-15 and the United States grew in 1997, reflecting an increase in U.S. exports as well as imports. U.S. exports rose by \$2.6 billion (16 percent) to \$18.8 billion, while EU exports to the United States increased by \$3.3 billion (16 percent) to \$23.5 billion; the U.S. bilateral trade deficit increased by \$689 million (17 percent) to \$4.6 billion. The top-two European trading partners with the United States were the United Kingdom and Germany. For both countries, the primary type of products traded in 1997 was medicinal chemicals. Overall, the chemical industry in EU countries was helped by the strength of the dollar against their currencies, which made their products more price competitive in the U.S. market.² However, bilateral trade trends varied among EU countries included in the top-10 partners for this sector in 1997; as the U.S. trade position declined with Germany and the United Kingdom, it increased with France, the Netherlands, and Belgium.

For trade with Japan, the second-leading trade partner, the U.S. trade deficit in chemicals and related products grew by \$137 million (7 percent) to \$2.1 billion in 1997. U.S. exports grew by \$335 million (6 percent) to \$6.1 billion, while imports from Japan increased by \$472 million (6 percent) to \$8.2 billion. The increase in imports from Japan was largely due to the sluggish Japanese economy in 1997; since demand was limited, Japanese companies sought foreign markets for their products. In Japan, demand for U.S. products was stagnant, except in specialized categories such as medicinal chemicals.

The U.S. bilateral trade deficit with China increased for this sector, growing by \$225 million (19 percent) to \$1.4 billion. U.S. imports from China were led by miscellaneous rubber and plastic products, which amounted to \$1.5 billion of the \$3.4 billion total sector imports. Due to low Chinese wages and an abundant labor supply, Chinese companies are able to produce these labor-intensive goods for less than U.S. companies. The two largest categories in this sector for U.S. exports to China in 1997 were fertilizers (\$1.1 billion), which are used to enhance food production, and plastic resins (\$166 million), the raw materials required for many of China's exported goods.

The leading U.S. imports and exports of chemicals and related products for major trading partner countries are presented in table 7-3.

¹George Peaff, "North America: Mexico's Economy, Chemical Trade Still Robust," *Chemical & Engineering News*, Dec. 15, 1997, p. 22.

²Patricia L. Layman, "Western Europe: Strong Exports of 1997 to Slow and Growth to Moderate in '98," *Chemical & Engineering News*, Dec. 15, 1997, p. 28.

Table 7-3**Chemicals and related products: Leading U.S. import and export products, by major partner, 1997**

Partner	Leading imports	Leading exports
Canada	Polymers of ethylene in primary forms New rubber pneumatic tires Mineral or chemical fertilizers Plastic boxes, bags, closures, etc.	New rubber pneumatic tires Certain retail medicaments in dosage form Certain plastic plates, sheets, film, and strip Polyacetals, other polyethers and epoxide resins, in primary forms
Japan	New rubber pneumatic tires Photographic chemicals Doped chemical elements and compounds used in electronics Certain carboxylic acids	Human and animal blood and related products New rubber pneumatic tires Composite diagnostic/lab reagents Antibiotics
Mexico	Miscellaneous articles of plastic New rubber pneumatic tires Cyclic hydrocarbons Organic surface-active agents, other than soap	Miscellaneous articles of plastic New rubber pneumatic tires Plastic boxes, bags, closures, etc. Polymers of ethylene, in primary forms
Germany	Certain retail medicaments in dosage form Certain heterocyclic compounds Synthetic organic coloring matter Natural or synthetic vegetable alkaloids	Composite diagnostic/lab reagents Human and animal blood and related products Certain plastic plates, sheets, film, and strip Certain retail medicaments in dosage form
United Kingdom	Certain retail medicaments in dosage form Nucleic acids and salts Oxygen-function amino-compounds Certain heterocyclic compounds	Certain retail medicaments in dosage form Composite diagnostic/lab reagents Certain plastic plates, sheets, film, and strip Certain medicaments not in dosage/retail form
China	Miscellaneous articles of plastics, polymers, and resins Certain plastic household articles Plastic boxes, bags, closures, etc. Certain plastic builders' ware	Fertilizers Polymers of ethylene in primary forms Polyacetals, other polyethers and epoxide resins, in primary forms Certain cellulose and its chemical derivatives

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Medicinal Chemicals

The U.S. trade deficit in medicinal chemicals (pharmaceuticals) increased by \$1.2 billion (45 percent) to \$3.8 billion in 1997. Although U.S. exports continued to increase, the growing deficit reflects a larger rise in imports, particularly from Western Europe.

Trade in the pharmaceutical industry has increased in general since January 1, 1995, following the elimination of duties on most medicinal chemical products under the Uruguay Round Agreement. The United States, the United Kingdom, Germany, Ireland, Japan, and several other large pharmaceutical producers were signatories to this agreement. Since the world drug industry is dominated by multinational corporations, and several large firms have recently merged, there is substantial product specialization and intracompany trade throughout the sector.

Additionally, there is a continuing trend in the pharmaceutical industry toward outsourcing production of bulk active ingredients, chemicals that are typically produced in highly specialized processes that only a limited number of facilities are equipped to perform. Outsourcing is beneficial to pharmaceutical companies that need a quick and flexible source of these chemicals, which is often the situation for firms looking to push their products through clinical trials and, after approval, benefit from patent protection as long as possible. Because of the importance of getting new pharmaceutical products to the market as quickly as possible, companies are often willing to use either domestic or foreign production facilities.³

U.S. imports

Total U.S. imports of pharmaceuticals increased by \$3.0 billion (27 percent) to \$14.2 billion in 1997. Imports from the United Kingdom, Germany, and Ireland, the top-three suppliers to the United States in 1997, increased by \$383 million (18 percent), \$964 million (69 percent), and \$512 million (37 percent), respectively, and accounted for 48 percent of total U.S. imports of pharmaceuticals.

The United Kingdom and Germany have benefited from the trend toward outsourcing in the pharmaceutical industry. Both countries have significant production capacity for medicinal chemicals, in part due to past national health policies that have demanded high production levels. However, when their public health budgets were reduced, supply exceeded demand and inventories rose.⁴ By comparison, the United States has limited capabilities, which has been partially attributed to the differing Food and Drug Administration (FDA) inspection standards for domestic versus overseas facilities; because it is reportedly more difficult for U.S. manufacturers to comply, pharmaceutical companies may feel that it is less complicated to use a European manufacturer.⁵ Additionally, the dollar was strong against the German deutschemark in 1997, which made German products more price competitive in the U.S. market.

Largely because of its membership in the EU and a national tax policy that is friendly to large corporations, the Irish economy has been strong over the past decade. The most significant growth has been in high technology areas such as pharmaceuticals. Because Ireland's production costs are low, its medicinal chemicals are highly price competitive in the U.S. market, which has led to a rise in imports.⁶ Due to the

³Stephen C. Stinson, "Custom Chemicals," *Chemical & Engineering News*, Jan. 19, 1998, pp. 49-52.

⁴Layman, "Western Europe: Strong Exports of 1997 to Slow," p. 28.

⁵Bruce Gain, "U.S. Lags Europe in Outsourcing Capabilities," *Chemical Week*, Sept. 10, 1997, p. 44.

⁶Dyan Machan, "Irish Tiger," *Forbes*, Mar. 9, 1998, p. 86.

continuation of foreign as well as local investment in the Irish pharmaceutical industry, it is anticipated that imports from Ireland will also continue to increase.

U.S. exports

U.S. exports increased by \$1.8 billion (21 percent) to \$10.3 billion in 1997. The top three markets for U.S. pharmaceuticals (by value) were Canada, Japan, and Germany. Of the three, exports to Japan rose the most by value from 1996 to 1997, increasing by \$216 million (23 percent) to \$1.2 billion. Japan is widely noted for its national health policy that encourages expenditures on prescription drugs. In the U.S. prescription drug sector, companies have benefited from the release of a large number of newly approved products in 1997, which tended to command high retail prices.⁷ The combination of higher drug prices, increasing demand by aging populations, and an industry environment conducive to trade has led to the continued rise in U.S. exports (by value), particularly to Japan.

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⁷Fred Gebhart, "Annual Rx Survey: The New Golden Age," *Drug Topics*, Mar. 16, 1998, p. 71.

Table 7-4

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
CH007	Major primary olefins:				
	Exports	199	306	107	54.1
	Imports	897	1,520	623	69.5
	Trade balance:	-698	-1,214	-516	-73.9
CH008	Other olefins:				
	Exports	192	175	-17	-8.9
	Imports	48	62	14	28.7
	Trade balance:	144	113	-31	-21.4
CH009	Primary aromatics:				
	Exports	214	255	41	18.9
	Imports	588	856	269	45.7
	Trade balance:	-373	-601	-228	-61.1
CH010	Benzenoid commodity chemicals:				
	Exports	1,487	1,283	-203	-13.7
	Imports	808	923	115	14.3
	Trade balance:	679	361	-318	-46.9
CH011	Benzenoid specialty chemicals:				
	Exports	4,827	5,587	761	15.8
	Imports	3,664	4,136	472	12.9
	Trade balance:	1,163	1,451	288	24.8
CH012	Miscellaneous organic chemicals:				
	Exports	7,031	7,780	749	10.6
	Imports	4,970	5,493	523	10.5
	Trade balance:	2,061	2,286	225	10.9
CH013	Miscellaneous inorganic chemicals:				
	Exports	4,230	4,859	629	14.9
	Imports	4,823	5,118	295	6.1
	Trade balance:	-593	-259	334	56.4
CH014	Inorganic acids:				
	Exports	142	192	50	35.6
	Imports	234	262	28	11.9
	Trade balance:	-92	-70	23	24.5
CH015	Chlor-alkali chemicals:				
	Exports	967	824	-143	-14.8
	Imports	188	184	-5	-2.4
	Trade balance:	779	641	-138	-17.8
CH016	Industrial gases:				
	Exports	115	148	33	28.9
	Imports	53	57	3	5.6
	Trade balance:	61	91	30	49.3
CH017	Fertilizers:				
	Exports	3,151	3,138	-13	-0.4
	Imports	2,489	2,492	3	0.1
	Trade balance:	662	646	-16	-2.4
CH018	Paints, inks, and related items, and certain components thereof:				
	Exports	2,461	2,935	474	19.3
	Imports	1,504	1,726	222	14.8
	Trade balance:	956	1,208	252	26.3
CH019	Synthetic organic pigments:				
	Exports	295	337	42	14.2
	Imports	356	401	44	12.5
	Trade balance	-61	-63	-2	-3.9

See footnote(s) at end of table.

Table 7-4--Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
————— Million Dollars —————					
CH020	Synthetic dyes and azoic couplers:				
	Exports	385	479	94	24.5
	Imports	572	628	55	9.7
	Trade balance	-187	-149	39	20.7
CH021	Synthetic tanning agents:				
	Exports	17	17	(³)	0.3
	Imports	7	8	(³)	3.8
	Trade balance:	9	9	(³)	-2.4
CH022	Natural tanning and dyeing materials:				
	Exports	19	21	2	8.2
	Imports	57	62	6	9.9
	Trade balance	-38	-42	-4	-10.8
CH023	Photographic chemicals and preparations:				
	Exports	496	501	5	1.1
	Imports	701	733	31	4.5
	Trade balance:	-206	-231	-26	-12.6
CH024	Pesticide products and formulations:				
	Exports	2,013	2,276	263	13.1
	Imports	1,153	1,188	35	3.0
	Trade balance:	860	1,088	228	26.5
CH025	Adhesives and glues:				
	Exports	394	457	63	15.9
	Imports	141	150	9	6.4
	Trade balance:	253	307	54	21.3
CH026	Medicinal chemicals:				
	Exports	8,546	10,344	1,798	21.0
	Imports	11,189	14,184	2,994	26.8
	Trade balance:	-2,643	-3,840	-1,197	-45.3
CH027	Essential oils and other flavoring materials:				
	Exports	981	1,014	33	3.4
	Imports	780	809	30	3.8
	Trade balance:	201	205	4	1.9
CH028	Perfumes, cosmetics, and toiletries:				
	Exports	2,537	2,607	70	2.8
	Imports	1,276	1,428	152	11.9
	Trade balance:	1,261	1,179	-82	-6.5
CH029	Soaps, detergents, and surface-active agents:				
	Exports	1,814	2,029	216	11.9
	Imports	760	854	94	12.3
	Trade balance:	1,053	1,175	122	11.6
CH030	Miscellaneous chemicals and specialties:				
	Exports	1,987	2,183	196	9.8
	Imports	1,030	1,200	170	16.5
	Trade balance:	957	982	25	2.6
CH031	Explosives, propellant powders, and related items:				
	Exports	328	291	-36	-11.1
	Imports	208	237	29	14.1
	Trade balance:	120	54	-66	-54.9
CH032	Polyethylene resins in primary forms:				
	Exports	2,134	2,455	321	15.1
	Imports	1,086	1,261	174	16.0
	Trade balance:	1,047	1,194	147	14.0

See footnote(s) at end of table.

Table 7-4--Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
----- Million Dollars -----					
CH033	Polypropylene resins in primary forms:				
	Exports	742	844	102	13.8
	Imports	210	212	2	1.2
	Trade balance:	532	632	100	18.8
CH034	Polyvinyl chloride resins in primary forms:				
	Exports	680	858	178	26.2
	Imports	203	271	67	33.0
	Trade balance:	476	587	111	23.2
CH035	Styrene polymers in primary forms:				
	Exports	799	824	25	3.1
	Imports	335	353	18	5.4
	Trade balance	464	471	7	1.5
CH036	Saturated polyester resins:				
	Exports	623	696	73	11.8
	Imports	230	355	125	54.2
	Trade balance	392	341	-51	-13.1
CH037	Other plastics in primary forms:				
	Exports	5,598	6,064	466	8.3
	Imports	2,127	2,204	78	3.6
	Trade balance:	3,472	3,860	389	11.2
CH038	Styrene-butadiene rubber in primary forms:				
	Exports	361	348	-14	-3.8
	Imports	143	163	20	13.9
	Trade balance:	218	184	-34	-15.4
CH039	Other synthetic rubber:				
	Exports	1,090	1,111	21	1.9
	Imports	565	614	50	8.8
	Trade balance:	525	496	-29	-5.4
CH040	Pneumatic tires and tubes (new):				
	Exports	1,960	2,403	443	22.6
	Imports	3,011	3,343	332	11.0
	Trade balance:	-1,051	-939	112	10.6
CH041	Other tires:				
	Exports	84	86	2	2.7
	Imports	116	132	16	13.9
	Trade balance:	-32	-46	-14	-42.9
CH042	Plastic or rubber semifabricated forms:				
	Exports	4,244	4,791	548	12.9
	Imports	2,800	3,073	273	9.8
	Trade balance:	1,444	1,718	274	19.0
CH043	Plastic containers and closures:				
	Exports	1,434	1,649	215	15.0
	Imports	1,279	1,489	210	16.4
	Trade balance:	155	160	5	3.2
CH044	Hose, belting, and plastic pipe:				
	Exports	1,377	1,583	206	15.0
	Imports	1,063	1,134	71	6.7
	Trade balance:	314	449	135	42.9
CH045	Miscellaneous rubber or plastic products:				
	Exports	3,757	4,429	672	17.9
	Imports	5,115	5,387	272	5.3
	Trade balance:	-1,358	-958	400	29.5

See footnote(s) at end of table.

Table 7-4--Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
CH046	Gelatin:				
	Exports	46	59	12	26.9
	Imports	130	133	3	2.4
	Trade balance:	-84	-74	9	11.2
CH047	Natural rubber:				
	Exports	44	41	-3	-6.5
	Imports	1,468	1,229	-238	-16.2
	Trade balance:	-1,424	-1,189	235	16.5

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

²This 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.

³Less than \$500,000.

Note.--Calculations based on unrounded data.

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

CHAPTER 8

Energy-Related Products

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The overall U.S. trade deficit in energy-related products narrowed by \$2.2 billion (4 percent) to \$58.9 billion in 1997, due to a decrease in the value of crude petroleum (table 8-1). The price of crude petroleum decreased by an average of about \$2 per barrel during 1997, primarily because of renewed tensions with Iraq coupled with increased production by other major world producers caused an oversupply of crude petroleum on the world market. Historically, the United States has maintained a trade deficit in the energy-related products sector primarily due to an increased reliance on imported crude petroleum.

Among the top-10 trade partners for this sector, the nations showing the largest changes in U.S. trade position in 1997 were Saudi Arabia, the United Kingdom, Mexico, and Canada. Overall, U.S. imports of energy-related products decreased by \$1.5 billion (2 percent) to \$74.0 billion in 1997, with Saudi Arabia, the United Kingdom, Colombia, and Mexico having the greatest decreases among the leading trade partners. The principal sources of U.S. imports of energy-related products in 1997, based on value, were Canada, Venezuela, Saudi Arabia, and Mexico. In terms of quantity, crude petroleum accounted for 71 percent of these imports in 1997, natural gas accounted for 15 percent, and petroleum products accounted for 10 percent. Overall shifts in trade for the products in this sector in 1997 included increased imports of reformulated gasoline (RFG) from Venezuela and of natural gas caused by an increase in the wellhead price due to severe winter conditions in the Northeast.

U.S. exports of energy-related products increased by \$764 million (5 percent) to \$15.2 billion in 1997. In terms of quantity, petroleum products accounted for 52 percent of U.S. exports of energy-related products, while coal, coke, and related products accounted for 40 percent in 1997. The primary markets for U.S. exports of energy-related products, based on value, were Canada and Mexico, which experienced the largest bilateral trade increases in 1997, and Japan.

Trade statistics for all commodity/industry groups in the energy-related products sector are presented in table 8-3 at the end of this chapter.

Table 8-1

Energy-related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	2,051	2,493	442	21.6
Venezuela	159	230	70	44.0
Mexico	1,552	2,022	470	30.3
Saudi Arabia	38	39	1	3.6
Nigeria	23	47	24	103.9
Angola	1	2	1	38.6
United Kingdom	435	439	4	0.9
Algeria	9	13	4	45.3
Japan	1,833	1,890	57	3.1
Colombia	117	129	13	11.0
All Other	8,183	7,861	-322	-3.9
Total	14,401	15,165	764	5.3
EU-15	3,212	2,946	-267	-8.3
OPEC	351	466	115	32.7
Latin America	3,700	4,387	687	18.6
CBERA	890	969	79	8.9
Asian Pacific Rim	4,200	4,227	27	0.6
ASEAN	669	551	-118	-17.6
Central and Eastern Europe	150	173	23	15.3
U.S. imports for consumption:				
Canada	17,439	18,481	1,042	6.0
Venezuela	10,637	10,676	39	0.4
Mexico	8,033	7,821	-212	-2.6
Saudi Arabia	9,010	8,087	-922	-10.2
Nigeria	5,639	5,573	-66	-1.2
Angola	2,611	2,789	178	6.8
United Kingdom	2,874	2,220	-655	-22.8
Algeria	2,105	2,304	199	9.4
Japan	187	253	67	35.7
Colombia	2,105	1,876	-229	-10.9
All Other	14,859	13,936	-923	-6.2
Total	75,499	74,017	-1,482	-2.0
EU-15	4,720	4,322	-398	-8.4
OPEC	29,491	28,652	-839	-2.8
Latin America	24,494	23,477	-1,016	-4.1
CBERA	1,654	1,356	-297	-18.0
Asian Pacific Rim	1,887	1,817	-70	-3.7
ASEAN	809	786	-23	-2.9
Central and Eastern Europe	41	68	27	64.9
U.S. merchandise trade balance:				
Canada	-15,388	-15,988	-600	-3.9
Venezuela	-10,478	-10,447	31	0.3
Mexico	-6,481	-5,799	681	10.5
Saudi Arabia	-8,972	-8,048	924	10.3
Nigeria	-5,616	-5,527	90	1.6
Angola	-2,609	-2,787	-177	-6.8
United Kingdom	-2,440	-1,781	658	27.0
Algeria	-2,096	-2,291	-195	-9.3
Japan	1,646	1,637	-9	-0.6
Colombia	-1,988	-1,746	242	12.2
All Other	-6,676	-6,075	601	9.0
Total	-61,098	-58,852	2,246	3.7
EU-15	-1,508	-1,377	131	8.7
OPEC	-29,140	-28,186	954	3.3
Latin America	-20,794	-19,091	1,703	8.2
CBERA	-764	-387	377	49.3
Asian Pacific Rim	2,313	2,410	97	4.2
ASEAN	-140	-234	-94	-67.4
Central and Eastern Europe	108	104	-4	-3.7

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

U.S. BILATERAL TRADE

Canada remained the leading U.S. trading partner for energy-related products in 1997. The United States and Canada are connected by a sophisticated system of pipelines that carry natural gas, crude petroleum, and refined petroleum products between the two countries. Also, the United States and Canada share an intricate system of interconnection grids used to transmit electricity across the border. The U.S. trade deficit with Canada rose by \$600 million (4 percent) to \$16.0 billion in 1997, primarily as a result of increased imports of electricity, which fluctuate regularly depending upon usage, and the increase in the wellhead price of natural gas. The U.S. trade deficit with Venezuela, the second-largest trading partner, remained relatively constant, while the deficit with Saudi Arabia increased by \$924 million (10 percent) to \$8.0 billion. The trade deficit with OPEC (of which both Venezuela and Saudi Arabia are members) decreased by \$954 million (3 percent) to \$28.2 billion in 1997. Venezuela, historically a major supplier of petroleum products to U.S. markets, accounted for 37 percent of this deficit.

The U.S. energy-related products trade deficit with Latin America decreased by \$1.7 billion (8 percent) to \$19.1 billion in 1997, primarily as a result of decreased U.S. imports of petroleum products. The trade deficit with Mexico narrowed by \$681 million (10 percent) to \$5.8 billion in 1997 because of the fall in crude petroleum prices. The U.S. trade deficit with the EU in energy-related products decreased by \$131 million (9 percent) in 1997 to \$1.4 billion because of decreased U.S. imports of crude petroleum from the North Sea as a result of the shutdown of some wells for routine maintenance.

The leading U.S. import and export energy-related products for major trading partner countries are presented in table 8-2.

Table 8-2
Energy-related products: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Crude petroleum Petroleum gases and other gaseous hydrocarbons Petroleum oils, other than crude Electrical energy	Petroleum oils, other than crude Coal, briquettes, ovoids, etc. Crude petroleum Petroleum gases and other gaseous hydrocarbons
Venezuela	Crude petroleum Petroleum oils, other than crude Petroleum coke Petroleum gases and other gaseous hydrocarbons	Petroleum oils, other than crude Petroleum coke Antiknock preparations and other additives for mineral oils (¹)
Mexico	Crude petroleum Petroleum oils, other than crude Petroleum coke Petroleum gases and other gaseous hydrocarbons	Petroleum oils, other than crude Petroleum gases and other gaseous hydrocarbons Oils and similar products of the distillation of high temperature coal tar Coal, briquettes, ovoids, etc.
Saudi Arabia	Crude petroleum Petroleum oils, other than crude Petroleum coke Petroleum gases and other gaseous hydrocarbons	(¹)
Nigeria	Crude petroleum Petroleum oils, other than crude Petroleum gases and other gaseous hydrocarbons Petroleum coke	Petroleum oils, other than crude (¹)
Angola	Crude petroleum Petroleum oils, other than crude Petroleum gases and other gaseous hydrocarbons Petroleum coke	(¹)

¹Not a significant U.S. export market or no significant exported products other than those indicated.

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Crude Petroleum

The trade deficit in crude petroleum decreased by \$6.8 billion (15 percent) to \$37.6 billion in 1997 because the world price of crude petroleum dropped by an average of about \$2 per barrel. Crude petroleum accounted for 17 percent of the total U.S. trade deficit in 1997. U.S. imports began to increase in late 1985 when crude petroleum prices declined because of an oversupply on the world market, which resulted in the reduced profitability of certain high-cost U.S. stripper wells, many of which were then shut down. Consequently, U.S. production has declined steadily each year, reaching an all-time low of 2.3 billion barrels in 1997.

U.S. imports

The quantity of U.S. imports of crude petroleum actually increased slightly by 488 million barrels (6 percent) to 2.9 billion barrels in 1997; however, the world price of crude decreased by an average of about \$2 per barrel during 1997, resulting in the value of imports decreasing by \$6.5 billion (14 percent) to \$38.4 billion in 1997. World crude prices fell in 1997 in response to tensions in Iraq coupled with increased production by higher priced producers such as those operating in the North Sea, which caused a situation of oversupply of crude petroleum on the world market. Based on quantity, Canada, Mexico, Venezuela, Saudi Arabia, and Nigeria continued to be the principal sources of U.S. imports in 1997, while OPEC nations together accounted for more than 40 percent of total U.S. imports of crude. In terms of value, these nations also showed the largest changes in trade in 1997. Total U.S. imports of crude petroleum accounted for 56 percent of domestic consumption in 1997, based on value. Industry sources forecast that U.S. imports of crude petroleum could account for over 60 percent of the value of domestic consumption by the year 2000, as demand increases and domestic production continues to decrease.

U.S. exports

U.S. exports of crude petroleum are so small that they 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 have been prohibited since 1973, except as approved by the U.S. Government. Canada has been the only consistent market for these exports, which are part of a commercial exchange agreement between U.S. and Canadian refiners that has been approved by the Secretary of the Department of Energy. In May 1996, President Clinton determined that allowing exports of Alaskan North Slope (ANS) crude was in the national interest, thus ending the 23-year ban on ANS crude exports. The President can in the future, however, impose new export restrictions in the event of severe crude petroleum supply shortages.

U.S. exports of crude petroleum decreased, in terms of quantity, by 1 million barrels (2 percent) to 39 million barrels in 1997. In terms of value, U.S. exports of crude petroleum increased by \$320 million (70 percent) to \$780 million in 1997, because exports were the higher priced ANS crude. The principal markets for U.S. exports of crude petroleum include Korea, which accounted for \$300 million, or 61 percent of total crude petroleum exports in 1997 and Canada, which accounted for \$303 million, or 39 percent. Other markets showing changes in trade included Taiwan, Japan, and China.

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Petroleum Products

The U.S. trade deficit in petroleum products increased by \$2.5 billion (22 percent) to \$13.8 billion in 1997. The United States is a major world consumer of petroleum products and relies primarily upon Canada and Venezuela to supplement domestic U.S. production.

U.S. imports

The value of U.S. imports of petroleum products increased by \$2.6 billion (14 percent) to \$21.5 billion in 1997. Venezuela, Canada, and Saudi Arabia were the leading import sources of petroleum products. However, the increase in imports is almost entirely accounted for by increased imports of reformulated gasoline (RFG) from Venezuela. In 1996, Venezuela modified refineries to meet the RFG standards of the Clean Air Act, including a \$2.5 billion expansion of the refinery in Cardon, Venezuela, to produce RFG for the U.S. market under the 1997 RFG specifications.

U.S. exports

The United States is not a major world exporter of petroleum products, exporting less than 5 percent of total production and accounting for less than 6 percent of total world exports of petroleum products. The value of U.S. exports of petroleum products increased slightly by \$124 million (2 percent) to \$7.7 billion in 1997. Most of these exports were petroleum coke, used in the production of certain petrochemicals, and distillate fuel oils, used as heating and bunker fuels. Mexico and Canada, which showed the largest overall trade changes with the United States in these products in 1997, were the major U.S. markets for these exports because of their close proximity.

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Natural Gas

The merchandise trade balance deficit for natural gas and its products increased by \$1.9 billion (26 percent) to \$9.4 billion in 1997, according to USDOC statistics. Average prices for wellhead natural gas increased significantly during 1996-97 (from \$2.17 to about \$2.42 per thousand cubic feet¹) owing to increased demand from a sustained cold spell during the winter of 1995-96.² These price changes led to accentuated changes in the trade deficit, when actual differences in the volume of gas traded were minimal. According to the U.S. Department of Energy (USDOE), the trade balance for natural gas in terms of volume (not including products) has remained fairly steady. In 1996, the natural gas trade deficit reported by USDOE was 2,784 billion cubic feet and in 1997 it was about 2,840 billion cubic feet (an increase of about 2 percent).³

¹U.S. Department of Energy (USDOE), *Natural Gas Monthly*, Mar. 1998, p. 12.

²"Gas Price Volatility: Of Winters Past and Futures Markets," *Public Utilities Fortnightly*, Mar. 15, 1998.

³USDOE, *Natural Gas Monthly*, Mar. 1998, pp. 14-15.

U.S. imports

U.S. imports as reported by the USDOC for natural gas and its products, 66 percent of which enter from Canada, increased by \$2.0 billion to \$10.2 billion in 1997. Imports of natural gas alone (both gaseous and liquefied) increased from \$4.0 billion in 1996 to more than \$5.2 billion in 1997 (31 percent increase). However, the volume of U.S. imports of natural gas as reported by the USDOE, of which 97 percent entered from Canada, only increased by 2 percent, from 2,937 billion cubic feet in 1996 to 2,997 billion cubic feet in 1997.⁴

The most significant change was in imports of petroleum gases, which increased by \$400 million (36 percent) to \$1.5 billion in 1997, according to the USDOC. The major reason that has been reported for this increase is the expanded use of this material as a feedstock for the production of ethylene by U.S. producers of petrochemicals.

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⁴USDOE, *Natural Gas Monthly*, Mar. 1998, p. 14.

Table 8-3

Energy-related products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
CH001	Electrical energy:				
	Exports	69	124	55	78.6
	Imports	902	978	76	8.5
	Trade balance:	-832	-854	-22	-2.6
CH002	Nuclear materials:				
	Exports	1,047	1,444	397	37.9
	Imports	1,326	1,219	-107	-8.1
	Trade balance	-279	225	504	(³)
CH003	Coal, coke, and related chemical products:				
	Exports	4,452	4,276	-176	-4.0
	Imports	1,253	1,688	434	34.7
	Trade balance:	3,198	2,588	-610	-19.1
CH004	Crude petroleum:				
	Exports	460	780	320	69.6
	Imports	44,849	38,394	-6,455	-14.4
	Trade balance	-44,389	-37,615	6,775	15.3
CH005	Petroleum products:				
	Exports	7,604	7,728	125	1.6
	Imports	18,915	21,523	2,608	13.8
	Trade balance	-11,312	-13,794	-2,483	-21.9
CH006	Natural gas and components:				
	Exports	770	814	44	5.7
	Imports	8,253	10,215	1,961	23.8
	Trade balance	-7,484	-9,401	-1,917	-25.6

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

²This 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.

³Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

CHAPTER 9

Textiles, Apparel, and Footwear

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TEXTILES AND APPAREL

The U.S. trade deficit in textiles and apparel widened considerably in 1997, by \$6.4 billion (18 percent) to a record \$42.2 billion, compared with an increase of \$774 million (2 percent) in 1996 (table 9-1).¹ U.S. sector imports grew at a faster rate than sector exports in 1997, increasing by \$8.5 billion (16 percent) to a high of \$60.8 billion, while U.S. sector exports grew by \$2.2 billion (13 percent) to \$18.6 billion. The 1997 increase in sector imports was the largest in percentage terms since 1992, when U.S. sector imports grew by 17 percent. The rise in sector imports is attributable not only to the continued growth in shipments from countries with which the United States maintains preferential trade agreements, NAFTA partners Mexico and Canada and CBERA countries, but also to a rebound in imports from China and other Asian countries. Much of the growth in sector exports consisted of increased shipments of cut garments to Mexico and CBERA countries for assembly and subsequent export to the United States for sale domestically.

Industry sources credit the 1997 growth in sector imports to a robust U.S. economy and the appreciation of the dollar against a number of Asian currencies, which effectively reduced dollar prices of the Asian goods in the U.S. market.² Imports have supplied the increase in consumer demand for apparel as U.S. production continued to decline for the third year in a row, decreasing by 1.6 percent in 1997.³ Annual growth of real personal consumption expenditures on apparel rose by 3.8 percent in 1997, down slightly from 3.9 percent in 1996 and 4.2 percent in 1995.⁴

Trade statistics for all commodity/industry groups in the textiles and apparel sector are presented in table 9-6 at the end of this chapter.

¹For further information, see the textiles and apparel section in ch. 4 for an analysis of factors affecting trends in these commodities.

²American Textile Manufacturers Institute, "International Trade," *Textile HiLights*, Washington, DC, Dec. 1997, p. vi.

³Board of Governors, Federal Reserve Bulletin, "*Industrial Production and Capacity Utilization: Annual Revision and 1997 Developments*," vol. 84, Feb. 1998.

⁴Bureau of Economic Analysis official, telephone conversation with USITC staff, Mar. 30 1998 and May 4, 1998.

Table 9-1

Textiles and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Mexico	3,019	3,812	793	26.3
China	213	168	-44	-20.9
Canada	2,863	3,335	472	16.5
Hong Kong	416	436	19	4.6
Dominican Rep	1,068	1,310	242	22.7
Taiwan	132	139	7	5.4
Korea	233	251	18	7.9
Honduras	755	971	216	28.6
Italy	148	147	-1	-0.7
India	42	34	-7	-17.4
All Other	7,570	8,005	435	5.7
Total	16,459	18,609	2,150	13.1
EU-15	2,154	2,308	155	7.2
OPEC	426	491	65	15.3
Latin America	7,456	9,170	1,714	23.0
CBERA	3,604	4,364	760	21.1
Asian Pacific Rim	2,919	2,696	-223	-7.6
ASEAN	374	394	20	5.2
Central and Eastern Europe	69	62	-7	-9.5
U.S. imports for consumption:				
Mexico	4,801	6,538	1,736	36.2
China	7,378	8,813	1,435	19.4
Canada	2,418	2,845	427	17.6
Hong Kong	4,171	4,193	22	0.5
Dominican Rep	1,807	2,272	465	25.7
Taiwan	2,770	2,957	187	6.7
Korea	2,311	2,575	264	11.4
Honduras	1,244	1,694	450	36.2
Italy	2,048	2,173	125	6.1
India	1,974	2,279	305	15.4
All Other	21,345	24,457	3,112	14.6
Total	52,268	60,794	8,527	16.3
EU-15	4,451	4,702	251	5.6
OPEC	1,977	2,385	408	20.6
Latin America	11,853	15,255	3,402	28.7
CBERA	6,176	7,771	1,595	25.8
Asian Pacific Rim	24,592	27,531	2,939	12.0
ASEAN	6,432	7,120	689	10.7
Central and Eastern Europe	405	459	53	13.1
U.S. merchandise trade balance:				
Mexico	-1,783	-2,726	-943	-52.9
China	-7,165	-8,644	-1,479	-20.6
Canada	445	490	45	10.1
Hong Kong	-3,755	-3,758	-3	-0.1
Dominican Rep	-739	-961	-223	-30.1
Taiwan	-2,638	-2,818	-179	-6.8
Korea	-2,078	-2,324	-245	-11.8
Honduras	-489	-723	-234	-47.9
Italy	-1,901	-2,026	-126	-6.6
India	-1,932	-2,244	-312	-16.1
All Other	-13,775	-16,452	-2,677	-19.4
Total	-35,809	-42,186	-6,376	-17.8
EU-15	-2,298	-2,393	-96	-4.2
OPEC	-1,551	-1,893	-343	-22.1
Latin America	-4,396	-6,084	-1,688	-38.4
CBERA	-2,572	-3,407	-835	-32.5
Asian Pacific Rim	-21,673	-24,835	-3,162	-14.6
ASEAN	-6,057	-6,727	-669	-11.0
Central and Eastern Europe	-337	-396	-60	-17.8

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

U.S. Bilateral Trade

Mexico is the United States' largest trading partner in textiles and apparel, with two-way trade in sector goods totaling \$10.4 billion in 1997, up \$2.6 billion (32 percent) from \$7.8 billion in 1996. Mexico was the leading market for U.S. sector exports for the second consecutive year (20 percent of the total in 1997) and was the second-largest supplier of sector imports (11 percent) after China. The U.S. trade deficit in textiles and apparel with Mexico widened further in 1997, by \$943 million (53 percent) to \$2.7 billion, compared with an increase in the deficit of \$462 million (35 percent) in 1996. Sector imports from Mexico grew by \$1.7 billion (36 percent) to \$6.5 billion and sector exports to Mexico grew by \$793 million (26 percent) to \$3.8 billion. The leading U.S. imports and exports of textile and apparel products for major trading partner countries are presented in table 9-2.

U.S. sector trade with Mexico consists primarily of production-sharing activity with U.S. firms exporting cut apparel parts there for assembly and subsequent return to the United States for sale in the domestic market. Apparel and made-up textile products assembled in production-sharing operations in Mexico and entered under the HTS 9802 tariff provisions accounted for almost three-fourths of the total value of U.S. textile and apparel imports from Mexico in 1997.

U.S. apparel producers have steadily expanded their use of offshore assembly operations in Mexico and Caribbean Basin countries to cut costs in the face of a highly competitive retail environment. In addition to benefiting from duty savings under the HTS 9802 tariff provisions, U.S. manufacturers who have moved production to Mexico and the Caribbean are better able to compete in the domestic market because they save in direct labor costs and transportation costs. They can also obtain lower transportation costs and quicker turnaround than those companies that import from Asia.

The U.S. trade deficit with CBERA countries in 1997 widened by \$835 million (33 percent) over the 1996 level to \$3.4 billion, as U.S. sector imports from CBERA countries grew by \$1.6 billion (26 percent) and U.S. sector exports to the region rose by \$760 million (21 percent). The growth in sector trade with CBERA countries in 1997 was much greater than that in 1996, when imports rose by 11 percent and sector exports grew by 15 percent. The CBERA countries and Mexico mainly compete with each other for assembly work from U.S. apparel firms. Apparel accounted for almost all of the sector imports under CBERA in 1997, and the vast majority of these imports entered under the HTS 9802 tariff provisions.

However, whereas imports from Mexico of apparel assembled entirely of U.S.-made and -cut fabrics enter the United States free of both duty and quota under NAFTA, imports of such apparel from CBERA countries enter under virtually unlimited "guaranteed access levels" (GALs), but are still subject to duty on the value added offshore. Mexican apparel exports therefore have a duty advantage over apparel from CBERA nations.⁵ Consequently some U.S. industry officials have claimed that NAFTA has led to a diversion of apparel trade from CBERA countries to Mexico.⁶ Nevertheless, the rebound in the growth rate in 1997 imports from the Caribbean Basin to 26 percent demonstrated the benefits that U.S. manufacturers still gain by having apparel production-sharing operations in that region.

⁵For every \$10 in f.o.b. value, a typical CBI garment entered under the 9802 provision contains \$6.40 in duty-free U.S. parts and \$3.60 in dutiable, foreign value added. Applying the 1997 trade-weighted average duty on apparel of 15.5 percent to the foreign value added yields an average duty of \$0.56, or an ad valorem equivalent of 5.6 percent.

⁶H.R. 2644, The United States-Caribbean Trade Partnership Act, which was introduced in the 105th Congress in 1997 to grant NAFTA parity to CBERA nations, did not pass when voted on in November 1997.

Table 9-2
Textiles and apparel: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Mexico	Men's or boy's suits, ensembles, etc., not knitted or crocheted Women's or girl's suits, ensembles, etc., not knitted or crocheted T-shirts, singlets, tank tops, etc., knitted or crocheted Sweaters, pullovers, vests, etc., knitted or crocheted	Men's or boy's suits, ensembles, etc., not knitted or crocheted T-shirts, singlets, tank tops, etc., knitted or crocheted Women's or girl's suits, ensembles, etc., not knitted or crocheted Sweaters, pullovers, vests, etc., knitted or crocheted
China	Women's or girl's suits, ensembles, etc., not knitted or crocheted Sweaters, pullovers, vests, etc., knitted or crocheted Leather articles of apparel and clothing accessories Women's or girl's blouses, shirts, etc., not knitted or crocheted	Artificial filament tow Synthetic staple fibers, not carded, combed, etc. Synthetic filament yarn Wool and fine or coarse animal hair, carded and combed
Canada	Men's or boy's suits, ensembles, etc., not knitted or crocheted Synthetic filament yarn Women's or girl's suits, ensembles, etc., not knitted or crocheted Sweaters, pullovers, vests, etc., knitted or crocheted	Carpets and other textile floor coverings, tufted Synthetic filament yarn Nonwovens, whether or not impregnated, coated, etc. Miscellaneous knitted or crocheted fabrics
Hong Kong	Sweaters, pullovers, vests, etc. knitted or crocheted Women's or girl's suits, ensembles, etc., not knitted or crocheted Men's or boy's shirts, not knitted or crocheted Men's or boy's suits, ensembles, etc., not knitted or crocheted	Artificial filament tow Textile fabrics (not tire cord) coated, etc., with plastic Woven fabric of synthetic filament yarn Carpets and other textile floor coverings, tufted
Dominican Republic	Men's or boy's suits, ensembles, etc., not knitted or crocheted Women's or girl's suits, ensembles, etc., not knitted or crocheted Bras, girdles, garters, etc. T-shirts, singlets, tank tops, etc., knitted or crocheted	Men's or boy's suits, ensembles, etc., not knitted or crocheted Other made up clothing accessories and certain parts of garments or clothing accessories Women's or girl's suits, ensembles, etc., not knitted or crocheted Bras, girdles, garters, etc.
Taiwan	Sweaters, pullovers, vests, etc. knitted or crocheted Women's or girl's suits, ensembles, etc., knitted or crocheted Women's or girl's suits, ensembles, etc., not knitted or crocheted Men's or boys' outerwear	Synthetic filament yarn ⁽¹⁾

¹No other significant export products.

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

Canada, the second-largest market for U.S. exports after Mexico, is the only major trading partner with which the United States registered a trade surplus in textiles and apparel in 1997. U.S. sector trade with Canada has grown significantly since the adoption of the United States-Canada Free-Trade Agreement (CFTA) in 1989,⁷ and among the top-10 trading partners, Canada again had the second-largest increase in total trade after Mexico in 1997. In contrast to a decline (33 percent) in the trade surplus with Canada in 1996, the trade surplus with Canada increased by \$45 million (10 percent) to \$490 million in 1997, as U.S. imports from Canada rose by \$427 million (18 percent) to \$2.8 billion and U.S. exports to Canada increased by \$472 million (17 percent) to \$3.3 billion. Much of the sector trade with Canada continued to be in textiles such as yarn and fabric.

An ongoing concern in U.S. sector trade with Canada involves U.S. imports of men's and boys' wool suits under a NAFTA tariff preference level (TPL) for wool apparel from Canada. The TPL, which allows a limited amount of wool apparel imports from Canada that do not meet NAFTA rules of origin to enter at preferential duty rates under NAFTA, was filled in 1996 and 1997.⁸ Just over 60 percent of the imports charged to Canada's TPL in 1997 were men's and boys' suits. U.S. imports of such suits from Canada rose by 700 percent during 1992-97, to 5.2 million suits, valued at \$146 million, in 1997. U.S. industry officials have expressed concern that because of the increase in these imports from Canada and because Canada continued to fill its wool apparel TPL primarily with men's and boys' suits,⁹ U.S. production and employment in the men's and boys' wool suit subsector had declined 40 percent and 50 percent, respectively, since 1988.¹⁰ In September 1997, Representative John J. LaFalce, Member of Congress from New York, introduced H.R. 2432, a bill designed to provide relief for domestic producers of tailored wool apparel from increased imports of such apparel from Canada. No further action was taken on the bill by the end of 1997.

The largest U.S. bilateral trade deficit in textiles and apparel continued to be with China, a country with which almost all U.S. trade consists of U.S. imports. China was the largest supplier of U.S. textile and apparel imports with 14 percent of the total value in 1997. The U.S. sector trade deficit with China widened by \$1.5 billion (21 percent) over the 1996 level to \$8.6 billion, as sector imports from China rose by \$1.4 billion (19 percent) to \$8.8 billion, and sector exports to China declined by \$44 million (21 percent) to \$168 million. The increase in sector imports from China was the largest since 1992, when Chinese shipments also rose by \$1.4 billion, and it followed a 3-year period in which such shipments grew by just 3 percent. The 1997 rise in sector imports from China partly reflected U.S. consumer demand for price-competitive apparel. The state-run China National Textile Council also credits the rise in China's 1997 exports to substantial investments by foreign-financed textile firms.¹¹ Apparel accounted for 85 percent of the total value of U.S. sector imports from China in 1997 and for only 6 percent of the total value of U.S. sector exports to China. Nearly all of U.S. textile exports to China consisted of unfinished materials such as manmade fibers and yarns.

U.S. sector imports from the traditional Big Three Asian suppliers--Hong Kong, Taiwan, and Korea--increased as a group for the first time in 3 years, rising by \$473 million (5 percent) over the 1996 level to \$9.7 billion in 1997. U.S. sector imports from Hong Kong increased by less than 1 percent to \$4.2 billion in 1997; those from Taiwan rose by 7 percent to \$3.0 billion; and those from Korea grew by 11 percent to \$2.6 billion. However, their share of U.S. sector imports continued to fall, to 16 percent in 1997 from 17 percent in 1996 and from 20 percent in 1995. Labor shortages, rising wage rates, and competition from lower cost countries (Mexico and CBERA), contributed to the relative decline in U.S. market share of the Big Three Asian suppliers. Hong

⁷The duty phaseout schedule for the CFTA was incorporated and continued under NAFTA.

⁸TPLs (formerly tariff rate quotas, or TRQs, under the CFTA were developed primarily to alleviate short supply problems, especially as they relate to manufacturers' inputs.

⁹U.S. Department of State telegram No. 02725, "Wool Suits from Canada," prepared by the U.S. Department of State, Washington, DC, July 18, 1997.

¹⁰Honorable John J. LaFalce, "NAFTA Parity for U.S. Wool Apparel Industry," *Congressional Record*, remarks before the U.S. House of Representatives, Sept. 8, 1997.

¹¹Bureau of National Affairs, "Foreign-Funded Firms Increase Share of China's Textile Exports," *BNA International Trade Daily*, Jan. 28, 1998.

Kong trade sources also attributed the slowing of their sector exports to the United States in recent years to the establishment by the U.S. Customs Service of additional reporting requirements, including the posting of a single-entry bond to prevent alleged illegal transshipments of textile products from China through Hong Kong.¹² Apparel accounted for the majority of sector imports (81 percent) from the Big Three in 1997. U.S. sector exports to the Big Three Asian suppliers increased in 1997, rising to \$436 million (5 percent) for Hong Kong, to \$139 million (5 percent) for Taiwan, and to \$251 million (8 percent) for Korea.

U.S. imports of sector goods from the Association of South East Asian Nations (ASEAN) countries-- Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam--together rose by 11 percent in 1997 to \$7.1 billion. Apparel accounted for 92 percent of sector imports from the ASEAN countries in 1997. U.S. sector exports to the ASEAN countries increased by 5 percent to \$394 million. The Asian financial crisis that began mid-year 1997 did not significantly affect U.S. sector trade with these nations because lead-times for sector imports are as much as 6 to 8 months. Industry sources predict that the depreciation of the Asian currencies will lead to a rise in the volume of lower priced imports from the ASEAN nations by mid-1998.¹³

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FOOTWEAR

The U.S. trade deficit in footwear and footwear parts increased by \$1.2 billion (10 percent) to \$13.1 billion in 1997, following relatively smaller growth during the preceding 3 years when the deficit averaged an annual increase of \$482 million (4 percent). Virtually all of total U.S. trade in these products consisted of U.S. imports. The widening of the U.S. trade deficit in 1997 resulted almost entirely from an increase in footwear imports as U.S. apparent consumption for footwear rebounded in 1997, following declines during the previous 2 years. U.S. sector imports rose by \$1.2 billion (10 percent) to \$14.0 billion in 1997 while U.S. sector exports, which make up only 5 percent of U.S. sector trade, increased by \$42 million (5 percent) to \$802 million.¹⁴ The growth in sector imports from China, the leading U.S. supplier of footwear, accounted for most of the 1997 increase in the U.S. trade deficit in footwear (table 9-3).

The U.S. footwear sector consists of three subsectors, namely nonrubber footwear, rubber footwear, and footwear parts. Nonrubber and rubber footwear together accounted for 97 percent of the sector's trade in 1997. U.S. bilateral trade in both nonrubber and rubber footwear consisted almost entirely of imports and, consequently, these two subsectors accounted for almost all of the sector's trade deficit in 1997 (table 9-4 and table 9-5). U.S. trade in footwear parts, which is small but growing, primarily consisted of U.S. shipments of footwear components to Mexico and Caribbean countries for assembly into stitched uppers and subsequent return to the United States for further processing.

Table 9-3
Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by

¹²According to the U.S. Customs Service, the single-entry bond requirement for Hong Kong was rescinded in July 1997.

¹³Comments by economic expert at "The Financial Meltdown in Asia: Crisis or Opportunity?" seminar presented by the American Apparel Manufacturers Association, Arlington, VA, Feb. 26, 1998.

¹⁴On October 4, 1996, the USTR self-initiated an investigation under section 301 of the Trade Act of 1974 with respect to certain measures of Argentina regarding the imposition of specific duties and discriminatory statistical tax on footwear, apparel, and textiles. For details, see "Textiles and Apparel" in ch. 4.

selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	8	21	13	160.4
Italy	7	7	-1	-8.9
Brazil	5	5	(²)	-1.5
Indonesia	22	23	1	4.1
Mexico	75	103	27	36.3
Spain	7	6	-2	-22.1
Thailand	6	4	-1	-25.7
Dominican Rep	66	90	24	36.8
Korea	38	24	-14	-36.9
United Kingdom	24	16	-8	-34.7
All Other	502	504	2	0.4
Total	761	802	42	5.5
EU-15	116	92	-24	-20.7
OPEC	34	44	10	27.9
Latin America	224	278	54	24.3
CBERA	108	133	25	23.1
Asian Pacific Rim	293	297	4	1.4
ASEAN	51	54	3	6.6
Central and Eastern Europe	5	4	-1	-12.4
U.S. imports for consumption:				
China	6,367	7,354	987	15.5
Italy	1,200	1,195	-5	-0.4
Brazil	1,201	1,148	-53	-4.4
Indonesia	1,055	1,080	25	2.4
Mexico	306	384	78	25.4
Spain	394	417	23	5.9
Thailand	343	388	44	12.9
Dominican Rep	254	292	38	14.8
Korea	340	235	-105	-31.0
United Kingdom	153	240	88	57.5
All Other	1,095	1,218	123	11.2
Total	12,708	13,951	1,243	9.8
EU-15	1,958	2,087	129	6.6
OPEC	1,056	1,081	25	2.4
Latin America	1,840	1,895	55	3.0
CBERA	300	336	36	11.9
Asian Pacific Rim	8,579	9,558	978	11.4
ASEAN	1,525	1,675	149	9.8
Central and Eastern Europe	87	120	33	37.5
U.S. merchandise trade balance:				
China	-6,359	-7,333	-974	-15.3
Italy	-1,193	-1,188	5	0.4
Brazil	-1,195	-1,143	52	4.4
Indonesia	-1,033	-1,057	-24	-2.4
Mexico	-231	-281	-50	-21.8
Spain	-387	-412	-25	-6.4
Thailand	-338	-384	-46	-13.5
Dominican Rep	-188	-201	-13	-7.1
Korea	-302	-211	91	30.2
United Kingdom	-129	-225	-96	-74.7
All Other	-593	-714	-121	-20.4
Total	-11,948	-13,149	-1,201	-10.1
EU-15	-1,842	-1,995	-153	-8.3
OPEC	-1,021	-1,037	-16	-1.5
Latin America	-1,616	-1,617	-1	-0.1
CBERA	-192	-203	-11	-5.6
Asian Pacific Rim	-8,286	-9,261	-974	-11.8
ASEAN	-1,475	-1,621	-146	-9.9
Central and Eastern Europe	-83	-116	-33	-40.3

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

²Less than \$500,000.

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

Table 9-4

Changes in U.S. imports of footwear and footwear parts, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
Nonrubber footwear	10,450	11,480	1,030	10
Rubber footwear	1,731	1,903	172	10
Footwear parts	527	568	41	8
Total	12,708	13,951	1,243	10

Note.--Calculations based on unrounded data.

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

Table 9-5
Changes in U.S. exports of footwear and footwear parts, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
Nonrubber footwear	383	373	-10	-3
Rubber footwear	82	90	8	10
Footwear parts	296	339	43	15
Total	761	802	42	5

Note.--Calculations based on unrounded data. Figures may not add to totals because of rounding.

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

Apparent U.S. consumption of footwear increased by 113 million pairs (7 percent) to 1.6 billion pairs in 1997. The value of U.S. consumption (at U.S. producers' and import f.o.b. levels) rose by \$719 million (5 percent) to \$16.1 billion in 1997. The volume of U.S. footwear imports rose by 110 million pairs (8 percent) to 1.5 billion pairs, and the value of such imports rose by \$1.2 billion (10 percent) to \$13.4 billion. The share of the U.S. footwear market supplied by imports increased by 4 percentage points in value to 83 percent, and by 1 percentage point in volume to 90 percent, in 1997. Although U.S. production of footwear rose by a modest 1 percent to 195 million pairs in 1997, the value of U.S. producers' shipments declined by \$485 million (13 percent) to \$3.2 billion. The divergent trends in production and shipments reflected build-up of inventory at the factory level. The share of the U.S. market supplied by the U.S. industry dropped by 1 percentage point by volume to 10 percent and by 4 percentage points by value to 17 percent in 1997. U.S. consumer spending on footwear rose by 3 percent in real dollars to \$39.4 billion in 1997.¹⁵

U.S. Bilateral Trade

U.S. bilateral trade with China in footwear consisted almost entirely of imports from China. As imports from China grew by \$987 million (16 percent) to \$7.4 billion in 1997, the U.S. footwear trade deficit with China rose by \$974 million (15 percent) to \$7.3 billion. China supplied 63 percent of the total U.S. footwear market, by volume, in 1997 compared with 61 percent in 1996. The dominance of China in footwear is attributed to its extremely low wages and established footwear infrastructure, and the continued migration of footwear operations

¹⁵USDOC, Bureau of Economic Analysis, *Survey of Current Business*.

from Korea and Taiwan to China because of rising wages in those countries.

U.S. sector imports from the EU increased by \$129 million (7 percent) to \$2.1 billion while U.S. sector exports dropped by \$24 million (21 percent) to \$92 million, resulting in an increase of \$153 million (8 percent) in the U.S. footwear trade deficit with the EU, which totaled \$2.0 billion in 1997. The increase in sector trade deficit with the EU largely reflected favorable exchange rates for the EU against the U.S. dollar and increased U.S. demand for more expensive shoes. The United Kingdom, a relatively small supplier of expensive leather shoes, accounted for \$96 million or 63 percent of the increase in the U.S. trade deficit with the EU in 1997, as U.S. sector imports from that country grew by \$88 million (57 percent) to \$240 million. Most of the increase in U.S. imports from the United Kingdom occurred in leather footwear, almost all of which was priced over \$25 a pair (f.o.b.). U.S. sector imports from Italy and Spain, which together accounted for 77 percent U.S. sector imports from the EU in 1997, increased by \$18 million (1 percent) to \$1.6 billion, reflecting the total U.S. trade deficit with those countries in 1997.

Like China and other leading footwear suppliers to the United States, U.S. bilateral trade with Indonesia and Thailand in footwear consists almost entirely of imports from those countries. U.S. sector imports from Indonesia and Thailand together rose by \$70 million (5 percent) to \$1.5 billion. Approximately one-half of U.S. imports from Indonesia and Thailand consisted of athletic footwear with leather uppers, valued between \$8 and \$20 (f.o.b.) per pair. The slowdown in imports from these countries in 1997 and recent years, following substantial growth during the late 1980s and the early 1990s, is attributed in part to their inadequate infrastructure and rising production costs relative to China, their major competitor in low-to-middle-priced athletic footwear, and sluggish U.S. demand for athletic footwear.

The U.S. footwear trade deficit with Brazil, the third-leading U.S. supplier of footwear by value, and with Korea, the dominant U.S. supplier during the mid-1980s, declined in 1997, mirroring the decline in the U.S. sector imports from these countries. The deficit with Brazil declined by \$52 million (4 percent) to \$1.1 billion in 1997, as U.S. imports from Brazil declined by \$53 million (4 percent) to \$1.1 billion. About 95 percent of sector imports from Brazil consisted of footwear with leather uppers, primarily women's shoes, in the price range of \$12 to \$16 per pair (f.o.b.), which is at a competitive price disadvantage with China, the leading supplier of similar shoes in the price range of \$8 to \$12 per pair (f.o.b.). In addition, the competitive position of Brazil is believed to have declined in 1997 relative to Italy, a major competitor in women's leather shoes, reflecting the favorable exchange rate for the Italian lire against the U.S. dollar. U.S. sector imports from Korea declined by \$105 million (31 percent) to \$235 million in 1997, which led to a decline in the U.S. footwear deficit with Korea by \$91 million (30 percent) to \$211 million. U.S. sector imports from Korea totaled just over \$1.0 billion in 1993, and rapid declines in U.S. imports from that country since then reflected the gradual and continued erosion of the competitive position of footwear operations in Korea.

The growth in U.S. bilateral trade with Mexico and the CBERA countries partly reflected an increase in production-sharing activity under HTS heading 9802.00.80. The U.S. footwear deficit with Mexico, though small, widened by \$50 million (22 percent) to \$281 million as U.S. imports from Mexico rose by \$78 million (25 percent) to \$384 million and U.S. sector exports to Mexico increased by \$28 million (37 percent) to \$103 million in 1997. The U.S. trade deficit in footwear with the CBERA countries rose by \$11 million (6 percent) to \$203 million as U.S. sector imports from the CBERA countries increased by \$36 million (12 percent) to \$336 million and U.S. sector exports rose by \$25 million (23 percent) to \$133 million in 1997.

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Table 9-6

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
CH048	Manmade fibers and filament yarns:				
	Exports	2,109	2,166	57	2.7
	Imports	1,402	1,555	154	11.0
	Trade balance:	708	611	-97	-13.7
CH049	Spun yarns and miscellaneous yarns:				
	Exports	654	712	58	8.8
	Imports	645	777	132	20.4
	Trade balance:	9	-65	-74	(³)
CH050	Broadwoven fabrics:				
	Exports	2,089	2,254	164	7.9
	Imports	3,384	3,802	418	12.4
	Trade balance	-1,294	-1,548	-254	-19.6
CH051	Knit fabrics:				
	Exports	497	615	118	23.8
	Imports	520	784	264	50.8
	Trade balance:	-23	-169	-146	-627.8
CH052	Miscellaneous fabrics:				
	Exports	260	311	52	20.0
	Imports	153	180	27	17.8
	Trade balance:	107	131	25	23.1
CH053	Coated, covered, impregnated, or laminated textile fabrics:				
	Exports	542	678	137	25.2
	Imports	255	288	33	12.9
	Trade balance:	287	391	104	36.2
CH054	Cordage, nets, and netting:				
	Exports	55	58	3	5.4
	Imports	140	171	31	22.4
	Trade balance:	-85	-113	-28	-33.3
CH055	Certain textile articles and fabrics suitable for industrial use:				
	Exports	262	302	40	15.3
	Imports	262	264	2	0.6
	Trade balance:	(⁴)	38	38	(³)
CH056	Miscellaneous textiles and articles:				
	Exports	1,045	1,225	180	17.2
	Imports	1,492	1,703	212	14.2
	Trade balance:	-446	-478	-32	-7.2
CH057	Sacks and bags of textile materials:				
	Exports	19	20	1	5.8
	Imports	17	18	2	9.1
	Trade balance:	3	2	(⁴)	-15.8
CH058	Carpets and rugs:				
	Exports	757	858	101	13.3
	Imports	845	961	116	13.8
	Trade balance:	-87	-103	-16	-18.1
CH059	Home furnishings:				
	Exports	280	328	48	17.3
	Imports	1,255	1,530	275	22.0
	Trade balance:	-974	-1,201	-227	-23.3
CH060	Men's and boys' suits and sports coats:				
	Exports	133	126	-6	-4.9
	Imports	924	1,054	130	14.0
	Trade balance:	-792	-928	-136	-17.2
CH061	Men's and boys' coats and jackets:				
	Exports	144	131	-13	-9.3

See footnote(s) at end of table.

Table 9-6--Continued

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Imports	1,783	2,230	446	25.0
	Trade balance:	-1,639	-2,099	-460	-28.1
CH062	Men's and boys' trousers:				
	Exports	1,232	1,364	131	10.7
	Imports	4,083	4,933	850	20.8
	Trade balance	-2,850	-3,569	-719	-25.2
CH063	Women's and girls' trousers:				
	Exports	570	637	67	11.8
	Imports	3,948	5,097	1,149	29.1
	Trade balance	-3,378	-4,460	-1,082	-32.0
CH064	Shirts and blouses:				
	Exports	1,402	1,657	255	18.2
	Imports	12,377	14,416	2,039	16.5
	Trade balance	-10,975	-12,759	-1,784	-16.3
CH065	Sweaters:				
	Exports	46	34	-12	-25.4
	Imports	1,765	2,239	474	26.9
	Trade balance:	-1,719	-2,204	-486	-28.3
CH066	Women's and girls' suits, skirts, and coats:				
	Exports	287	311	23	8.1
	Imports	3,857	4,144	287	7.4
	Trade balance:	-3,570	-3,833	-264	-7.4
CH067	Women's and girls' dresses:				
	Exports	115	148	33	28.7
	Imports	1,574	1,636	62	4.0
	Trade balance	-1,459	-1,488	-29	-2.0
CH068	Robes, nightwear, and underwear:				
	Exports	813	978	164	20.2
	Imports	2,947	3,597	650	22.0
	Trade balance:	-2,134	-2,619	-486	-22.8
CH069	Hosiery:				
	Exports	273	352	79	29.0
	Imports	404	566	162	40.0
	Trade balance:	-131	-214	-83	-63.1
CH070	Body-supporting garments:				
	Exports	405	507	102	25.1
	Imports	864	968	104	12.0
	Trade balance	-459	-461	-2	-0.5
CH071	Neckwear, handkerchiefs, and scarves:				
	Exports	39	40	(⁴)	0.8
	Imports	351	414	62	17.7
	Trade balance:	-312	-374	-62	-19.9
CH072	Gloves, including gloves for sports:				
	Exports	186	205	19	10.5
	Imports	1,893	2,004	110	5.8
	Trade balance:	-1,708	-1,799	-91	-5.3
CH073	Headwear:				
	Exports	118	113	-5	-4.3
	Imports	883	867	-16	-1.9
	Trade balance:	-765	-754	11	1.5
CH074	Leather apparel and accessories:				
	Exports	103	104	1	1.4
	Imports	1,149	1,227	79	6.8
	Trade balance	-1,046	-1,123	-77	-7.4
CH075	Fur apparel and other fur articles:				
	Exports	74	91	17	22.8

See footnote(s) at end of table.

Table 9-6--Continued

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Imports	187	177	-10	-5.2
	Trade balance	-113	-86	27	23.5
CH076	Rubber, plastic, and coated-fabric apparel:				
	Exports	97	88	-9	-9.4
	Imports	178	230	52	29.2
	Trade balance:	-81	-142	-61	-75.6
CH077	Nonwoven and related products:				
	Exports	621	726	105	16.9
	Imports	456	548	92	20.2
	Trade balance	165	178	13	7.8
CH078	Other wearing apparel:				
	Exports	1,230	1,469	239	19.4
	Imports	2,276	2,414	138	6.1
	Trade balance	-1,046	-945	101	9.6
CH079	Footwear and footwear parts:				
	Exports	761	802	42	5.5
	Imports	12,708	13,951	1,243	9.8
	Trade balance	-11,948	-13,149	-1,201	-10.1

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

²This 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.

³Not meaningful for purposes of comparison.

⁴Less than \$500,000.

Note.--Calculations based on unrounded data.

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

CHAPTER 10

Minerals and Metals

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The U.S. trade deficit in the minerals and metals sector widened by \$4.3 billion (17 percent) in 1997 to \$30.1 billion, as U.S. exports of minerals and metals rose by \$2.7 billion (7 percent) to \$43.1 billion and imports rose by \$7.0 billion (11 percent) to \$73.2 billion (table 10-1). The rise in the trade deficit reflected strong U.S. economic growth and a strengthening of the U.S. dollar relative to currencies of major trading partners.¹ The increasing trade deficit follows the experience of 1996 when the deficit for the sector expanded by \$2.1 billion to \$25.8 billion. Most of the increase in the U.S. trade deficit was due to rising imports of natural and synthetic gemstones and a combination of rising imports and declining exports of precious metals and related articles. Imports for both product categories combined grew by \$1.7 billion (13 percent) to \$14.4 billion, accounting for 20 percent of total imports of minerals and metals products in 1997. U.S. imports of natural and synthetic gemstones rose by \$1.2 billion (16 percent) to \$8.6 billion in 1997, reflecting a rise in the price of imported diamonds related to strong demand and reflecting solid U.S. economic growth and rising personal income.² U.S. exports of precious metals and related articles declined by \$737 million (9 percent) to \$7.1 billion due to declines in total U.S. nonmonetary gold exports, primarily to Switzerland and the United Kingdom, which are major global banking and precious-metals centers.

The decline in the 1997 U.S. trade balance for the minerals and metals sector was partially offset by increased exports of flat glass and certain flat-glass products, nonpowered handtools, and aluminum mill products. U.S. exports of flat glass and glass products increased by \$210 million (16 percent) in 1997 to \$1.5 billion, largely as a result of increased exports to Japan, the growth of which followed trade negotiations between the U.S. and Japanese Governments.³ U.S. exports of nonpowered hand tools rose \$457 million (26 percent) in 1997 to \$2.2 billion; the increase was principally accounted for by exports to Canada of metal-cutting and metal-forming tools, largely for automotive applications. U.S. exports of aluminum mill products rose by \$362 million (13 percent) to \$3.1 billion in 1997, again consisting largely of increased exports to Canada.

Trade statistics for all commodity/industry groups in the minerals and metals sector are presented in table 10-7 at the end of this chapter.

¹See app. D for details of changes in the real exchange rates of the U.S. dollar against the currencies of certain U.S. trading partners.

²“Glass with Attitude,” *Economist*, Dec. 20, 1997-Jan. 2, 1998, pp. 113-115.

³See “Flat Glass” in ch. 4 for additional information.

Table 10-1

Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	11,241	13,284	2,043	18.2
Mexico	4,961	5,508	547	11.0
Japan	2,819	2,623	-196	-7.0
United Kingdom	3,990	3,137	-854	-21.4
Germany	1,083	1,221	138	12.8
China	674	624	-50	-7.5
Switzerland	2,699	2,988	289	10.7
Taiwan	939	894	-45	-4.8
Israel	163	179	16	9.7
Belgium	769	804	35	4.6
All Other	11,052	11,839	787	7.1
Total	40,392	43,103	2,711	6.7
EU-15	8,335	7,745	-590	-7.1
OPEC	1,156	1,150	-7	-0.6
Latin America	7,169	8,372	1,203	16.8
CBERA	631	833	202	32.1
Asian Pacific Rim	9,067	8,845	-222	-2.5
ASEAN	1,648	1,887	239	14.5
Central and Eastern Europe	59	70	11	19.4
U.S. imports for consumption:				
Canada	15,817	17,038	1,221	7.7
Mexico	4,669	5,151	482	10.3
Japan	4,909	5,490	581	11.8
United Kingdom	2,089	2,334	245	11.7
Germany	3,298	3,422	124	3.7
China	3,047	3,796	749	24.6
Switzerland	736	964	228	30.9
Taiwan	2,694	2,922	227	8.4
Israel	2,664	3,259	594	22.3
Belgium	2,216	2,468	252	11.4
All Other	24,051	26,366	2,315	9.6
Total	66,191	73,209	7,018	10.6
EU-15	14,656	15,691	1,035	7.1
OPEC	1,142	1,192	49	4.3
Latin America	9,821	10,395	573	5.8
CBERA	526	502	-24	-4.5
Asian Pacific Rim	14,180	16,180	2,000	14.1
ASEAN	1,221	1,421	200	16.4
Central and Eastern Europe	500	635	135	27.0
U.S. merchandise trade balance:				
Canada	-4,576	-3,754	823	18.0
Mexico	292	358	66	22.5
Japan	-2,090	-2,867	-777	-37.2
United Kingdom	1,902	803	-1,099	-57.8
Germany	-2,215	-2,201	14	0.7
China	-2,372	-3,171	-799	-33.7
Switzerland	1,962	2,024	62	3.1
Taiwan	-1,756	-2,028	-272	-15.5
Israel	-2,501	-3,080	-579	-23.1
Belgium	-1,446	-1,664	-217	-15.0
All Other	-12,999	-14,527	-1,528	-11.8
Total	-25,799	-30,106	-4,307	-16.7
EU-15	-6,322	-7,947	-1,625	-25.7
OPEC	14	-42	-56	(²)
Latin America	-2,652	-2,023	629	23.7
CBERA	105	331	226	215.9
Asian Pacific Rim	-5,113	-7,335	-2,222	-43.5
ASEAN	427	467	39	9.2
Central and Eastern Europe	-441	-565	-124	-28.0

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

²Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

U.S. BILATERAL TRADE

The principal product categories comprising U.S. bilateral trade in mineral and metals products in 1997 were steel mill products, accounting for 19 percent of U.S. imports and 11 percent of U.S. exports; natural and synthetic gemstones, accounting for 12 percent of U.S. imports; and precious metals and related articles, accounting for 8 percent of U.S. imports and 17 percent of U.S. exports. These product categories and trade proportions remained virtually unchanged from 1996 levels.

The largest U.S. trading partners in the minerals and metals products sector in 1997 were Canada, Mexico, and Japan. Canada was the leading destination for U.S. exports in 1997, accounting for \$13.3 billion (31 percent) of total exports. U.S. exports to Canada rose by \$2.0 billion (18 percent) in 1997. Export growth reflected strong demand from automotive, construction, oil field, and appliance end-users. Principal sectors contributing to the growth in exports were iron and steel and articles of iron and steel, which grew by a combined \$877 million (23 percent) to \$4.9 billion. Steel plate and other flat-rolled steel products were particularly in demand as both mills and steel service centers in Canada were reported to be operating at full capacity with shipments at record levels.⁴ Exports of aluminum and aluminum articles to Canada grew by \$289 million (19 percent) to \$1.8 billion, also reflecting strong economic growth in Canada and strong demand by the Canadian automotive, construction, and appliance sectors.

The lowering of trade restrictions between NAFTA countries has encouraged metals producers to integrate their North American production and distribution operations to more efficiently serve regional end-use markets in North America.⁵ Since the NAFTA went into effect, analysts have noted a growing market integration within the ferrous and nonferrous metals industries of both nations and the majority of Canadian and U.S. mill shipments tended to be influenced by the same end-use market trends.

Canada was also the leading source of U.S. imports of minerals and metals, accounting for 23 percent (\$17.0 billion) of total imports; U.S. imports from Canada rose by \$1.2 billion (8 percent) in 1997. Strong U.S. demand for aluminum contributed to the growth in U.S. imports from Canada; imports of aluminum and articles of aluminum increased by \$490 million (14 percent) to \$4.1 billion. U.S. imports of articles of iron and steel rose by \$211 million (9 percent) to \$2.5 billion, and miscellaneous articles of base metal increased by \$183 million (31 percent) to \$773 million, reflecting the combined effects of strong U.S. demand and higher prices for base metals.

Mexico was the second-largest market for U.S. exports and the third-leading supplier of U.S. imports of minerals and metals in 1997. U.S. exports to Mexico of minerals and metals registered a \$547 million (11-percent) increase to \$5.5 billion, accounting for 13 percent of total exports. The increase in U.S. exports to Mexico resulted from continued Mexican economic recovery and the reduction of tariff barriers instituted by NAFTA. The rise in U.S. exports was dominated by a growth in exports of iron and steel, supported by increased automotive manufacturing and a boom in construction activity in Mexico, which rose by \$157 million (18 percent) to \$1.0 billion. In recent years, a number of U.S.-based steel service centers have established warehouse facilities in Mexico to serve the 15 million ton-per-year steel market in Mexico. Much of this steel is consumed by U.S. auto production facilities in Mexico; the automobiles are either sold in the growing Mexican market or exported to the United States.⁶ Other strong export sectors included pearls, which rose by \$128 million (135 percent) to \$222 million; aluminum and aluminum articles, which rose by \$94 million (13 percent) to \$832 million; copper and copper articles, which rose by \$83 million (24 percent) to \$439 million; and glass and glassware, which rose by \$55 million (22 percent) to \$312 million. Exports in the iron and steel, aluminum,

⁴Peter F. Marcus, "Canadian Steel Mart Looks Robust," *Purchasing*, Oct. 9, 1997, p. B15.

⁵"Steel Trade Ties U.S. and Canada," *Purchasing*, Oct. 9, 1997, p. B9.

⁶Ted Kuster, "Today's Mexico: A Marketer's Delight or Still a Dilemma," *Metal/Center News*, pp. 70-73.

copper, and glass product sectors have benefited from the NAFTA-related integration of economic activity that is occurring within the automotive, machinery, and appliance industries of the United States and Mexico.

U.S. imports of minerals and metals from Mexico, the third-largest source, rose by \$482 million (10 percent) to \$5.2 billion, accounting for 7 percent of total imports. Most of the increase was concentrated in imports of iron and steel, and articles of iron or steel, which together increased by \$308 million (16 percent) to \$2.2 billion.

Japan, the fourth-largest market for U.S. exports of minerals and metals, registered a \$196 million (7-percent) decline in the minerals and metals sector in 1997 to \$2.6 billion (representing 6 percent of total exports). The decline in U.S. exports was concentrated in certain nonferrous metals (tin, nickel, zinc, and their articles), which declined by \$2.5 billion (43 percent) to \$3.2 billion in 1997, reflecting continued sluggish economic conditions in the Japanese economy. The principal U.S. export growth category to Japan consisted of glass and glassware, which increased by \$121 million (36 percent) to \$457 million, following market-opening agreements by the U.S. and Japanese Governments to increase access and sales of foreign flat glass in Japan through adoption of nondiscriminatory standards and expanded promotion.⁷

Japan was the second-leading supplier of U.S. imports of minerals and metals in 1997. U.S. imports of minerals and metals from Japan increased by \$581 million (12 percent) to \$5.5 billion (representing 7 percent of total imports), as the strong performance of the U.S. economy combined with a stronger dollar/yen relationship stimulated purchases of these products. U.S. imports of iron and steel increased by \$145 million (13 percent) to \$1.2 billion in 1997; U.S. imports of pearls and other precious and semi-precious stones rose by \$52 million (25 percent) to \$259 million; and imports of aluminum and aluminum articles rose by \$57 million (30 percent) to \$245 million.

U.S. exports of minerals and metals to Asian Pacific Rim and Latin American nations in 1997 totaled 21 percent and 19 percent, respectively, of total U.S. exports in this sector, with EU nations representing 18 percent of U.S. exports. However, the trade deficit with Latin American declined by \$629 million (24 percent) to \$2.0 billion, while the deficit with Asian Pacific nations grew by \$2.2 billion (44 percent) to \$7.3 billion. Although U.S. exports to the Asian Pacific region declined by \$222 million (3 percent) in 1997 to \$8.8 billion, U.S. imports from Asian Pacific nations, largely led by increases in imports from Japan and Korea, rose by \$2.0 billion (14 percent) to \$16.2 billion. U.S. exports to Latin American nations, consisting principally of exports to Mexico, expanded by \$1.2 billion (17 percent) in 1997 to \$8.4 billion, while U.S. imports from Latin American nations, also dominated by trade with Mexico, increased by \$573 million (6 percent) to \$10.4 billion. The U.S. trade deficit with the EU rose by \$1.6 billion (26 percent) to \$7.9 billion in 1997 as U.S. sector exports to EU nations decreased by \$590 million (7 percent) to \$7.7 billion due primarily to declines in nonmonetary gold exports to the United Kingdom, while U.S. sector imports from EU nations increased by \$1.0 billion (7 percent) to \$15.7 billion.

The leading U.S. import and export minerals and metals products for major trading partner countries are presented in table 10-2.

⁷USITC, *Industry, Trade, and Technology Review*, "Key Performance Indicators: Flat Glass," USITC publication 3084, Jan. 1998, p. 48.

Table 10-2
Minerals and metals: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Unwrought aluminum Gold: unwrought, semifinished, or powder Unwrought refined copper and alloys Mountings and other hardware for furniture, doors, windows, etc.	Aluminum plates, sheets, and strip over 0.2 mm thick Mountings and other hardware for furniture, doors, windows, etc. Fasteners of iron or steel Interchangeable tools for handtools or machine-tools
Mexico	Semifinished products of iron or nonalloy steel Stoves, ranges, and other cooking devices of iron or steel Padlocks and locks Flat-rolled products of iron or nonalloy steel, of a width of 600 mm or more, clad, plated, or coated	Miscellaneous articles of iron or steel Fasteners of iron or steel Hardware and fixtures of base metal Aluminum plates, sheets, and strip over 2 mm thick
Japan	Interchange tools for handtools or machine-tools Fasteners of iron or steel Flat-rolled alloy steel (other than stainless), 600 mm or more wide Glass envelopes and glass parts for electric lamps, cathode-ray tubes, and the like	Kaolin and other kaolinic clays Unwrought aluminum Safety glass Aluminum plates, sheets, and strip over 0.2 mm thick
United Kingdom . .	Diamonds Platinum: unwrought, semifinished, or powder Ceramic tableware, kitchenware, household, and toilet articles, of porcelain or china Aluminum plates, sheets, and strip over 0.2 mm thick	Gold: unwrought, semifinished, or powder Silver: unwrought, semifinished, or powder Waste and scrap of precious metal Interchange tools for handtools or machine-tools
Germany	Flat-rolled products of alloy steel (other than stainless) of a width of 600 mm or more Semifinished products of iron or nonalloy steel Seamless pipes and tubes of iron and steel Interchange tools for handtools or machine-tools	Waste and scrap of precious metal Miscellaneous articles of aluminum Gold: unwrought, semifinished, or powder Interchange tools for handtools or machine-tools
China	Ceramic tableware, kitchenware, household, and toilet articles, of earthenware Statuettes and other ornamental ceramic articles Table, kitchen or other household articles and parts of iron or steel Articles of cement, concrete or artificial stone	Aluminum plates, sheets, and strip over 0.2 mm thick Copper waste and scrap Ferrous waste and scrap Aluminum waste and scrap

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Precious Metals and Related Articles

In 1997, the U.S. trade surplus in precious-metals and related articles⁸ fell by half⁹ to \$1.3 billion, as the total value of imports rose by \$539 million and that of exports dropped by \$737 million. The United States is a world-scale producer of gold and silver; a major global center for precious-metals refining, fabrication, and trading; and is a leading consumer market for all precious-metals. However, trade for precious metals and related products is highly sensitive to nonmonetary gold shipments,¹⁰ which accounted for 62 percent of the total trade by value in 1997. Shifts in magnitudes of precious-metals flows, particularly decreased activity in certain nonmonetary gold-bullion transfers between central banks,¹¹ appeared to have greater impact on the value of trade in 1997 than did significantly weaker gold and silver prices.¹²

U.S. imports

The import value of precious metals and related articles increased in 1997 by \$539 million (10 percent) to \$5.9 billion, largely as a result of increased imports of nonmonetary gold, platinum-group metals (PGMs),¹³ and to a lesser extent, nonnumismatic coins (table 10-3). Increased consumption of these products was driven by continued strong jewelry, investment, and industrial demand as robust economic conditions sustained consumer discretionary spending and industrial output.¹⁴ Nonmonetary gold and PGMs dominated U.S. imports of sector products, accounting for \$2.9 billion (50 percent) and \$2.0 billion (33 percent) of total 1997 imports, respectively. The top-three import sources for precious metals and related articles continued to be Canada, South Africa, and Russia, which together accounted for \$3.4 billion (59 percent) of the total value of U.S. sector imports. As a significant global producer, refiner, and fabricator of precious metals, Canada continued to be the largest source of all sector products (except PGMs), and provided nearly \$2.2 billion (37 percent) of all U.S. precious-metals imports. U.S. imports from Canada grew for a third straight year, by \$160 million (8 percent) in 1997, as increased tonnages, particularly of nonmonetary gold bullion and nonnumismatic bullion coins, overshadowed weaker precious-metals prices.¹⁵

⁸Precious metals and related articles includes refined bullion and other unwrought forms, semi-manufactures, waste and scrap, and nonnumismatic coins of gold, silver, and platinum-group metals. Monetary gold held by central banks is excluded from this category.

⁹The 1996-97 percentage change may not correspond exactly with annual values in billions of dollars due to rounding.

¹⁰Nonmonetary gold is primarily in the form of refined bullion, not held as monetary reserves by central banks, but also includes other unwrought forms such as dore and semimanufactures such as leaf.

¹¹Certain transfers of "earmarked" gold bullion (held for foreign accounts) by the Federal Reserve Bank to foreign central banks that allow for private accounts, may not be recorded strictly as monetary transactions.

¹²The 1997 average annual London Final fix for gold of \$331.15 per troy ounce was down from \$387.70 per troy ounce in 1996. The corresponding average annual London Final fix for silver of \$4.90 per troy ounce was down from \$5.20 per troy ounce of the previous year. In contrast, the 1997 average annual Engelhard Industries price for platinum of \$396.58 per troy ounce was down slightly from \$397.97 per troy ounce in 1996. However, the corresponding average annual Engelhard Industries price for palladium of \$184.14 per troy ounce was up from \$130.39 per troy ounce of the previous year. *Platt's Metals Week*, various issues, 1997-98.

¹³Platinum, palladium, rhodium, iridium, osmium, and ruthenium.

¹⁴For example, U.S. gold consumption reached an all-time high of 377 metric tons in 1997, 9 percent above the previous record set in 1996. World Gold Council, *Gold Demand Trends*, issue No. 22, Feb. 1998.

¹⁵U.S.-Canadian trade in precious metals and related articles is also enhanced by extensive cross-border linkages among refiners and fabricators, and cross-border investments in the mining sector.

Table 10-3
Changes in U.S. imports of precious metals and related articles, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
Gold (nonmonetary)	2,634	2,944	310	12
Platinum-group metals	1,716	1,959	243	14
Nonnumismatic coins	206	291	85	41
Waste and scrap	203	204	1	(¹)
Silver	571	472	-99	-17
Total	5,330	5,869	539	10

¹Less than 0.5 percent

Note.--Calculations based on unrounded data.

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

U.S. PGM imports have risen every year since 1993, reflecting a lack of significant domestic supplies and continued demand for catalytic materials by the automotive, chemicals, and petroleum industries. Although supplying proportionally less of total U.S. PGM imports in 1997 compared with the previous year, South Africa and Russia remained the dominant sources of these metals.¹⁶ The value of U.S. imports from South Africa increased by \$10 million (1 percent) to \$754 million, as relatively higher PGM prices overshadowed lower import tonnages.¹⁷ Imports from Russia declined by \$43 million (8 percent) to \$486 million due to export disruptions during the first quarter of 1997 from restructuring of the government agencies responsible for PGM sales.¹⁸

U.S. exports

The value of U.S. exports of precious metals and related articles decreased by \$737 million (9 percent) to \$7.1 billion in 1997, mainly because of decreased nonmonetary gold exports which fell by \$652 million (table 10-4). Of the \$5.1 billion in total U.S. nonmonetary gold exports (72 percent of total sector-products exports), \$4.3 billion was in the form of bullion¹⁹ (83 percent of all nonmonetary gold exports). Most bullion exports went to Switzerland (\$2.4 billion or 56 percent) and the United Kingdom (\$909 million or 21 percent), which are major

¹⁶In 1997, South Africa supplied \$754 million or 38 percent of all U.S. PGM imports, compared with \$744 million or 43 percent in 1996. In that same year, Russia supplied \$486 million or 25 percent, compared with \$530 million or 31 percent in the previous year.

¹⁷South African shipments of PGMs to the United States are facilitated by marketing agreements between South African mines and several major U.S.- and Canadian-based precious-metals refiners and fabricators.

¹⁸Johnson Matthey, "Summary and Outlook, Platinum," found at Internet address <http://www.matthey.com/PMD/PMDPUBS/PT97/PT97PT.HTM>, retrieved Feb. 14, 1998; and Johnson Matthey, "Summary and Outlook, Palladium," found at Internet address <http://www.matthey.com/PMD/PMDPUBS/PT97/PT97PD.HTM>, retrieved Feb. 14, 1998.

¹⁹HTS subheading 7108.12.1010. Monetary gold is provided for under a separate subheading HTS 7108.20.0000 and is excluded from these merchandise trade statistics.

global banking and precious-metals trading centers.²⁰ During this period, 299 metric tons of nonmonetary gold bullion were exported to Switzerland and the United Kingdom.²¹

Table 10-4
Changes in U.S. exports of precious metals and related articles, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	----- Million dollars -----			
Platinum-group metals	248	440	192	77
Nonnumismatic coins	32	54	21	65
Silver	638	641	3	(¹)
Waste and scrap	1,180	880	-300	-25
Gold (nonmonetary)	5,788	5,135	-652	-11
Total	7,886	7,149	-737	9

¹Less than 0.5 percent

Note.--Calculations based on unrounded data.

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

U.S. exports of all precious metals and related articles to these two leading markets declined by \$680 million (13 percent) to \$4.6 billion in 1997. In contrast, such exports to other major trading partners, Canada, Mexico, Germany, and Belgium (15 percent of total sector exports), rose by \$265 million (25 percent) to \$1.3 billion during the same period.²²

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²⁰Certain types of transfers between central or money-center banks may cause especially large annual variations in U.S. trade in nonmonetary gold. According to official USDOC statistics, annual transfers of nonmonetary unwrought gold bullion from the United States to Switzerland during 1993-97 ranged from a low of \$425 million in 1992 to high of \$2.5 billion in 1993. Annual variations in transfers to the United Kingdom during the same period ranged from \$559 million in 1995 to \$3.8 billion in 1993. In contrast, imports from these countries were minimal by comparison. Further details regarding activities or account status of central banks' clients could not be discerned. However, during 1996-97, the amount of "earmarked" gold bullion held for foreign accounts by the Federal Reserve Bank of New York dropped by 320 metric tons (4 percent) to 7,929 metric tons by the end of the year. U.S. Department of the Treasury, Board of Governors of the Federal Reserve System, table 3.13, Foreign Official Assets Held at Federal Reserve Banks, *Federal Reserve Bulletin*, vol. 84, No. 3, Mar. 1998, p. A51.

²¹By comparison, on a tonnage basis, U.S. nonmonetary gold bullion imports from these countries were only 5 percent to 6 percent of U.S. export levels.

²²U.S. trade with North American and Western European partners in precious metals and related articles is enhanced through extensive worldwide linkages among multinational refiners and fabricators, and cross-border investment in the North American mining sector.

Natural and Synthetic Gemstones

The trade deficit for natural and synthetic gemstones continued to grow in 1997, expanding by \$1.2 billion (16 percent) to \$8.3 billion. Strong U.S. demand for gemstones, especially diamonds, increased imports of natural and synthetic gemstones. While U.S. exports decreased as foreign demand shifted to lower quality large cut diamonds (over 0.5 carat).

U.S. imports

Continued strength in the U.S. economy during 1996-97 is credited with the growth in imports of natural and synthetic gemstones, which are considered luxury items. Increased real disposable personal income, heightened consumer confidence, and an increase in real gross domestic product were the key factors of a strong economy.²³

Led by greater demand for diamonds at slightly higher prices, U.S. imports grew by \$1.2 billion (16 percent) to \$8.6 billion in 1997 (table 10-5). Imports of diamonds alone increased by \$1.0 billion (15 percent) to \$7.6 billion; the quantity of imported product rose by 1.6 million carats (12 percent) to 15.4 million carats in 1997 and the trade weighted average unit price rose by \$15 (3 percent) to \$493 per carat. The combined value of U.S. diamond imports from Israel, Belgium, and India--major diamond cutting and trading centers--increased by \$988 million (18 percent) to \$6.5 billion. These countries continue to account for the bulk of U.S. imports, representing 76 percent of the 1997 import value of natural and synthetic gemstones. Colored gemstones, pearls, and synthetic gemstone products also contributed to the growth in U.S. imports, increasing by \$103 million (19 percent), \$27 million (11 percent), and \$11 million (20 percent), respectively.²⁴ Japan is a major global trade center for pearls and continued to supply most U.S. imports of these products. Thailand supplied most imports of colored gemstones, and Germany and China were the dominant import sources for synthetic products.

Table 10-5

²³The following improvements to economic factors were reported during 1996-97: (1) real disposable personal income increased by nearly 3 percent; (2) consumer confidence index increased from 104.6-125.4, as measured by the Conference Board, Inc., Consumer Research Center in New York, NY; and (3) real gross domestic product increased by 4 percent. The only contradictory change to the economic factors for the gemstone industry during this period was an increase in the average prime interest rate charged by banks, from 8.27 percent to 8.50, as measured by the Board of Governors of the Federal Reserve System.

²⁴Diamonds are always in demand, but consumer choice among the other gemstone products is generally driven by fashion trends and affordability, as reflected in the growth of synthetic imports. There is not a specified price differential between natural and synthetic gemstones in the industry, however, synthetics are gaining favor in the market because they are relatively less expensive than natural gemstones of comparable quality.

Changes in U.S. imports of natural and synthetic gemstones, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Diamonds	6,588	7,599	1,011	15
Natural colored gemstones	532	635	103	19
Pearls	238	265	27	11
Synthetic and reconstructed gemstones	54	65	11	20
Total	7,412	8,564	1,152	16

Note.--Calculations based on unrounded data.

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

U.S. exports

Despite increased foreign demand, relatively less expensive cut diamonds contributed to a decrease in the value of domestic exports by \$16 million (6 percent) to \$231 million in 1997 (table 10-6).²⁵ Large cut diamonds over 0.5 carat continued to account for the bulk of U.S. exports, representing 81 percent of the export value of natural and synthetic gemstones. Export trends to most of the principle markets were somewhat mixed during the report period. Shipments to Switzerland and Hong Kong, which together accounted for \$64 million (28 percent) of total U.S. exports of natural and synthetic gemstones, decreased by \$48 million (43 percent),²⁶ while exports to Israel, India, and Japan increased by \$18 million (55 percent) to \$51 million.²⁷

Table 10-6
Changes in U.S. exports of natural and synthetic gemstones, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Diamonds	151	108	-43	-29
Natural colored gemstones	51	65	14	27
Synthetic and reconstructed gemstones	41	51	11	26
Pearls	4	7	3	61
Total	247	231	16	-6

Note.--Calculations based on unrounded data.

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

²⁵Although the exported quantity of U.S. cut diamonds over 0.5 carats increased by 1,749 carats (almost 8 percent) to 24,624 carats, the value of diamonds exported decreased by \$38.7 million (almost 32 percent) to \$83.6 million and the average unit price decreased by \$1,953 (nearly 37 percent) to \$3,394 per carat in 1997.

²⁶Switzerland and Hong Kong are internationally established jewelry-manufacturing centers and diamond markets.

²⁷Israel and India are major diamond cutting centers, and Japan is second to the United States in the consumption of diamonds.

In contrast, U.S. exports improved for natural colored gemstones, synthetic gemstones, and pearl products, tempering the sector's overall downturn. Exports of colored gemstones increased by \$13.8 million (27 percent) to \$64.9 million in 1997; principal U.S. markets included India, Israel, and Hong Kong. India and Israel are major cutting centers and received mostly unworked gemstones, whereas Hong Kong is a major trading center and received mostly cut products.²⁸ Synthetic gemstones increased by \$10.5 million (26 percent) to \$51.1 million, with Taiwan the largest market. U.S. exports of synthetics to Taiwan continued to show marked improvement in 1997, increasing by \$6.6 million (59 percent) to \$17.6 million, led by piezo-electric quartz used in electronics. U.S. exports of pearls increased by \$2.5 million (61 percent) to \$6.6 million, with Japan being the largest market. Factors contributing to this rise have been the continued effects of water pollution problems in Japan's major pearl cultivation areas²⁹ and Japan's significant role as a major global distribution center of pearls.

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²⁸The value of unworked natural colored gemstone exports to India increased by \$4.4 million (41 percent) to \$15.3 million in 1997, the quantity increased just less than a million to 41.5 million carats, causing an increase in the trade-weighted average unit price from 27 cents per carat to 37 cents. This trend was magnified for Israel with the value increasing by \$9 million to \$10.3 million, quantity by about 413,000 carats to 599,000 carats, causing an increase in the trade-weighted average unit price from \$3.72 to \$17.19. A similar analysis cannot be made for exports to Hong Kong because quantity data are not reported for cut natural colored gemstones.

²⁹USITC, *Industry and Trade Summary, Gemstones*, USITC publication 3018, Mar. 1997, p. 31.

Table 10-7

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:				
	Exports	1,033	1,083	50	4.9
	Imports	211	240	29	13.7
	Trade balance:	822	843	21	2.6
MM002	Certain miscellaneous minerals substances:				
	Exports	11	14	3	28.0
	Imports	49	57	8	16.4
	Trade balance:	-37	-42	-5	-12.9
MM003	Iron ores and concentrates:				
	Exports	232	235	3	1.4
	Imports	556	551	-5	-0.9
	Trade balance:	-324	-316	8	2.5
MM004	Copper ores and concentrates:				
	Exports	287	211	-76	-26.6
	Imports	70	68	-3	-4.0
	Trade balance	217	143	-74	-34.0
MM005	Lead ores and residues:				
	Exports	28	35	7	26.2
	Imports	2	6	3	137.2
	Trade balance:	26	30	4	16.2
MM006	Zinc ores and residues:				
	Exports	227	379	152	66.8
	Imports	18	45	28	155.7
	Trade balance:	209	333	124	59.3
MM007	Certain ores, concentrates, ash, and residues:				
	Exports	362	432	70	19.4
	Imports	604	645	42	6.9
	Trade balance:	-242	-213	29	11.8
MM008	Precious metal ores and concentrates:				
	Exports	9	21	12	143.7
	Imports	74	38	-36	-48.5
	Trade balance	-65	-17	48	73.8
MM009	Certain nonmetallic minerals and articles:				
	Exports	1,063	1,213	150	14.1
	Imports	2,361	2,860	499	21.2
	Trade balance:	-1,297	-1,647	-350	-27.0
MM010	Industrial ceramics:				
	Exports	620	723	103	16.7
	Imports	448	550	102	22.7
	Trade balance:	172	174	2	0.9
MM011	Ceramic bricks and miscellaneous ceramic construction articles:				
	Exports	22	25	2	9.9
	Imports	18	17	-1	-3.8
	Trade balance:	4	7	3	66.1
MM012	Ceramic floor and wall tiles:				
	Exports	25	29	4	17.8
	Imports	628	716	87	13.9
	Trade balance:	-604	-687	-83	-13.8
MM013	Ceramic household articles:				
	Exports	95	101	5	5.3
	Imports	1,556	1,675	119	7.7
	Trade balance	-1,461	-1,575	-114	-7.8

See footnote(s) at end of table.

Table 10-7--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
----- Million Dollars -----					
MM014	Flat glass and certain flat-glass products:				
	Exports	1,278	1,488	210	16.4
	Imports	1,050	1,063	13	1.2
	Trade balance:	228	425	197	86.4
MM015	Glass containers:				
	Exports	148	157	10	6.5
	Imports	407	428	21	5.1
	Trade balance:	-259	-271	-11	-4.3
MM016	Household glassware:				
	Exports	205	250	44	21.5
	Imports	746	818	72	9.7
	Trade balance:	-540	-568	-28	-5.2
MM017	Certain glass and glass products:				
	Exports	604	770	166	27.4
	Imports	679	767	87	12.9
	Trade balance	-75	3	79	(³)
MM018	Fiberglass products:				
	Exports	538	562	24	4.4
	Imports	342	347	5	1.5
	Trade balance:	196	215	19	9.6
MM019	Natural and synthetic gemstones:				
	Exports	247	231	-16	-6.5
	Imports	7,412	8,564	1,152	15.5
	Trade balance:	-7,165	-8,333	-1,168	-16.3
MM020	Precious metals and related articles:				
	Exports	7,886	7,149	-737	-9.3
	Imports	5,330	5,869	539	10.1
	Trade balance:	2,556	1,280	-1,276	-49.9
MM021	Primary iron products:				
	Exports	13	19	6	45.4
	Imports	552	608	56	10.2
	Trade balance:	-539	-590	-50	-9.3
MM022	Ferroalloys:				
	Exports	137	153	16	11.7
	Imports	1,217	1,044	-174	-14.3
	Trade balance:	-1,081	-891	190	17.5
MM023	Iron and steel waste and scrap:				
	Exports	1,347	1,356	9	0.6
	Imports	355	400	45	12.6
	Trade balance	992	956	-36	-3.6
MM024	Abrasive and ferrous products:				
	Exports	449	529	80	17.7
	Imports	662	735	73	11.1
	Trade balance	-213	-206	6	3.0
MM025	Steel mill products, all grades:				
	Exports	4,076	4,843	768	18.8
	Imports	12,756	13,602	846	6.6
	Trade balance:	-8,680	-8,758	-78	-0.9
MM026	Steel pipe and tube fittings and certain cast products:				
	Exports	663	749	86	13.0
	Imports	515	555	41	7.9
	Trade balance:	149	194	46	30.7
MM027	Fabricated structurals:				
	Exports	178	189	11	6.4

See footnote(s) at end of table.

Table 10-7--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Imports	177	205	28	15.7
	Trade balance:	1	-15	-16	(³)
MM028	Metal construction components:				
	Exports	551	689	138	25.1
	Imports	353	435	82	23.3
	Trade balance	198	254	56	28.4
MM029	Metallic containers:				
	Exports	796	901	104	13.1
	Imports	449	458	9	1.9
	Trade balance:	347	443	96	27.6
MM030	Wire products of iron, steel, aluminum, copper, and nickel:				
	Exports	693	817	125	18.0
	Imports	1,169	1,247	78	6.6
	Trade balance:	-477	-430	47	9.9
MM031	Chain and miscellaneous products of base metal:				
	Exports	4,255	4,645	390	9.2
	Imports	5,053	5,866	813	16.1
	Trade balance:	-798	-1,221	-423	-53.0
MM032	Industrial fasteners of base metal:				
	Exports	1,325	1,280	-44	-3.4
	Imports	1,818	1,874	56	3.1
	Trade balance:	-494	-594	-100	-20.3
MM033	Cooking and kitchen ware:				
	Exports	278	242	-36	-13.1
	Imports	1,140	1,303	162	14.2
	Trade balance	-862	-1,061	-199	-23.1
MM034	Metal and ceramic sanitary ware:				
	Exports	142	159	17	11.8
	Imports	318	332	15	4.6
	Trade balance	-176	-173	2	1.3
MM035	Iron construction castings and other nonmalleable cast-iron articles:				
	Exports	44	46	2	4.2
	Imports	91	99	8	9.0
	Trade balance:	-47	-53	-6	-13.5
MM036	Copper and related articles:				
	Exports	2,370	2,228	-142	-6.0
	Imports	3,472	3,743	271	7.8
	Trade balance:	-1,102	-1,516	-414	-37.5
MM037	Unwrought aluminum:				
	Exports	1,057	1,023	-33	-3.2
	Imports	3,828	4,389	561	14.6
	Trade balance	-2,772	-3,366	-594	-21.4
MM038	Aluminum mill products:				
	Exports	2,771	3,133	362	13.1
	Imports	1,737	2,009	271	15.6
	Trade balance	1,033	1,124	91	8.8
MM039	Lead and related articles:				
	Exports	163	181	18	11.3
	Imports	240	201	-39	-16.2
	Trade balance	-77	-19	57	74.8
MM040	Zinc and related articles:				
	Exports	98	113	16	16.2
	Imports	979	1,328	349	35.6
	Trade balance	-882	-1,215	-333	-37.7

See footnote(s) at end of table.

Table 10-7--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
----- Million Dollars -----					
MM041	Certain base metals and chemical elements:				
	Exports	1,263	1,401	138	10.9
	Imports	2,640	2,777	137	5.2
	Trade balance:	-1,378	-1,376	1	0.1
MM042	Nonpowered handtools:				
	Exports	1,732	2,188	457	26.4
	Imports	2,280	2,725	445	19.5
	Trade balance	-548	-537	11	2.1
MM043	Cutlery other than tableware, certain sewing implements, and related products:				
	Exports	480	475	-4	-0.9
	Imports	673	719	46	6.8
	Trade balance:	-193	-244	-50	-26.0
MM044	Table flatware and related products:				
	Exports	30	36	6	20.9
	Imports	287	325	38	13.2
	Trade balance	-258	-289	-32	-12.4
MM045	Certain builders' hardware:				
	Exports	562	600	37	6.6
	Imports	866	908	42	4.8
	Trade balance:	-304	-308	-4	-1.4

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

²This 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.

³Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

CHAPTER 11

Machinery

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An \$8.7 billion (14-percent) rise in U.S. exports of machinery to \$69.7 billion in 1997, combined with a more modest increase in U.S. imports of \$5.6 billion (9 percent) to \$68.7 billion, resulted in the first trade surplus (\$923 million) in these products since 1993 (\$1.2 billion) (table 11-1). The \$3.1 billion improvement in the U.S. balance of trade in this sector was nearly three times the improvement recorded during 1995-96 (\$1.1 billion) and was particularly notable given that the United States ran large trade deficits in the machinery sector with the EU and Asian Pacific Rim countries of \$9.3 billion and \$4.0 billion, respectively. Machinery accounted for 11 percent of total U.S. exports in 1997 and 14 percent of the growth in exports that year. By comparison, machinery accounted for 8 percent of total U.S. imports in 1997 and 8 percent of the increase in imports.

The major product categories that contributed significantly to the growth in machinery exports were farm and garden machinery and equipment; air-conditioning equipment and parts; miscellaneous machinery; electrical transformers, static converters, and inductors; insulated electrical wire and cable and conduit; electric motors, generators, and related equipment; and certain industrial thermal-processing equipment and furnaces. The rise in U.S. machinery imports was led by increased entries of insulated electrical wire and cable and conduit; electrical transformers, static converters, and inductors; farm and garden machinery and equipment; taps, cocks, valves, and similar devices; and machine tools for cutting metal and parts. To a large degree, trade in machinery is a function of the rationalization of production operations in Mexico by U.S. producers, the high level of integration between U.S. and Canadian companies (many of which are U.S. subsidiary operations), and the continued efforts of developing nations to effect infrastructure and industrial capacity improvements.

U.S. exports of farm and garden machinery and equipment; air-conditioning equipment and parts; and insulated electrical wire and cable and conduit collectively rose by \$2.3 billion (14 percent) to \$16.1 billion in 1997, largely on the strength of U.S. sales and intracompany transfers to Canada, Mexico, a number of former Soviet republics, and Brazil.

In other machinery subsectors, miscellaneous machinery¹ exports rose by \$657 million (12 percent) to \$6.1 billion in 1997 (table 11-2). Nearly one-third of this increase (\$199 million) was accounted for by parts of machines and mechanical appliances having individual functions not specifically provided for in the tariff schedules. Other major increases occurred in miscellaneous machinery for lifting, handling, loading and

Table 11-1
Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by

¹Miscellaneous machinery is a broad and heterogeneous category of products that includes: producer gas or water gas generators; calendaring and similar rolling machines; fire extinguishers; steam blasting and other spraying and blasting machines; pulley tackle and hoists; winches; jacks; elevators, escalators, moving stairways, and conveyers; ski lifts and draglines; lifting, handling, and loading and unloading equipment; casting machines; hand-held blow torches; evaporative air coolers; trash compactors; and a number of other categories of industrial and commercial equipment not specifically provided for elsewhere in the tariff schedules.

selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada	13,388	15,792	2,404	18.0
Mexico	6,973	8,885	1,912	27.4
Japan	3,779	3,889	110	2.9
Germany	2,178	2,431	252	11.6
United Kingdom	2,626	3,159	533	20.3
China	1,809	1,854	44	2.4
Taiwan	2,068	2,701	633	30.6
Korea	4,102	3,190	-912	-22.2
Italy	769	787	17	2.2
France	1,608	1,754	146	9.1
All Other	21,665	25,213	3,548	16.4
Total	60,966	69,654	8,688	14.3
EU-15	10,736	12,302	1,566	14.6
OPEC	2,714	3,412	699	25.7
Latin America	12,662	15,922	3,260	25.7
CBERA	1,257	1,537	280	22.3
Asian Pacific Rim	18,992	19,624	633	3.3
ASEAN	4,434	5,030	596	13.4
Central and Eastern Europe	362	401	39	10.7
U.S. imports for consumption:				
Canada	7,943	8,513	570	7.2
Mexico	9,287	11,228	1,941	20.9
Japan	11,941	12,908	968	8.1
Germany	8,456	8,630	174	2.1
United Kingdom	2,961	3,380	420	14.2
China	3,584	4,272	688	19.2
Taiwan	2,597	2,768	172	6.6
Korea	1,310	1,265	-44	-3.4
Italy	3,056	3,308	252	8.2
France	1,536	1,779	243	15.8
All Other	10,445	10,678	233	2.2
Total	63,115	68,731	5,616	8.9
EU-15	20,266	21,579	1,312	6.5
OPEC	167	178	11	6.5
Latin America	10,210	12,129	1,919	18.8
CBERA	133	154	21	15.9
Asian Pacific Rim	21,855	23,646	1,791	8.2
ASEAN	1,895	1,882	-13	-0.7
Central and Eastern Europe	466	520	54	11.7
U.S. merchandise trade balance:				
Canada	5,445	7,279	1,834	33.7
Mexico	-2,314	-2,343	-29	-1.2
Japan	-8,162	-9,019	-858	-10.5
Germany	-6,278	-6,199	79	1.3
United Kingdom	-335	-222	113	33.7
China	-1,775	-2,419	-644	-36.3
Taiwan	-529	-67	462	87.3
Korea	2,792	1,924	-868	-31.1
Italy	-2,287	-2,522	-235	-10.3
France	73	-24	-97	(²)
All Other	11,220	14,535	3,315	29.5
Total	-2,149	923	3,072	(²)
EU-15	-9,530	-9,276	254	2.7
OPEC	2,547	3,235	688	27.0
Latin America	2,452	3,793	1,341	54.7
CBERA	1,124	1,382	258	23.0
Asian Pacific Rim	-2,864	-4,022	-1,158	-40.4
ASEAN	2,539	3,148	609	24.0
Central and Eastern Europe	-104	-119	-16	-15.0

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

²Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

unloading (up by \$79 million); parts of vacuum cleaners and floor polishers (\$74 million); machines and

mechanical appliances not specifically provided for (\$71 million); and parts of trash compactors (\$62 million). A major portion of these shipments consists of related party transfers of parts between major U.S. multinational companies and their subsidiary operations in Canada, the EU, Latin America, and the Asian Pacific Rim. The final assembly of this equipment abroad with the addition of selected indigenous inputs enables U.S. companies to establish themselves as “national” or regional suppliers in foreign markets, as well as reduce transportation costs and delivery times. Renewed economic growth in the EU, Canada, and Latin America during 1997 was the major factor stimulating the growth of U.S. exports of this equipment and parts.

Table 11-2
Leading increases in U.S. exports by commodity, 1996-97

Sector/commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Farm and garden machinery	4,848	5,855	1,007	21
Air-conditioning equipment and parts	4,988	5,726	738	15
Miscellaneous machinery	5,474	6,131	657	12
Electrical transformers, static converters, and inductors	1,923	2,480	557	29
Wiring harnesses and other insulated wire & cable . . .	3,936	4,491	556	14
Electrical motors, generators, and related equipment . .	3,316	3,849	534	16
Certain industrial thermal processing equipment and certain furnaces	2,195	2,698	503	23
Pumps for liquids	2,504	2,978	474	19
Centrifuges and filtering and purifying equipment	2,389	2,845	456	19
Semiconductor manufacturing equipment & robotics . .	5,662	6,062	399	7
Taps, cocks, valves, and similar devices	2,423	2,745	323	13
Boilers, turbines, and related machinery	1,560	1,864	304	20
Nonmetalworking machine tools and parts thereof	1,368	1,610	242	18
Mineral processing machinery	674	915	241	36
Molds and molding machinery	1,442	1,681	239	17
Electric and gas welding and soldering equipment	534	762	229	43
All other	15,730	16,962	1,232	8
Total	60,966	69,654	8,688	14

Note.--Calculations based on unrounded data.

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

U.S. exports of transformers also increased significantly, with over one-half of the increase (\$305 million) directed at U.S. NAFTA partners. Most (\$221 million) was exported to Mexico, reflecting the extensive and expanding use of assembly plants in Mexico by U.S. producers, especially for low-voltage transformers (such as lamp ballasts), for which the production process is labor intensive and difficult to automate. During 1997, significant increases in U.S. exports of transformers were also recorded with respect to the EU (mainly Germany) and the Asian Pacific Rim (principally Singapore and the Philippines). Many of these increases were of parts in support of the foreign subsidiary operations of U.S. companies.

U.S. exports of motors and generators to Mexico also increased, rising by \$147 million (22 percent) to \$802 million; exports to Canada, up \$61 million (10 percent) to \$692 million, were also significant. In addition, substantial U.S. export increases to Japan, China, Brazil, and Colombia were also recorded. Most of the total increase in exports of motors and generators was concentrated in alternating current (AC) generators rated over 750 kilovolt (1,000 volts) amperes (China, Mexico, Japan, and Columbia) and parts of motors and electric

generating sets (Mexico, Canada, and Brazil). The increases during 1997 were principally the result of strong demand for electrical generating and industrial process equipment, as these countries sought to augment their electrical generating and industrial production capacity in the face of projected economic growth, as well as the continued use of assembly plants in Mexico by U.S. producers to reduce production costs.

During 1997, U.S. imports of insulated electrical conductors and farm and garden machinery and equipment increased by \$1.4 billion (15 percent) to \$10.7 billion. In addition, other major import shifts occurred in transformers; taps and valves; and machine tools for cutting metal (machine tools) (table 11-3). Transformer import increases were concentrated in a number of low-voltage categories including lamp ballasts, which rose by \$82 million (17 percent) to \$576 million; transformers rated at less than 1 kVA, which were up by \$60 million (25 percent) to \$302 million; and other static converters,² which increased by \$313 million (19 percent) to \$2.0 billion.

Table 11-3
Leading increases in U.S. imports by commodity, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Wiring harnesses and other insulated electrical cable..				
wire and cable	5,935	6,819	884	15
Electrical transformers, static converters,				
and inductors	3,631	4,290	659	18
Farm and garden machinery	3,382	3,887	505	15
Taps, cocks, valves, and similar devices	3,128	3,566	438	14
Machine tools for cutting metal, parts & attachments ..	3,880	4,298	418	11
Semiconductor manufacturing equipment & robotics ..	2,188	2,569	381	17
Miscellaneous machinery	4,377	4,715	338	8
Electrical household appliances	4,261	4,593	332	8
Electric motors, generators, and related equipment ...	3,875	4,179	304	8
Nonmetalworking machine tools and parts thereof ...	1,207	1,464	257	21
Printing, typesetting, and bookbinding machinery	1,796	2,048	251	14
All other	25,455	26,303	848	3
Total	63,115	68,731	5,616	9

Note.--Calculations based on unrounded data.

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

The generally lower weight and value of these products, together with their typically higher labor content, have made them ideal candidates for production rationalization and foreign sourcing, as evidenced by increased imports from Mexico and China, which respectively accounted for over one-half and nearly one-quarter of the \$659 million total growth in U.S. imports of transformers in 1997. The continued strong U.S. market for consumer electrical and electronic products was the principal factor influencing the upward trend in imports of these products in 1997.

In 1997, U.S. imports of taps and valves grew by \$438 million (14 percent) to \$3.6 billion (table 11-3).

²These products are principally power supplies for electrical and electronic apparatus, other than those used with or in computers.

Within this product grouping, imports of miscellaneous taps and valves other than those that are hand operated³ rose by \$140 million (13 percent) to \$1.2 billion; parts of copper, hand operated or check appliances increased by \$116 million (95 percent) to \$239 million; and parts of taps and valves other than hand operated and check appliances grew by \$72 million (13 percent) to \$604 million. Expanded imports from Mexico (up \$278 million) accounted for two-thirds of the total growth in imports of taps and valves in 1997. The strength of the U.S. economy, particularly in the residential and commercial construction, petroleum refining, chemical, food processing, and water treatment sectors, was the most significant factor influencing the import rise. Efforts to reduce production costs by shipping parts to Mexico for final assembly was also important.

The most significant increases in imports in the machine tool grouping in 1997 (table 11-3) occurred in multistation transfer machines, which rose by \$107 million (65 percent) to \$273 million in 1997; machining centers, which were up by \$67 million (8 percent) to \$877 million; and parts of metalworking machine tools, up by \$56 million (12 percent) to \$532 million. The driving forces behind these increases in 1997 were a strong U.S. manufacturing sector, low U.S. interest rates and financing costs, and the expansion of Germany-based automotive and automotive parts manufacturing capabilities in the United States.

Trade statistics for all commodity/industry groups in the machinery sector are presented in table 11-6 at the end of this chapter.

U.S. BILATERAL TRADE

The traditional U.S. machinery trading partners--Canada, Mexico, Japan, and the EU (particularly Germany and the United Kingdom) were once again the predominant sources of and markets for these products in 1997. Together, these countries accounted for 59 percent of total U.S. exports, 79 percent of total U.S. imports, and 85 percent of the increase in U.S. imports. The marked turnaround (a \$3.1 billion improvement) in the U.S. trade balance in machinery, from deficit to surplus, was largely the result of substantial increases in U.S. exports to Canada and Latin America (notably Brazil), and a significant decline in U.S. imports from Korea (table 11-1).

During 1997, Canada accounted for 23 percent of total U.S. exports of machinery, nearly twice the total recorded by the next leading market (Mexico), and was the fourth-leading foreign source of U.S. imports. A large increase in U.S. exports to Canada, coupled with a marginal rise in U.S. imports from Canada, caused the U.S. trade surplus with Canada in machinery to expand by \$1.8 billion (34 percent) to \$7.3 billion (table 11-1). The notable increases in U.S. exports occurred in semiconductor manufacturing equipment, which rose by \$417 million (99 percent) to \$838 million; farm and garden machinery and equipment, by \$404 million (26 percent) to \$1.9 billion; air-conditioning equipment and parts, by \$188 million (12 percent) to \$1.7 billion; and taps, cocks, and valves, by \$170 million (21 percent) to \$972 million. The continued strength of the Canadian economy, favorable interest rates, and the extensive linkages between U.S. and Canadian companies (many of which are subsidiary operations) bolstered the upward trend in exports. The most significant sector of growth in machinery imports from Canada was farm and garden machinery and equipment, which rose by \$178 million (21 percent) to \$1.0 billion in 1997, spurred by rising farm income and low U.S. interest rates. Significant downturns in import activity were recorded in boilers, turbines, and related equipment, which fell by \$156 million (52 percent) to \$145 million; molds and molding machinery, which declined by \$72 million (6 percent) to \$1.1 billion; and centrifuges and filtering and purifying equipment, which were down by \$35 million (10 percent) to \$317 million. U.S. demand in the industrial markets for these products grew at a slower pace in 1997 than in 1996, with the expansion in demand in 1997 satisfied principally by domestic production.

³These valves are primarily highly engineered or remotely actuated, high pressure valves, classified under HTS item 8481.80.90.

The U.S. trade deficit with Mexico in machinery continued to expand in 1997, but by only \$29 million (1 percent) to \$2.3 billion, compared with the \$339 million (17-percent) growth in the machinery deficit in 1996. Much of the U.S. trade deficit with Mexico in these products is the result of value added (particularly labor) to products assembled in the maquiladora operations of U.S. companies along the U.S.-Mexico border. The slowing of the deficit in these products was attributable in large part to the fact that more U.S. machinery products were being consumed in the Mexican market, as Mexican GDP advanced by 7 percent during 1997 and consumer confidence rebounded. The major areas of growth in U.S. exports of machinery to Mexico during 1997 were transformers, up by \$221 million (40 percent) to \$777 million; wiring harnesses and other insulated electrical wire and cable and parts, which rose by \$209 million (13 percent) to \$1.8 billion; and air-conditioning equipment and parts, which grew by \$182 million (37 percent) to \$676 million. A substantial portion of these exports were of parts and subassemblies in support of the Mexican assembly operations of U.S. suppliers.

On the import side of bilateral U.S. trade with Mexico in machinery, the principal product categories experiencing import growth were wiring harnesses and other insulated electrical wire and cable and parts, up by \$729 million (19 percent) to \$4.5 billion in 1997; transformers, up by \$342 million (33 percent) to \$1.4 billion; taps and valves, up by \$278 million (57 percent) to \$770 million; and motors and generators, up by \$271 million (27 percent) to \$1.3 billion. Virtually all of the products that enter under these major industry groupings are smaller, lower voltage or technology, lower valued, labor-intensive items (such as ignition wiring harnesses, lamp ballasts, low-pressure household valves, and fractional horsepower motors), the assembly of which has been moved to Mexico by U.S. suppliers in order to remain competitive with low-cost foreign suppliers.

In U.S. bilateral trade with Japan in machinery, imports continued to predominate in 1997, lifting the U.S. bilateral trade deficit in these products to \$9.0 billion. U.S. imports from Japan advanced by an additional \$968 million (8-percent) to \$12.9 billion, while U.S. exports of machinery to Japan rose by just \$110 million (3 percent) in 1997 to \$3.9 billion. The import advance was led by molds and molding machinery, imports of which increased by \$201 million (33 percent) to \$804 million. Imports of semiconductor manufacturing equipment and robotics were up by \$177 million (15 percent) to \$1.4 billion; machine tools for cutting metal and parts, by \$158 million (9 percent) to \$2.0 billion; and electric and gas welding and soldering equipment, by \$143 million (54 percent) to \$407 million. Most of this equipment is highly sophisticated and technologically advanced machinery for use principally in industrial production processes. Japanese suppliers of this equipment are recognized as world leaders in selected segments of these industries. Expanding U.S. production operations and relatively low interest rates in 1997 combined to stimulate demand for Japanese equipment. The only notable decline in U.S. imports of machinery from Japan in 1997 was of air-conditioning equipment and parts, which fell by \$146 million (17 percent) to \$710 million (see commodity analysis below for an examination of this trend). The only major development in machinery export trade with Japan was a \$147 million (14-percent) decline to \$921 million in U.S. shipments of semiconductor manufacturing equipment, reflecting a number of factors including a 10-percent decline in the value of the yen in 1997, surplus semiconductor manufacturing capacity, a general weakness in the Japanese economy, and rising interest rates on capital equipment purchases.

Improvements in the U.S. bilateral machinery trade balances with the Netherlands, the United Kingdom, Belgium, and Germany helped to offset declines in the balances with Italy, France, and Sweden to produce an overall \$254 million (3 percent) improvement in the balance of machinery trade with the EU. Nevertheless, the EU maintained its status as the country grouping with which the United States had the largest trade deficit in machinery in 1997 (\$9.3 billion) (table 11-1), with Germany and the United Kingdom maintaining their respective roles as principal EU country sources and markets of machinery trade in 1997. The major growth in U.S. imports of machinery from Germany during 1997 occurred in metalworking machine tools and parts, by \$142 million (28 percent) to \$651 million; miscellaneous machinery, by \$120 million (17 percent) to \$840 million; and semiconductor-manufacturing equipment and robotics, by \$90 million (31 percent) to \$381 million. Many German suppliers of this equipment have achieved world-class status based upon their technical and mechanical expertise. The continued growth of the U.S. economy and favorable U.S. interest rates have encouraged many U.S. companies to expand and upgrade their production capabilities through purchases of

capital equipment, some of which is available only from foreign suppliers. The only significant shift in U.S. machinery trade with the United Kingdom occurred in farm and garden machinery and equipment--a \$137 million (35-percent) rise in U.S. imports to \$527 million in 1997 (see commodity analysis below for details).

Chinese suppliers continued to make significant inroads into U.S. markets in 1997, while U.S. exporters had minimal success in China. U.S. exports of machinery to China rose by only \$44 million (2 percent) to \$1.9 billion in 1997, whereas U.S. imports from China increased by \$688 million (19 percent) to \$4.3 billion. The \$644 million increase in the U.S. trade deficit with China was exceeded only by the expansion in the deficits with Korea (\$868 million) and Japan (\$858 million) (table 11-1). The most significant U.S. machinery import increases from China in 1997 occurred in electrical household appliances and certain heating equipment, which were up by \$169 million (16 percent) to \$1.2 billion, and transformers, which rose by \$154 million (37 percent) to \$573 million. This equipment tends to be relatively unsophisticated, low-end, commodity items that Chinese suppliers can produce at very low cost, given the low cost of labor and other input factor costs in China.

The leading U.S. import and export machinery products for major trading partner countries are presented in table 11-4.

Table 11-4
Machinery: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Molding boxes for metal foundries and related products Insulated wire and cable Machinery for working rubber or plastic Tractors	Insulated wire and cable Miscellaneous machines and appliances Taps, cocks, valves, etc. for pipes, tanks, etc. Air conditioning machines

Mexico	Insulated wire and cable Electrical transformers, static converters, and inductors Electric motors and conductors Taps, cocks, valves, etc. for pipes, tanks, etc.	Insulated wire and cable Electrical transformers, static converters, and inductors Miscellaneous machines and appliances Parts of electric motors, generator sets, and related products
Japan	Miscellaneous machines and appliances Machining centers, unit construction machines, and other machines for working metal Lathes for removing metal, including turning centers Tractors	Miscellaneous machines and appliances Centrifuges, filters, etc.; machines for liquids or gases Machine tools for removal of material by laser, ultrasonic, plasma, or related methods Machine tool parts
Germany	Printing machinery and related products Miscellaneous machines and appliances Pumps for liquids and liquid elevators Machinery for working rubber or plastic	Miscellaneous machines and appliances Pumps for liquids and liquid elevators Machine tool parts Printing machinery and related products
United Kingdom	Tractors Taps, cocks, valves, etc. for pipes, tanks, etc. Air or vacuum pumps, compressors, fans, hoods, and parts Pumps for liquids and liquid elevators	Miscellaneous machines and appliances Insulated wire and cable Pumps for liquids and liquid elevators Air or vacuum pumps, compressors, fans, hoods, and parts
China	Electric water, space, and soil heaters and related products Electrical transformers, static converters, and inductors Air or vacuum pumps, compressors, fans, hoods, and parts Insulated wire and cable	Miscellaneous machines and appliances Air or vacuum pumps, compressors, fans, hoods, and parts Steam turbines and other vapor turbines Refrigerators, freezers, and heat pumps

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Farm and Garden Machinery and Equipment

The U.S. trade surplus in farm and garden machinery and equipment rose by \$502 million (34 percent) to \$2.0 billion in 1997, reflecting increased U.S. exports to Canada, Mexico, Central Asia, Brazil, Argentina, Ukraine, and Russia. The largest U.S. trade surpluses were with Canada, Mexico, and Australia, principal markets for U.S. exports. Trade deficits with Japan, the United Kingdom, and Italy widened, in part due to marginal increases in U.S. imports from these markets. However, the trade deficit with Germany narrowed due to a significant decline in U.S. imports from that country.

For the first time within the last 5 years, the United States ran a trade deficit in farm and garden machinery and equipment with France, declining from a surplus of \$85 million in 1996 to a deficit of \$67 million in 1997. This deficit was due to a large increase in imports of track-laying type tractors from France, used

primarily in construction, but also agricultural applications.⁴ The United States generally produces large-sized equipment suitable for large-scale, capital-intensive farming found in North America, Australia, Argentina, Brazil, Ukraine, South Africa, and Saudi Arabia. Europe produces medium-sized equipment suitable for medium-sized farms in Europe and parts of Latin America, and Japan produces small-sized equipment suitable for small-scale farms in Asia.

U.S. imports

U.S. imports of farm and garden machinery and equipment rose by \$505 million (15 percent) to \$3.9 billion in 1997. The largest shift occurred in imports from France, which rose by \$189 million (99 percent) to \$381 million. Imports from Canada rose by \$178 million (21 percent) to \$1.0 billion and imports from the United Kingdom rose by \$138 million (35 percent) to \$527 million. Demand in the United States was driven by several factors, including the effects of the Federal Agricultural Improvement and Reform Act of 1996 (P.L. 104-127) that provides for annual fixed but declining “production flexibility contract payments” from the Federal Government largely independent of farm prices and allowed farmers more flexibility in determining crop types and acreage for planting; stable commodity prices; strong domestic and export demand for crops; and favorable weather.⁵ These factors resulted in higher farm incomes, which along with low interest rates and widespread credit availability, allowed farmers to make farm equipment purchases. In addition, many U.S. and foreign producers of farm equipment introduced new models that included major productivity enhancements in mid-1997.

The increase in imports from France and the United Kingdom and the decline in imports from Germany occurred principally in tractors and parts. The rise in imports from the United Kingdom and decline in imports from Germany were in part due to Case Corp. closure of its Neuss, Germany tractor factory and the transfer of that production to facilities in Racine, Wisconsin, and Doncaster, United Kingdom, during 1997. Imports from Japan, the second-largest import supplier, rose by \$13 million (2 percent) to \$718 million.⁶ In 1997, 73 percent of U.S. imports of farm and garden machinery and equipment from Japan were tractors (generally low-powered tractors used by small or weekend farmers and gardeners) and another 20 percent were tractor parts.

U.S. exports

U.S. exports of farm and garden machinery and equipment rose by \$1.0 billion (21 percent) to \$5.9 billion in 1997. The single-largest increase in exports was to Canada, which increased by \$404 million (26

⁴Certain track-laying type tractors that may be used for both agricultural and nonagricultural uses, were ruled by the former U.S. Customs Court (now the U.S. Court of International Trade), to be eligible for classification as track-laying type tractors suitable for agricultural uses. See U.S. Customs Court, *Pettibone Westrac v. United States*, C.D. 4414, Mar. 23, 1973.

⁵AGCO Corp., “AGCO Reports Record Third Quarter Sales and Net Earnings,” found at Internet address <http://www.agcrop.com/news/4.html>, retrieved Mar. 18, 1998, and U.S. Securities and Exchange Commission, “Case Corp., 10-K, Mar. 13, 1998,” pp. 30-31, found at Internet address <http://www.sec.gov/Archives/edgar/data/922321/0000950131-98-001695.txt>, retrieved Mar. 18, 1998.

⁶On Feb. 25, 1997, the USITC issued a general exclusion order under sec. 337 of the Tariff Act of 1930 prohibiting the unlicensed entry for consumption of agricultural tractors under 50 power take-off horsepower manufactured by Kubota Corp. of Japan that infringe the Federal registered U.S. trademark “KUBOTA” and 11 cease and desist orders. These orders effected a gray market in used Kubota tractors imported into the United States. The investigation was instituted by the Commission on Feb. 14, 1996, based on a complaint filed by Kubota Tractor Corp., Kubota Manufacturing of America, and Kubota Corp. 62 FR 10069, Mar. 5, 1997.

percent) to \$1.9 billion. The rise in exports to Canada occurred mainly in harvesting machines and tractors.⁷ The increase in exports to Canada in part was due to the introduction in 1997 of new models of tractors, harvesting machines, and other farm machinery that were well received by North American farmers. Exports to Mexico rose by \$115 million (57 percent) to \$319 million and were largely parts of tractors. The rise in exports to Mexico was due primarily to increased production by U.S. and foreign tractor producers in Mexico⁸ as a result of the recovering Mexican economy.⁹ U.S. exports to Central Asia, the Ukraine, and Russia were primarily grain and cotton harvesting machines. U.S. exports to Turkmenistan rose by \$87 million (589 percent) to \$101 million; to Ukraine by \$55 million (126 percent) to \$98 million; to Kazakhstan by \$43.7 million (7,382 percent) to \$44.3 million;¹⁰ to Uzbekistan by \$50 million (774 percent) to \$56 million; to Russia by \$16 million (101 percent) to \$31 million. Exports to these countries, primarily by Case Corp. and Deere & Co. were largely driven by efforts to improve the volume and quality of crop yields in both grains and cotton.

Exports to Brazil rose by \$63 million (121 percent) to \$114 million, partly due to strong commodity prices that resulted in higher farm income, improved farm debt and financing terms, and limited purchases of machinery in 1996 that resulted in higher machinery demand in 1997.¹¹ In addition, agricultural reforms that reduced or eliminated export taxes on agricultural products and import taxes on agricultural production inputs also helped to increase demand for imported machinery.¹² Exports to Brazil rose in part because Case Corp. was able to take advantage of Brazil's automotive trade program starting August 1997, which resulted "in lower import tariffs on some products in exchange for increased local manufacturing."¹³

Exports to Australia, the second-largest destination for U.S. farm and garden machinery exports, rose by \$58 million (13 percent) to \$508 million, largely due to higher farm incomes resulting from favorable weather, good harvests, and solid global agricultural commodity prices. Most of the increase occurred in harvesting machines, tractors, and parts. U.S. exports to Thailand, Taiwan, and the Phillippines declined because of poor weather conditions and currency problems. Exports to Burma declined because of U.S. sanctions imposed against that country in 1997.¹⁴

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Insulated Electrical Wire and Cable and Related Products

Increased U.S. border assembly operations (particularly in Mexico) were largely responsible for the continued expansion of the U.S. trade deficit in insulated electrical wire and cable and related products in 1997, which rose by \$329 million (16 percent) to \$2.3 billion. Due to the labor-intensive nature of certain finishing and assembly operations associated with selected supply cords and wiring sets, and in response to competition

⁷The only Canadian producer of tractors, a subsidiary of New Holland, N.V., of the Netherlands, specializes in large tractors; the major U.S. farm machinery producers operate parts manufacturing factories in Canada.

⁸Deere & Co. operates a tractor factory and an agricultural implement factory in Mexico, and AGCO operates a tractor assembly plant there. New Holland, N.V., produces tractors in Mexico through a joint venture.

⁹Deere & Co., *1997 Annual Report*, p. 12.

¹⁰John Deere, "News: \$114 Million Equipment Sale to Kazakhstan," found at Internet address <http://www.deere.com/news/kazakrls.htm>, retrieved Mar. 18, 1998.

¹¹U.S. Securities and Exchange Commission, "AGCO Corp., 10-Q, Nov. 14, 1997," found at Internet address <http://www.sec.gov/Archives/edgar/data/880266/0000880266-97-000017.txt>, retrieved Mar. 18, 1998.

¹²AGCO Corp., "AGCO Reports Record Third Quarter Sales and Net Earnings," found at Internet address <http://www.agcocorp.com/news/4.html>, retrieved Mar. 18, 1998.

¹³Case Corp., "Case Corporation Begins Construction of New Agricultural Equipment Plant in Sorocaba, Brazil," found at Internet address <http://www.casecorp/corporate/press/980313.html>, retrieved Mar. 20, 1998.

¹⁴Executive Order 13047, "Prohibiting New Investment in Burma," May 21, 1997, 62 FR 28299, May 22, 1997.

from low-cost producers in the Asian Pacific Rim (notably China, Thailand, the Philippines, and Taiwan), U.S. producers have relocated certain operations to low-wage-rate locales. Nevertheless, the resulting flow of imports from these operations in Mexico retain a substantial element of U.S. manufactured content.

U.S. imports

U.S. imports of insulated electrical wire and cable and related products rose by \$884 million (15 percent) to \$6.8 billion in 1997. Three quarters (\$547 million) of the import increase from Mexico (\$729 million) during 1997 was of ignition wiring sets for motor vehicles. The manufacture of these sets is highly labor intensive and U.S. and foreign suppliers of these products have consequently shifted the final assembly process to Mexico and other foreign sites (principally the Philippines and Thailand) in order to lower their overall costs. Demand for these sets is driven by U.S., Canadian, and Mexican motor-vehicle production, which in 1997 increased by 3 percent to 15.8 million units. The 15-percent rise in the value of wiring set imports from Mexico in 1997 to \$4.3 billion, was also affected by the rising complexity of wiring set design that increases annually as automobile manufacturers strive to provide the consuming public with an expanding array of optional electrical apparatus (including front-and side-impact air bags, satellite-positioning systems, power windows and door locks, and ports for facsimile and cellular phone equipment). This increasing complexity has been adding annually to the average unit values of wiring harnesses.

In addition to wiring harnesses, which accounted for 62 and 63 percent of the increase in imports from Mexico and total imports of insulated electrical conductors, respectively, in 1997, other major import product categories were conductors rated at between 80 and 1,000 volts and fitted with connectors, which increased by \$60 million (7 percent) to \$864 million; and conductors rated at under 80 volts and fitted with connectors, which rose by \$78 million (16 percent) to \$555 million. These insulated wire products range from appliance power cords to assorted electrical and electronic connector apparatus. The two major foreign sources of these products during 1997 were Mexico and China, which accounted for over 60 percent of total imports in both of these product categories. As is the case with ignition wiring harnesses, the vast majority of imports from Mexico are attributable to the operations of U.S. suppliers that export bulk or pre-cut wire and assorted electrical and electronic fittings in order to have the highly labor-intensive process of stripping and terminating the ends of the conductors performed offshore. Chinese suppliers of these products, owing to their low production input factor costs (particularly labor rates), have established themselves as the low price leaders in numerous "commodity type" product lines. The continued strength of the U.S. economy, particularly the consumer electrical and electronic sectors, was largely responsible for increasing U.S. demand for these latter two categories of insulated conductors.

U.S. exports

U.S. exports of insulated wire and cable also rose significantly in 1997, by \$556 million (14 percent) to \$4.5 billion. The top three foreign markets for wire and cable in 1997 were Mexico, exports to which rose by \$209 million (13 percent) to \$1.8 billion; Canada, which also rose by 13 percent (\$116 million) to \$1.0 billion; and the United Kingdom, up by \$92 million (59 percent) to \$249 million. U.S. exports to Mexico were concentrated in ignition wiring sets, magnet winding wire, and conductors with connectors rated at under 80 volts. Magnet winding wire is used extensively in support of maquiladora assembly operations involving motors, generators, transformers, and coils, while low-voltage wire with connectors are used in the assembly of consumer electrical and electronic products in Mexico. Wire exports to Canada were primarily of ignition wiring sets and magnet winding wire, indicative of the extensive ties between U.S. and Canadian producers of motors, generators, transformers, and motor vehicles. The increases in U.S. exports to the United Kingdom were led by magnet winding wire and low-voltage conductors with connectors. A substantial portion of these exports support the extensive subsidiary operations of U.S. companies that produce motors, generators, transformers, and various

consumer and industrial electrical and electronic products for consumption in the United Kingdom and other European markets.

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Air-Conditioning Equipment¹⁵

The U.S. merchandise trade surplus in air-conditioning equipment and parts more than tripled in 1997, escalating by \$882 million (214 percent) to \$1.3 billion. U.S. exports grew by \$738 million (15 percent) to \$5.7 billion while U.S. imports contracted by \$143 million (3 percent) to \$4.4 billion. The increase in U.S. exports is indicative of rising economic and per capita growth in the Western Hemisphere and Europe in 1997. Intercompany transfers were an important aspect of the expansion in exports. The implementation of the Montreal Protocol (banning chlorofluorocarbons or CFCs as of December 1995) has also created opportunities worldwide for U.S. manufacturers and has contributed to the increase in exports. The worldwide requirement to replace or retrofit air-conditioning equipment that now make use of freon (CFCs) with hydrofluorocarbons (HCFCs) over the next decade is expected to expand the demand for U.S. exports of air-conditioning equipment.

U.S. imports

Imports of air-conditioning equipment and parts from Japan, traditionally the largest foreign supplier to the United States, fell by \$145 million (17 percent) to \$710 million in 1997. The decrease in imports from Japan slightly exceeded the total decrease in sector imports in 1997 (\$143 million). Unseasonably warm weather in much of the United States resulted in high distributor-producer inventories for much of Japan's U.S. market niche: room air-conditioners,¹⁶ mini-split air-conditioning units, and commercial and industrial absorption units. Additionally, rising imports from China, up by \$53 million (12 percent) to \$509 million, reduced Japan's share in its niche markets for air-conditioning equipment in the United States. The growth in imports from China was due largely to the establishment of joint ventures by affiliates of U.S., Japan-, and Taiwan-based air-conditioning equipment and parts companies to take advantage of lower wages in China, and to benefit from one of the fastest growing markets for these products.

Mexico surpassed Japan as the leading supplier of air-conditioning equipment and parts to the United States in 1997, although imports from Mexico increased by only \$4 million (1 percent) to \$805 million. The bulk of air-conditioning equipment imported from Mexico is assembled in Mexico's maquiladora industry from U.S.-made parts.

U.S. exports

¹⁵The leading products included in this product category are unitary air-conditioning equipment (including heat pumps), room air-conditioners, liquid chilling units, and compressors. Also covered are air and vacuum pumps.

¹⁶The USDOC reports that central air-conditioning was installed in 81 percent of new homes in 1996, up from 75 percent in 1991.

Exports exhibited strong growth in 1997 in each of the four largest markets for U.S.-made air-conditioning equipment and parts: Canada, the European Union, Mexico, and the rest of Latin America, with exports to Canada (\$1.7 billion) accounting for 30 percent of total sector exports in 1997 (table 11-5). Much of the growth in exports to Canada resulted from increased intercompany shipments between the U.S. and Canadian air-conditioning equipment and parts producers that maintain manufacturing facilities in both countries. Additionally, modest growth in the Canadian economy,¹⁷ combined with falling interest rates, resulted in housing starts posting an 11 percent increase. This, in turn, created strong demand for new air-conditioning equipment and parts, as well as replacement equipment, which reportedly accounts for more than 50 percent of total shipments to Canada.

Table 11-5
Leading changes in U.S. exports of air-conditioning equipment and parts, by markets, 1996-97

Market	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Increases:				
Canada	1,544	1,731	187	12
Mexico	494	676	182	37
Other Latin America	439	608	169	38
European Union	558	718	160	29
Decreases:				
Korea	337	254	-83	-25
All Other	1,616	1,739	123	8
Total	4,988	5,726	738	15

Note.--Calculations based on unrounded data.

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

Much of the increase in exports to Mexico was accounted for by continued rapid growth in Mexico's maquiladora sector, coupled with a 7-percent growth in Mexico's economy in 1997.¹⁸ The number of new assembly plants operating under Mexico's Maquiladora Program increased by approximately 12 percent through late 1997, creating strong demand for U.S.-made air conditioning systems to outfit these new facilities. Increased foreign investment in factories and office buildings to supply and service the growing Mexican economy also provided a market for U.S. exports. Increased purchases of window air-conditioners for private homes and small businesses (generally, consumers who cannot afford central air conditioning) boosted U.S. exports to companies (both subsidiaries of U.S. firms and others) that use U.S.-made parts in the production of window air conditioners for the domestic market in Mexico.

U.S. exports of air-conditioning equipment and parts to Latin America rose by \$351 million (38 percent) to \$1.3 billion in 1997 as the region's economies continued to reap the benefits of sound fiscal policy, reduced inflation, lower trade barriers, and privatization of government owned industries. U.S. exports of all types of compressors (refrigeration, air, and gas) represented the leading growth category, followed by parts for compressors and fans (axial and centrifugal). Brazil was the leading market for U.S. exports of air-conditioning equipment and parts in Latin America; Brazilian imports of these products increased by \$18 million (18 percent) to \$116 million.

¹⁷According to the OECD in Paris, Canada's economy grew by 3.8 percent in 1997.

¹⁸"Maquiladoras Contribute to U.S.-Mexico Border Development," *NAFTA Works*, Mar. 1998, p. 1.

The EU was the second-largest regional market for U.S. exports in 1997. U.S. exports of air-conditioning equipment and parts to the EU rose by \$160 million (29 percent) to \$718 million. The bulk of the growth in exports to the EU resulted from increased intracompany shipments between U.S. and EU air-conditioning equipment and parts producers that maintain manufacturing facilities in both regions. Products accounting for the largest growth in U.S. exports to the EU primarily included parts for all types of compressors and fans (refrigeration, air, and gas). Exports of parts for all types of compressors grew by \$119 million (55 percent) to \$337 million. The United Kingdom, France, Germany, and Belgium were the primary EU markets for these products in 1997.

The Korean Government's policy in 1996 and 1997 of discouraging new construction in order to dampen consumption and control inflation had the effect of reducing the market for several categories of U.S. exports related to the construction industry, including air-conditioning equipment that fell by \$83 million (25 percent) to \$254 million in 1997 (table 11-5). By midyear 1997, Korea's economic growth had decelerated sharply, leading to the devaluation of the won, which contributed to the decline in U.S. exports of air-conditioning equipment in 1997.¹⁹

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¹⁹“Where's the Recovery,” *Business Korea*, Jan. 1998, p. 8.

Table 11-6
Machinery sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
MT003	Pumps for liquids:				
	Exports	2,504	2,978	474	18.9
	Imports	2,061	2,203	142	6.9
	Trade balance	443	775	332	75.1
MT004	Air-conditioning equipment and parts:				
	Exports	4,988	5,726	738	14.8
	Imports	4,576	4,433	-143	-3.1
	Trade balance:	412	1,294	882	213.9
MT005	Certain industrial thermal-processing equipment and certain furnaces:				
	Exports	2,195	2,698	503	22.9
	Imports	1,338	1,374	36	2.7
	Trade balance:	857	1,324	467	54.5
MT006	Commercial machinery:				
	Exports	2,463	2,667	204	8.3
	Imports	1,223	1,329	106	8.7
	Trade balance	1,240	1,338	98	7.9
MT007	Electrical household appliances and certain heating equipment:				
	Exports	2,585	2,724	138	5.4
	Imports	4,261	4,593	332	7.8
	Trade balance:	-1,676	-1,869	-193	-11.5
MT008	Centrifuges and filtering and purifying equipment:				
	Exports	2,389	2,845	456	19.1
	Imports	1,353	1,291	-62	-4.6
	Trade balance:	1,036	1,554	518	50.0
MT009	Wrapping, packaging, and can-sealing machinery:				
	Exports	841	871	30	3.6
	Imports	1,042	1,104	62	5.9
	Trade balance:	-201	-233	-32	-15.8
MT010	Scales and weighing machinery:				
	Exports	136	154	18	13.2
	Imports	197	228	32	16.0
	Trade balance	-61	-74	-14	-22.3
MT013	Mineral processing machinery:				
	Exports	674	915	241	35.8
	Imports	432	508	76	17.5
	Trade balance	242	407	166	68.5
MT014	Farm and garden machinery and equipment:				
	Exports	4,848	5,855	1,007	20.8
	Imports	3,382	3,887	505	14.9
	Trade balance:	1,465	1,967	502	34.2
MT015	Industrial food-processing and related machinery:				
	Exports	708	697	-11	-1.5
	Imports	505	549	44	8.8
	Trade balance:	203	147	-55	-27.2
MT016	Pulp, paper, and paperboard machinery:				
	Exports	851	990	139	16.4
	Imports	1,178	1,105	-73	-6.2
	Trade balance:	-327	-115	212	64.9
MT017	Printing, typesetting, and bookbinding machinery and printing plates:				
	Exports	1,421	1,486	64	4.5
	Imports	1,796	2,048	251	14.0
	Trade balance:	-375	-562	-187	-49.9

See footnote(s) at end of table.

Table 11-6--Continued

Machinery sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
MT018	Textile machinery and parts:				
	Exports	728	849	121	16.6
	Imports	1,528	1,686	159	10.4
	Trade balance	-800	-837	-37	-4.7
MT019	Metal rolling mills and parts thereof:				
	Exports	205	262	57	27.8
	Imports	533	394	-139	-26.1
	Trade balance:	-328	-132	196	59.8
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:				
	Exports	2,228	2,206	-22	-1.0
	Imports	3,880	4,298	418	10.8
	Trade balance	-1,652	-2,092	-440	-26.6
MT021	Machine tools for metal forming and parts thereof:				
	Exports	1,033	1,054	20	2.0
	Imports	1,226	1,355	128	10.5
	Trade balance:	-193	-301	-108	-56.1
MT022	Non-metalworking machine tools and parts thereof:				
	Exports	1,368	1,610	242	17.7
	Imports	1,207	1,464	257	21.3
	Trade balance:	161	146	-15	-9.3
MT023	Semiconductor manufacturing equipment and robotics:				
	Exports	5,662	6,062	399	7.1
	Imports	2,188	2,569	381	17.4
	Trade balance:	3,475	3,493	18	0.5
MT024	Taps, cocks, valves, and similar devices:				
	Exports	2,423	2,745	323	13.3
	Imports	3,128	3,566	438	14.0
	Trade balance:	-705	-821	-116	-16.4
MT026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:				
	Exports	889	1,027	137	15.4
	Imports	1,607	1,650	43	2.7
	Trade balance:	-718	-623	95	13.2
MT027	Boilers, turbines, and related machinery:				
	Exports	1,560	1,864	304	19.5
	Imports	499	345	-154	-30.9
	Trade balance:	1,060	1,519	458	43.2
MT028	Electric motors, generators, and related equipment:				
	Exports	3,316	3,849	534	16.1
	Imports	3,875	4,179	304	7.8
	Trade balance:	-560	-330	230	41.0
MT029	Electrical transformers, static converters, and inductors:				
	Exports	1,923	2,480	557	29.0
	Imports	3,631	4,290	659	18.2
	Trade balance:	-1,708	-1,810	-102	-6.0
MT031	Portable electric handtools:				
	Exports	333	443	111	33.2
	Imports	607	765	157	25.9

See footnote(s) at end of table.

Table 11-6--Continued

Machinery sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
	Trade balance	-275	-322	-47	-17.1
		<i>Million Dollars</i>			
MT032	Nonelectrically powered handtools and parts thereof:				
	Exports	478	579	101	21.2
	Imports	684	735	51	7.5
	Trade balance:	-206	-156	50	24.2
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:				
	Exports	833	955	122	14.6
	Imports	1,153	1,215	61	5.3
	Trade balance:	-320	-260	60	18.9
MT035	Electric and gas welding and soldering equipment:				
	Exports	534	762	229	42.9
	Imports	683	810	127	18.6
	Trade balance:	-149	-47	102	68.4
MT036	Insulated electrical wire and cable and conduit; glass and ceramic insulators:				
	Exports	3,936	4,491	556	14.1
	Imports	5,935	6,819	884	14.9
	Trade balance:	-1,999	-2,328	-329	-16.4
MT045	Miscellaneous machinery:				
	Exports	5,474	6,131	657	12.0
	Imports	4,377	4,715	338	7.7
	Trade balance	1,097	1,416	319	29.1
MT046	Molds and molding machinery:				
	Exports	1,442	1,681	239	16.6
	Imports	3,030	3,227	197	6.5
	Trade balance:	-1,588	-1,546	42	2.6

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

²This 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.

Note.--Calculations based on unrounded data.

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

CHAPTER 12

Transportation Equipment

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The U.S. trade deficit in the transportation equipment sector narrowed sharply in 1997, declining by \$6.1 billion (23 percent) to \$20.9 billion (table 12-1). The reduced deficit was largely a reflection of substantial growth in U.S. exports, which increased by \$19.0 billion (17 percent) to \$134.9 billion. Among the product groups largely responsible for the improved deficit were aircraft, spacecraft, and related equipment (aircraft), which recorded a trade surplus increase of \$5.8 billion (25 percent) to \$29.2 billion, and certain motor-vehicle parts whose trade surplus rose by \$2.6 billion (44 percent) to \$8.5 billion. In addition, the trade deficit of \$366 million recorded in 1996 for internal combustion piston engines, other than for aircraft, declined by \$1.0 billion to a trade surplus of \$638 million in 1997.

U.S. imports of transportation equipment grew by \$13.0 billion (9 percent) to \$155.8 billion in 1997. Although imports were outpaced by exports, a rise in demand for motor vehicles, aircraft engines, and aircraft contributed to the overall growth in imports. Imports of motor vehicles increased by \$5.8 billion (7 percent) to \$92.9 billion, while imports of aircraft engines and gas turbines rose by \$2.1 billion (34 percent) to \$8.4 billion (table 12-2). Imports of aircraft recorded an increase of \$2.1 billion (29 percent) to \$9.5 billion in 1997. The aggregate value of motor vehicles, aircraft engines and gas turbines, and aircraft accounted for 71 percent of U.S. transportation equipment imported during the period.

Noteworthy increases in four sectoral product categories were largely responsible for the substantial rise in total U.S. exports of transportation equipment. U.S. exports of aircraft grew by \$7.9 billion (26 percent) to \$38.7 billion, while exports of certain motor-vehicle parts increased by \$3.5 billion (15 percent) to \$26.3 billion (table 12-3). U.S. exports of aircraft engines and gas turbines expanded by \$2.6 billion (29 percent) to \$11.6 billion, and exports of motor vehicles rose by \$1.7 billion (7 percent) to \$24.4 billion.

The growth in U.S. aircraft exports was largely attributable to a significant increase in orders in 1997, and the improved financial performance of domestic and international airlines. The principal export markets for these products were the United Kingdom and Japan. Exports to the United Kingdom, which were driven primarily by increased demand for large civil aircraft (LCA) manufactured in the United States, grew by \$2.8 billion (125 percent) to \$5.1 billion. Airlines in the United Kingdom, which are among the most profitable in the world, continued to enhance their fleets with U.S.-produced aircraft in 1997. Aircraft exported to Japan increased by \$1.2 billion (40 percent) to \$4.2 billion, primarily reflecting major purchases of LCA by Japanese airlines. France, Canada, and the United Kingdom were the leading export markets for U.S. exports of aircraft engines and gas turbines. Increased demand for aircraft engines and parts by airlines in these three countries was the principal factor contributing to the rise in U.S. exports.

Total U.S. exports of motor-vehicle parts rose by \$3.5 billion (15 percent) to \$26.3 billion, and were largely a reflection of a \$1.4 billion (11 percent) rise in exports of such products to Canada (a country that continues to experience considerable growth in consumer spending since 1995) and the further integration of the North American automotive market. Contributing to the increase in total exports of motor-vehicle parts was a \$1.3 billion (36 percent) rise in exports to Mexico, which largely reflected improved market conditions in that

country and the effects of tariff reductions agreed to under NAFTA. As in 1996, Canada continued as the largest market for U.S. exports of motor vehicles. U.S. exports of motor vehicles to Canada rose by \$2.2 billion (18 percent) to \$14.2 billion, largely reflecting a continued surge in consumer spending.

Trade statistics for all commodity/industry groups in the transportation equipment sector are presented in table 12-5 at the end of this chapter.

Table 12-1

Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	37,248	42,697	5,449	14.6
Japan	8,332	8,947	615	7.4
Mexico	7,105	10,479	3,374	47.5
Germany	4,268	4,912	645	15.1
United Kingdom	4,965	8,253	3,288	66.2
France	2,588	3,247	660	25.5
Korea	3,429	3,665	236	6.9
Belgium	1,964	2,562	598	30.5
Saudi Arabia	3,575	4,185	610	17.1
Brazil	1,744	2,591	847	48.6
All Other	40,612	43,410	2,798	6.9
Total	115,829	134,949	19,120	16.5
EU-15	21,957	26,645	4,688	21.3
OPEC	8,382	9,082	700	8.3
Latin America	14,675	20,139	5,464	37.2
CBERA	1,227	1,545	317	25.9
Asian Pacific Rim	26,605	29,879	3,273	12.3
ASEAN	5,975	7,388	1,414	23.7
Central and Eastern Europe	280	690	410	146.1
U.S. imports for consumption:				
Canada	49,555	53,040	3,485	7.0
Japan	39,667	40,972	1,304	3.3
Mexico	17,275	18,808	1,533	8.9
Germany	12,013	13,595	1,582	13.2
United Kingdom	5,639	7,661	2,023	35.9
France	4,248	5,206	959	22.6
Korea	2,490	2,687	197	7.9
Belgium	1,192	1,637	445	37.3
Saudi Arabia	2	4	2	94.1
Brazil	1,050	1,359	309	29.5
All Other	9,692	10,866	1,174	12.1
Total	142,822	155,836	13,014	9.1
EU-15	28,501	33,883	5,382	18.9
OPEC	252	309	57	22.8
Latin America	18,533	20,406	1,873	10.1
CBERA	23	24	1	4.8
Asian Pacific Rim	44,827	46,968	2,141	4.8
ASEAN	628	789	161	25.6
Central and Eastern Europe	222	275	53	23.7
U.S. merchandise trade balance:				
Canada	-12,307	-10,343	1,964	16.0
Japan	-31,335	-32,024	-689	-2.2
Mexico	-10,170	-8,329	1,841	18.1
Germany	-7,745	-8,682	-937	-12.1
United Kingdom	-674	591	1,265	(²)
France	-1,660	-1,959	-299	-18.0
Korea	939	978	39	4.2
Belgium	772	925	153	19.9
Saudi Arabia	3,573	4,181	608	17.0
Brazil	694	1,232	537	77.4
All Other	30,920	32,544	1,624	5.3
Total	-26,993	-20,887	6,106	22.6
EU-15	-6,544	-7,238	-695	-10.6
OPEC	8,130	8,772	642	7.9
Latin America	-3,858	-268	3,591	93.1
CBERA	1,205	1,521	316	26.3
Asian Pacific Rim	-18,222	-17,090	1,132	6.2
ASEAN	5,347	6,599	1,253	23.4
Central and Eastern Europe	58	416	357	615.5

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

²Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

Table 12-2

Leading increases in U.S. imports of transportation equipment, by product, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Motor vehicles (MT038)	87,116	92,988	5,872	7
Aircraft engines and gas turbines (MT001)	6,241	8,380	2,139	34
Aircraft, spacecraft, and related equipment (MT042)	7,353	9,459	2,106	29
Certain motor-vehicle parts (MT039)	16,867	17,804	937	6
Internal combustion, piston engines, other than for aircraft (MT002)	9,533	9,987	454	5
All other	15,712	17,218	1,506	10
Total	142,822	155,836	13,014	9

Note.--Calculations based on unrounded data.

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

Table 12-3

Leading increases in U.S. exports of transportation equipment, by product, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
<i>Million dollars</i>				
Aircraft, spacecraft, and related equipment (MT042)	30,754	38,698	7,944	26
Certain motor-vehicle parts (MT039)	22,793	26,324	3,531	15
Aircraft engines and gas turbines (MT001)	8,963	11,594	2,631	29
Motor vehicles (MT038)	22,693	24,394	1,701	7
Internal combustion, piston engines, other than for aircraft (MT002)	9,167	10,625	1,458	16
All other	21,459	23,314	1,855	9
Total	115,829	134,949	19,120	17

Note.--Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

The principal U.S. trading partners in the transportation equipment sector during 1997 were Canada, Mexico, Japan, Germany, the United Kingdom, Korea, and France. U.S. exports to Canada, the largest export market, accounted for \$42.6 billion (32 percent) of total U.S. transportation equipment exports in 1997, followed by Mexico, which received \$10.5 billion (8 percent) of total sector exports. With respect to imports, Canada and Japan were the leading suppliers of U.S. transportation equipment, accounting for \$53.0 billion (34 percent) and \$40.9 billion (26 percent) of total U.S. imports, respectively. Collectively, aircraft, certain motor-vehicle parts, and motor vehicles together represented \$89.4 billion (66 percent) of total U.S. exports and \$120.3 billion (77 percent) of U.S. imports in 1997.

The Asian Pacific Rim was the largest international regional market for U.S. exports of transportation equipment in 1997, followed by the EU and Latin America. U.S. exports to these markets increased by \$3.3 billion (22 percent of total exports) to \$29.9 billion, \$4.7 billion (20 percent) to \$26.6 billion, and \$5.5 billion (15 percent) to \$20.1 billion, respectively. The U.S. transportation equipment trade deficit with the Asian Pacific Rim nations fell by \$1.1 billion (6 percent) to \$17.1 billion, whereas the U.S. deficit with the EU grew by \$695 million (11 percent) to \$7.2 billion. With respect to Latin America, the U.S. sectoral trade deficit declined by \$3.6 billion (93 percent) to \$268 million. U.S. imports from Asian Pacific Rim nations, the largest regional supplier, rose by \$2.1 billion (5 percent) to \$46.9 billion. Imports from the EU, the second-largest regional supplier, rose by \$5.4 billion (19 percent) to \$33.8 billion. Transportation equipment imported from Latin America recorded an increase of \$1.9 billion (10 percent) to \$20.4 billion in 1997.

The leading U.S. import and export transportation equipment products by major trading partner countries are shown in table 12-4.

Table 12-4

Transportation equipment: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Canada	Passenger cars Motor-vehicle parts Trucks Spark-ignition internal combustion piston engines	Motor-vehicle parts Passenger cars Trucks Spark-ignition internal combustion piston engines
Japan	Passenger cars Motor-vehicle parts Spark-ignition internal combustion piston engines Aircraft and spacecraft parts	Aircraft and spacecraft Aircraft and spacecraft parts Passenger cars Motor-vehicle parts
Mexico	Passenger cars Trucks Motor-vehicle parts Spark-ignition internal combustion piston engines	Motor-vehicle parts Passenger cars Trucks Spark- and compression-ignition internal combustion engine parts
Germany	Passenger cars Turbojets, turbopropellers, other gas turbines, and parts Motor-vehicle parts Spark- and compression-ignition internal combustion engine parts	Aircraft and spacecraft Passenger cars Aircraft and spacecraft parts Turbojets, turbopropellers, other gas turbines, and parts
United Kingdom	Turbojets, turbopropellers, other gas turbines, and parts Passenger cars Aircraft and spacecraft parts Aircraft and spacecraft	Aircraft and spacecraft Turbojets, turbopropellers, other gas turbines, and parts Aircraft and spacecraft parts Parts for hoists, cranes, lifting, handling, loading, and construction machinery
France	Turbojets, turbopropellers, other gas turbines, and parts Aircraft and spacecraft Motor-vehicle parts Aircraft and spacecraft parts	Turbojets, turbopropellers, other gas turbines, and parts Aircraft and spacecraft parts Motor-vehicle parts Aircraft and spacecraft

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Aircraft, Spacecraft, and Related Equipment

The U.S. trade surplus in aircraft, spacecraft, and related equipment increased by \$5.8 billion (25 percent) to \$29.2 billion in 1997. This improvement was principally the result of a 45-percent rise (\$6.6 billion)

in U.S. exports of large civil aircraft (LCA),¹ from \$14.9 billion to \$21.5 billion. Renewed airline profitability spurred new orders for U.S. LCA for both domestic and global fleet replacement, as well as their measured expansion of air transport service.²

U.S. imports

U.S. imports of aircraft, spacecraft, and related equipment rose by \$2.1 billion (29 percent) to \$9.5 billion in 1997. Canada, France, and Japan were the principal sources of these imports, accounting for 65 percent of the annual total in 1997, a 2-percent decline from 1996. Imports from Canada grew by \$547 million (25 percent) to \$2.7 billion. This increase was largely accounted for by U.S. imports of multi-engined, turbofan-powered, civil aircraft over 4,536 kg and not exceeding 15,000 kg, which rose by \$76 million (10 percent) to \$810 million, and multi-engined, nonturbofan-powered, civil aircraft over 4,536 kg and not exceeding 15,000 kg, which increased by \$121 million (54 percent) to \$345 million. U.S. imports of parts for civil aircraft from Canada grew as well, rising by 32 percent to \$731 million.³ Taken together, these three sectors accounted for \$1.9 billion (69 percent) of the total increase in Canadian imports.

U.S. imports from France rose by \$337 million (19 percent) to \$2.1 billion in 1996. The largest increase in imports occurred in new turbofan-powered civil aircraft over 4,536 kg and not exceeding 15,000 kg, which rose by \$358 million (120 percent) to \$833 million. While U.S. imports of new French passenger LCA rose by \$199 million (60 percent) to \$528 million, imports of new cargo LCA declined by \$317 million (65 percent) to \$167 million. Trends in U.S. imports were the result of the aggressive stance taken by U.S. passenger airlines regarding their air-transport market and fleet replacement needs and the converse stance of U.S. freight airlines.

U.S. imports from Japan grew by \$498 million (66 percent) in 1997 to \$1.2 billion. The bulk of this increase was accounted for by imports of parts for civil aircraft, which rose by \$469 million (63 percent) to \$1.2 billion. As Japan holds major supplier contracts with Boeing, part of this rapid increase may be attributable to the rise in production of Boeing aircraft.

U.S. exports

U.S. exports of aircraft, spacecraft, and related equipment rose by \$7.9 billion (26 percent) to \$38.7 billion in 1997. Increased earnings of foreign air carriers drove U.S. exports of LCA, which totaled \$21.5 billion. The United Kingdom, Japan, and Saudi Arabia were the leading export markets for this equipment in 1997. U.S. exports to the United Kingdom rose by \$2.8 billion (125 percent) to \$5.1 billion; exports to Japan grew by \$1.2 billion (40 percent) to \$4.2 billion; and exports to Saudi Arabia rose by \$930 million (60 percent) to \$2.5 billion. The increase in U.S. exports to the United Kingdom was largely driven by U.S. exports of LCA, which grew by \$2.7 billion (241 percent) to \$3.8 billion.⁴ The recipient airlines in the United Kingdom have begun the process of replenishing their long-haul fleet, which may continue over the next few years.

¹LCA are civil passenger, cargo, and used or rebuilt aircraft over 33,000 lbs. Passenger LCA typically have at least 100 seats.

²Lead time for delivery of a new LCA is about 18-24 months, although this varies with model and current market demand.

³In 1997, U.S. markets for business and commuter aircraft expanded, driven by increased U.S. demand for business and commuter passenger travel. U.S. imports of these aircraft are essential for both fleet replacement and business expansion.

⁴In 1997, the United Kingdom received six Boeing 747s, four 757s, one 767, and eleven 777s. The list prices of each aircraft, when multiplied by the number of aircraft involved, totals \$2.74 billion.

The \$1.2 billion rise in U.S. exports to Japan was fueled by an 80-percent rise (\$1.1 billion) in exports of LCA, while U.S. exports of LCA to Saudi Arabia grew by \$845 million (838 percent). These exports accounted for 91 percent of the increase in total U.S. exports (\$930 million) to Saudi Arabia in 1997. All of the increases in deliveries of U.S. LCA were the result of airline projections showing an increased demand for air-transport services by the general public, as well as to fulfill some of their fleet replacement needs.

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Motor Vehicles

The U.S. trade deficit in motor vehicles⁵ increased by \$4.2 billion (7 percent) to \$68.6 billion in 1997. The U.S. deficit with Japan and Canada accounted for 38 percent (\$26.3 billion) and 32 percent (\$21.7 billion), respectively, of the total U.S. trade deficit for the sector. These bilateral deficits increased in 1997; the deficit with Japan increased by \$2.0 billion (8 percent), and the deficit with Canada increased by \$34.0 million (0.2 percent). The U.S. trade deficit with Mexico; however, decreased by \$222 million (2 percent) to \$10.3 billion in 1997, accounting for 15 percent of the annual total. The United States traditionally maintains a trade deficit in motor vehicles as a result of global production strategies.

U.S. imports

U.S. imports of motor vehicles increased by \$5.9 billion (7 percent) to \$93.0 billion in 1997. Canada continued to be the largest source, accounting for 39 percent of total U.S. sector imports; Japan accounted for an additional 30 percent of total sector imports, down from 31 percent in 1996; and imports from Mexico accounted for 13 percent. The percentage of imports from Canada and Mexico remained steady from 1996 levels. U.S. retail sales of passenger cars and light trucks reached 15.1 million units in 1997, an increase of less than 1 percent over 1996 levels, but the industry's second-highest peak since reaching the 16-million mark in 1986.⁶

U.S. motor-vehicle imports from Canada rose by \$2.2 billion (7 percent) to \$35.9 billion in 1997. The U.S.-Canadian auto industry is fully integrated, and the U.S. Big Three automakers--General Motors, Ford, and Chrysler--consider the United States and Canada as a single unit for production planning purposes. Moreover, most Canadian automotive production is for export, primarily to the United States. Canadian car and truck production reached record levels of 2.5 million units in 1997, a 5-percent increase over 1996 levels.⁷ Canadian sources report an estimated \$13 billion in investment in the automotive sector in Canada during the 1990s,⁸ with automakers such as Chrysler, General Motors, and Toyota announcing additional billions in planned investment to expand automotive production facilities. The weak Canadian dollar, relatively low labor costs, and NAFTA continue to contribute to the expansion of automotive investment and production in Canada.⁹ Canada's trade

⁵This product category includes automobiles, trucks, buses, and bodies and chassis of the foregoing.

⁶Randall Miller, USDOC, International Trade Administration (ITA), Office of Automotive Affairs, *Developments in the 1997 U.S. Market for New Light Vehicles*, Mar. 1998, found at Internet address <http://www.ita.doc.gov/industry/basic/97back2.html>, retrieved Apr. 9, 1998.

⁷Madellon Lopes, "Canada - Automotive Sales Up 18 Percent - IMI980121," *Market Research Reports*, Jan. 21, 1998, found at Internet address <http://www.stat-usa.gov>, retrieved Apr. 8, 1998.

⁸"Canadian Auto Industry Big Winner Under Free Trade Say Scotiabank Economists," Canada Newswire, found at Internet address <http://www.newsedge>, posted Mar. 31, 1998, retrieved Apr. 7, 1998.

⁹Madellon Lopes and Kelly Duffy, "Canada - Auto Makers - IMI970430," *Market Research Reports*, Apr. 30, (continued...)

surplus in motor vehicles is approximately \$25 billion, with the United States accounting for the entire positive balance.¹⁰

U.S. motor-vehicle imports from Japan increased by \$1.0 billion (4 percent) to \$28.0 billion in 1997. This is a reversal of a 2-year trend in declining imports from Japan, resulting from the addition of significant production capacity in the United States by Japanese motor-vehicle manufacturers. Japanese shipments of passenger cars to the United States began to rise in the last quarter of 1996 as a result of the weak yen; reports indicate that Japanese automakers are employing a “roving production” strategy that will allow them to move production from region to region as quickly as possible to take advantage of currency fluctuations, thereby providing them with the opportunity to repatriate production of certain models.¹¹ The depreciated value of the yen against the U.S. dollar continued to affect U.S.-Japan automotive trade in 1997, allowing Japanese automakers to offer more competitive prices on their autos in the U.S. market. In addition, a recession in the Japanese market brought on by an increase in the national sales tax in April 1997 prompted Japanese automakers to export their excess capacity. Finally, the launch of popular models such as the Honda CR-V, which are only produced in Japan, fueled U.S. imports from Japan.¹² Japanese production increased 6 percent in 1997 to just under 11 million units,¹³ while total Japanese vehicle exports to all countries increased 23 percent to 4.55 million units, the first increase in 7 years.¹⁴ Increased Japanese shipments in units to the United States were modest at 11 percent as compared with Europe (32 percent), Canada (95 percent), and Argentina (291 percent).¹⁵

The 10-year trend of increased U.S. sales of Japanese brands produced in the United States at the expense of autos imported from Japan was reversed in 1997. In terms of units, Japanese transplant production sales as a percentage of total Japanese brand sales in the United States, which had increased steadily between 1986 (12 percent) and 1996 (67 percent), fell to 65 percent in 1997, representing U.S. transplant sales of 2.3 million cars and light trucks. In contrast, Japanese import sales as a percentage of total Japanese brand sales in the United States, which had been declining steadily between 1986 (88 percent) and 1996 (33 percent), rose to 35 percent in 1997, representing U.S. Japanese import sales of 1.3 million units.¹⁶

U.S. motor-vehicle imports from Mexico increased by \$556 million (5 percent) to \$11.7 billion in 1997. Increased U.S. imports from Mexico were principally a function of the increasing integration, interdependence, and rationalization of the U.S. and Mexican automotive industries; record car and truck production in Mexico in 1997; and continued strong motor-vehicle demand in the U.S. market. Mexican car and truck production increased by 10 percent over 1996 levels and exports to the United States account for a significant portion of

⁹(...continued)

1997, found at Internet address <http://www.stat-usa.gov>, retrieved Apr. 8, 1998. Canada’s automotive industry is reaping the benefits of free trade, with exports rising by more than 50 percent since early 1994. “Canadian Auto Industry Big Winner Under Free Trade Say Scotiabank Economists,” Mar. 31, 1998, found at Internet address <http://www.newsedge>, retrieved Apr. 7, 1998.

¹⁰“Canadian Auto Industry Big Winner Under Free Trade Say Scotiabank Economists,” Canada Newswire, found at Internet address <http://www.newsedge>, posted Mar. 31, 1998, retrieved Apr. 7, 1998.

¹¹“Weaker Yen Causing Japanese to Repatriate Manufacturing,” *BNA International Trade Daily*, Nov. 5, 1996.

¹²James B. Treece, “Exports Keep Japan in Tune, but Dip is Expected,” *Automotive News*, Feb. 9, 1998, p. 78.

¹³Ibid.

¹⁴Kim Willenson, “Auto Exports Hit 4.55 Million in 1997, Up 22.7% From a Year Ago,” *The Japan Automotive Digest*, Feb. 2, 1998, p. 10.

¹⁵James B. Treece and Mark Rehtin, “Asia Must Export, but U.S. Seems Off-limits,” *Automotive News*, Jan. 19, 1998, p. 1.

¹⁶Randall Miller, USDOC, ITA, Office of Automotive Affairs, *Developments in the 1997 U.S. Market for New Light Vehicles*, Mar. 1998, found at Internet address <http://www.ita.doc.gov/industry/basic/97back2.html>, retrieved Apr. 9, 1998.

Mexico's automotive production. Mexican auto exports to the United States are likely to continue this trend while automaker capacity in Mexico is larger than Mexican market requirements. While one analyst notes that a good share of Mexican automotive exports to the United States are in the smaller car segment, which will be suited to the Mexican market when it improves, another analyst notes that the political, economic, and social structure in Mexico continues to hinder the development of a middle class, which is essential to high-volume automotive sales.¹⁷ Nonetheless, the 60-percent increase in Mexican car production for the domestic market in 1997 and the 6-percent drop in Mexican car production for export is an indication that the domestic market is recovering.¹⁸

U.S. exports

U.S. exports of motor-vehicles totaled \$24.4 billion in 1997, an increase of \$1.7 billion (8 percent) from 1996. Canada was again the largest market, accounting for 58 percent of total sector exports, up from 52 percent in 1996. Exports to Mexico accounted for 8 percent of total sector exports, up from 5 percent in 1996, moving Mexico ahead of Japan as the second-largest market for U.S. motor-vehicle exports. Exports to Japan accounted for 6 percent of total sector exports, down from 11 percent in 1996.

U.S. motor-vehicle exports to Canada rose by \$2.2 billion (18 percent) to \$14.2 billion in 1997, largely attributable to the continued rebound in consumer spending in Canada after a 12-year low recorded in 1995. While most cars built in Canada are for export, conversely, most cars sold in Canada are imports.¹⁹ Canadian motor-vehicle sales registered healthy increases in 1997; sales of passenger cars rose 12 percent, sales of light trucks rose 26 percent,²⁰ and sales of medium- and heavy-duty trucks rose by 22 percent.²¹ Sales increases were also attributable to attractive incentive offerings by automakers and the desire of consumers to take advantage of low interest rates.²²

U.S. motor-vehicle exports to Japan decreased by \$1.0 billion (39 percent) to \$1.6 billion in 1997. After 4 years of increased motor-vehicle sales, the Japanese domestic market fell by more than 5 percent in 1997, with sales totaling 6.7 million vehicles.²³ An announced increase in the national sales tax in April 1997 caused a rush of auto sales in Japan in the first quarter of the year, but the market weakened during the remaining months due to the tax increase and the faltering economy.²⁴ As a result, exports from U.S.-based suppliers suffered; new General Motors/Saturn car registrations in Japan declined 8.2 percent in 1997; for Ford, the decline was 39.8 percent; and for Chrysler, the decline was 10.7 percent.²⁵ Moreover, reverse imports from all Japanese factories abroad, including the United States, fell 44 percent in 1997 to 50,601 units.²⁶ Strong demand in the U.S. market for transplant model cars absorbed this production.

U.S. motor-vehicle exports to Mexico increased by \$779 million (67 percent) to \$1.9 billion in 1997.

¹⁷"Mexico's Higher Exports to U.S. Debated," *Ward's Automotive Reports*, July 28, 1997, p. 1.

¹⁸Guillermo Lira, "December Sales Gain Caps Strong Year in Mexico," *Automotive News*, Jan. 26, 1998, p. 36.

¹⁹U.S. Department of State telegram No. 141917Z, "Canada's Automobile Industry in 1997--Going Great, But Long Term Doubts Exist," prepared by U.S. Embassy, Toronto, Aug. 1997.

²⁰Bob English, "Canadian Vehicle Sales Set December Record," *Automotive News*, Jan. 19, 1998, p. 37.

²¹"Big Trucks Enjoy Big Gain in Canada," *Ward's Automotive Reports*, Jan. 26, 1998, p. 3.

²²English, "Canadian Vehicle Sales Set December Record," *Automotive News*, Jan. 19, 1998, p. 37.

²³James B. Treece, "1997 Sales Fall 5% in Japan, Ending 4-year String," *Automotive News*, Jan. 19, 1998, p. 34.

²⁴*Ibid.*

²⁵Japan Automobile Manufacturers Association, *Japan Auto Trends*, Feb. 1998.

²⁶Treece, "1997 Sales Fall 5% in Japan, Ending 4-year String," *Automotive News*, Jan. 19, 1998, p. 34.

U.S. industry sources attribute this record level of exports to the continued benefits derived from the lowering of Mexican trade barriers as a result of NAFTA.²⁷ Total motor-vehicle sales in Mexico increased by 46 percent over 1996 levels, from 333,920 vehicles to 488,441 vehicles, with sales of imported cars increasing by 44 percent and sales of imported trucks increasing by 60 percent over 1996 levels.²⁸ Auto purchases became more affordable in 1997 as Mexican consumers were able to take advantage of attractive financing options.²⁹

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Certain Motor-Vehicle Parts³⁰

The U.S. trade surplus in certain motor-vehicle parts grew by \$2.6 billion (44 percent) to \$8.5 billion in 1997, with the increase in export value outpacing import growth by a 4 to 1 margin. This continued improvement in the U.S. trade position was largely attributable to the international competitiveness of U.S. parts makers, the further integration of the North American automotive market, and the upswing in the Mexican automotive market. As part of the larger automotive industry, trade shifts in the motor-vehicle parts sector generally reflect the global production/sourcing strategies, intracompany shipments, and increased globalization of U.S. and foreign automotive firms.

U.S. imports

U.S. imports of certain motor-vehicle parts rose by \$937 million (6 percent) to \$17.8 billion in 1997. U.S. imports from Canada, the leading U.S. import source of these products, grew by \$582 million (9 percent) to \$7.3 billion in 1997 as the Canadian auto parts industry has consolidated to improve its responsiveness to automakers' needs and has increasingly focused on the development and production of higher-value-added parts.³¹ Japan remained the second-leading source of U.S. automotive parts imports, despite a decline of \$281 million (7 percent) in such imports to \$3.5 billion in 1997. Japanese transplant automakers have increasingly sourced components from NAFTA-based suppliers for their North American motor-vehicle operations to increase local content and diversify component sourcing.³² Imports from Mexico, the third-leading import source, increased by \$481 million (19 percent) to \$3.0 billion, principally in response to the recovery of the Mexican automotive industry and its continued integration into the North American automotive community. U.S. imports of auto parts from these three countries accounted for 78 percent (\$13.8 billion) of total auto parts imports in 1997.

U.S. exports

²⁷“U.S. Auto Exports to Mexico Rise Sharply,” *The Autoparts Report*, Nov. 17, 1997, p. 7.

²⁸Lira, “December Sales Gain Caps Strong Year in Mexico,” *Automotive News*, Jan. 26, 1998, p. 36.

²⁹“Mexico’s Recovery to Continue; 35% Growth Projected for 1998,” *Ward’s Automotive Reports*, Feb. 16, 1998, supplement p. 1.

³⁰Products 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.

³¹*Canadian Auto Industry - Big Winner Under Free Trade*, Scotiabank Economic Report, Mar. 31, 1998.

³²For example, see “Honda Boosts U.S. Parts Purchases Nearly 20 Percent,” Honda North America, Inc. press release, July 31, 1997; “Nissan U.S. Parts Plant,” *Ward’s Automotive International*, June 1997, p. 6; and “Toyota Announces Purchasing Targets from Minority Suppliers,” Nov. 12, 1997, found at Internet address <http://www.newsedge>, retrieved Nov. 13, 1997.

U.S. exports of certain motor-vehicle parts increased by \$3.5 billion (15 percent) to \$26.3 billion in 1997 on the strength of U.S. exports to NAFTA partners, which accounted for 73 percent (\$19.3 billion) of total U.S. auto parts exports. U.S. exports to Canada, the leading market for auto parts, rose by \$1.4 billion (11 percent) to \$14.2 billion; U.S. exports to Mexico increased by \$1.3 billion (36 percent) to \$5.1 billion in 1997. This growth reflects in large part the greater synergies of North American automotive industry integration under NAFTA, the strengthening of the Canadian and Mexican automotive industries, and the significant role U.S. parts manufacturers play as suppliers of components to North American motor-vehicle operations.³³ U.S. exports to Japan, the third-leading market for these products, rose by \$287 million (27 percent) to \$1.3 billion in 1997, in part attributable to continuing efforts by Japanese automakers to increase the use of foreign parts in their domestic auto production (see discussion of the U.S.-Japan Agreement on Autos and Auto Parts in chapter 4).

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Aircraft Engines and Gas Turbines

The U.S. trade surplus in aircraft engines and gas turbines rose by \$491 million (18 percent) in 1997 to \$3.2 billion. The EU is the world's second-largest producer of aircraft, accounting for \$5.0 billion (43 percent) of total U.S. exports of aircraft engines and gas turbines, while supplying \$6.0 billion (71 percent) of total U.S. imports of these products.

U.S. imports

U.S. imports of aircraft engines and gas turbines rose by \$2.1 billion (34 percent) to \$8.4 billion in 1997. The United Kingdom, France, and Canada were the principal sources of these imports, accounting for 69 percent of total U.S. imports of these products, up from 65 percent in 1996. U.S. imports from the United Kingdom rose by \$1.1 billion (67 percent) to \$2.7 billion. A large part of this increase (\$784 million) was attributable to increased U.S. imports of large aircraft engines.³⁴ These engines are typically fitted to larger civil transport aircraft, such as those made by Boeing (all but the 737 model).

U.S. imports from France rose by \$593 million (46 percent) to \$1.3 billion. Parts for civil aircraft engines, which increased by \$534 million (53 percent) to \$1.5 billion, accounted for the majority of this growth. These parts are typically found in engines that power Boeing's most popular model, the 737. Shipments of the 737 nearly doubled in 1997, from 76 aircraft in 1996 to 138 aircraft in 1997.³⁵

U.S. imports from Canada rose by \$6 million (less than 1 percent) to \$1.2 billion. Increases were recorded in U.S. imports of aircraft turbojet engines of a thrust not exceeding 25kN, which rose by \$62 million (36 percent) to \$232 million, and nonaircraft gas turbines, not elsewhere specified, not exceeding 5,000 kW,

³³*Canadian Auto Industry - Big Winner Under Free Trade*, Scotiabank Economic Report, Mar. 31, 1998, found at Internet address <http://www.scotiabank.ca/autoreport.htm>, retrieved Apr. 22, 1998; "Mexico Recovery to Continue; 35% Growth Projected for '98," *Ward's Automotive Report*, Feb. 16, 1998, p. 1; and "Maquila of the Month - Ford Motor Plant," *Twin Plant News*, Mar. 1998, p. 67.

³⁴Turbojet engines for civil aircraft, with a thrust over 25 kN, are hereinafter referred to as large aircraft engines.

³⁵"Announced Delivery Summary by Year," The Boeing Commercial Aircraft Co., found at Internet address <http://www.boeing.com/commercial/info/orders/delbyyear.html>.

which rose by \$48 million (91 percent) to \$101 million. The growth of the U.S. regional and business jet aircraft market is largely responsible for increased U.S. imports of aircraft engines from Canada, while increased shipments of nonaircraft turbojet engines were driven by increased stationary power generation needs.

U.S. exports

U.S. exports of aircraft engines and gas turbines increased by \$2.6 billion (29 percent) to \$12.0 billion in 1997. Products contributing to this rise included cast-iron parts of turbojets (up by 29 percent, or \$560 million), parts of gas turbines (up by 37 percent, or \$449 million), and gas turbines, other than turbojets or turbopropellers, of a power exceeding 5,000 kW, which showed a \$437 million gain (68-percent) in 1997.

France, the United Kingdom, and Canada were the leading country markets in 1997 for U.S. exports of aircraft engines and gas turbines, and parts. U.S. exports to the United Kingdom rose by \$227 million (23 percent) to \$1.2 billion, while exports to France rose by \$474 million (40 percent) to \$1.7 billion. U.S. exports to Canada grew by \$183 million (16 percent) to \$1.3 billion.

A major component of the change in U.S. exports to France is accounted for by increased U.S. exports of turbojet or turbopropeller engine parts.³⁶ Exports of these products represented \$421 million (89 percent) of the total increase in U.S. exports to France. In 1997, U.S. exports of parts for nonaircraft gas turbines declined by \$35 million (63 percent) to \$57 million.

The rise in U.S. exports of nonaircraft gas turbine engine parts was also responsible for a major portion of the \$227 million rise in exports to the United Kingdom. These products represented \$150 million (66 percent) of the total increase in U.S. exports to the United Kingdom. Bilateral trade in these goods reflects the high level of interdependency found in the world for such gas turbine engines.

U.S. exports to Canada were led by a \$92 million increase (45-percent) in parts for turbojet or turbopropeller aircraft engines to \$610 million, and a \$66 million rise (51-percent) in parts of turbojet or turbopropeller nonaircraft engines to \$195 million. Canada is a global source of commuter and business aircraft. Shipments of these aircraft surged in 1997, the result of increased market demand by regional and corporate flight departments for air-transport service. The United States is the leading supplier of engines for both categories of these aircraft.

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Internal Combustion Piston Engines, Other Than for Aircraft

The U.S. trade balance in internal combustion piston engines for motor vehicles changed from a deficit of \$366 million in 1996 to a surplus of \$638 million in 1997. Although U.S. imports of engines and engine parts

³⁶HTS subheadings 8411.91.10 and 8411.91.90.

increased in 1997, exports increased by a larger margin, particularly to Canada and Mexico. As part of the larger automotive industry, trade shifts in the engine sector often reflect U.S. and foreign automotive firms' global production/sourcing strategies, intracompany shipments, and increased internationalization of the industry.

U.S. imports

U.S. imports of engines and engine parts rose by \$454 million (5 percent) to \$10.0 billion in 1997. Imports from Japan, the leading U.S. supplier, remained relatively unchanged, amounting to \$2.9 billion in 1997. Japanese transplant automakers are increasingly sourcing engines as well as other automotive components from their U.S. operations for use in their North American motor-vehicle assembly to boost U.S. content, to diversify component sourcing, and to minimize the effects of exchange rate fluctuations.³⁷ U.S. imports from Canada increased by \$201 million (8 percent) to \$2.8 billion in 1997 and those from Mexico grew by \$195 million (11 percent) to \$1.7 billion as these countries continued to be critical manufacturing bases for U.S. and foreign automakers with North American assembly operations. Reflecting automakers' globalization strategies and the high level of integration within the North American automotive industry, these three countries accounted for 76 percent of total U.S. engine imports in 1997.

U.S. exports

U.S. exports of engines and related parts rose by \$1.5 billion (16 percent) to \$10.6 billion in 1997. NAFTA partners Canada and Mexico accounted for 67 percent (\$7.1 billion) of these exports, reflecting the extensive integration of U.S. automakers' operations in North America. Exports to Canada, the leading U.S. market, increased by \$589 million (12 percent) to \$5.6 billion in 1997, attributable in part to a 7-percent increase in Canadian motor-vehicle production as well as automakers' optimization of their North American engine operations.³⁸ U.S. exports of engines to Mexico, the second-leading market, rose by \$475 million (48 percent) to \$1.5 billion in 1997, stimulated by a rebound in Mexican motor-vehicle production and significant U.S. and foreign investments in Mexican engine and parts production capacity.³⁹ Such investments have led to greater U.S. exports because U.S. suppliers are often the principal sources of components for engines assembled in Mexico. Ford, for example, has indicated that suppliers for its Chihuahua engine facility are

primarily located in the United States because of the long length of time required to establish a local supplier base, as well as the inherent advantages that suppliers often gain when involved in the design of new products.⁴⁰

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³⁷For example, see "Nissan Powers Up Altima Engine Plant," *Ward's Automotive Reports*, May 19, 1997, p. 4, and "Aisin Seiki Opens Mexico Facility, Plans \$40 Million Engine Parts Plant in Kentucky," *The Japan Automotive Digest*, Sept. 9, 1997, p. 9.

³⁸For example, see "Ford Boosts Engine Capacity," *Automotive News*, May 12, 1997.

³⁹For example, see "GM Unit Building Plant," *Latin Trade*, Feb. 1997, p. 21; "Ford to Invest \$1B in Mexican Facilities," *The Autoparts Report*, Dec. 3, 1997, p. 2; and "Nissan Mexico Will Make Essentials of 10,000 Engines a Month for Smyrna Plant," *The Japan Automotive Digest*, Mar. 31, 1997, p. 6.

⁴⁰"Maquila of the Month - Ford Motor Plant," *Twin Plant News*, Mar. 1998, p. 67.

Construction and Mining Equipment

The U.S. trade surplus in construction and mining equipment grew by a modest \$161 million (3 percent) to \$6.2 billion in 1997. A notable increase in U.S. exports was nearly offset by a sharp rise in imports, the result of continued strength in the domestic building sector and an estimated 10-percent rise in U.S. consumption of related construction and earthmoving machinery in 1997.⁴¹ On a bilateral level, the consistent U.S. trade surplus with Canada, the largest U.S. trading partner in construction and mining equipment, increased by \$350 million (48 percent) to \$1.1 billion in 1997. The persistent U.S. deficit with Japan; however, widened by \$222 million (28 percent) to reach \$1.0 billion in 1997. Trade surpluses were registered with many other primary trading partners, evidence of steady global demand for U.S. construction and mining machinery and an import level that has consistently remained below 50 percent of the total value of U.S. exports of these products.

U.S. imports

U.S. imports of construction and mining equipment rose by \$956 million (24 percent) to \$4.9 billion in 1997. Japan remained the principal supplier of machinery to the United States as the total value of U.S. imports from Japan increased by \$193 million (19 percent) to \$1.2 billion in 1997. The United Kingdom emerged as the second-largest U.S. supplier of construction and mining equipment due to a surge in imports of \$245 million (56 percent) to a record \$679 million in 1997. This increase drove the \$26 million trade surplus in 1996 to deficit of \$198 million in 1997. Other significant increases in imports originated from Italy (up \$134 million, or 55 percent, to \$379 million) and Mexico (up \$108 million, or 66 percent, to \$272 million).

Growth in imports from nearly all of the United States' principal sources reflected the continued strength of the U.S. construction market in 1997. The total current-dollar value of construction put in place in the United States increased by nearly 6 percent to \$600 billion in 1997.⁴² A combination of low interest rates and favorable economic conditions kept housing construction relatively stable, while nonresidential construction increased by 8 percent in 1997.⁴³ In addition, approximately 45 percent of consuming enterprises expanded their equipment fleets during the year, and overall machine replacement rates for the industry remained high.⁴⁴ Other factors contributing to the rise in imports from the United Kingdom include the acquisition in late 1996 and early 1997 of U.K.-based construction equipment firms by certain U.S. companies and shifts in manufacturers' output. Caterpillar, Komatsu, and Terex, for example, directed a greater percentage of their U.K.-manufactured units to the United States in 1997 in response to depressed European demand and the strength of the U.S. market.⁴⁵ The sharp rise in imports from Mexico also reflects an increase in the number of models produced in Mexico by John Deere for the U.S. and Canadian markets.⁴⁶

⁴¹“Estimated New Equipment U.S. Retail Sales,” *Machinery Outlook*, Dec. 1997, p. 7.

⁴²The inflation-adjusted value of new construction put in place reached \$507 billion in 1997, up nearly 3 percent from 1996. USDOC, Construction Statistics, *Value of New Construction Put in Place*, Report C30, Apr. 1, 1997, found at Internet address http://www.census.gov/pub/const/c30_curr.txt, retrieved Apr. 13, 1997.

⁴³USDOC, Construction Statistics, *Value of New Construction Put in Place*, Report C30, Apr. 1, 1997, found at Internet address http://www.census.gov/pub/const/c30_curr.txt, retrieved Apr. 13, 1997.

⁴⁴*Construction Equipment*, Construction Equipment and Ingersoll-Rand's “1998 Annual Report & Forecast,” Jan. 1998, p. 70.

⁴⁵“Europe's Excavator Makers Steer Output towards USA,” Financial Times Limited, found at Internet address <http://www.newsedge.com/>, posted Aug. 21, 1997, retrieved Sep. 15, 1997.

⁴⁶“Deere...Buys-Out its Mexican Partner,” *Machinery Outlook*, Nov. 1996, p. 19.

Table 12-5

Transportation equipment sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent

————— *Million Dollars* —————

U.S. exports

U.S. exports of construction and mining equipment grew by \$1.1 billion (11 percent) to \$11.1 billion in 1997. A total increase in exports of \$856 million to four countries (Canada, Venezuela, Mexico, and Brazil) accounted for nearly 77 percent of the total rise in exports of these products. Products leading the strong U.S. export performance in 1997 include self-propelled front-end loaders and parts for all types of construction and mining machinery.

Canada remained the principal market for U.S. exports of construction and mining equipment in 1997. Low mortgage rates, a rise in housing starts, modest inflationary trends for inputs such as labor and materials,⁴⁷ and gains in industrial and commercial construction prompted U.S. exports to Canada to increase by \$376 million (32 percent) to \$1.6 billion in 1997. Shipments to Venezuela, the second-largest market for U.S. machinery exports, grew by \$172 million (24 percent) to \$876 million, due primarily to a 35-percent increase in exports of boring and sinking machinery and parts. The United States has historically dominated the market for mining equipment in Venezuela, a country with almost no local production of these products.⁴⁸ The strong rise in exports of mining and related earth-moving machinery in 1997 reflects continued local preference for U.S. equipment, strength in the nation's petroleum industry, and steps taken by the Venezuelan Government to stimulate private investment in the country's expanding mining sector.

A gradual recovery of the Mexican building sector, led by gains in hotel, hospital, retail, and light industrial construction,⁴⁹ caused U.S. exports to Mexico to increase by \$159 million (65 percent) to \$404 million in 1997. Public spending to modernize Mexico's infrastructure and strong receptivity to U.S. machinery due to NAFTA tariff reductions and the United States' reputation for quality equipment,⁵⁰ contributed to this increase. U.S. shipments to Brazil experienced similar growth in 1997, with an increase of \$149 million (46 percent) to \$476 million, due to an estimated 9-percent rise in industrial building⁵¹ and expanded infrastructure construction.

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MT001	Aircraft engines and gas turbines:				
	Exports	8,963	11,594	2,630	29.3
	Imports	6,241	8,380	2,139	34.3
	Trade balance:	2,722	3,213	491	18.0
MT002	Internal combustion piston engines, other than for aircraft:				
	Exports	9,167	10,625	1,457	15.9
	Imports	9,533	9,987	453	4.8

⁴⁷“Canada: Construction Costs Chill Out,” *Engineering News-Record*, Dec. 23, 1996, p. 42.

⁴⁸USDOC, ITA, “Venezuela--Mining Equipment,” *Market Research Reports*, June 1, 1997, found at Internet address <http://www.stat-usa.gov>, retrieved Mar. 31, 1998.

⁴⁹“Mexico: Still Recovering from Crisis,” *Engineering News-Record*, Dec. 22, 1997, p. 41.

⁵⁰USDOC, ITA, “Mexico -- Construction Equipment,” *Market Research Reports*, Jan. 1, 1997, found at Internet address <http://www.stat-usa.gov>, retrieved Mar. 31, 1998.

⁵¹“South America: Inflation Scourge Cured,” *Engineering News-Record*, Dec. 22, 1997, p. 44.

See footnote(s) at end of table.

Table 12-5--Continued

Transportation equipment sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
		<i>Million Dollars</i>			
MT011	Trade balance:	-366	638	1,004	(³)
	Forklift trucks and similar industrial vehicles:				
	Exports	920	1,161	241	26.2
	Imports	1,007	1,164	156	15.5
	Trade balance:	-88	-3	85	96.9
MT012	Construction and mining equipment:				
	Exports	9,953	11,070	1,117	11.2
	Imports	3,928	4,884	956	24.3
	Trade balance:	6,025	6,186	162	2.7
MT025	Ball and rollers bearings:				
	Exports	1,008	1,140	132	13.1
	Imports	1,526	1,615	89	5.8
	Trade balance	-518	-475	43	8.2
MT030	Primary cells and batteries and electric storage batteries:				
	Exports	1,310	1,494	183	14.0
	Imports	1,710	1,896	187	10.9
	Trade balance:	-400	-403	-3	-0.8
MT033	Ignition, starting, lighting, and other electrical equipment:				
	Exports	1,404	1,579	175	12.5
	Imports	2,032	2,170	137	6.8
	Trade balance:	-629	-591	38	6.0
MT037	Rail locomotive and rolling stock:				
	Exports	851	1,229	377	44.3
	Imports	1,312	1,372	60	4.6
	Trade balance:	-461	-143	317	68.9
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:				
	Exports	22,693	24,394	1,701	7.5
	Imports	87,116	92,988	5,872	6.7
	Trade balance:	-64,423	-68,594	-4,171	-6.5
MT039	Certain motor-vehicle parts:				
	Exports	22,793	26,324	3,531	15.5
	Imports	16,867	17,804	937	5.6
	Trade balance:	5,927	8,520	2,593	43.8
MT040	Motorcycles, mopeds, and parts:				
	Exports	638	666	28	4.4
	Imports	1,137	1,104	-33	-2.9
	Trade balance	-499	-438	61	12.3
MT041	Miscellaneous vehicles and transportation- related equipment:				
	Exports	3,980	3,166	-814	-20.4
	Imports	1,418	1,522	104	7.3
	Trade balance:	2,562	1,645	-918	-35.8
MT042	Aircraft, spacecraft, and related equipment:				
	Exports	30,754	38,698	7,944	25.8
	Imports	7,353	9,459	2,106	28.6
	Trade balance:	23,401	29,239	5,837	24.9
MT043	Ships, tugs, pleasure boats, and similar vessels:				
	Exports	1,058	1,408	350	33.1
	Imports	1,130	924	-207	-18.3
	Trade balance:	-72	485	557	(³)
MT044	Motors and engines, except internal combustion, aircraft, or electric:				

See footnote(s) at end of table.

Table 12-5--Continued

Transportation equipment sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Exports	335	402	66	19.8
	Imports	511	567	56	11.1
	Trade balance:	-176	-166	10	5.7

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

²This 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.

³Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data.

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

CHAPTER 13

Electronic Products

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The U.S. trade deficit in electronic products declined by \$5.0 billion (12 percent) in 1997 to \$38.5 billion, as both imports and exports registered significant increases (table 13-1). Electronic products continued to represent the largest import and export categories of any sector, reaching 23 and 24 percent of the total, respectively, in 1997. The chief categories of electronic products traded in 1997 were automatic data processing machines and parts (computer hardware) and diodes, transistors, integrated circuits and similar semiconductor solid-state devices (semiconductors). Trade in these products reflected the continuing strong international demand for computing power. This demand highlights the trend toward higher usage of computer hardware, which, in turn, drives the demand for semiconductors that are used within the machines. Together, these two products accounted for 45 percent of U.S. exports and 55 percent of U.S. imports during 1997, levels almost unchanged from 1996. The trade deficit in semiconductors declined significantly in 1997, by \$4.8 billion (38 percent) to \$7.8 billion. However, the trade deficit in computer hardware increased by \$4.7 billion (20 percent) to \$28.1 billion. Also, the trade surplus in both measuring, testing, controlling, and analyzing instruments (certain measuring instruments) and medical goods increased. The trade surplus in medical goods rose by 10 percent (\$482 million) in 1997 to \$5.3 billion. In certain measuring instruments, the trade surplus rose by 19 percent (\$1.1 billion) to \$6.5 billion in 1997. In contrast to most other products made by the U.S. electronics industry, the United States maintains a trade surplus in medical goods and certain measuring instruments, reflecting the globally competitive nature of these two U.S. industries.

The most significant rise in U.S. imports of all product categories occurred in computer hardware, which grew by \$8.5 billion (14 percent) to \$70.0 billion. These machines represented 36 percent of total U.S. imports of electronic products in 1997, a modest growth (2 percent) over 1996. Japan, Singapore, and Taiwan accounted for more than one-half of U.S. imports of computer hardware, but imports from Taiwan grew the most (by 21 percent) as computer producers were shifting away from Japan and Singapore to other low-cost countries in Asia. Intense competition among computer vendors in 1997 contributed to significantly lower prices of computer hardware, thus fueling demand and increasing the total value of imports. Semiconductors, the second-largest electronic products import category, increased by \$107 million (less than 1 percent) to \$36.9 billion. This modest increase reflects the continued softening of prices for major products, such as dynamic random access memories (DRAMs). Other significant increases occurred in imports of apparatus for making, breaking, protecting, or connecting electrical circuits, which increased by \$1.1 billion (13 percent) to \$10.0 billion. Also, imports of telephone and telegraph apparatus rose by a comparable amount (\$1.1 billion, or 13 percent, to \$9.3 billion), reflecting steady growth in the U.S. telecommunications market.

U.S. exports of electronic products rose by \$20.1 billion (15 percent) in 1997 to \$157.2 billion, almost doubling the 1996 increase of \$10.2 billion. Semiconductors registered an export gain of \$4.9 billion (20 percent) to \$29.0 billion over 1996, the largest gain for any electronic products sector. Exports of computer hardware rose by \$3.8 billion (10 percent) to \$41.8 billion in 1997. The growth in U.S. exports of computer hardware reflected the healthy international demand for U.S. computers, peripherals, and parts worldwide, an area in which U.S. producers excel. These increases were the two largest in the electronic products sector;

Table 13-1

Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Japan	16,489	17,103	613	3.7
Mexico	12,619	16,283	3,664	29.0
Canada	18,929	20,688	1,759	9.3
Singapore	7,122	7,227	106	1.5
Taiwan	4,308	5,331	1,023	23.7
Korea	6,347	7,465	1,118	17.6
Malaysia	4,603	5,633	1,031	22.4
China	1,970	2,124	154	7.8
United Kingdom	8,794	10,145	1,351	15.4
Germany	7,780	7,272	-508	-6.5
All Other	48,062	57,893	9,831	20.5
Total	137,022	157,164	20,142	14.7
EU-15	34,508	37,859	3,351	9.7
OPEC	1,989	2,998	1,009	50.7
Latin America	22,374	29,072	6,698	29.9
CBERA	1,385	1,646	261	18.8
Asian Pacific Rim	53,638	61,038	7,400	13.8
ASEAN	17,368	20,240	2,872	16.5
Central and Eastern Europe	620	699	79	12.7
U.S. imports for consumption:				
Japan	43,964	44,522	559	1.3
Mexico	16,502	19,705	3,203	19.4
Canada	11,663	12,431	768	6.6
Singapore	17,412	16,832	-580	-3.3
Taiwan	14,730	17,053	2,323	15.8
Korea	12,153	12,107	-45	-0.4
Malaysia	13,577	13,719	142	1.0
China	11,180	14,101	2,921	26.1
United Kingdom	5,344	5,943	600	11.2
Germany	5,340	5,528	188	3.5
All Other	28,680	33,757	5,078	17.7
Total	180,543	195,699	15,156	8.4
EU-15	20,506	21,997	1,491	7.3
OPEC	1,438	1,789	351	24.4
Latin America	17,760	21,193	3,432	19.3
CBERA	757	954	197	26.0
Asian Pacific Rim	126,582	135,199	8,617	6.8
ASEAN	41,397	44,096	2,699	6.5
Central and Eastern Europe	295	672	377	127.6
U.S. merchandise trade balance:				
Japan	-27,474	-27,420	55	0.2
Mexico	-3,883	-3,422	461	11.9
Canada	7,266	8,257	991	13.6
Singapore	-10,290	-9,605	685	6.7
Taiwan	-10,422	-11,722	-1,300	-12.5
Korea	-5,806	-4,642	1,164	20.0
Malaysia	-8,974	-8,086	888	9.9
China	-9,209	-11,977	-2,767	-30.1
United Kingdom	3,450	4,202	751	21.8
Germany	2,440	1,744	-696	-28.5
All Other	19,382	24,136	4,754	24.5
Total	-43,521	-38,535	4,986	11.5
EU-15	14,002	15,862	1,860	13.3
OPEC	551	1,209	658	119.4
Latin America	4,614	7,879	3,265	70.8
CBERA	628	692	64	10.2
Asian Pacific Rim	-72,944	-74,162	-1,218	-1.7
ASEAN	-24,029	-23,856	173	0.7
Central and Eastern Europe	325	27	-298	-91.8

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

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

computer hardware and semiconductors continue to represent the largest export categories of the electronic products sector as well. Growing demand abroad fueled increased exports of telephone and telegraph apparatus, by \$2.0 billion (24 percent) to \$10.6 billion in 1997.

Other leading export items were certain measuring instruments and medical goods. Exports of certain measuring instruments increased by \$2.0 billion (16 percent) to \$14.6 billion in 1997 driven, in part, by increased spending by emerging industrial nations on research and development projects, capital equipment, and construction. There is substantial foreign demand for U.S.-produced high-quality, leading-edge technology measuring and testing instruments that improve productivity. U.S. exports of medical goods also showed a significant increase, rising by \$1.0 billion (10 percent) to \$11.2 billion. However, exports to the two leading markets, Japan and Germany, moderated significantly from 1996. In Japan, financial concerns led to a smaller allocation to the national health care budget, resulting in the smallest increase in U.S. exports of medical goods to that country in 5 years. In Germany, the impact of health care costs on the State and Federal budgets also led to cost-cutting measures and a decline of U.S. exports of medical goods to that country. Trade statistics for all commodity/industry groups in the electronic products sector are presented in table 13-3 at the end of this chapter.

U.S. BILATERAL TRADE

The largest markets for U.S. exports of the two leading electronic product categories were Canada, Japan, the United Kingdom, and the Netherlands for computer hardware, and Malaysia, the Philippines, Korea, and Canada for semiconductors. However, the largest bilateral change in 1997 U.S. trade occurred between the United States and Mexico. Imports of electronic products from Mexico increased by \$3.2 billion (19 percent) to \$19.7 billion, while U.S. exports increased by \$3.7 billion (29 percent) to \$16.3 billion. A large portion of U.S. exports to Mexico were destined for maquiladora operations where labor-intensive assembly operations were performed. The bulk of finished products were then exported to the United States and other markets in Latin America. The most significant growth in U.S. imports from Mexico occurred in computer hardware (up \$1.6 billion, or 52 percent, to \$4.7 billion) and apparatus for making, breaking, protecting, or connecting electrical circuits (up \$326 million to \$2.1 billion).

U.S. imports of electronic products from Canada increased by \$768 million (7 percent) to \$12.4 billion. Imports from Canada accounted for 6 percent of total U.S. imports of electronics products, the same proportion as in 1996. Canada was the leading U.S. export market for electronic products in 1997, accounting for 14 percent (\$20.7 billion) of the annual total (an increase of 9 percent, or \$1.8 billion). Growth in Canada's manufacturing and services sectors in 1997 spurred demand for computer hardware and certain measuring instruments.

U.S. imports of semiconductors from Japan fell by \$800 million (9 percent) to \$7.8 billion, while U.S. imports of computer hardware from Japan grew by \$820 million (6 percent) to \$14.7 billion. The decline in imports of semiconductors reflects the continued softening of prices for leading semiconductor products, notably DRAMs. The increase in computer hardware imports is less than average and shows the continued shift of sourcing to other low-cost Asian producers away from Japan. Japan was also the second-largest export market for U.S. electronic products, accounting for 11 percent (\$17.1 billion) of total U.S. exports in 1997 (down from 12 percent in 1996). U.S. exports to Japan rose by \$613 million (4 percent) to \$17.1 billion; this increase was more modest than the 18-percent increase in 1996. The only leading items to register export increases that were greater than the average were semiconductor devices (7 percent) and certain measuring instruments (4 percent).

The leading U.S. import and export electronic products for major trading partner countries are presented in table 13-2.

Table 13-2
Electronic products: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
Japan	Computer hardware, excluding parts Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers Photocopying apparatus	Computer hardware, excluding parts Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers Medical goods
Canada	Parts for office machines and computers Electronic integrated circuits, microassemblies, and parts Telephone and telegraph apparatus Computer hardware, excluding parts	Computer hardware, excluding parts Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers Automatic regulating or controlling instruments, apparatus, and parts
Mexico	Computer hardware, excluding parts Television receivers and video monitors Switching, protecting, or connecting apparatus for electrical circuits under 1000 volts Reception apparatus for radiotelephony, radiotelegraphy, or radiobroadcasting	Electronic integrated circuits, microassemblies, and parts Computer hardware, excluding parts Thermionic, cold cathode, or photocathode tubes Switching, protecting, or connecting apparatus for electrical circuits under 1000 volts
Singapore	Computer hardware, excluding parts Parts for office machines and computers Electronic integrated circuits, microassemblies, and parts Medical goods	Electronic integrated circuits, microassemblies, and parts Parts for office machines and computers Prepared unrecorded media Computer hardware, excluding parts
Taiwan	Computer hardware, excluding parts Parts for office machines and computers Electronic integrated circuits, microassemblies, and parts Printed circuits	Electronic integrated circuits, microassemblies, and parts Computer hardware, excluding parts Parts for office machines and computers Oscilloscopes, spectrum analyzers, and other instruments for measuring electrical quantities and radiation
Korea	Electronic integrated circuits, microassemblies, and parts Computer hardware, excluding parts Parts for office machines and computers Transmission apparatus for radiotelephony, radiotelegraphy, radiobroadcasting or television	Electronic integrated circuits, microassemblies, and parts Computer hardware, excluding parts Parts for office machines and computers Oscilloscopes, spectrum analyzers, and other instruments for measuring electrical quantities and radiation

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Automatic Data Processing Machines¹

The U.S. trade deficit in computer hardware rose by \$4.7 billion (20 percent) to \$28.2 billion in 1997. Although the overall trade deficit for these products continued to increase, the deficit growth rate has declined from 36 percent during 1993-94 to an annual average growth rate of 23 percent during 1993-97. In general, the growth rates of U.S. imports and exports of computer hardware in 1997 were not as pronounced as in previous years because worldwide demand for these products, although still growing, has continued to increase at a more moderate level since 1996.² The moderate expansion of U.S. trade during 1996-97 reflected strong demand for U.S. computer hardware exports to rapidly developing markets in Asia, that are unaffected by the currency crisis, and moderate but still healthy demand from most other markets, especially those in Western Europe such as the United Kingdom.³ Imports of computer hardware rose as U.S. consumers continued to demand price-competitive personal computers⁴ and peripherals supplied primarily by Asian producers.

U.S. imports

U.S. imports of computer hardware rose by \$8.5 billion (14 percent) to \$70.0 billion in 1997. This increase occurred because of intense competition among U.S. computer hardware vendors which has significantly lowered the price of computers and peripherals, thus fueling demand and increasing the total value of imports. During 1997, the United States imported computer hardware principally from Japan, Singapore, and Taiwan, the three leading import sources since 1993. These three producers supplied 54 percent of total imports in 1997.

Computer hardware imports from Japan grew only modestly, by \$819 million (6 percent) to \$14.7 billion in 1997 as lower cost Asian producers continued to increase their shipments to the U.S. market at the expense of Japanese producers. In a similar manner, some companies from Singapore, Taiwan, Japan, the United States, and Europe are foregoing basic manufacturing operations in Singapore for lower cost areas in Asia.⁵ Partly as a result of this shift, computer hardware imports from Singapore remained unchanged at \$13.0 billion in 1997. Of these imports, 58 percent were computer hardware peripherals such as stand-alone disk drives and other data storage units valued at \$7.6 billion in 1997, compared to \$7.4 billion in 1996.

Notably, low-cost personal computers and computer peripheral imports from Taiwan continued to increase in 1997, a trend that began in 1992. U.S. imports of computer hardware from Taiwan increased by \$1.6 billion (20 percent) to \$9.8 billion in 1997. Color computer monitors accounted for \$1.9 billion of these imports, followed closely by portable, or notebook, computers with \$1.3 billion. These two product categories contributed roughly one-third of all U.S. computer hardware imports from Taiwan. Other major U.S. imports from Taiwan consist of computer storage devices, optical scanners, and other peripherals.

U.S. exports

U.S. exports of computer hardware grew by \$3.8 billion (10 percent) to \$41.8 billion in 1997. This

¹This industry/commodity group, also referred to as computer hardware, is composed of finished (computers and computer peripherals) and unfinished (parts for computers and computer peripherals, such as motherboards) products. Electronic components are not included in this section.

²*Standard and Poor's Industry Surveys: Computers: Hardware*, July 10, 1997, pp. 1-2, 7.

³*Ibid.*, pp. 11-12.

⁴R. Clay Woods, USDOC, Office of Computers and Business Equipment (OCBE), "The Personal Computer Market," posted Jan. 1997, updated Mar. 9, 1998, pp. 1-4, found at Internet address <http://infoserv2.ita.doc.gov/ocbe>, retrieved Apr. 28, 1998.

⁵Robert Ristelhueber, "HQ Singapore," *Electronic Business*, Mar. 1998, pp. 85-86.

increase reflects growing demand for U.S. computer hardware in most countries. In general, demand for U.S. computer hardware increased because of U.S. leadership in new computer technology, aggressive pricing, corporate adoption of computers to streamline business processes, and increased Internet usage. In 1997, the United States exported computer hardware principally to Canada, Japan, and the United Kingdom. These three countries accounted for over one-third of all U.S. exports of computer hardware in 1997. During 1996-97, U.S. exports to Canada increased modestly; exports to Japan declined slightly; and exports to the United Kingdom showed the greatest increase of the three countries.

U.S. exports to Canada increased by \$384 million (8 percent) to \$5.4 billion in 1997. Most U.S. exports to Canada are of finished goods because of Canada's proximity to the United States. In 1997, 73 percent of all computer hardware shipped from the United States were computers and computer peripherals, while computer parts comprised the remainder. Demand for assembled U.S. computers rose in Canada as prices continued to decrease and as users continued to adopt client/server personal computer networks.⁶

Total sector exports to Japan declined by \$20 million (less than 1 percent) to \$4.9 billion in 1997. Exports of finished computers and computer peripherals to Japan decreased by \$113 million (4 percent) to \$2.9 billion in 1997, while U.S. computer parts exports to Japan grew by \$93 million (5 percent) to \$2.1 billion. Consumption of finished U.S. computers and peripherals by consumers and businesses declined in Japan in 1997 after several years of steady growth. Japan's economic recession coupled with a 2-percent increase in the consumption tax implemented on April 1, 1997, contributed to stagnant computer hardware sales overall,⁷ especially in the small- and medium-size business markets.⁸

U.S. exports to the United Kingdom increased by \$833 million (25 percent) to \$4.2 billion in 1997. Nearly one-half of these exports, or 49 percent, was of parts and accessories for computer hardware such as printed circuit assemblies. The high proportion of computer parts exports reflects the establishment of manufacturing facilities in the United Kingdom to serve the European market.⁹ During 1996-97, U.S. exports of computer parts grew by \$472 million (30 percent) to \$2.1 billion, while exports of finished computers and peripherals increased at a slower but healthy rate (21 percent) to \$2.1 billion during the same period. Demand for computer hardware increased in the United Kingdom as leading vendors began cutting prices aggressively to foster sales in the small business market segment and to reduce inventory levels of older microprocessor technology.¹⁰

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Diodes, Transistors, Integrated Circuits, and Similar Semiconductor Solid-State Devices

⁶Industry representative, telephone interview by USITC staff, Apr. 4, 1998.

⁷Asian Technology Information Program, "Japanese Computer Vendors & The Asian Currency Crisis," background chapter, Apr. 17, 1998.

⁸IDC Market Research, "Japanese PC Shipments Will Grow 0.1% Over 1996 to 8.109 Million Units in 1997," found at Internet address <http://www.idcresearch.com/F/HNR/1215a.htm>, retrieved Apr. 27, 1998 and IDC, "IDC Forecasts Solid 13 Percent Worldwide PC Unit Growth in 1998," found at Internet address <http://www.idc.com/Press/mar.11.htm>, retrieved Apr. 27, 1998.

⁹Reuters, "Scotland Pushes Silicon Glen," CNET NEWS.COM, Mar. 29, 1998, found at Internet address <http://www.news.com/News/Item/0,4,2559,00.html>, retrieved Mar. 31, 1998.

¹⁰IDC, "IDC Reports Q2 Sales of PCS in Europe, Middle East, and Africa up 12 Percent," IDC Market Research, Aug. 18, 1997, found at Internet address <http://www2.idg.com/www/idg/idgpr.nsf/imsbyheadline/>, retrieved Sept. 23, 1997.

In 1997, the U.S. trade deficit in semiconductors narrowed by \$4.8 billion (38 percent) to \$7.9 billion. This was the second year that the deficit narrowed in these products following 5 consecutive years of expansion. The reduction in the trade deficit was the result of significant growth in U.S. exports, while imports remained nearly flat. As was the case in 1996, the value of global demand increased substantially in digital logic-based products such as microprocessors and application specific integrated circuits (ASICs), as well as analog and mixed signal devices such as digital signal processors.¹¹ U.S. companies were leaders in the manufacture of these products and subsequently benefited from the rise in demand. Concurrently, the value of the global market for volatile memories as well as unit prices for these devices declined sharply in 1997 as a result of continued oversupply. The United States is a leading importer of these memory devices, and while the total quantity of imports of these products increased, the price decline held the value of overall U.S. semiconductor imports to 1996 levels.

U.S. imports

The level of U.S. semiconductor imports in 1997 was basically flat, rising just \$100 million (less than 1 percent) to \$36.9 billion. In general, significant declines in the value of U.S. imports from Japan, Singapore, and Korea were somewhat offset by growth in production sharing imports from the Philippines, Hong Kong, Canada, Mexico, and China. Japan and Korea are leading producers of volatile memory devices such as dynamic random access memories (DRAMs) and static random access memories (SRAMs), and for the second consecutive year their exports of these products to the United States were negatively affected by sharp global price declines. While total semiconductor imports from Japan and Korea declined by \$801 million (9 percent) and \$251 million (4 percent), respectively, imports of DRAMs and SRAMs from these countries dropped by a combined \$1.5 billion (27 percent).

The Philippines, Hong Kong, Canada, Mexico, and China are major partners for the United States in semiconductor production sharing. Traditionally, companies that fabricate semiconductors in the United States rely upon affiliates in these countries to complete the assembly of most of their products. Following the completion of the assembly process, the finished semiconductors are shipped back to the United States or to a third-country market.¹² As such, increases in U.S. semiconductor imports from these countries are largely a function of increased U.S. exports of unfinished semiconductors. In 1997, U.S. imports from the Philippines, Hong Kong, Canada, Mexico, and China rose by \$806 million (32 percent), \$225 million (21 percent), \$142 million (7 percent), \$117 million (15 percent), and \$109 million (54 percent), respectively. The growth in imports of these products reflects the continued strong demand for the end products in which they are used, primarily computer and communications equipment.

U.S. exports

While the global demand for semiconductors reportedly rose by only 4 percent in 1997,¹³ U.S. exports grew by \$4.9 billion (20 percent) to a total of \$29.0 billion. The large rate of increase in the value of U.S. exports in 1997 exemplifies the currently strong competitive position of the U.S. industry. As a significant share of U.S. exports are unfinished semiconductors that are assembled abroad and reimported for consumption, the increase in U.S. exports is also a sign of a strong domestic market for these products, which in 1997 grew by more than

¹¹Tam Harbert, "Toughing It Out," *Electronic Business*, May 1998, found at Internet address <http://www.eb-mag.com/registrd/issues/9805/0598semi.htm>, retrieved May 1, 1998.

¹²USITC, *Production Sharing*, 1993-1996, USITC publication 3077, pp. 3-31 to 3-35.

¹³Semiconductor Industry Association, "World Chip Sales Hit \$11.48 Billion in December; Year-End Sales for 1997 Total \$137.2 Billion," Feb. 11, 1998, found at Internet address <http://www.semichips.org/news/bookfeb1998.html>, retrieved May 6, 1998.

7 percent.¹⁴ U.S. exports of unfinished semiconductors grew by \$3.6 billion (29 percent) to \$16.1 billion, accounting for 56 percent of total semiconductor exports and nearly three-quarters of total export growth. The leading markets for U.S. exports of unfinished semiconductors in 1997 were Malaysia (\$3.0 billion), the Philippines (\$2.7 billion), Korea (\$2.0 billion), and Singapore (\$1.4 billion).

U.S. exports of finished semiconductors increased in 1997 by \$1.2 billion (10 percent) to \$12.8 billion. The largest export categories of finished semiconductors included mixed signal or analog devices and microcomponents; U.S. companies are leaders in the global production of these devices. Exports of analog and mixed signal devices rose by \$600 million (19 percent) to \$3.7 billion, the demand for which is primarily driven by growth in end product markets such as cellular phones and modems. Exports of microcomponents grew by \$500 million (17 percent) to \$3.3 billion; demand for these products is largely tied to the continued growth in the computer industry. In 1997, the largest markets for these exports were Mexico (\$920 million), Canada (\$816 million), and Taiwan (\$753 million), which exhibited growth of \$323 million (54 percent), \$117 million (17 percent), and \$134 million (22 percent), respectively.

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Radio Transmission and Reception Apparatus, and Combinations Thereof

The U.S. trade deficit in radio transmission and reception apparatus (radio apparatus) declined by \$503 million (32 percent) in 1997 to \$1.1 billion. The countries with which the United States had the largest trade deficits in 1997 were China (\$1.6 billion), Mexico (\$1.1 billion), and Malaysia (\$1.0 billion). Despite growth in the deficits with China and Mexico of 35 and 34 percent, respectively, the trade balance improved as a result of U.S. exports increasing by \$1.5 billion (23 percent) to \$8.0 billion in 1997. The major export markets were Japan (\$996 million), Canada (\$828 million), Mexico (\$660 million), and Brazil (\$640 million). Exports to Japan, Canada, and Mexico rose by 31 percent, 9 percent, and 34 percent, respectively, while exports to China decreased by 4 percent.

U.S. imports

Imports of radio apparatus increased by \$989 million (12 percent) to \$9.1 billion in 1997. China, Mexico, Malaysia, and Japan were the primary sources of radio apparatus imports, accounting for 22, 20, 12, and 11 percent of total imports, respectively. Imports from Mexico and China grew by 34 percent and 24 percent, respectively, while imports from Malaysia and Japan declined by 19 percent and 3 percent, respectively.

Imports of printed circuit board assemblies for radio apparatus increased by 177 percent to \$189 million, as a result of the continuing use of Mexico as a production-sharing partner, taking advantage of lower labor costs for circuit-board stuffing. Imports of radio receivers, including combinations, for motor vehicles continued to represent more than 70 percent of imports of radio transmission and reception apparatus from Mexico, increasing by 24 percent to \$1.3 billion in 1997, again as a result of using Mexico as a production-sharing partner.

Imports of portable audio equipment from China more than doubled to \$2.1 billion in 1997, and imports of other radio broadcast receivers (excluding those for motor vehicles) increased by 41 percent to \$517 million.

¹⁴Ibid.

The shift to China as a source of low-end consumer electronics is the result of the movement of production from higher wage countries such as Japan and Malaysia.

U.S. exports

Among all trading partners, U.S. exports to Japan and Brazil increased most significantly in 1997. Exports to Japan rose by \$234 million (31 percent) to \$996 million, with miscellaneous parts suitable for use with radio transmission or reception apparatus accounting for an increase of \$146 million and radio antennae for an increase of \$38 million. Strong growth in the Japanese wireless communications market can be attributed to the U.S.-Japan Cellular Phone Agreements of 1989 and 1994, recent deregulatory measures, increased competition in the market, and a general recognition of the need for emergency wireless telecommunications services in the aftermath of the Great Hanshin Earthquake of January 1995. Research reports indicate that there are substantial opportunities for sales of communication and information processing equipment and services for emergency preparedness and disaster relief (e.g., emergency information systems and networks, wireless administration systems, satellite communication systems, portable telephone systems, personal handy-phone systems, amateur radios, semifixed radio communication equipment, portable radio equipment, etc.).¹⁵ The United States also exported satellites worth \$77 million to Japan in 1997.

Exports to Brazil grew by \$216 million (51 percent) to \$640 million, primarily as a result of exports of parts suitable for use with radio transmission or reception apparatus, which increased by 84 percent to \$371 million. Brazil imports a large quantity of broadcasting equipment from the United States including converters, console equipment, illumination equipment, processors for audio/video equipment, and high power transmitters for television. The Brazilian Ministry of Communications resumed issuing radio concessions in 1997 for the first time since 1990, which greatly expanded the broadcasting sector for new investments, equipment, and technology.¹⁶

U.S. exports to French Guiana, which accounted for 6 percent of total exports, grew by 66 percent to \$472 million, reflecting the shipping of communications satellites to the European-owned launch facility in French Guiana.

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Measuring, Testing, Controlling, and Analyzing Instruments

¹⁵USDOC, *Market Research Report: Japan - Emergency Preparedness Products/services -ISA970701*, National Trade Data Bank and Economic Bulletin Board - products of STAT-USA, USDOC, found at Internet address <http://www.stat-usa.gov/BEN/databases.html>, retrieved May 15, 1998.

¹⁶USDOC, *Market Research Report: Brazil - Broadcasting Equipment - ISA970501*, National Trade Data Bank and Economic Bulletin Board - products of STAT-USA, USDOC, found at Internet address <http://www.stat-usa.gov/BEN/databases.html>, retrieved May 15, 1998.

The U.S. trade surplus in measuring, testing, controlling, and analyzing instruments (certain measuring instruments) continued to increase in 1997, rising by \$1.1 billion (19 percent) to \$6.5 billion. The improvement in the trade balance reflected significant growth in U.S. exports of high-quality, leading-edge technology measuring instruments used to enhance manufacturing productivity and the quality and appearance of finished products. In addition, increased spending by emerging industrial nations on research and product development, capital equipment, and construction also contributed favorably to the sectoral trade balance by enhancing foreign demand for certain measuring instruments manufactured in the United States.

Despite the overall improvement in the U.S. trade position, irregular movements were recorded with respect to trade balances of the United States' principal trading partners during 1996-97. For example, the trade surplus with Japan declined by \$135 million (39 percent) to \$207 million, whereas the trade surplus with Canada rose by \$450 million (38 percent) to \$1.6 billion. The trade deficit with Mexico improved by \$49 million (10 percent) to \$461 million, while the trade surplus with the United Kingdom declined by \$87 million to a trade deficit of \$60 million. Prevailing economic conditions in those countries and their effects on demand for certain measuring instruments influenced U.S. trading patterns.

U.S. imports

U.S. imports of certain measuring instruments rose by \$953 million (13 percent) to \$8.1 billion in 1997. Continuous growth in U.S. demand for competitively priced foreign products, coupled with a rise in intracorporate trade between U.S. companies and their foreign subsidiaries, were the major reasons imports increased. Japan remained the largest foreign supplier of certain measuring instruments in 1997, accounting for 22 percent of total sector imports. U.S. imports from Japan also represented the largest trade shift, rising by \$216 million (14 percent) to \$1.8 billion. Following Japan as major U.S. suppliers were Mexico (19 percent of total sector imports), Germany (12 percent), the United Kingdom (11 percent), and Canada (10 percent). Certain measuring instruments from Mexico also recorded a significant trade shift in 1997, increasing by \$271 million (21 percent) to \$1.6 billion. In 1997, increased construction and industrial activity in the United States precipitated a rise in demand for certain measuring instruments from U.S. affiliated operations in Mexico. With respect to the United Kingdom, imports of certain measuring instruments rose by \$166 million (23 percent) to \$893 million. U.S. imports from the principal foreign suppliers consisted largely of instruments and apparatus used for measuring or checking the flow, level, pressure, or other variables of liquids or gases, as well as instruments and apparatus used for physical or chemical analysis.

U.S. exports

U.S. exports of certain measuring instruments rose by \$2.0 billion (16 percent) to \$14.6 billion in 1997. Products with significant trade increases included measuring and checking instruments, automatic regulating and controlling instruments, and instruments for measuring and checking electrical quantities. Canada continued to be the principal U.S. foreign market during 1997 (accounting for 17 percent of total U.S. exports), followed by Japan (14 percent), Mexico (8 percent), and Germany (6 percent). U.S. exports to Canada rose by \$482 million (24 percent) to \$2.5 billion, largely reflecting an increase in industrial activity, which enhanced demand of Canadian consumers for automatic regulating and controlling instruments. Exports to Japan increased by \$81 million (4 percent) to \$2.0 billion, which reflected a rise in demand for instruments for measuring and checking electrical quantities and certain optical instruments. The \$321 million (41 percent) increase to \$1.1 billion in exports to Mexico reflected increased shipments of advanced-technology instruments to U.S.-owned assembly plants in that country.

With respect to the largest international regional markets, U.S. exports to Asian Pacific Rim countries

increased by \$650 million (13 percent) to \$5.7 billion, while exports to the EU rose by \$281 million (8 percent) to \$3.6 billion. Increasing demand for instruments designed to upgrade petroleum product loading terminals to meet safety, environmental, and efficiency standards and other metering and control equipment accelerated U.S. exports to the Asian Pacific Rim, whereas certain measuring instruments exported to the EU were largely used in construction and industrial applications.

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Apparatus for Making, Breaking, Protecting, or Connecting Electrical Circuits

The U.S. trade deficit in apparatus for making, breaking, protecting, or connecting electrical circuits rose by \$69 million (11 percent) to a total of \$697 million as a result of a 13-percent increase in both imports and exports in 1997. These products are a broad and somewhat disparate grouping of electrical and electronic items such as printed circuits, connectors, fuses, circuit breakers, switches, relays, motor starters, surge suppressors, lamp holders, and plugs and sockets, as well as certain boards, panels, and consoles incorporating them. For the most part, they are components that are employed in electrical and electronic apparatus such as power generation equipment, industrial automation equipment, building and construction equipment, computers, and communications equipment. As such, increases in U.S. and global demand for electrical circuit apparatus reflect growth in the demand for the end equipment in which they are incorporated.

U.S. imports

Imports rose by \$1.1 billion (13 percent) to \$10.0 billion in 1997, with NAFTA partners Mexico and Canada accounting for nearly one-third of the total. Imports from Mexico rose by \$326 million (18 percent) to \$2.1 billion, while imports from Canada increased by \$99 million (11 percent) to \$1.0 billion. Mexico is the leading partner for the United States in the joint production of many of the products in this grouping. Typically, components are partially manufactured in the United States and shipped to Mexico for final assembly before return to the United States or transfer to a third country.¹⁷ U.S. imports from China and Taiwan exhibited large increases as well. Imports from China rose by \$195 million (39 percent) to \$696 million while imports from Taiwan rose by \$111 million (14 percent) to \$938 million. In both cases, most of the increases were in the import of printed circuits. Taiwan is a global leader in the manufacture of these products, especially those used as mother boards for personal computers, and China is a rapidly growing producer. Other products which experienced notable growth in imports were automatic circuit breakers, which rose by \$54 million (17 percent) to \$372 million, connective devices, which grew by \$262 million (23 percent) to nearly \$1.4 billion, and certain electrical distribution boards, which rose by \$286 million (23 percent) to \$1.5 billion.

U.S. exports

Exports grew by more than \$1.0 billion (13 percent) to \$9.3 billion in 1997. Mexico accounted for 32 percent of the value of U.S. exports in this group, and 49 percent of the increase in exports. Exports to Mexico rose by \$520 million (22 percent) to \$2.9 billion. Mexico's large share of U.S. exports illustrates its growing market as well as its continued importance as a partner in the joint production of many of these products. Exports

¹⁷USITC, *Production Sharing*, 1992-1995, USITC publication 3032, pp. 3-18 to 3-20.

to Canada, the second-largest export market, remained stable at \$2.1 billion. Other major export markets that experienced notable shifts were the United Kingdom, Germany, Singapore, and Taiwan. In 1997, exports increased to the United Kingdom by \$80 million (22 percent) to \$525 million, to Germany by \$52 million (22 percent) to \$293 million, to Singapore by \$51 million (19 percent) to \$315 million, and declined to Taiwan by \$30 million (13 percent) to \$197 million.

Products which experienced significant export shifts included printed circuits, connective devices, and switches. Exports of printed circuits and connective devices rose by \$313 million (19 percent) to \$2.0 billion and by \$328 million (35 percent) to \$1.2 billion, respectively, while exports of switches declined by \$183 million (18 percent) to \$821 million.

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Telephone and Telegraph Apparatus

The total value of U.S. trade in telephone and telegraph apparatus was \$19.9 billion in 1997 and the U.S. trade surplus in these products increased by \$906 million (212 percent) to \$1.3 billion. The growing surplus resulted from a 23-percent increase in exports, while imports increased 13 percent. The U.S. trade balance improved with 4 of its 10 largest trading partners, Canada, Mexico, Hong Kong, and Malaysia during 1997. The trade balance with Canada changed from a \$176 million deficit to a \$13 million surplus; the trade surplus with Hong Kong increased by \$250 million (73 percent) to \$594 million; and trade deficits with Mexico and Malaysia decreased by 66 percent and 18 percent, respectively.

U.S. trade balances for sector products with its other major trading partners in Asia--Japan, China, Korea, the Philippines--declined, although the balance with the Asia Pacific region as a whole remained largely unchanged. The largest U.S. trade deficit in this sector continues to be with China. This deficit increased by \$207 million (23 percent) to \$1.1 billion during 1997. China's high tariff barriers contribute to this deficit in two ways: by restricting imports, and by encouraging foreign telecommunications producers who want to sell to the Chinese market to locate production facilities within China, thereby increasing domestic capacity and encouraging exports. The U.S. trade deficit with Japan increased by \$180 million (44 percent) to \$586 million and the deficit with the Philippines increased by \$171 million (61 percent) to \$453 million. The United States maintained a trade surplus with Korea during 1997, although it decreased by \$257 million (61 percent) to \$163 million.

U.S. imports

U.S. imports of telephone and telegraph apparatus increased by \$1.1 billion (13 percent) to \$9.3 billion in 1997. This growth represents an acceleration of the average annual growth rate of 10 percent for the previous 4 years. Increased imports are primarily driven by the steadily expanding U.S. market for telecommunications and have grown in tandem with the 13-percent expansion of this market.¹⁸ The largest sources of sector imports were Canada, Japan, China, and Mexico, which together accounted for 61 percent

¹⁸MultiMedia Telecommunications Association (MMTA), *1998 MultiMedia Telecommunications Market Review and Forecast* (Arlington: MMTA, 1998) p. 3.

of the total. U.S. imports from Canada increased by \$153 million (9 percent) to \$1.9 billion in 1997, continuing the steady growth that has occurred throughout the 1993-97 period. Much of the increase of telecommunications equipment from Canada resulted from increased competitiveness of the Canadian telecommunications equipment industry. In September 1994, Canada opened local telephone service to competition, stimulating demand for new and upgraded telecommunications infrastructure, which in turn attracted new investment in the telecommunications equipment industry by both foreign and domestic firms. U.S. imports from Canada consisted of a wide range of products but were relatively concentrated in high-end equipment including central office switches, private branch exchanges, multiline telephones, and parts of telephonic and telegraphic equipment.

U.S. imports from Japan increased marginally in 1997 by \$49 million (3 percent) to \$1.5 billion, following a steady decrease over the previous 4 years. As the second-largest supplier of telecommunications equipment to the United States, Japan has benefited from the steady growth of the U.S. telecommunications equipment market. This increase was also affected by the value of the yen, which has steadily depreciated vis-a-vis the dollar since the middle of 1995, making imports from Japan less expensive for U.S. consumers.¹⁹ U.S. imports from China increased by \$198 million (17 percent) to \$1.3 billion in 1997. Corded and cordless telephones comprised more than one-half of these imports and most of the remainder consisted of low-value-added products such as antennas, answering machines and certain parts.

U.S. imports from Mexico increased by \$171 million (23 percent) to \$913 million in 1997, continuing a steady trend whereby sector imports have nearly quadrupled since 1993. Much of this increase can be attributed to the NAFTA, which eliminated U.S. tariffs on Mexican imports of telecommunications equipment. Similar to China, a large share of these imports consisted of low-value-added products such as telephones.

U.S. exports

U.S. exports of telephone and telegraph apparatus increased by \$2.0 billion (23 percent) to \$10.6 billion in 1997. Exports of sector products have more than doubled since 1993. This growth is largely the result of increased worldwide investment in telecommunications facilities to provide basic telephone service in less developed areas and to upgrade networks in countries where new technologies require far greater data carrying capacity. The United States is the world's leading producer of high-technology telecommunications equipment and is well positioned to benefit from this increased demand. U.S. exports of telecommunications equipment are primarily comprised of high-technology products such as cellular transmission equipment, modems, switching equipment, and pagers.

U.S. exports increased to three of the four largest markets for U.S. sector exports in 1997--Canada, Mexico, and Hong Kong, while exports to Japan decreased. These four countries accounted for 41 percent of total sector exports in 1997. U.S. exports to Canada increased by \$342 million (22 percent) to \$1.9 billion, a continuation of the export growth that has averaged 21 percent each year since 1993. Exports to Japan decreased by \$130 million (13 percent) to \$894 million during 1997 after increasing each of the 4 previous years. This decrease may be partially attributed to value of the yen, which continued to depreciate throughout 1997 and the continued stagnation of the Japanese economy.²⁰

Exports to Mexico increased by \$273 million (46 percent) to \$862 million in 1997 and exports to Hong

¹⁹International Monetary Fund (IMF), *International Financial Statistics* (Washington: IMF, 1998).

²⁰Andrew Bailes and Andrew White, *Asia-Pacific Telecoms Markets* (London: FT Media and Telecoms, 1997), pp. 93-94.

Kong increased by \$250 million (58 percent) to \$679 million. Increased demand in Mexico and Hong Kong for U.S. telecommunications products has partially resulted from increased competition for telecommunications services in these countries that has spurred the expansion and upgrade of the telecommunications infrastructure.

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Medical Goods

The U.S. trade surplus in medical goods increased by \$481 million (10 percent) to \$5.3 billion in 1997. U.S. exports grew by \$1.0 billion (10 percent) to \$11.2 billion, while U.S. imports grew by \$527 million (10 percent) to \$5.9 billion in 1997. Improved medical imaging capabilities and faster scanning speeds continued to sustain U.S. global competitiveness in global markets for advanced-technology medical imaging devices such as magnetic-resonance-imaging (MRI), computed tomographic (CT), ultrasound, and x-ray equipment.²¹ Other high-technology devices developed in the United States, such as pacemakers, cardioverter defibrillators, cardiac stents, and electrosurgical equipment, also benefited from increased global demand in 1997. Such medical goods accounted for a disproportionate amount of U.S. trade in medical equipment and increased global demand for such products contributed significantly to the increase in the U.S. trade surplus for medical goods.

U.S. imports

Japan and Germany continued to be the largest suppliers of U.S. imports of medical goods in 1997, together accounting for 35 percent of total U.S. imports of such products. U.S. imports from Japan increased by \$87 million (9 percent) to \$1.1 billion, consisting chiefly of medical imaging equipment, particularly ultrasound scanning devices manufactured by Japanese electronic and electrical firms such as Toshiba, Hitachi, and Yokogawa Medical Systems, a fully-owned Tokyo subsidiary of U.S.-based General Electric Medical Systems. Other important U.S. imports from Japan included optical medical equipment such as endoscopes and patient monitoring equipment.

U.S. imports from Germany declined slightly by \$24 million (2 percent) to \$1.0 billion, as several German producers of medical and surgical instruments shifted some production to central and eastern European countries to benefit from lower wages to reduce their manufacturing costs.²² Other important EU suppliers of U.S. imports included France, the United Kingdom, and the Netherlands. Among these, U.S. imports grew the fastest from the Netherlands, which increased by \$41 million (21 percent) to \$237 million. Included among such imports were medical imaging equipment of all types by the major Dutch electronics producer Philips and pacemakers, defibrillators, and other electronic cardiovascular devices by the Netherlands subsidiary of U.S.-based Medtronic, the world's largest producer of pacemakers.²³

In general, economic barriers to entry in the medical equipment industry have been high, particularly for

²¹U.S. investment analysts, interviews by USITC staff, Sept. 25-26, 1997; and DRI/McGraw-Hill, Standard & Poor's, USDOC, *U.S. Industry & Trade Outlook 1998* (New York: McGraw-Hill Companies, Inc., 1998), p. 46-2.

²²German medical trade association official, telephone interview by USITC staff, May 5, 1998.

²³U.S. industry representative, telephone interview by USITC staff, May 3, 1998.

advanced technology products.²⁴ Consequently, production outside of the United States, the EU, and Japan has been negligible, except in a few circumstances in commodity medical device sectors where firms from these more advanced countries have been able to establish production sharing operations in countries with low labor costs. Mexico is the most notable example of such production sharing. U.S. imports from that country rose by \$115 million (17 percent) to \$784 million, making Mexico the third-leading supplier of imported medical goods to the United States in 1997. Many of these medical goods consisted of catheters, blood administration sets, and infusion apparatus assembled in subsidiaries and contract operations of leading U.S. hospital suppliers such as Baxter International, Johnson & Johnson, Abbott Laboratories, and Becton Dickinson.²⁵ Other important suppliers of production sharing imports were the Dominican Republic and Costa Rica.²⁶ Baxter International has transferred some production sharing of catheters and blood administration sets from Singapore to Costa Rica over the past couple of years to reduce wage costs and to gain from Costa Rica's closer proximity to the U.S. market, final destination for many of these goods.²⁷ Finally, China recently has emerged as a growing supplier of U.S. imports of commodity medical devices. China's exports of medical equipment to the United States increased by \$68 million (28 percent) to \$308 million as U.S. and Japanese medical equipment firms increased production and assembly of commodity hospital consumables and blood pressure medical devices in China.²⁸

U.S. exports

U.S. exports to Japan rose by \$27 million (1 percent) to \$1.1 billion as that country remained the leading single country market for U.S. exports of medical equipment. However, that represented the smallest increase in U.S. exports to that market in the past 5 years as financial concerns resulted in smaller allocations of the national budget to health care.²⁹ Although similar difficulties in neighboring countries led to just a \$165 million (5-percent) rise in U.S. exports of medical goods to Asian Pacific Rim countries to \$3.1 billion, U.S. exports to the rapidly developing ASEAN countries continued to increase at double-digit rates, increasing by \$47 million (19 percent) to \$289 million.³⁰ Although there may be some negative short-term effects if continued financial turmoil places great pressures on Asia-Pacific governments to tighten health care budgets, these economies are expected to continue to be among the world's fastest growing markets for medical equipment and instruments over the longer term.³¹

U.S. exports to the EU increased by \$546 million (12 percent) to \$4.9 billion. Much of the increase was in exports of advanced medical imaging devices and other high-technology medical equipment, including pacemakers, cardioverter defibrillators, cardiac stents, and medical laser devices to the Netherlands, which serves as a major distribution center of imported medical devices for the rest of Europe.³² Exports to the Netherlands increased by \$255 million (33 percent) to \$1.0 billion. However, exports to Germany, the second largest market for U.S.-made medical goods, declined by \$39 million (3 percent) to \$1.1 billion. The increasing impact of health care costs on the German Federal/State budgets have led to cost-cutting measures chiefly aimed at public-owned

²⁴U.S. investment analysts, interviews by USITC staff, Sept. 25-26, 1997; and U.S. and EU industry representatives, telephone interviews by USITC staff, Jan. 13-16, 1998.

²⁵U.S. industry representatives, telephone interviews by USITC staff, Apr. 26-May 5, 1998.

²⁶Ibid.

²⁷Representatives of Costa Rican subsidiary of Baxter International, interview by USITC staff, Cartago, Costa Rica, May 20, 1997.

²⁸U.S. and Japanese industry representatives, telephone interviews by USITC staff, May 4-7, 1998.

²⁹U.S. and Japanese industry representatives, and HIMA representative, telephone interviews by USITC staff, Apr. 28, 1998.

³⁰See app. C for the list of political entities included in these two country groupings.

³¹HIMA, "Despite Asian Economic Turmoil, Positive Figures Forecast for Industry in 1998," news release, Jan. 15, 1998, p. 1; and Karim Marouf, "Despite Crisis, Asian Markets Still Offer Growth," *Medical Device & Diagnostic Industry*, Mar. 1998, pp. 23-27.

³²U.S. industry representatives, telephone interviews by USITC staff, May 4-7, 1998.

hospitals.³³ The cost-consciousness of hospitals led to a cutback in purchases in all medical equipment, but especially diagnostic imaging equipment, including imported medical equipment from the United States.³⁴

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³³Barbara Ernst, "The German Health Care System," *Industry Sector Analysis 3613*, Sept. 1, 1997, p. 1-15.

³⁴U.S. investment analysts, interviews by USITC staff, Sept. 25-26, 1997; U.S. and EU industry representatives, telephone interviews by USITC staff, Jan. 13-16, 1998.

Table 13-3

Electronic products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	Change, 1997 from 1996			
		1996	1997	Absolute	Percent
<i>Million Dollars</i>					
ST001	Office machines:				
	Exports	2,099	2,307	208	9.9
	Imports	6,296	6,688	392	6.2
	Trade balance:	-4,196	-4,381	-184	-4.4
ST002	Telephone and telegraph apparatus:				
	Exports	8,630	10,595	1,965	23.8
	Imports	8,202	9,261	1,059	12.9
	Trade balance:	428	1,334	906	211.7
ST003	Microphones, loudspeakers, audio amplifiers, and combinations thereof:				
	Exports	1,138	1,228	90	7.9
	Imports	2,108	2,168	60	2.9
	Trade balance:	-970	-940	30	3.1
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:				
	Exports	964	1,058	93	9.7
	Imports	5,873	6,128	256	4.4
	Trade balance:	-4,908	-5,071	-162	-3.3
ST005	Unrecorded magnetic tapes, discs, and other media:				
	Exports	2,670	2,603	-67	-2.5
	Imports	2,072	2,090	19	0.9
	Trade balance:	599	513	-86	-14.3
ST006	Records, tapes, compact discs, computer software, and other recorded media:				
	Exports	3,453	3,785	332	9.6
	Imports	994	981	-13	-1.3
	Trade balance:	2,459	2,804	345	14.0
ST007	Radio transmission and reception apparatus, and combinations thereof:				
	Exports	6,500	7,992	1,492	23.0
	Imports	8,071	9,060	990	12.3
	Trade balance:	-1,571	-1,068	508	32.3
ST008	Radio navigational aid, radar, and remote control apparatus:				
	Exports	1,215	1,570	355	29.2
	Imports	594	691	96	16.2
	Trade balance:	621	879	258	41.6
ST009	Television receivers, video monitors, and combinations including television receivers:				
	Exports	1,268	1,542	274	21.6
	Imports	4,498	4,403	-95	-2.1
	Trade balance:	-3,230	-2,861	369	11.4
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:				
	Exports	726	969	243	33.5
	Imports	4,353	4,039	-314	-7.2
	Trade balance:	-3,627	-3,070	557	15.3
ST011	Electric sound and visual signaling apparatus:				
	Exports	788	903	115	14.6
	Imports	1,883	2,053	170	9.0
	Trade balance:	-1,095	-1,150	-55	-5.1
ST012	Electrical capacitors and resistors:				
	Exports	1,807	2,194	387	21.4

See footnote(s) at end of table.

Table 13-3--Continued

Electronic products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC		Change, 1997 from 1996			
code ²	Industry/commodity group	1996	1997	Absolute	Percent
<i>Million Dollars</i>					
	Imports	1,691	1,950	258	15.3
	Trade balance:	116	244	129	111.3
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:				
	Exports	8,200	9,268	1,068	13.0
	Imports	8,829	9,965	1,137	12.9
	Trade balance:	-628	-697	-69	-11.0
ST014	Television picture tubes and other cathode-ray tubes:				
	Exports	1,566	2,085	518	33.1
	Imports	987	876	-111	-11.2
	Trade balance:	579	1,209	629	108.7
ST015	Special-purpose tubes:				
	Exports	153	174	20	13.3
	Imports	252	247	-5	-2.0
	Trade balance:	-99	-74	25	25.6
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices:				
	Exports	24,135	29,037	4,902	20.3
	Imports	36,771	36,878	107	0.3
	Trade balance:	-12,636	-7,841	4,795	37.9
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:				
	Exports	2,904	3,064	160	5.5
	Imports	1,472	1,597	125	8.5
	Trade balance:	1,432	1,467	34	2.4
ST018	Automatic data processing machines:				
	Exports	37,977	41,792	3,815	10.0
	Imports	61,457	69,953	8,496	13.8
	Trade balance:	-23,480	-28,161	-4,681	-19.9
ST019	Photographic supplies:				
	Exports	2,148	2,302	155	7.2
	Imports	1,702	1,766	65	3.8
	Trade balance	446	536	90	20.2
ST020	Exposed photographic plates, film, and paper:				
	Exports	101	99	-2	-1.6
	Imports	150	147	-3	-1.9
	Trade balance:	-49	-48	1	2.4
ST021	Optical fibers, optical fiber bundles and cables:				
	Exports	646	806	161	24.9
	Imports	216	272	56	26.1
	Trade balance:	430	534	105	24.4
ST022	Optical goods, including ophthalmic goods:				
	Exports	1,941	2,380	439	22.6
	Imports	3,114	3,397	283	9.1
	Trade balance:	-1,173	-1,017	156	13.3
ST023	Photographic cameras and equipment:				
	Exports	1,075	1,055	-20	-1.8
	Imports	2,748	3,117	368	13.4
	Trade balance:	-1,673	-2,061	-388	-23.2
ST024	Medical goods:				
	Exports	10,217	11,226	1,009	9.9
	Imports	5,368	5,895	527	9.8
	Trade balance	4,850	5,331	482	9.9
ST025	Surveying and navigational instruments:				
	Exports	1,547	1,809	262	17.0

See footnote(s) at end of table.

Table 13-3--Continued

Electronic products sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
		<i>Million Dollars</i>			
	Imports	571	757	186	32.6
	Trade balance:	976	1,052	76	7.8
ST026	Watches:				
	Exports	154	190	36	23.7
	Imports	2,268	2,311	43	1.9
	Trade balance:	-2,114	-2,120	-7	-0.3
ST027	Clocks and timing devices:				
	Exports	123	119	-4	-3.5
	Imports	447	447	⁽³⁾	0.1
	Trade balance	-324	-328	-5	-1.4
ST028	Balances of a sensitivity of 5 cgs or better:				
	Exports	23	23	⁽³⁾	-1.2
	Imports	36	41	5	12.5
	Trade balance:	-13	-18	-5	-35.7
ST029	Drawing and mathematical calculating and measuring instruments:				
	Exports	275	400	125	45.5
	Imports	385	428	44	11.3
	Trade balance:	-110	-28	82	74.2
ST030	Measuring, testing, controlling, and analyzing instruments:				
	Exports	12,578	14,587	2,009	16.0
	Imports	7,136	8,089	953	13.4
	Trade balance:	5,442	6,498	1,056	19.4

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

²This 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.

³Less than \$500,000.

Note.--Calculations based on unrounded data.

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

CHAPTER 14

Miscellaneous Manufactures

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Led by continued expansion in U.S. imports of furniture, toys, and video games, and accelerated U.S. purchases of foreign paintings and antiques, the U.S. trade deficit in the miscellaneous manufactures sector¹ increased by \$5.2 billion (18 percent) to \$33.3 billion in 1997, and equaled nearly one-half (48 percent) of the total increase in the U.S. merchandise trade deficit in 1997. Strong growth in U.S. imports, which rose by \$6.4 billion (15 percent) to \$49.0 billion in 1997, again exceeded a more moderate growth in exports, which increased by \$1.3 billion (9 percent) to \$15.7 billion (table 14-1).

Production processes for goods classified in the “miscellaneous manufactures” sector tend to be labor-intensive and production technology is easily transferred to developing or newly industrialized countries. In several sector categories, the imported products are produced in Asia under license from the U.S. companies.² Miscellaneous manufactures imports tend to be concentrated in products that require sewing (luggage and baseballs), semiskilled assembly (wood furniture and bicycles), and low-technology injection molding (toys and dolls), or products for which there is no competing U.S. industry (home video games and certain works of art). The remaining U.S. industry is characterized by products with high transportation costs (upholstered furniture and fairground amusement rides), products with low raw material costs in the United States relative to those of foreign producers (baseball bats and silverware), and products where U.S. manufacturers have superior design and production technology or copyright protection (water skis and board games).

Furniture, games, and toys accounted for 64 percent (\$4.1 billion) of the total sector increase in imports in 1997 and 52 percent (\$3.4 billion) of the expansion in the U.S. trade deficit in sector products. Each of these product categories will be discussed in greater detail later in this chapter.

U.S. imports of works of art and antiques climbed by \$797 million (29 percent) in 1997 to \$3.6 billion (table 14-2); paintings imports grew by \$448 million (28 percent) to \$2.1 billion and imports of antiques rose by \$235 million (27 percent) to \$1.1 billion. A large portion of U.S. imports of works of art and antiques have been purchased at overseas auctions mostly in France held by Sotheby’s. In addition, works of art on tour, such as the Monet exhibit, are considered to be an import while on tour and an export when returned to their home museum or other residence.

U.S. exports of works of art and antiques increased by \$228 million (26 percent) in 1997 to \$1.1 billion, resulting in a \$569 million growth in trade deficit in this category. The expansion in the art and antiques deficit accounted for 5 percent of the increase in the total U.S. merchandise trade deficit in 1997. Exports were less than one-third the value of imports in the miscellaneous manufactures sector in 1997. Furniture accounted for over

¹Miscellaneous manufactures include a wide range of consumer products such as luggage, handbags, musical instruments, silverware, jewelry, bicycles, furniture, writing instruments, lamps, sporting goods, brushes, brooms, toys, dolls, games, umbrellas, and miscellaneous articles (Christmas ornaments, artificial flowers, wigs, typewriter ribbons, objects of art, and antiques).

²Asian Pacific Rim countries accounted for 59 percent of total sector imports in 1997.

half of the growth in sector exports in sector products in 1997; paintings accounted for nearly one-fifth (table 14-3).

Trade statistics for all commodity/industry groups in the miscellaneous manufactures sector are presented in table 14-5 at the end of this chapter.

Table 14-1

Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 1996 and 1997¹

Item	1996	1997	Change, 1997 from 1996	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	242	179	-62	-25.8
Canada	3,127	3,433	306	9.8
Japan	2,172	1,826	-347	-16.0
Mexico	1,165	1,650	484	41.6
Taiwan	434	402	-33	-7.5
Italy	145	227	82	56.8
United Kingdom	936	1,107	171	18.3
France	296	356	60	20.3
Germany	607	586	-21	-3.4
Korea	440	370	-70	-15.8
All Other	4,828	5,522	694	14.4
Total	14,393	15,658	1,265	8.8
EU-15	2,877	3,168	291	10.1
OPEC	583	718	135	23.1
Latin America	2,278	2,953	675	29.6
CBERA	356	413	57	15.9
Asian Pacific Rim	4,327	3,938	-389	-9.0
ASEAN	459	472	13	2.8
Central and Eastern Europe	55	88	33	60.2
U.S. imports for consumption:				
China	13,560	16,694	3,134	23.1
Canada	3,887	4,555	668	17.2
Japan	2,758	3,938	1,179	42.8
Mexico	3,034	3,628	594	19.6
Taiwan	3,576	3,178	-397	-11.1
Italy	2,946	3,029	83	2.8
United Kingdom	1,280	1,455	175	13.7
France	1,426	1,894	467	32.8
Germany	846	912	66	7.7
Korea	995	924	-71	-7.2
All Other	8,206	8,748	542	6.6
Total	42,515	48,954	6,440	15.1
EU-15	7,725	8,569	844	10.9
OPEC	537	651	114	21.2
Latin America	4,006	4,663	657	16.4
CBERA	388	411	23	5.9
Asian Pacific Rim	24,916	28,882	3,967	15.9
ASEAN	3,120	3,155	35	1.1
Central and Eastern Europe	223	263	39	17.6
U.S. merchandise trade balance:				
China	-13,318	-16,515	-3,196	-24.0
Canada	-760	-1,122	-362	-47.7
Japan	-586	-2,112	-1,526	-260.5
Mexico	-1,868	-1,978	-110	-5.9
Taiwan	-3,141	-2,777	365	11.6
Italy	-2,801	-2,801	-1	(²)
United Kingdom	-344	-347	-4	-1.1
France	-1,130	-1,538	-407	-36.0
Germany	-239	-325	-86	-36.2
Korea	-555	-554	2	0.3
All Other	-3,378	-3,226	152	4.5
Total	-28,121	-33,296	-5,175	-18.4
EU-15	-4,848	-5,401	-553	-11.4
OPEC	46	67	20	44.2
Latin America	-1,728	-1,710	18	1.0
CBERA	-32	2	34	(³)
Asian Pacific Rim	-20,589	-24,945	-4,356	-21.2
ASEAN	-2,661	-2,683	-22	-0.8
Central and Eastern Europe	-168	-175	-6	-3.7

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

²Less than 0.05 percent.

³Not meaningful for purposes of comparison.

Note.--Calculations based on unrounded data. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in these products in 1997.

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

Table 14-2
Changes in U.S. imports of miscellaneous manufactures, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percentage
<i>Million dollars</i>				
Furniture (MM054)	9,497	11,224	1,726	18
Toys (MM060)	5,481	6,728	1,247	23
Games (MM061)	2,881	4,033	1,152	40
Works of art and antiques (HTS 97)	2,772	3,568	797	29
Lamps and lighting fixtures (MM056)	2,422	2,729	307	13
Luggage, handbags, and flat goods (MM046)	3,512	3,779	267	8
Precious jewelry and related articles (MM051)	3,790	4,021	231	6
Dolls (MM059)	1,356	1,516	159	12
All other	10,804	11,356	552	5
Total	42,515	48,954	6,440	15

Note.--Calculations based on unrounded data.

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

Table 14-3
Changes in U.S. exports of miscellaneous manufactures, 1996-97

Commodity	1996	1997	Change, 1997 from 1996	
			Absolute	Percentage
<i>Million dollars</i>				
Increases:				
Furniture (MM054)	3,519	4,158	638	18
Paintings (HTS 9701)	511	734	223	44
Lamps and lighting fittings (MM056)	529	655	126	24
Precious jewelry and related articles (MM051)	402	486	84	21
Games and fairground amusements (MM061)	1,089	1,144	55	5
Decreases:				
Arms and ammunition (MM067)	2,606	2,395	-211	-8
All other	5,737	6,086	349	6
Total	14,393	15,658	1,265	9

Note.--Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

Five factors are evident in bilateral trade in the miscellaneous manufactures sector: imports of labor-intensive articles from China, Taiwan, and Korea; imports of video games from Japan; rationalized production and intercompany trade between the United States and Canada; two-way trade in high-end manufactured goods and trade in works of art between the United States and the EU; and the use of assembly plants in Mexico. Of these, the most significant development in 1997 was a \$3.1 billion (23-percent) increase in U.S. imports from China to \$16.7 billion (table 14-1). Meanwhile, U.S. exports to China fell by 26 percent (\$62 million) to \$179 million, and the U.S. bilateral merchandise trade deficit with China expanded by \$3.2 billion (24 percent) in 1997

to \$16.5 billion, one-half of the total merchandise trade deficit in sector products. The increase in the sector deficit with China made up nearly one-third of the total growth in the U.S. trade deficit for all products from all sources.

U.S. imports from Japan rose by \$1.2 billion (43 percent) to \$3.9 billion, while U.S. exports to Japan declined by \$347 million (16 percent) to \$1.8 billion. Consequently, the trade deficit with Japan nearly quadrupled in 1997, rising by \$1.5 billion to \$2.1 billion. The substantial increase in the trade deficit with Japan in this sector was largely the result of price reductions for technologically advanced home video games produced almost exclusively in Japan and a subsequent surge in consumer demand in the United States for these now more affordable games.

Increased U.S. imports of paintings and antiques accounted for most of the \$844 million (11 percent) rise in imports of sector products from the European Union in 1997 to \$8.6 billion. Imports from France alone rose by \$467 million (33 percent) to \$1.9 billion, indicative of both the strength of the U.S. economy which spurred increased purchases of luxury item such as arts and antiques, and temporary importations of artwork for exhibitions.

Furniture accounted for the bulk of the increase in imports from Canada in 1997. The U.S. trade deficit with Canada in the miscellaneous manufactures sector expanded by \$362 million (48 percent) to \$1.1 billion. The rise in imports, by \$668 million (17 percent) to \$4.6 billion, outpaced the growth in exports of \$306 million (10 percent) to \$3.4 billion. Furniture accounted for 80 percent of the increase in imports from Canada in 1997. U.S. and Canadian trade patterns were influenced by the downsizing of the Canadian furniture industry. As a result, Canadian furniture producers concentrated marketing efforts on the U.S. market, along with adapting niche strategies in top quality market segments.

The U.S. trade deficit with Mexico increased by \$110 million (6 percent) to \$2.0 billion in 1997, as imports rose by \$594 million (20 percent) to \$3.6 billion, while U.S. exports increased by \$484 million (42 percent) to \$1.7 billion. Furniture, i.e., wooden household furniture and seats for motor vehicles (assembled in Mexico from U.S. components), is the principal Mexican export category in the miscellaneous manufacturers sector. The U.S. import growth is largely due to the relatively low cost of Mexican labor, which has encouraged expansion of the use of assembly plants in Mexico to supply the U.S. market and compete with wood furniture from Asia.

The U.S. trade deficit with Taiwan contracted by \$365 million (12 percent) in 1997 to \$2.8 billion, as imports from Taiwan decreased by \$397 million (11 percent) to \$3.2 billion. The decline in imports from Taiwan reflects the rising labor costs in Taiwan and the steady shift of production of articles such as furniture and games to China and other low-labor-cost countries in Asia.

The leading U.S. import and export miscellaneous manufactures for major trading partner countries are presented in table 14-4.

Table 14-4
Miscellaneous manufactures: Leading U.S. import and export products, by major partner, 1997

Partner	Leading imports	Leading exports
China	Toys and models Luggage, handbags, and flat goods Lamps and lighting fixtures Dolls	Games Prefabricated buildings Sporting goods Furniture, except chairs and sofas
Canada	Furniture, except chairs and sofas Car seats, chairs, and sofas Sporting goods Lamps and lighting fixtures	Car seats, chairs, and sofas Furniture, except chairs and sofas Sporting goods Lamps and lighting fixtures
Japan	Games Writing instruments Electrically-operated musical instruments Bicycle/motorcycle parts	Sporting goods Ammunition Car seats, chairs, and sofas Furniture, except chairs and sofas
Mexico	Car seats and chairs Furniture, except chairs and sofas Lamps and lighting fixtures Toys	Car seats, chairs and sofas Sporting goods Furniture, except chairs and sofas Lamps and lighting fixtures
Taiwan	Furniture, except chairs and sofas Sporting goods Chairs and sofas Bicycles	Ammunition Arms Bicycle/motorcycle parts Sporting goods
Italy	Jewelry Car seats, chairs and sofas Furniture, except chairs and sofas Luggage, handbags, and flat goods	Jewelry Sporting goods Works of art Writing instruments

Note.--Categories are 4-digit HTS headings/subheadings (or groups of 4-digit HTS headings/subheadings) and corresponding export categories. The countries shown are those with the largest total U.S. trade (U.S. imports plus exports) in 1997. Products are ranked in decreasing order based on 1997 trade.

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

COMMODITY ANALYSIS

Toys and Models³

Continued rising imports from China prompted yet another increase in the overall U.S. merchandise trade deficit in toys and models (toys) in 1997, by \$1.2 billion (25 percent) to \$6.1 billion.⁴ Although U.S. exports of toys increased by \$30 million (5 percent) to \$627 million, that growth was dwarfed by the \$1.2 billion (22 percent) rise in U.S. imports to \$6.7 billion. U.S. imports from China alone accounted for over 80 percent of this increase.

³This industry/commodity group includes such products as toy figures, stuffed animals, toys with motors, toy musical instruments and tea sets, electric trains, models, construction sets, building blocks and puzzles.

⁴The total increase (\$1.3 billion) in U.S. imports of toys and models was the 10th-largest overall increase for 1997.

While the world's largest and best-known toy companies have their corporate headquarters in the United States,⁵ very few toys are still manufactured domestically. Because most toy manufacturing is highly labor-intensive, producers with low labor costs have a distinct competitive advantage. Consequently, U.S.-based toy companies tend to establish production sites in the relatively low-wage regions along the Asian Pacific Rim or in Mexico, where they contract for labor and/or buy foreign factories. Limited domestic production has remained to take advantage of technological expertise, lower shipping costs, and faster delivery times.

The United States remains the world's largest consumer of toys, followed by Japan and Western Europe.⁶ The relatively strong U.S. economy has enabled consumers to spend more of their income on nonsubsistence items such as toys. Domestic consumption of toys has also increased because of continued demographic trends, such as a growing percentage of babies being born to more affluent, dual-income parents and the fact that the large number of children from the "baby boomer" generation will reach their population peak in 2001-2004.⁷

U.S. imports

China continued to be the world's leading source of toys, mainly due to its combination of inexpensive labor and state-of-the-art facilities which produce high quality goods.⁸ The national and provincial governments in China have been very successful in attracting investment in the toy industry from the United States and other foreign sources (mainly Japanese and European) in an effort to increase economic growth. In 1997, China accounted for 80 percent of total U.S. imports of toys. The \$1.2 billion increase in imports of toys accounted for 11 percent of the total rise in U.S. imports from China in 1997 (\$10.8 billion). The following products accounted for the bulk of the growth of toy imports from China in 1997: stuffed toys, up by \$590 million (59 percent) to \$1.6 billion; other toys and models, up by \$388 million (28 percent) to \$1.8 billion; toys in sets or outfits, up by \$101 million (23 percent) to \$544 million; and toys representing animals and nonhuman creatures, with/without a spring mechanism, up by \$93 million (18 percent) to \$622 million.

Mexico remained the second-largest source for U.S. imports of toys, accounting for 4 percent of U.S. toy imports in 1997. Imports from Mexico grew by \$28 million (11 percent) to \$291 million. Although labor costs tend to be lower in China, Mexico's proximity to the United States affords it a competitive advantage with larger toys that have a higher per-unit shipping cost. As a result, some companies maintain production facilities in both the Asian Pacific Rim and Mexico, and/or import components from Asia for further assembling and processing in Mexico. The most significant U.S. imports from Mexico in 1997 were toys in sets and miscellaneous toys and models.

U.S. exports

Total U.S. exports of toys continued to expand in 1997, with growth in exports to Mexico, up by \$37 million (63 percent) to \$96 million, exceeding the \$30 million increase overall. As the Mexican economy

⁵The invention, design, and marketing facets of the toy industry have largely remained in the United States; however, industry sources estimate that more than three-quarters of the toys purchased in the United States are manufactured overseas. Toy Manufacturers of America, Inc. (TMA), *Toy Industry Fact Book 1996-1997*, (New York, NY), p. 13.

⁶*Ibid.*, p. 9.

⁷"Dolls, Toys, Games and Children's Vehicles," *U.S. Industry and Trade Outlook 1998*, p. 39-8.

⁸It should be noted that some facilities in China are better known for their cheaper imitations of trademarked and/or copyrighted items, not high-quality toys.

continues to recover from the peso devaluation of 1994-95 and the ensuing recession, demand for such nonsubsistence items as toys should continue to grow; however, U.S. exports of toys to the Asian Pacific Rim declined for the first time in five years, down by \$27 million, as consumers limited discretionary spending in light of the ongoing Asian financial crisis.

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Games and Fairground Amusements⁹

Sharply rising imports of video games from Japan prompted an increase in the overall U.S. merchandise trade deficit in games and fairground amusements (games) in 1997, expanding the deficit by \$1.1 billion (61 percent) to \$2.9 billion. Although U.S. exports of games also grew by \$55 million (5 percent) to \$1.1 billion, that growth was overwhelmed by the \$1.2 billion (40-percent) rise in U.S. imports to \$4.0 billion. A \$1.1 billion (80-percent) increase in imports from Japan accounted for the bulk of this increase.

U.S. imports

The trend of increasing U.S. imports of games is governed by the U.S. market for home video games.¹⁰ The market for home video games and the demand for imports of such products has followed a cyclical pattern over the past 5 years, rising and falling in conjunction with technological innovations. U.S. imports of games peaked at \$3.5 billion in 1993. That surge in imports saturated the market with home video games that used 16-bit technology, and imports of games declined by \$1.0 billion (28 percent) to \$2.5 billion during 1993-95. Concurrently, the major game-producing companies, Nintendo, Sega, and Sony Entertainment Co.,¹¹ began to incorporate 32- and, ultimately, 64-bit technology in home video game consoles and software. At first, consumers and retailers rejected the introductory price tag, around \$400, for these consoles. By 1996, however, basic consoles were selling for \$199, which, combined with the advanced graphics, enhanced play value, and a strong U.S. economy, led to a sharp rise in demand. As a result, total U.S. imports of video game consoles, software cartridges, and parts from all sources reached \$2.7 billion in 1997, an increase of \$927 million (53 percent) over the previous year.

Japan is the world's leading producer of video games, both home video games and coin-operated games for use in arcades. The production of these games, parts, and accessories, especially in their developmental stages, is dependent upon a high level of technological expertise--in contrast to that of toys which is far more labor-intensive. This difference in the value of key inputs (technology versus labor) partially explains why these products are still manufactured in Japan even though Japanese workers earn comparatively high wages on a global scale. In 1997, Japan accounted for 86 percent of total U.S. imports of home video games and 60 percent

⁹Games include such products as video games and parts used with a television receiver, coin- or token-operated video games and parts, gaming machines and parts; tables, balls and chalk for billiards; playing cards; board games, such as chess, checkers, and backgammon; and fairground amusements, such as Merry-go-rounds and traveling circuses. Fairground amusements accounted for 2 percent of total U.S. trade in sector products in 1997.

¹⁰Home video games are video games designed for use with a television receiver. These games accounted for 67 percent of total U.S. imports of games in 1997.

¹¹The previous leading U.S. manufacturers of home video games, Atari, Mattel, Coleco, and Magnavox, stopped manufacturing the games by the mid-1980s. Their departures from the market opened the door for Japanese arcade video game producers Nintendo and Sega to develop home video game consoles to play their popular arcade games.

of coin-operated games. The following U.S. imports from Japan experienced the greatest growth in 1997: home video game consoles, up by \$758 million (87 percent) to \$1.6 billion; and, parts, software cartridges, and accessories for home video games, up by \$345 million (98 percent) to \$696 million.

Rising labor costs in Japan have led some companies to shift production and/or assembly of some games (usually those manufactured with well-established and older technology) to other countries, such as China and Malaysia, in recent years. Accordingly, U.S. imports of all games from China increased by \$506 million (146 percent) to \$853 million during 1993-97; from 1996-97 imports from China rose \$219 million (35 percent). China has also become the single largest source of game machines other than home video or arcade games, supplying just over 50 percent (\$474 million) of U.S. imports in 1997. Imports of parts, software cartridges, and accessories for home video games from China also expanded from 1996-97, up by \$113 million (140 percent) to \$190 million; however, U.S. imports of home video consoles from China experienced a corresponding decline of \$51 million (63 percent) to \$30 million over the same period. Since the introduction of 64-bit games, demand has fallen for the 32-bit home video game consoles that are still mainly manufactured in Chinese factories.

U.S. imports of home video game consoles also experienced declines from Malaysia, down by \$105 million (97 percent) to \$3 million; and Taiwan, down by \$59 million (97 percent) to \$2 million in 1997. While production of all games and accessories has been in decline in Taiwan for the past 5 years as labor costs have risen, the decrease in U.S. imports of home video consoles from Malaysia likely reflected the same factors that led to the decline in imports from China in 1997 (i.e. older technology and production methods) than that used to produce 64-bit games in Japan.

U.S. exports

U.S. exports of games rose by \$55 million (5 percent) to \$1.1 billion during 1996-97. This increase was more pronounced from 1993-97 as exports rose by \$144 million (14 percent), with only 1996 experiencing a slight decline over the previous year. U.S. exports of home video games, software cartridges, and accessories rose by \$23 million (13 percent) in 1997 to \$203 million, and accounted for 42 percent of the total increase in U.S. exports of games that year. Exports of arcade and other coin-operated games experienced a slight decline in 1997, falling by \$21 million (6 percent) to \$353 million.

The leading markets for U.S. exports of games in 1997 continued to be the EU, Canada, and Latin America, with only Canada decreasing slightly, by \$4 million (2 percent) to \$212 million.¹² The \$29 million decline in U.S. exports of coin-operated games to Canada was tempered by a corresponding \$18 million rise in exports of home video games. Canadian consumers, as in the United States, purchased home video games

because of the enhanced graphics of the 64-bit technology game players and cartridges. Likewise, expanded consumption of these products in the EU and Latin America led to increased overall U.S. exports of \$35 million to each region, reaching \$242 million and \$207 million, respectively, in 1997.

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¹²U.S. exports to China were also down, by \$28 million (23 percent) to \$93 million in 1997, as exports of parts used in the assembly of 32-bit video games declined.

Furniture and Selected Furnishings

The U.S. merchandise trade deficit in furniture and selected furnishings (furniture) widened by \$1.1 billion (18 percent) in 1997 to \$7.1 billion. Though the rate of growth was identical for both imports and exports (18 percent), the greater volume of U.S. demand for imports from NAFTA partners overshadowed the growth in U.S. exports, which started from a significantly smaller base. China accounted for the most significant expansion in the U.S. trade deficit in 1997. Modest Chinese markets for U.S. furniture exports along with growing U.S. demand for low-to-mid priced wood household furniture resulted in the U.S. trade deficit with China widening by \$438 million (23 percent) in 1997 to \$1.5 billion. Japan is the only major trading partner with which the United States had a trade surplus in furniture in 1997. That surplus rose by \$50 million (31 percent) in 1997 to \$210 million.

U.S. imports

U.S. imports of furniture rose by \$1.7 billion (18 percent) in 1997 to \$11.2 billion.¹³ The largest growth in imports in 1997 was from Canada, rising by \$555 million (19 percent) to \$3.5 billion. U.S. imports of office furniture from Canada rose by \$249 million (35 percent) to \$946 million, accounting for almost half of the increase; while imports of wood household furniture accounted for one-third of the increase, rising by \$189 million (21 percent) to \$1.0 billion. Reportedly, increased global competition¹⁴ because of NAFTA and the proposed pledge of the Canadian government to create a Pacific Rim Free-Trade Agreement by 2010 has led Canadian household and office furniture manufactures to reduce their product lines and focused on specific market segments in order to remain competitive in the Canadian and the U.S. markets.¹⁵ Sklar-Pepler, for example, has narrowed its product line to stationary fabric upholstery. Palliser, also in the household segment of the industry, increased its shipments to the U.S. market by agreeing to manufacture for carefully selected U.S. retail partners.¹⁶ Similarly, the Global Group and SMED International, two major Canadian office furniture producers, have increased shipments to the United States by focusing on specific market segments and agreeing to dedicate their production to a specific group of U.S. furniture retailers.¹⁷

U.S. imports of furniture from Mexico rose by \$394 million (26 percent) in 1997 to \$1.9 billion. Most of the increase in U.S. imports in 1997 was accounted for by motor-vehicle seats and parts, which rose by \$232 million (25 percent) to \$1.2 billion. U.S. trade in car seats and parts with both Mexico and Canada reflects the

¹³U.S. imports of household furniture climbed by \$814 million (18 percent) in 1997 to \$5.4 billion; office furniture, by \$318 million (27 percent) to \$1.5 billion; and motor vehicle seats and parts, by \$239 million (12 percent) to \$2.2 billion.

¹⁴The share of Canadian household furniture market accounted for by imports rose from 25 percent in 1987 to 37 percent in 1996. Michael J. Knell, "Free Trade Puts Canadian Producers in Shape for Global Era," *Furniture Today*, Jan. 5, 1998, p. 29.

¹⁵However, Canadian shipments of household furniture have yet to return to pre-NAFTA levels. Canadian shipments of household furniture were \$2.1 billion in 1989. In 1996, Canadian household furniture shipments were \$1.5 billion. Michael J. Knell, "Sinclair: Free Trade Disaster for Industry," *Furniture Today*, Jan. 5, 1998, p. 29. Canadian production of household furniture continued to recover in 1997 following the shake out of the industry that came in response to increased competition from U.S. producers after the entry into force of the U.S.-Canada Free Trade Agreement in 1989.

¹⁶Michael J. Knell, "Free Trade Puts Canadian Producers in Shape for Global Era," *Furniture Today*, Jan. 5, 1998, p. 29.

¹⁷Telephone interview with Tom Reardon, Executive Director, Business and Institutional Furniture Manufacturers Association, Apr. 15, 1998.

highly integrated nature of North American vehicle production.¹⁸ U.S. imports from Mexico in the motor-vehicle seats and parts category are chiefly seat covers sewn from U.S.-origin textile material or leather, while imports from Canada typically consist of top-of-the-line, electronically adjustable car seats.

U.S. imports of wood household furniture from Mexico rose by \$104 million (28 percent) to \$481 million in 1997. Imports of wood furniture from Mexico largely consist of low-to-mid priced fully assembled, rustic-style furniture of solid wood. Rustic furniture has been successful in the U.S. market because it is a pre-industrial style furniture with slightly uneven surfaces and finishes that are transparent in order to show the wood grain. This production strategy specifically avoids the highly finished and polished segment of the U.S. wood furniture market, where U.S. producers dominate. In addition, rustic furniture usually consists of large, labor intensive items such as cabinets with drawers, dining room tables with matching chairs, and storage chests. Furniture producers in Mexico are able to compete with other foreign producers in the U.S. market because of low transportation and labor costs.¹⁹

U.S. imports of furniture from China rose by \$436 million (39 percent) to \$1.5 billion in 1997. Low-to-mid priced, ready-to-assemble, wood household furniture accounted for most of the \$327 million (46 percent) increase in U.S. imports of household furniture from China in 1997 to \$1.0 billion. China is the dominant source in East Asia of U.S. imports of household furniture because of its well-developed manufacturing base and low waged labor force. However, increasing shortages of domestic sources of wood²⁰ may result an increase in China's materials cost for wood household furniture relative to Malaysia and Indonesia, two major competing sources of low-to-mid priced wood furniture in 1997.

U.S. imports of furniture from Taiwan declined by \$41 million (4 percent) in 1997 to \$932 million,²¹ while imports from Malaysia rose by just \$18 million (5 percent) in 1997 to \$414 million. Rising labor costs in Taiwan and Malaysia has resulted in their becoming less cost-competitive with China. As a result, Taiwan's furniture producers have relocated a significant portion of their furniture operations to China.

Furniture producers in Malaysia, the third-largest source of U.S. imports of furniture in East Asia are currently relying heavily on imported workers from Indonesia, Bangladesh, and the Philippines.²²

A number of East Asian furniture companies have established production/assembly facilities in the United States. These operations usually manufacture fully-assembled, mid-to-upper price furniture. This

¹⁸ U.S. imports of motor vehicle seats from Canada rose slightly by \$31 million (4 percent) to \$867 million in 1997.

¹⁹ There are an estimated 150 companies in Mexico that manufacture rustic furniture. Of these firms, more than 30 companies are capable of producing 40,000 rustic furniture pieces per month. These top 30 companies export to 48 countries. Juan Manuel and Reyes Brambila, "Market for Rustic Furniture Opens July 24," *Furniture Today/NotiMuebles*, July 1997, p. 50.

²⁰ According to Yibing Zhang, in "China's Economic and Demographic Growth, Forest Products Consumption, and Wood Requirements: 1949 to 2010," *Forest Products Journal*, vol. 47, Iss. 4, Apr. 1997, pp. 27-35, China has a shortage of wood because (1) about 29 percent of China is desert and bare mountains; (2) the search for more farmland has led to deforestation and soil erosion; (3) the expected population growth of 300 million people by the year 2025 will place further constraints on the land available for standard forestry.

²¹ U.S. imports of furniture from Taiwan have declined by \$291 million (24 percent) during 1993-1997 to \$932 million.

²² "Special Report--Malaysia's Furniture Industry," *Asian Sources-Gift and Home Products*, Nov. 1997, p. 450.

segment offers higher profit margins.²³ For example, Universal, originally a U.S. importer of furniture from company-owned facilities in Asia, manufactures mid-to-upper priced bedroom furniture in the United States. Labor intensive bedposts, legs, and drawer fronts are imported from China and combined with flat furniture components (bed rails, drawer sides, and tops) that are made in highly automated U.S. production facilities.²⁴ The number of Asian furniture companies with U.S. manufacturing subsidiaries is expected increase over the next several years. East Asian producers have begun to narrow the technology gap with U.S. producers in wood working and finishing. High transportation costs for fully-assembled furniture also provides an incentive to invest in U.S. production facilities.

U.S. exports

U.S. exports of furniture rose by \$639 million (18 percent) in 1997 to \$4.2 billion.²⁵ NAFTA partners Canada and Mexico accounted for the bulk of increase in U.S. exports in 1997. U.S. exports of furniture to Canada in 1997 rose by \$222 million (15 percent) to \$1.7 billion; while such exports to Mexico rose by \$162 million (27 percent) to \$755 million. U.S. exports to other countries in Latin America rose by \$73 million (25 percent) to \$367 million and exports to the European Union advanced by \$64 million (18 percent) to \$416 million.

Motor-vehicle seats and parts accounted for 41 percent (\$693 million) of total U.S. furniture exports to Canada in 1997; 74 percent (\$558 million) to Mexico; and 43 percent (\$141 million) to Japan. They also accounted for a major portion of the increase in U.S. exports to each of these counties in 1997. U.S. exports of motor-vehicle seats and parts to Mexico rose by \$130 million (23 percent) in 1997 to \$558 million; while such exports to Canada rose by \$70 million (10 percent) to \$693 million. U.S. exports of motor-vehicle seats and parts to Japan rose by \$41 million (29 percent) in 1997 to \$141 million as U.S. producers of leather car-seat covers have aggressively pursued opportunities in the Japanese luxury car market. U.S. exports of motor-vehicle seats and parts to South America²⁶ quadrupled in 1997, rising from \$2 million to \$10 million. Automobile production in South America is predicted to grow by 42 percent during 1997-2003, to 4 million vehicles.²⁷

NAFTA partners were also chiefly responsible for the growth in U.S. exports of office furniture in 1997, as exports to Canada rose by \$23 million (13 percent) to \$191 million, and exports to Mexico increased by \$12 million (29 percent) to \$52 million. Recent economic growth in South America reflecting stable currencies, reduced inflation, privatization of government-owned companies, and reduced trade barriers has provided opportunities for U.S. exporters of office furniture. Such exports to Argentina, Brazil, and Venezuela collectively more than tripled in 1997, rising by \$22 million to \$33 million.

U.S. exports of household furniture to Canada rose by \$48 million (23 percent) in 1997 to \$261 million. Canadian demand for consumer durables such as furniture increased in 1997 in response to stronger job creation

²³Universal, originally a Singapore based company with production facilities in Taiwan, Malaysia, China, Thailand, Indonesia, Hong Kong, and Singapore, and currently a division of the U.S. owned company LifeStyles International, has three U.S. production facilities. Kiani of Indonesia and Hyundai of Korea have furniture assembly operations in the United States. USITC staff telephone interview with Gerry Epperson, Partner, Mann, Armistead, and Epperson, Richmond, VA, Apr. 13, 1998, and Brian Carroll, "Universal Revamps Structure," *Furniture Today*, Nov. 24, 1997, p. 1.

²⁴Telephone conversation with Gerry Epperson, Partner, Mann, Armistead, and Epperson, Richmond, VA, Apr. 13, 1998.

²⁵Exports of motor vehicle seats and parts grew by \$249 million (21 percent) to \$1.5 billion; office furniture, by \$106 million (22 percent) to \$581 million; and household furniture, by \$80 million (16 percent) to \$593 million.

²⁶Argentina, Brazil, Chile, and Venezuela.

²⁷Brenden M. Case and Andrea Mandel-Compbell, "Auto Fever," *Latin Trade*, May 1998, p. 40.

and low borrowing costs. U.S. exports of household furniture to Japan declined by \$15 million (19 percent) in 1997 to \$61 million. However such trade with Japan should increase during 1998. The U.S. furniture retailer “Rooms to Go” and Jusco Co. LTD, a large Japanese conglomerate of department stores and other business, agreed to open a store in Tokyo. Under the agreement, about 60 percent of the merchandise lineup will come from U.S. suppliers. If successful, “Rooms are US” will be expanded throughout Japan.²⁸

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²⁸Clint Engel, “Rooms to Go to License Store in Japan,” *Furniture Today*, Dec. 1, 1997, p. 24.

Table 14-5

Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
<i>Million Dollars</i>					
MM046	Luggage, handbags, and flat goods:				
	Exports	306	331	25	8.0
	Imports	3,512	3,779	267	7.6
	Trade balance:	-3,206	-3,448	-243	-7.6
MM047	Certain other leather goods:				
	Exports	80	103	24	29.6
	Imports	239	198	-41	-17.3
	Trade balance	-160	-95	65	40.7
MM048	Musical instruments and accessories:				
	Exports	432	425	-6	-1.5
	Imports	995	1,063	69	6.9
	Trade balance:	-563	-638	-75	-13.3
MM049	Umbrellas, whips, riding crops, and canes:				
	Exports	9	11	3	31.9
	Imports	196	233	37	19.1
	Trade balance:	-187	-221	-35	-18.5
MM050	Silverware and certain other articles of precious metal:				
	Exports	103	109	6	5.8
	Imports	83	78	-5	-6.4
	Trade balance:	19	31	11	58.7
MM051	Precious jewelry and related articles:				
	Exports	402	486	84	20.8
	Imports	3,790	4,021	231	6.1
	Trade balance:	-3,388	-3,536	-148	-4.4
MM052	Costume jewelry and related articles:				
	Exports	113	136	23	20.0
	Imports	462	464	2	0.5
	Trade balance	-348	-328	21	5.9
MM053	Bicycles and certain parts:				
	Exports	268	310	43	15.9
	Imports	878	979	102	11.6
	Trade balance	-610	-669	-59	-9.7
MM054	Furniture and selected furnishings:				
	Exports	3,519	4,158	638	18.1
	Imports	9,497	11,224	1,726	18.2
	Trade balance:	-5,978	-7,066	-1,088	-18.2
MM055	Writing instruments and related articles:				
	Exports	304	400	97	31.8
	Imports	719	800	82	11.4
	Trade balance:	-415	-400	15	3.6
MM056	Lamps and lighting fittings:				
	Exports	529	655	126	23.8
	Imports	2,422	2,729	307	12.7
	Trade balance	-1,893	-2,074	-181	-9.6
MM057	Prefabricated buildings:				
	Exports	465	463	-2	-0.4
	Imports	92	129	37	40.0
	Trade balance:	373	334	-39	-10.4
MM058	Children's vehicles:				
	Exports	36	46	10	28.5
	Imports	293	300	6	2.2
	Trade balance:	-257	-253	4	1.5
MM059	Dolls:				
	Exports	26	30	4	15.4
	Imports	1,356	1,516	159	11.8
	Trade balance:	-1,330	-1,486	-155	-11.7

Table 14-5--Continued

Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, 1996 and 1997¹

USITC code ²	Industry/commodity group	1996	1997	Change, 1997 from 1996	
				Absolute	Percent
----- Million Dollars -----					
MM060	Toys and models:				
	Exports	597	627	30	5.0
	Imports	5,481	6,728	1,247	22.8
	Trade balance:	-4,884	-6,102	-1,217	-24.9
MM061	Games and fairground amusements:				
	Exports	1,089	1,144	55	5.0
	Imports	2,881	4,033	1,152	40.0
	Trade balance:	-1,792	-2,889	-1,097	-61.2
MM062	Sporting goods:				
	Exports	1,900	1,934	34	1.8
	Imports	3,068	3,070	2	0.1
	Trade balance:	-1,168	-1,137	31	2.7
MM063	Smokers' articles:				
	Exports	97	88	-9	-8.9
	Imports	149	139	-10	-6.6
	Trade balance:	-52	-51	1	2.3
MM064	Brooms, brushes, and hair grooming articles:				
	Exports	163	176	13	8.3
	Imports	625	655	30	4.8
	Trade balance:	-462	-479	-17	-3.6
MM065	Miscellaneous articles:				
	Exports	1,254	1,513	259	20.7
	Imports	5,056	6,079	1,022	20.2
	Trade balance	-3,803	-4,566	-763	-20.1
MM066	Apparel fasteners:				
	Exports	98	119	21	21.2
	Imports	123	126	2	1.8
	Trade balance:	-26	-7	19	72.4
MM067	Arms and ammunition:				
	Exports	2,606	2,395	-211	-8.1
	Imports	598	611	13	2.2
	Trade balance	2,008	1,784	-224	-11.2

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

²This 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.

Note.--Calculations based on unrounded data.

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

APPENDIX A
Industry/Commodity Groups
in this Report

Agricultural products sector

AG001 Certain miscellaneous animals and meats
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 Canned fish and other 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 confectionary
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

CH007 Major primary olefins
CH008 Other olefins
CH009 Primary aromatics
CH010 Benzenoid commodity chemicals
CH011 Benzenoid specialty chemicals
CH012 Miscellaneous organic chemicals
CH013 Miscellaneous inorganic chemicals
CH014 Inorganic acids
CH015 Chlor-alkali chemicals
CH016 Industrial gases
CH017 Fertilizers
CH018 Paints, inks, and related items, and certain components thereof
CH019 Synthetic organic pigments
CH020 Synthetic dyes and azoic couplers
CH021 Synthetic tanning agents
CH022 Natural tanning and dyeing materials
CH023 Photographic chemicals and preparations
CH024 Pesticide products and formulations
CH025 Adhesives and glues

Chemicals and related products sector--*Continued*

CH026 Medicinal chemicals
CH027 Essential oils and other flavoring materials
CH028 Perfumes, cosmetics, and toiletries
CH029 Soaps, detergents, and surface-active agents
CH030 Miscellaneous chemicals and specialties
CH031 Explosives, propellant powders, and related items
CH032 Polyethylene resins in primary forms
CH033 Polypropylene resins in primary forms
CH034 Polyvinyl chloride resins in primary forms
CH035 Styrene polymers in primary forms
CH036 Saturated polyester resins
CH037 Other plastics in primary forms
CH038 Styrene-butadiene rubber in primary forms
CH039 Other synthetic rubber
CH040 Pneumatic tires and tubes (new)
CH041 Other tires
CH042 Plastic or rubber semifabricated forms
CH043 Plastic containers and closures
CH044 Hose, belting, and plastic pipe
CH045 Miscellaneous rubber or plastic products
CH046 Gelatin
CH047 Natural rubber

Energy-related products sector

CH001 Electrical energy
CH002 Nuclear material
CH003 Coal, coke, and related chemical products
CH004 Crude petroleum
CH005 Petroleum products
CH006 Natural gas and components

Textiles, apparel, and footwear sector

CH048 Manmade fibers and filament yarns
CH049 Spun yarns and miscellaneous yarns
CH050 Broadwoven fabrics

CH051 Knit fabrics
CH052 Miscellaneous fabrics
CH053 Coated, covered, impregnated, or laminated textile fabrics
CH054 Cordage, nets, and netting
CH055 Certain textile articles and fabrics suitable for industrial use
CH056 Miscellaneous textiles and articles
CH057 Sacks and bags of textile materials
CH058 Carpets and rugs
CH059 Home furnishings
CH060 Men's and boys' suits and sports coats
CH061 Men's and boys' coats and jackets
CH062 Men's and boys' trousers
CH063 Women's and girls' trousers
CH064 Shirts and blouses
CH065 Sweaters
CH066 Women's and girls' trousers
CH067 Women's and girls' dresses
CH068 Robes, nightwear, and underwear
CH069 Hosiery
CH070 Body-supporting garments
CH071 Neckwear, handkerchiefs, and scarves
CH072 Gloves, including gloves for sports
CH073 Headwear
CH074 Leather apparel and accessories
CH075 Fur apparel and other fur articles
CH076 Rubber, plastic, and coated-fabric apparel
CH077 Nonwoven and related products
CH078 Other wearing apparel
CH079 Footwear and footwear parts

Minerals and metals sector

MM001 Clays and nonmetallic minerals, 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

Minerals and metals sector--*Continued*

MM011 Ceramic bricks and miscellaneous ceramic construction articles
MM012 Ceramic floor and wall tiles
MM013 Ceramic household articles
MM014 Flat glass and certain flat-glass products
MM015 Glass containers
MM016 Household glassware
MM017 Certain glass and glass products
MM018 Fiberglass products
MM019 Natural and synthetic gemstones
MM020 Precious metals and related articles
MM021 Primary iron products
MM022 Ferroalloys
MM023 Iron and steel waste and scrap
MM024 Abrasive and ferrous products
MM025 Steel mill products, all grades
MM026 Steel pipe and tube fittings and certain cast products
MM027 Fabricated structurals
MM028 Metal construction components
MM029 Metallic containers
MM030 Wire products of iron, steel, aluminum, copper, and nickel
MM031 Chain and miscellaneous products of base metal
MM032 Industrial fasteners of base metal
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 handtools
MM043 Cutlery other than tableware, certain sewing implements and related products
MM044 Table flatware and related products
MM045 Certain builders' hardware

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 manufacturing equipment and robotics
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 machinery
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, light bulbs and fluorescent tubes; arc lamps
MT035 Electric and glass welding and soldering equipment

Machinery sector -- *Continued*

- MT036 Insulated electrical wire and cable and conduit; glass and ceramic insulators
- MT045 Miscellaneous machinery
- MT046 Molds and molding machinery

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-vehicle 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
- ST007 Radio transmission and reception

- ST008 apparatus, and combinations thereof
- ST008 Radio navigation aid, radar, and remote control apparatus
- ST009 Television receivers, 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 Balances of a sensitivity of 5 cgs or better
- ST029 Drawing and mathematical calculating and measuring instruments
- ST030 Measuring, testing, controlling, and analyzing instruments

Miscellaneous manufactures sector

- MM046 Luggage, handbags, and flat goods
- MM047 Certain other leather goods

Miscellaneous manufactures sector--
Continued

- MM048 Musical instruments and accessories
- MM049 Umbrellas, whips, riding crops, and
canes
- MM050 Silverware and certain other articles of
precious metals
- MM051 Precious jewelry and related articles
- MM052 Costume jewelry and related articles
- MM053 Bicycles and certain parts
- MM054 Furniture and selected furnishings
- MM055 Writing instruments and related articles
- MM056 Lamps and lighting fittings
- MM057 Prefabricated buildings
- MM058 Children's vehicles
- MM059 Dolls
- MM060 Toys and models
- MM061 Games and fairground amusements
- MM062 Sporting goods
- MM063 Smokers' articles
- MM064 Brooms, brushes, and hair grooming
articles
- MM065 Miscellaneous articles
- MM066 Apparel fasteners
- MM067 Arms and ammunition

APPENDIX B

Profile of U.S. Industry and Market, by Industry/Commodity Groups, 1993-97

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 secondary sources or from 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, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
AG001	Certain miscellaneous animals and meats:					
	Number of establishments	143,766	145,000	132,800	136,300	130,700
	Employees (thousands)	147	148	149	140	135
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. production (million dollars)	6,700	6,800	6,700	7,450	7,600
	U.S. exports (million dollars)	1,456	1,521	1,783	1,895	1,848
	U.S. imports (million dollars)	914	1,010	1,071	1,146	1,262
	Apparent U.S. consumption (million dollars)	6,158	6,288	5,987	6,702	7,014
	Trade balance (million dollars)	542	512	713	748	586
	Ratio of imports to consumption (percent)	14.8	16.1	17.9	17.1	18.0
	Ratio of exports to production (percent)	21.7	22.4	26.6	25.4	24.3
AG002	Cattle and beef:					
	Number of establishments (thousands)	1,226	1,152	1,182	1,195	1,169
	Employees (thousands)	1,339	1,259	1,292	1,269	1,152
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. production (million dollars)	50,000	52,000	57,000	56,000	56,000
	U.S. exports (million dollars)	2,016	2,361	2,648	2,447	2,573
	U.S. imports (million dollars)	3,045	2,716	2,627	2,248	2,534
	Apparent U.S. consumption (million dollars)	51,028	52,355	56,979	55,801	55,961
	Trade balance (million dollars)	-1,028	-355	21	199	39
	Ratio of imports to consumption (percent)	6.0	5.2	4.6	4.0	4.5
	Ratio of exports to production (percent)	4.0	4.5	4.6	4.4	4.6
AG003	Swine and pork:					
	Number of establishments	235,840	234,190	206,087	158,250	138,700
	Employees (thousands)	321	315	277	216	201
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	17,540	17,190	17,444	18,500	2,000
	U.S. exports (million dollars)	438	486	748	918	943
	U.S. imports (million dollars)	501	503	566	742	792
	Apparent U.S. consumption (million dollars)	17,602	17,208	17,263	18,324	1,848
	Trade balance (million dollars)	-62	-18	181	176	152
	Ratio of imports to consumption (percent)	2.8	2.9	3.3	4.1	42.8
	Ratio of exports to shipments (percent)	2.5	2.8	4.3	5.0	47.2
AG004	Sheep and meat of sheep:					
	Number of establishments	93,258	87,150	81,070	77,010	74,710
	Employees (thousands)	95	89	83	77	76
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	485	460	478	477	462
	U.S. exports (million dollars)	39	37	19	21	65
	U.S. imports (million dollars)	62	59	85	119	144
	Apparent U.S. consumption (million dollars) ³	508	482	544	575	540
	Trade balance (million dollars)	-23	-22	-66	-98	-78
	Ratio of imports to consumption (percent)	12.1	12.2	15.6	20.6	26.6
	Ratio of exports to shipments (percent)	8.0	8.0	4.1	4.4	14.2
AG005	Poultry:					
	Number of establishments	300	300	300	290	290
	Employees (thousands)	190	195	195	190	190
	Capacity utilization (percent)	90	90	90	90	90
	U.S. production (million dollars)	23,738	25,786	27,050	28,750	30,560
	U.S. exports (million dollars)	1,229	1,691	2,149	2,589	2,515
	U.S. imports (million dollars)	24	23	31	35	43
	Apparent U.S. consumption (million dollars)	22,532	24,118	24,932	26,196	28,088
	Trade balance (million dollars)	1,206	1,668	2,118	2,554	2,472
	Ratio of imports to consumption (percent)	0.1	0.1	0.1	0.1	0.2
	Ratio of exports to production (percent)	5.2	6.6	7.9	9.0	8.2

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
AG006	Fresh or chilled fish:					
	Number of establishments	107,593	99,658	100,015	100,000	100,000
	Employees (thousands)	323	300	300	300	300
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	1,884	1,984	1,916	1,791	1,800
	U.S. exports (million dollars)	196	217	244	263	238
	U.S. imports (million dollars)	652	744	808	885	1,025
	Apparent U.S. consumption (million dollars)	2,340	2,511	2,480	2,414	2,587
	Trade balance (million dollars)	-456	-527	-564	-623	-787
	Ratio of imports to consumption (percent)	27.9	29.6	32.6	36.7	39.6
	Ratio of exports to shipments (percent)	10.4	10.9	12.7	14.7	13.2
AG007	Frozen fish:					
	Number of establishments	1,597	1,504	1,370	1,350	1,350
	Employees (thousands)	56	56	55	48	50
	Capacity utilization (percent)	70	75	80	80	80
	U.S. shipments (million dollars)	847	826	841	886	890
	U.S. exports (million dollars)	1,526	1,556	1,754	1,557	1,371
	U.S. imports (million dollars)	1,293	1,267	1,384	1,344	1,446
	Apparent U.S. consumption (million dollars)	614	538	471	673	965
	Trade balance (million dollars)	233	288	370	213	-75
	Ratio of imports to consumption (percent)	210.5	235.7	293.8	199.7	149.8
	Ratio of exports to shipments (percent)	180.1	188.3	208.6	175.7	154.0
AG008	Canned fish and other fish:					
	Number of establishments	600	550	550	550	550
	Employees (thousands)	18	17	18	18	18
	Capacity utilization (percent)	85	75	80	80	80
	U.S. shipments (million dollars)	1,464	1,502	1,518	1,310	1,400
	U.S. exports (million dollars)	417	373	429	426	326
	U.S. imports (million dollars)	617	685	671	694	736
	Apparent U.S. consumption (million dollars)	1,664	1,814	1,760	1,578	1,811
	Trade balance (million dollars)	-200	-312	-242	-268	-411
	Ratio of imports to consumption (percent)	37.1	37.8	38.1	44.0	40.7
	Ratio of exports to shipments (percent)	28.5	24.9	28.3	32.5	23.3
AG009	Shellfish:					
	Number of establishments	800	800	800	750	750
	Employees (thousands)	60	60	60	58	59
	Capacity utilization (percent)	66	66	66	64	65
	U.S. production (million dollars)	1,600	1,600	1,800	1,800	1,900
	U.S. exports (million dollars)	860	904	788	739	720
	U.S. imports (million dollars)	3,243	3,896	3,884	3,741	4,472
	Apparent U.S. consumption (million dollars)	3,984	4,592	4,896	4,803	5,652
	Trade balance (million dollars)	-2,384	-2,992	-3,096	-3,003	-3,752
	Ratio of imports to consumption (percent)	81.4	84.9	79.3	77.9	79.1
	Ratio of exports to production (percent)	53.7	56.5	43.8	41.0	37.9
AG010	Dairy produce:					
	Number of establishments	162,000	152,000	143,000	135,000	130,000
	Employees (thousands)	682	695	662	650	640
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	53,600	53,900	55,800	58,100	60,500
	U.S. exports (million dollars)	655	572	636	506	618
	U.S. imports (million dollars)	836	922	1,052	1,198	1,109
	Apparent U.S. consumption (million dollars)	53,782	54,250	56,216	58,793	60,992
	Trade balance (million dollars)	-182	-350	-416	-693	-492
	Ratio of imports to consumption (percent)	1.6	1.7	1.9	2.0	1.8

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	1.2	1.1	1.1	0.9	1.0
AG011	Eggs:					
	Number of establishments	75	70	70	68	68
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	85	85	85	86	85
	U.S. production (million dollars)	4,701	4,833	5,365	5,650	5,950
	U.S. exports (million dollars)	133	158	164	207	207
	U.S. imports (million dollars)	35	30	20	24	19
	Apparent U.S. consumption (million dollars)	4,603	4,705	5,221	5,467	5,762
	Trade balance (million dollars)	98	128	144	183	188
	Ratio of imports to consumption (percent)	0.8	0.6	0.4	0.4	0.3
	Ratio of exports to production (percent)	2.8	3.3	3.1	3.7	3.5
AG012	Sugar and other sweeteners:					
	Number of establishments	100	97	95	95	95
	Employees (thousands)	31	30	30	30	29
	Capacity utilization (percent)	89	90	90	90	88
	U.S. shipments (million dollars)	8,200	8,300	8,666	10,000	10,010
	U.S. exports (million dollars)	269	303	354	381	359
	U.S. imports (million dollars)	812	844	885	1,407	1,321
	Apparent U.S. consumption (million dollars)	8,744	8,841	9,197	11,027	10,971
	Trade balance (million dollars)	-544	-541	-531	-1,027	-961
	Ratio of imports to consumption (percent)	9.3	9.5	9.6	12.8	12.0
	Ratio of exports to shipments (percent)	3.3	3.7	4.1	3.8	3.6
AG013	Animal feeds:					
	Number of establishments	1,800	1,800	1,800	1,800	18,501
	Employees (thousands)	48	47	48	46	47
	Capacity utilization (percent)	77	76	73	74	74
	U.S. production (million dollars)	22,138	20,002	23,413	25,647	26,002
	U.S. exports (million dollars)	3,616	3,482	3,822	4,375	4,837
	U.S. imports (million dollars)	543	613	580	779	783
	Apparent U.S. consumption (million dollars)	19,064	17,132	20,171	22,052	21,948
	Trade balance (million dollars)	3,074	2,870	3,242	3,595	4,054
	Ratio of imports to consumption (percent)	2.8	3.6	2.9	3.5	3.6
	Ratio of exports to production (percent)	16.3	17.4	16.3	17.1	18.6
AG014	Live plants:					
	Number of establishments	25,000	24,000	24,000	24,000	2,300
	Employees (thousands)	125	120	120	120	120
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	8,927	9,407	9,676	9,995	10,572
	U.S. exports (million dollars)	94	99	96	92	117
	U.S. imports (million dollars)	216	238	283	312	336
	Apparent U.S. consumption (million dollars)	9,050	9,546	9,863	10,215	10,791
	Trade balance (million dollars)	-123	-139	-187	-220	-219
	Ratio of imports to consumption (percent)	2.4	2.5	2.9	3.1	3.1
	Ratio of exports to shipments (percent)	1.1	1.1	1.0	0.9	1.1
AG015	Seeds:					
	Number of establishments	10,000	9,000	9,000	9,000	9,000
	Employees (thousands)	153	138	138	138	138
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	2,000	2,000	2,000	2,000	2,000
	U.S. exports (million dollars)	789	616	610	648	776
	U.S. imports (million dollars)	207	227	236	298	361
	Apparent U.S. consumption (million dollars)	1,418	1,610	1,626	1,650	1,586
	Trade balance (million dollars)	582	390	374	350	414

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of imports to consumption (percent)	14.6	14.1	14.5	18.1	22.8
	Ratio of exports to shipments (percent)	39.5	30.8	30.5	32.4	38.8
AG016	Cut flowers:					
	Number of establishments	3,000	2,900	2,500	2,400	2,400
	Employees (thousands)	39	36	35	34	34
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	453	470	409	447	462
	U.S. exports (million dollars)	39	38	40	48	49
	U.S. imports (million dollars)	382	420	512	573	595
	Apparent U.S. consumption (million dollars)	796	852	880	972	1,008
	Trade balance (million dollars)	-343	-382	-471	-525	-546
	Ratio of imports to consumption (percent)	48.0	49.3	58.1	58.9	59.0
	Ratio of exports to shipments (percent)	8.6	8.1	9.9	10.6	10.6
AG017	Miscellaneous vegetable substances:					
	Number of establishments	100	90	80	80	80
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. production (million dollars) ⁴	800	813	800	800	800
	U.S. exports (million dollars)	436	433	458	449	470
	U.S. imports (million dollars)	568	623	762	792	855
	Apparent U.S. consumption (million dollars)	932	1,003	1,105	1,144	1,186
	Trade balance (million dollars)	-132	-190	-305	-344	-386
	Ratio of imports to consumption (percent)	60.9	62.1	69.0	69.3	72.2
	Ratio of exports to production (percent)	54.5	53.3	57.2	56.1	58.7
AG018	Fresh, chilled, or frozen vegetables:					
	Number of establishments	36,500	36,400	36,100	36,000	35,500
	Employees (thousands)	40	50	45	46	44
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. production (million dollars)	3,938	4,300	4,400	4,530	4,100
	U.S. exports (million dollars)	1,058	1,122	1,148	1,070	1,178
	U.S. imports (million dollars)	1,253	1,364	1,586	1,840	1,857
	Apparent U.S. consumption (million dollars)	4,133	4,542	4,838	5,300	4,778
	Trade balance (million dollars)	-195	-242	-438	-770	-678
	Ratio of imports to consumption (percent)	30.3	30.0	32.8	34.7	38.9
	Ratio of exports to production (percent)	26.9	26.1	26.1	23.6	28.7
AG019	Prepared or preserved vegetables, mushrooms, and olives:					
	Number of establishments	1,750	1,700	1,690	1,700	1,680
	Employees (thousands)	4	4	4	4	4
	Capacity utilization (percent)	83	85	87	88	85
	U.S. production (million dollars)	8,189	8,400	8,200	8,500	8,200
	U.S. exports (million dollars)	1,013	1,217	1,293	1,332	1,433
	U.S. imports (million dollars)	757	889	982	981	1,074
	Apparent U.S. consumption (million dollars)	7,933	8,072	7,889	8,149	7,841
	Trade balance (million dollars)	256	328	311	351	359
	Ratio of imports to consumption (percent)	9.5	11.0	12.4	12.0	13.7
	Ratio of exports to production (percent)	12.4	14.5	15.8	15.7	17.5
AG020	Edible nuts:					
	Number of establishments	70,000	68,000	68,000	68,000	68,000
	Employees (thousands)	300	380	380	380	380
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	2,740	2,756	2,765	2,679	2,937
	U.S. exports (million dollars)	1,224	1,318	1,462	1,666	1,491
	U.S. imports (million dollars)	460	497	509	570	630

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Apparent U.S. consumption (million dollars)	1,976	1,934	1,812	1,583	2,076
	Trade balance (million dollars)	764	822	953	1,096	861
	Ratio of imports to consumption (percent)	23.3	25.7	28.1	36.0	30.3
	Ratio of exports to shipments (percent)	44.7	47.8	52.9	62.2	50.8
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)	361	348	355	403	376
	U.S. exports (million dollars)	69	70	76	79	70
	U.S. imports (million dollars)	1,217	1,253	1,337	1,391	1,466
	Apparent U.S. consumption (million dollars)	1,508	1,530	1,617	1,715	1,772
	Trade balance (million dollars)	-1,147	-1,182	-1,262	-1,312	-1,396
	Ratio of imports to consumption (percent)	80.7	81.9	82.7	81.1	82.7
	Ratio of exports to shipments (percent)	19.2	20.2	21.3	19.5	18.7
AG022	Citrus fruit:					
	Number of establishments	17,918	17,938	17,865	17,755	17,650
	Employees (thousands)	95	95	94	93	93
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	2,151	2,245	2,329	2,515	2,659
	U.S. exports (million dollars)	647	674	740	700	735
	U.S. imports (million dollars)	119	129	132	177	201
	Apparent U.S. consumption (million dollars)	1,622	1,701	1,721	1,991	2,124
	Trade balance (million dollars)	529	544	608	524	535
	Ratio of imports to consumption (percent)	7.3	7.6	7.7	8.9	9.5
	Ratio of exports to shipments (percent)	30.1	30.0	31.8	27.8	27.7
AG023	Deciduous fruit:					
	Number of establishments	83,000	82,000	82,000	82,000	8,200
	Employees (thousands)	160	160	160	160	160
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	1,888	1,790	2,305	3,003	2,215
	U.S. exports (million dollars)	596	774	718	731	780
	U.S. imports (million dollars)	146	157	181	197	187
	Apparent U.S. consumption (million dollars)	1,438	1,173	1,767	2,469	1,623
	Trade balance (million dollars)	450	617	538	534	592
	Ratio of imports to consumption (percent)	10.2	13.4	10.2	8.0	11.6
	Ratio of exports to shipments (percent)	31.6	43.3	31.2	24.3	35.2
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)	1,860	1,915	1,859	2,380	2,309
	U.S. exports (million dollars)	437	482	488	507	557
	U.S. imports (million dollars)	473	528	615	744	717
	Apparent U.S. consumption (million dollars)	1,896	1,961	1,986	2,617	2,469
	Trade balance (million dollars)	-36	-46	-127	-237	-160
	Ratio of imports to consumption (percent)	25.0	26.9	31.0	28.4	29.0
	Ratio of exports to shipments (percent)	23.5	25.2	26.3	21.3	24.1
AG025	Dried fruit other than tropical:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	10	9	9	9	9
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	787	754	748	861	1,299
	U.S. exports (million dollars)	360	369	382	388	386
	U.S. imports (million dollars)	42	46	47	58	61

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Apparent U.S. consumption (million dollars)	469	431	414	531	974
	Trade balance (million dollars)	318	323	334	330	325
	Ratio of imports to consumption (percent)	9.0	10.8	11.4	11.0	6.3
	Ratio of exports to shipments (percent)	45.8	49.0	51.0	45.1	29.7
AG026	Frozen fruit:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	620	650	650	648	568
	U.S. exports (million dollars)	58	71	77	79	79
	U.S. imports (million dollars)	63	64	68	82	88
	Apparent U.S. consumption (million dollars)	625	642	641	651	577
	Trade balance (million dollars)	-5	8	9	-3	-9
	Ratio of imports to consumption (percent)	10.1	9.9	10.7	12.6	15.3
	Ratio of exports to shipments (percent)	9.4	11.0	11.9	12.2	14.0
AG027	Prepared or preserved fruit:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	20	20	20	20	20
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	3,080	3,170	3,946	3,882	4,262
	U.S. exports (million dollars)	166	157	179	173	182
	U.S. imports (million dollars)	421	414	415	484	545
	Apparent U.S. consumption (million dollars)	3,336	3,426	4,182	4,193	4,625
	Trade balance (million dollars)	-256	-256	-236	-311	-363
	Ratio of imports to consumption (percent)	12.6	12.1	9.9	11.5	11.8
	Ratio of exports to shipments (percent)	5.4	5.0	4.5	4.5	4.3
AG028	Coffee and tea:					
	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)	187	231	229	237	254
	U.S. imports (million dollars)	1,705	2,655	3,427	2,958	4,071
	Apparent U.S. consumption (million dollars)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Trade balance (million dollars)	-1,518	-2,424	-3,198	-2,721	-3,816
	Ratio of imports to consumption (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Ratio of exports to shipments (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
AG029	Spices:					
	Number of establishments	74	74	74	74	74
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	1,350	1,375	1,436	1,509	1,510
	U.S. exports (million dollars)	51	52	46	55	58
	U.S. imports (million dollars)	223	272	290	349	416
	Apparent U.S. consumption (million dollars)	1,522	1,595	1,679	1,803	1,868
	Trade balance (million dollars)	-172	-220	-243	-294	-358
	Ratio of imports to consumption (percent)	14.6	17.0	17.2	19.3	22.3
	Ratio of exports to shipments (percent)	3.8	3.8	3.2	3.6	3.9
AG030	Cereals:					
	Number of establishments	394,000	383,000	372,000	361,000	350,000
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)
	U.S. production (million dollars)	31,700	27,300	34,700	37,700	39,900
	U.S. exports (million dollars)	10,319	9,884	14,674	16,751	11,106

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	U.S. imports (million dollars)	555	809	684	791	984
	Apparent U.S. consumption (million dollars)	21,936	18,224	20,710	21,739	29,778
	Trade balance (million dollars)	9,764	9,076	13,990	15,961	10,122
	Ratio of imports to consumption (percent)	2.5	4.4	3.3	3.6	3.3
	Ratio of exports to production (percent)	32.6	36.2	42.3	44.4	27.8
AG031	Milled grains, malts, and starches:					
	Number of establishments	210	210	210	210	200
	Employees (thousands)	28	27	27	26	27
	Capacity utilization (percent)	93	96	91	92	96
	U.S. shipments (million dollars)	16,244	17,306	18,402	19,661	21,037
	U.S. exports (million dollars)	445	464	491	425	429
	U.S. imports (million dollars)	96	132	151	175	167
	Apparent U.S. consumption (million dollars)	15,896	16,974	18,062	19,411	20,775
	Trade balance (million dollars)	348	332	340	250	262
	Ratio of imports to consumption (percent)	0.6	0.8	0.8	0.9	0.8
	Ratio of exports to shipments (percent)	2.7	2.7	2.7	2.2	2.0
AG032	Oilseeds:					
	Number of establishments	394,000	383,800	372,000	361,000	350,000
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)
	U.S. production (million dollars)	13,100	13,100	15,030	16,000	19,100
	U.S. exports (million dollars)	4,758	4,537	5,661	7,638	7,700
	U.S. imports (million dollars)	155	268	221	279	335
	Apparent U.S. consumption (million dollars)	8,497	8,831	9,591	8,642	11,735
	Trade balance (million dollars)	4,603	4,269	5,439	7,358	7,365
	Ratio of imports to consumption (percent)	1.8	3.0	2.3	3.2	2.9
	Ratio of exports to production (percent)	36.3	34.6	37.7	47.7	40.3
AG033	Animal or vegetable fats and oils:					
	Number of establishments	530	520	510	500	490
	Employees (thousands)	32	34	34	31	33
	Capacity utilization (percent)	81	82	82	82	82
	U.S. shipments (million dollars)	6,200	7,800	7,800	6,900	6,400
	U.S. exports (million dollars)	1,454	1,851	2,529	1,826	2,173
	U.S. imports (million dollars)	856	1,046	1,265	1,480	1,517
	Apparent U.S. consumption (million dollars)	5,602	6,995	6,536	6,554	5,744
	Trade balance (million dollars)	598	805	1,264	346	656
	Ratio of imports to consumption (percent)	15.3	14.9	19.4	22.6	26.4
	Ratio of exports to shipments (percent)	23.5	23.7	32.4	26.5	33.9
AG034	Edible preparations:					
	Number of establishments	5,100	5,100	5,100	5,200	5,300
	Employees (thousands)	398	396	379	429	450
	Capacity utilization (percent)	81	80	74	75	80
	U.S. production (million dollars)	82,470	86,633	91,990	78,262	82,176
	U.S. exports (million dollars)	2,522	3,062	2,871	3,353	4,029
	U.S. imports (million dollars)	1,348	1,561	1,746	1,943	2,139
	Apparent U.S. consumption (million dollars)	81,296	85,132	90,864	76,852	80,286
	Trade balance (million dollars)	1,174	1,501	1,126	1,410	1,890
	Ratio of imports to consumption (percent)	1.7	1.8	1.9	2.5	2.7
	Ratio of exports to production (percent)	3.1	3.5	3.1	4.3	4.9
AG035	Cocoa, chocolate, and confectionery:					
	Number of establishments	920	950	970	1,000	1,000
	Employees (thousands)	62	65	68	72	73
	Capacity utilization (percent)	62	70	80	85	87
	U.S. shipments (million dollars)	10,756	11,076	11,700	12,500	12,700

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	U.S. exports (million dollars)	560	545	524	586	662
	U.S. imports (million dollars)	1,299	1,299	1,478	1,806	1,910
	Apparent U.S. consumption (million dollars)	11,495	11,831	12,654	13,720	13,948
	Trade balance (million dollars)	-739	-755	-954	-1,220	-1,248
	Ratio of imports to consumption (percent)	11.3	11.0	11.7	13.2	13.7
	Ratio of exports to shipments (percent)	5.2	4.9	4.5	4.7	5.2
AG036	Fruit and vegetable juices:					
	Number of establishments	100	100	98	98	98
	Employees (thousands)	150	150	149	149	148
	Capacity utilization (percent)	78	75	75	75	75
	U.S. shipments (million dollars)	2,100	2,200	2,276	2,500	2,700
	U.S. exports (million dollars)	470	539	652	642	677
	U.S. imports (million dollars)	653	663	635	929	856
	Apparent U.S. consumption (million dollars)	2,284	2,324	2,258	2,787	2,878
	Trade balance (million dollars)	-184	-124	18	-287	-178
	Ratio of imports to consumption (percent)	28.6	28.5	28.1	33.3	29.7
	Ratio of exports to shipments (percent)	22.4	24.5	28.7	25.7	25.1
AG037	Nonalcoholic beverages, excluding fruit and vegetable juices:					
	Number of establishments	3,200	3,300	3,200	3,200	3,200
	Employees (thousands)	110	112	110	110	110
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	40,000	42,000	44,100	46,200	50,000
	U.S. exports (million dollars)	220	344	332	244	299
	U.S. imports (million dollars)	277	349	353	430	524
	Apparent U.S. consumption (million dollars)	40,057	42,005	44,122	46,386	50,226
	Trade balance (million dollars)	-57	-5	-22	-186	-226
	Ratio of imports to consumption (percent)	0.7	0.8	0.8	0.9	1.0
	Ratio of exports to shipments (percent)	0.6	0.8	0.8	0.5	0.6
AG038	Malt beverages:					
	Number of establishments	480	619	879	1,504	1,504
	Employees (thousands)	40	37	36	36	35
	Capacity utilization (percent)	75	79	84	84	85
	U.S. shipments (million dollars)	16,628	16,713	17,108	18,195	19,287
	U.S. exports (million dollars)	202	341	413	362	319
	U.S. imports (million dollars)	929	1,038	1,151	1,301	1,480
	Apparent U.S. consumption (million dollars)	17,355	17,410	17,846	19,134	20,449
	Trade balance (million dollars)	-727	-697	-738	-939	-1,162
	Ratio of imports to consumption (percent)	5.4	6.0	6.4	6.8	7.2
	Ratio of exports to shipments (percent)	1.2	2.0	2.4	2.0	1.7
AG039	Wine and certain other fermented beverages:					
	Number of establishments	1,683	1,772	1,820	1,994	1,994
	Employees (thousands)	14	14	14	14	15
	Capacity utilization (percent)	56	57	83	83	85
	U.S. shipments (million dollars)	4,514	4,400	4,674	5,410	5,843
	U.S. exports (million dollars)	177	192	236	320	415
	U.S. imports (million dollars)	984	1,044	1,159	1,435	1,716
	Apparent U.S. consumption (million dollars)	5,320	5,251	5,597	6,525	7,144
	Trade balance (million dollars)	-806	-851	-923	-1,115	-1,301
	Ratio of imports to consumption (percent)	18.5	19.9	20.7	22.0	24.0
	Ratio of exports to shipments (percent)	3.9	4.4	5.0	5.9	7.1
AG040	Distilled spirits:					
	Number of establishments	291	297	278	334	334
	Employees (thousands)	7	7	7	4	4

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Capacity utilization (percent)	81	76	78	78	78
	U.S. shipments (million dollars)	3,340	3,460	3,371	3,187	3,187
	U.S. exports (million dollars)	344	356	390	392	390
	U.S. imports (million dollars)	1,442	1,552	1,629	1,843	1,966
	Apparent U.S. consumption (million dollars)	4,438	4,656	4,610	4,638	4,763
	Trade balance (million dollars)	-1,098	-1,196	-1,239	-1,451	-1,576
	Ratio of imports to consumption (percent)	32.5	33.3	35.3	39.7	41.3
	Ratio of exports to shipments (percent)	10.3	10.3	11.6	12.3	12.2
AG041	Unmanufactured tobacco:					
	Number of establishments	122,009	119,750	117,491	115,232	112,973
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)
	U.S. production (million dollars)	3,187	2,980	3,084	3,140	3,328
	U.S. exports (million dollars)	1,306	1,303	1,400	1,390	1,553
	U.S. imports (million dollars)	1,370	613	550	923	1,089
	Apparent U.S. consumption (million dollars)	3,251	2,290	2,234	2,672	2,864
	Trade balance (million dollars)	-64	690	850	468	464
	Ratio of imports to consumption (percent)	42.1	26.8	24.6	34.5	38.0
	Ratio of exports to production (percent)	41.0	43.7	45.4	44.3	46.7
AG042	Cigars and certain other manufactured tobacco:					
	Number of establishments	57	57	57	57	57
	Employees (thousands)	6	6	6	5	5
	Capacity utilization (percent)	75	81	85	85	85
	U.S. shipments (million dollars)	1,868	2,114	2,264	2,130	2,130
	U.S. exports (million dollars)	327	402	452	503	547
	U.S. imports (million dollars)	107	90	117	207	419
	Apparent U.S. consumption (million dollars)	1,648	1,802	1,930	1,835	2,002
	Trade balance (million dollars)	220	312	334	295	128
	Ratio of imports to consumption (percent)	6.5	5.0	6.1	11.3	20.9
	Ratio of exports to shipments (percent)	17.5	19.0	19.9	23.6	25.7
AG043	Cigarettes:					
	Number of establishments	11	11	11	11	11
	Employees (thousands)	24	23	25	28	28
	Capacity utilization (percent)	83	87	87	87	85
	U.S. shipments (million dollars)	22,705	24,200	26,967	28,247	28,247
	U.S. exports (million dollars)	3,926	4,965	4,770	4,736	4,409
	U.S. imports (million dollars)	360	73	51	38	44
	Apparent U.S. consumption (million dollars)	19,139	19,308	22,248	23,549	23,882
	Trade balance (million dollars)	3,566	4,892	4,719	4,698	4,365
	Ratio of imports to consumption (percent)	1.9	0.4	0.2	0.2	0.2
	Ratio of exports to shipments (percent)	17.3	20.5	17.7	16.8	15.6
AG044	Hides, skins, and leather:					
	Number of establishments	1,235	1,220	1,220	1,220	1,220
	Employees (thousands)	18	18	18	18	18
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	4,337	4,755	5,170	5,573	5,187
	U.S. exports (million dollars)	1,977	2,108	2,319	2,216	2,310
	U.S. imports (million dollars)	868	995	1,095	1,054	1,133
	Apparent U.S. consumption (million dollars)	3,228	3,642	3,946	4,411	4,010
	Trade balance (million dollars)	1,109	1,113	1,224	1,162	1,177
	Ratio of imports to consumption (percent)	26.9	27.3	27.7	23.9	28.2
	Ratio of exports to shipments (percent)	45.6	44.3	44.9	39.8	44.5
AG045	Furskins:					
	Number of establishments	498	457	446	415	386
	Employees (thousands)	3	3	3	3	3

See footnote(s) at end of table.

Table B-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	146	185	153	180	209
	U.S. exports (million dollars)	128	167	157	224	222
	U.S. imports (million dollars)	83	109	87	107	115
	Apparent U.S. consumption (million dollars)	101	126	83	63	102
	Trade balance (million dollars)	45	59	70	117	107
	Ratio of imports to consumption (percent)	82.6	85.9	105.3	169.8	112.4
	Ratio of exports to shipments (percent)	88.0	90.4	102.9	124.4	106.0
AG062	Ethyl alcohol for nonbeverage purposes:					
	Number of establishments	30	35	42	45	45
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	94	90	80	78	80
	U.S. production (million dollars)	1,178	1,594	1,408	1,500	1,550
	U.S. exports (million dollars)	71	215	265	128	123
	U.S. imports (million dollars)	143	146	164	160	119
	Apparent U.S. consumption (million dollars)	1,250	1,525	1,306	1,532	1,546
	Trade balance (million dollars)	-72	69	102	-32	4
	Ratio of imports to consumption (percent)	11.5	9.6	12.5	10.5	7.7
	Ratio of exports to production (percent)	6.1	13.5	18.8	8.5	7.9
AG063	Wool and other animal hair:					
	Number of establishments ⁵	98,280	87,150	81,070	77,010	74,710
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)
	U.S. production (million dollars) ⁶	51	78	86	55	60
	U.S. exports (million dollars)	14	36	35	20	17
	U.S. imports (million dollars)	175	173	214	173	179
	Apparent U.S. consumption (million dollars)	213	215	265	209	223
	Trade balance (million dollars)	-162	-137	-179	-154	-163
	Ratio of imports to consumption (percent)	82.4	80.4	80.7	83.1	80.5
	Ratio of exports to production (percent)	26.7	46.1	40.5	35.8	27.6
AG064	Cotton, not carded or combed: ⁷					
	Number of establishments	13,438	13,220	16,931	14,243	14,243
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)
	U.S. production (million dollars)	4,522	6,795	6,530	6,194	6,200
	U.S. exports (million dollars)	1,528	2,653	3,681	2,715	2,682
	U.S. imports (million dollars)	(⁸)	7	10	283	3
	Apparent U.S. consumption (million dollars)	2,995	4,149	2,859	3,762	3,521
	Trade balance (million dollars)	1,527	2,646	3,671	2,432	2,679
	Ratio of imports to consumption (percent)	(⁹)	0.2	0.4	7.5	0.1
	Ratio of exports to production (percent)	33.8	39.0	56.4	43.8	43.3

¹Not available.²Capacity utilization could not be meaningfully calculated for this industry.³Does not reflect changes in inventory.⁴Does not include gums and resins.⁵Figures represent the number of operations with sheep.⁶Figures represent value of shorn wool production (greasy basis) and mohair production.⁷Estimated from 1992 Census of Agriculture.⁸Less than \$500,000.⁹Less than 0.05 percent.

Note.--Calculations based on unrounded data.

Table B-2

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
AG046	Logs and rough wood products:					
	Number of establishments	13,100	13,000	13,000	13,000	13,000
	Employees (thousands)	87	85	85	83	85
	Capacity utilization (percent)	92	92	90	92	92
	U.S. shipments (million dollars)	15,000	16,000	16,500	16,000	16,500
	U.S. exports (million dollars)	3,134	2,963	3,063	2,909	2,420
	U.S. imports (million dollars)	387	366	404	419	427
	Apparent U.S. consumption (million dollars)	12,252	13,403	13,841	13,510	14,507
	Trade balance (million dollars)	2,748	2,597	2,659	2,490	1,993
	Ratio of imports to consumption (percent)	3.2	2.7	2.9	3.1	2.9
	Ratio of exports to shipments (percent)	20.9	18.5	18.6	18.2	14.7
AG047	Lumber:					
	Number of establishments	7,000	7,000	6,900	6,850	6,800
	Employees (thousands)	175	170	180	180	170
	Capacity utilization (percent)	85	90	90	90	90
	U.S. shipments (million dollars)	28,000	30,000	23,000	29,600	30,000
	U.S. exports (million dollars)	2,470	2,458	2,447	2,430	2,532
	U.S. imports (million dollars)	5,032	6,059	5,515	6,829	7,360
	Apparent U.S. consumption (million dollars)	30,563	33,601	26,067	33,999	34,828
	Trade balance (million dollars)	-2,563	-3,601	-3,067	-4,399	-4,828
	Ratio of imports to consumption (percent)	16.5	18.0	21.2	20.1	21.1
	Ratio of exports to shipments (percent)	8.8	8.2	10.6	8.2	8.4
AG048	Moldings, millwork, and joinery:					
	Number of establishments	3,000	3,000	3,500	3,500	3,500
	Employees (thousands)	90	85	94	95	96
	Capacity utilization (percent)	70	80	80	80	80
	U.S. shipments (million dollars)	10,275	10,735	10,455	11,058	11,500
	U.S. exports (million dollars)	458	443	456	563	642
	U.S. imports (million dollars)	812	959	969	1,171	1,594
	Apparent U.S. consumption (million dollars)	10,630	11,250	10,968	11,665	12,452
	Trade balance (million dollars)	-355	-515	-513	-607	-952
	Ratio of imports to consumption (percent)	7.6	8.5	8.8	10.0	12.8
	Ratio of exports to shipments (percent)	4.5	4.1	4.4	5.1	5.6
AG049	Structural panel products:					
	Number of establishments	600	600	625	620	615
	Employees (thousands)	76	75	75	79	80
	Capacity utilization (percent)	80	85	85	90	85
	U.S. production (million dollars)	12,200	13,500	14,500	14,000	13,900
	U.S. exports (million dollars)	921	962	1,018	994	1,166
	U.S. imports (million dollars)	1,515	1,820	1,986	2,152	2,249
	Apparent U.S. consumption (million dollars)	12,793	14,358	15,468	15,158	14,983
	Trade balance (million dollars)	-593	-858	-968	-1,158	-1,083
	Ratio of imports to consumption (percent)	11.8	12.7	12.8	14.2	15.0
	Ratio of exports to production (percent)	7.6	7.1	7.0	7.1	8.4
AG050	Wooden containers:					
	Number of establishments	2,500	2,500	2,600	2,600	2,600
	Employees (thousands)	41	35	42	51	50
	Capacity utilization (percent)	74	75	80	80	80
	U.S. production (million dollars)	3,110	3,600	3,680	4,000	4,000
	U.S. exports (million dollars)	83	76	77	85	112
	U.S. imports (million dollars)	174	197	224	253	348
	Apparent U.S. consumption (million dollars)	3,202	3,721	3,827	4,168	4,236
	Trade balance (million dollars)	-92	-121	-147	-168	-236
	Ratio of imports to consumption (percent)	5.4	5.3	5.9	6.1	8.2
	Ratio of exports to production (percent)	2.7	2.1	2.1	2.1	2.8

See footnote(s) at end of table.

Table B-2--Continued

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
AG051	Tools and tool handles of wood:					
	Number of establishments	135	135	130	128	125
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	70	75	75	75
	U.S. production (million dollars)	160	170	170	165	170
	U.S. exports (million dollars)	20	16	18	24	37
	U.S. imports (million dollars)	94	109	130	114	117
	Apparent U.S. consumption (million dollars)	234	262	282	255	250
	Trade balance (million dollars)	-74	-92	-112	-90	-80
	Ratio of imports to consumption (percent)	40.2	41.4	46.1	44.6	46.8
	Ratio of exports to production (percent)	12.4	9.6	10.8	14.4	21.7
AG052	Miscellaneous articles of wood:					
	Number of establishments	680	650	700	700	700
	Employees (thousands)	40	50	58	58	57
	Capacity utilization (percent)	75	75	75	80	80
	U.S. production (million dollars)	2,700	2,800	2,800	3,000	3,500
	U.S. exports (million dollars)	155	177	178	179	185
	U.S. imports (million dollars)	465	540	615	617	733
	Apparent U.S. consumption (million dollars)	3,010	3,162	3,238	3,438	4,047
	Trade balance (million dollars)	-310	-362	-438	-438	-547
	Ratio of imports to consumption (percent)	15.4	17.1	19.0	17.9	18.1
	Ratio of exports to production (percent)	5.7	6.3	6.3	6.0	5.3
AG053	Cork and rattan:					
	Number of establishments	31	30	35	35	30
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	60	75	75	80	80
	U.S. production (million dollars)	58	78	85	95	100
	U.S. exports (million dollars)	44	50	65	82	76
	U.S. imports (million dollars)	354	360	408	407	407
	Apparent U.S. consumption (million dollars)	367	388	428	420	432
	Trade balance (million dollars)	-309	-310	-343	-325	-332
	Ratio of imports to consumption (percent)	96.3	92.9	95.3	96.8	94.4
	Ratio of exports to production (percent)	76.5	64.7	76.2	86.1	75.9
AG054	Wood pulp and wastepaper:					
	Number of establishments	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Employees (thousands)	13	14	14	(¹)	(¹)
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. production (million dollars)	7,700	8,000	8,300	8,100	8,200
	U.S. exports (million dollars)	2,999	3,816	6,241	4,059	3,893
	U.S. imports (million dollars)	1,899	2,329	3,845	2,665	2,656
	Apparent U.S. consumption (million dollars)	6,600	6,513	5,904	6,706	6,963
	Trade balance (million dollars)	1,100	1,487	2,396	1,394	1,237
	Ratio of imports to consumption (percent)	28.8	35.8	65.1	39.7	38.1
	Ratio of exports to production (percent)	39.0	47.7	75.2	50.1	47.5
AG055	Paper boxes and bags:					
	Number of establishments	2,600	2,600	2,600	(¹)	(¹)
	Employees (thousands)	180	182	182	(¹)	(¹)
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. production (million dollars)	36,500	37,000	37,900	37,100	37,400
	U.S. exports (million dollars)	752	871	1,083	1,204	1,296
	U.S. imports (million dollars)	358	451	596	658	674
	Apparent U.S. consumption (million dollars)	36,107	36,580	37,413	36,554	36,778
	Trade balance (million dollars)	393	420	487	546	622
	Ratio of imports to consumption (percent)	1.0	1.2	1.6	1.8	1.8

See footnote(s) at end of table.

Table B-2--Continued

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to production (percent)	2.1	2.4	2.9	3.2	3.5
AG056	Industrial papers and paperboards:					
	Number of establishments	700	704	704	(¹)	(¹)
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
	U.S. production (million dollars)	35,900	39,000	45,000	42,900	43,500
	U.S. exports (million dollars)	3,331	3,827	5,085	5,064	5,407
	U.S. imports (million dollars)	1,114	1,388	1,884	1,830	2,044
	Apparent U.S. consumption (million dollars)	33,683	36,561	41,799	39,666	40,137
	Trade balance (million dollars)	2,217	2,439	3,201	3,234	3,363
	Ratio of imports to consumption (percent)	3.3	3.8	4.5	4.6	5.1
	Ratio of exports to production (percent)	9.3	9.8	11.3	11.8	12.4
AG057	Newsprint:					
	Number of establishments	26	26	26	26	25
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	97	98	96	96	99
	U.S. production (million dollars)	2,927	3,036	4,488	4,201	3,575
	U.S. exports (million dollars)	496	481	591	652	522
	U.S. imports (million dollars)	3,593	3,333	4,418	4,063	3,590
	Apparent U.S. consumption (million dollars)	6,024	5,888	8,315	7,612	6,643
	Trade balance (million dollars)	-3,097	-2,852	-3,827	-3,411	-3,068
	Ratio of imports to consumption (percent)	59.6	56.6	53.1	53.4	54.0
	Ratio of exports to production (percent)	16.9	15.8	13.2	15.5	14.6
AG058	Printing and writing papers:					
	Number of establishments	132	132	132	(¹)	(¹)
	Employees (thousands)	134	134	133	(¹)	(¹)
	Capacity utilization (percent)	91	91	93	(¹)	(¹)
	U.S. production (million dollars)	19,069	20,280	27,317	23,861	24,800
	U.S. exports (million dollars)	911	1,146	1,421	1,394	1,431
	U.S. imports (million dollars)	2,634	2,831	4,192	3,565	3,773
	Apparent U.S. consumption (million dollars)	20,792	21,965	30,089	26,032	27,141
	Trade balance (million dollars)	-1,723	-1,685	-2,772	-2,171	-2,341
	Ratio of imports to consumption (percent)	12.7	12.9	13.9	13.7	13.9
	Ratio of exports to production (percent)	4.8	5.6	5.2	5.8	5.8
AG059	Certain specialty papers:					
	Number of establishments	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
	U.S. production (million dollars)	4,800	4,950	5,010	4,700	4,900
	U.S. exports (million dollars)	432	530	718	773	760
	U.S. imports (million dollars)	512	568	742	774	808
	Apparent U.S. consumption (million dollars)	4,880	4,988	5,034	4,701	4,948
	Trade balance (million dollars)	-80	-38	-24	-1	-48
	Ratio of imports to consumption (percent)	10.5	11.4	14.7	16.5	16.3
	Ratio of exports to production (percent)	9.0	10.7	14.3	16.4	15.5
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. production (million dollars)	20,000	21,000	22,255	23,100	24,000
	U.S. exports (million dollars)	706	781	888	987	1,196
	U.S. imports (million dollars)	489	583	758	875	956
	Apparent U.S. consumption (million dollars)	19,783	20,803	22,125	22,988	23,761
	Trade balance (million dollars)	217	197	130	112	239

See footnote(s) at end of table.

Table B-2--Continued

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of imports to consumption (percent)	2.5	2.8	3.4	3.8	4.0
	Ratio of exports to production (percent)	3.5	3.7	4.0	4.3	5.0
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. production (million dollars)	166,000	170,000	180,000	187,000	196,000
	U.S. exports (million dollars)	3,828	3,788	4,113	4,109	4,287
	U.S. imports (million dollars)	1,962	2,146	2,468	2,564	2,719
	Apparent U.S. consumption (million dollars)	164,134	168,357	178,355	185,455	194,431
	Trade balance (million dollars)	1,866	1,643	1,645	1,545	1,569
	Ratio of imports to consumption (percent)	1.2	1.3	1.4	1.4	1.4
	Ratio of exports to production (percent)	2.3	2.2	2.3	2.2	2.2

¹Not available.²Capacity utilization could not be meaningfully calculated for this industry.

Note.--Calculations based on unrounded data.

Table B-3
Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups,
1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH007	Major primary olefins:					
	Number of establishments	37	37	37	37	37
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	94	97	98	98	95
	U.S. shipments (million dollars)	12,300	13,200	13,300	13,700	14,700
	U.S. exports (million dollars)	148	123	145	199	306
	U.S. imports (million dollars)	193	289	496	897	1,520
	Apparent U.S. consumption (million dollars)	12,345	13,366	13,652	14,398	15,914
	Trade balance (million dollars)	-45	-166	-352	-698	-1,214
	Ratio of imports to consumption (percent)	1.6	2.2	3.6	6.2	9.5
	Ratio of exports to shipments (percent)	1.2	0.9	1.1	1.5	2.1
CH008	Other olefins:					
	Number of establishments	23	23	23	23	23
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	87	90	95	95	95
	U.S. shipments (million dollars)	940	980	1,050	1,080	1,150
	U.S. exports (million dollars)	223	190	242	192	175
	U.S. imports (million dollars)	35	38	53	48	62
	Apparent U.S. consumption (million dollars)	752	827	861	936	1,037
	Trade balance (million dollars)	188	153	189	144	113
	Ratio of imports to consumption (percent)	4.6	4.6	6.1	5.1	6.0
	Ratio of exports to shipments (percent)	23.7	19.4	23.0	17.8	15.2
CH009	Primary aromatics:					
	Number of establishments	31	31	31	31	31
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	73	78	80	80	80
	U.S. shipments (million dollars)	3,931	4,200	4,250	4,350	4,400
	U.S. exports (million dollars)	145	138	208	214	255
	U.S. imports (million dollars)	169	158	246	588	856
	Apparent U.S. consumption (million dollars)	3,954	4,219	4,288	4,723	5,001
	Trade balance (million dollars)	-23	-19	-38	-373	-601
	Ratio of imports to consumption (percent)	4.3	3.7	5.7	12.4	17.1
	Ratio of exports to shipments (percent)	3.7	3.3	4.9	4.9	5.8
CH010	Benzenoid commodity chemicals:					
	Number of establishments	53	53	53	53	53
	Employees (thousands)	15	15	15	15	15
	Capacity utilization (percent)	82	82	90	90	90
	U.S. shipments (million dollars)	13,500	13,900	15,581	15,815	16,450
	U.S. exports (million dollars)	1,213	1,555	2,258	1,487	1,283
	U.S. imports (million dollars)	339	392	813	808	923
	Apparent U.S. consumption (million dollars)	12,626	12,737	14,136	15,136	16,089
	Trade balance (million dollars)	874	1,163	1,445	679	361
	Ratio of imports to consumption (percent)	2.7	3.1	5.8	5.3	5.7
	Ratio of exports to shipments (percent)	9.0	11.2	14.5	9.4	7.8
CH011	Benzenoid specialty chemicals:					
	Number of establishments	250	250	250	250	250
	Employees (thousands)	95	95	95	95	95
	Capacity utilization (percent)	82	85	85	86	85
	U.S. shipments (million dollars)	7,800	8,000	8,900	9,078	9,450
	U.S. exports (million dollars)	3,677	4,109	4,625	4,827	5,587
	U.S. imports (million dollars)	2,112	2,355	3,201	3,664	4,136
	Apparent U.S. consumption (million dollars)	6,235	6,246	7,476	7,915	7,999
	Trade balance (million dollars)	1,565	1,754	1,424	1,163	1,451
	Ratio of imports to consumption (percent)	33.9	37.7	42.8	46.3	51.7
	Ratio of exports to shipments (percent)	47.1	51.4	52.0	53.2	59.1

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH012	Miscellaneous organic chemicals:					
	Number of establishments	245	250	259	262	265
	Employees (thousands)	70	75	75	75	75
	Capacity utilization (percent)	85	85	89	86	87
	U.S. shipments (million dollars)	44,500	51,000	57,500	57,000	58,000
	U.S. exports (million dollars)	4,684	5,642	7,697	7,031	7,780
	U.S. imports (million dollars)	3,403	4,327	4,903	4,970	5,493
	Apparent U.S. consumption (million dollars)	43,219	49,685	54,706	54,939	55,714
	Trade balance (million dollars)	1,281	1,315	2,794	2,061	2,286
	Ratio of imports to consumption (percent)	7.9	8.7	9.0	9.0	9.9
	Ratio of exports to shipments (percent)	10.5	11.1	13.4	12.3	13.4
CH013	Miscellaneous inorganic chemicals:					
	Number of establishments	640	640	640	640	(¹)
	Employees (thousands)	64	59	54	53	(¹)
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	7,273	7,773	8,694	8,863	(¹)
	U.S. exports (million dollars)	3,002	3,278	4,116	4,230	4,859
	U.S. imports (million dollars)	3,064	3,400	4,194	4,823	5,118
	Apparent U.S. consumption (million dollars)	7,335	7,896	8,772	9,456	(¹)
	Trade balance (million dollars)	-62	-123	-78	-593	-259
	Ratio of imports to consumption (percent)	41.8	43.1	47.8	51.0	(¹)
	Ratio of exports to shipments (percent)	41.3	42.2	47.3	47.7	(¹)
CH014	Inorganic acids:					
	Number of establishments	145	145	143	143	143
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	2,550	2,601	2,653	2,710	2,765
	U.S. exports (million dollars)	157	160	166	142	192
	U.S. imports (million dollars)	144	199	209	234	262
	Apparent U.S. consumption (million dollars)	2,537	2,640	2,696	2,802	2,835
	Trade balance (million dollars)	13	-39	-43	-92	-70
	Ratio of imports to consumption (percent)	5.7	7.5	7.8	8.4	9.2
	Ratio of exports to shipments (percent)	6.1	6.2	6.3	5.2	7.0
CH015	Chlor-alkali chemicals:					
	Number of establishments	60	60	60	60	60
	Employees (thousands)	8	7	7	7	7
	Capacity utilization (percent)	95	95	95	95	95
	U.S. shipments (million dollars)	3,012	2,999	3,973	(¹)	4,000
	U.S. exports (million dollars)	598	594	899	967	824
	U.S. imports (million dollars)	125	149	210	188	184
	Apparent U.S. consumption (million dollars)	2,539	2,554	3,284	(¹)	3,359
	Trade balance (million dollars)	473	445	689	779	641
	Ratio of imports to consumption (percent)	4.9	5.8	6.4	(¹)	5.5
	Ratio of exports to shipments (percent)	19.9	19.8	22.6	(¹)	20.6
CH016	Industrial gases:					
	Number of establishments	600	600	600	600	600
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	3,436	3,188	3,501	3,500	3,550
	U.S. exports (million dollars)	99	105	114	115	148
	U.S. imports (million dollars)	39	42	47	53	57
	Apparent U.S. consumption (million dollars)	3,376	3,126	3,434	3,439	3,459
	Trade balance (million dollars)	60	62	67	61	91
	Ratio of imports to consumption (percent)	1.2	1.4	1.4	1.6	1.6
	Ratio of exports to shipments (percent)	2.9	3.3	3.3	3.3	4.2

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH017	Fertilizers:					
	Number of establishments	348	350	350	350	350
	Employees (thousands)	37	37	37	37	37
	Capacity utilization (percent)	80	85	83	85	85
	U.S. shipments (million dollars)	7,758	8,737	9,480	9,670	9,865
	U.S. exports (million dollars)	1,877	2,780	3,319	3,151	3,138
	U.S. imports (million dollars)	1,600	2,040	2,357	2,489	2,492
	Apparent U.S. consumption (million dollars)	7,480	7,997	8,518	9,008	9,219
	Trade balance (million dollars)	278	740	962	662	646
	Ratio of imports to consumption (percent)	21.4	25.5	27.7	27.6	27.0
	Ratio of exports to shipments (percent)	24.2	31.8	35.0	32.6	31.8
CH018	Paints, inks, and related items, and certain components thereof:					
	Number of establishments	1,580	1,580	1,580	1,500	1,500
	Employees (thousands)	14	15	15	15	15
	Capacity utilization (percent)	84	85	84	85	85
	U.S. shipments (million dollars)	18,250	18,956	19,673	20,100	21,500
	U.S. exports (million dollars)	1,772	2,057	2,340	2,461	2,935
	U.S. imports (million dollars)	980	1,148	1,425	1,504	1,726
	Apparent U.S. consumption (million dollars)	17,458	18,047	18,757	19,144	20,292
	Trade balance (million dollars)	792	909	916	956	1,208
	Ratio of imports to consumption (percent)	5.6	6.4	7.6	7.9	8.5
	Ratio of exports to shipments (percent)	9.7	10.9	11.9	12.2	13.6
CH019	Synthetic organic pigments:					
	Number of establishments	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)	793	793	870	913	920
	U.S. exports (million dollars)	267	299	283	295	337
	U.S. imports (million dollars)	294	339	341	356	401
	Apparent U.S. consumption (million dollars)	820	833	928	974	983
	Trade balance (million dollars)	-27	-40	-58	-61	-63
	Ratio of imports to consumption (percent)	35.9	40.7	36.8	36.6	40.8
	Ratio of exports to shipments (percent)	33.7	37.8	32.5	32.4	36.7
CH020	Synthetic dyes and azoic couplers:					
	Number of establishments	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)	991	991	1,040	1,095	1,100
	U.S. exports (million dollars)	200	227	267	385	479
	U.S. imports (million dollars)	583	595	569	572	628
	Apparent U.S. consumption (million dollars)	1,375	1,358	1,341	1,282	1,249
	Trade balance (million dollars)	-384	-367	-301	-187	-149
	Ratio of imports to consumption (percent)	42.4	43.8	42.4	44.6	50.3
	Ratio of exports to shipments (percent)	20.1	23.0	25.7	35.2	43.6
CH021	Synthetic tanning agents:					
	Number of establishments	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)	19	20	20	20	20
	U.S. exports (million dollars)	10	11	14	17	17
	U.S. imports (million dollars)	6	6	6	7	8
	Apparent U.S. consumption (million dollars)	15	15	12	11	11
	Trade balance (million dollars)	4	5	8	9	9
	Ratio of imports to consumption (percent)	40.4	40.8	48.6	70.5	71.6

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	54.3	54.8	68.5	84.3	84.6
CH022	Natural tanning and dyeing materials:					
	Number of establishments	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)	16	19	17	19	21
	U.S. imports (million dollars)	64	58	52	57	62
	Apparent U.S. consumption (million dollars)	58	49	45	48	52
	Trade balance (million dollars)	-48	-39	-35	-38	-42
	Ratio of imports to consumption (percent)	110.8	118.4	114.5	119.3	120.8
	Ratio of exports to shipments (percent)	162.1	190.3	166.0	191.7	207.5
CH023	Photographic chemicals and preparations:					
	Number of establishments	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)	331	383	506	496	501
	U.S. imports (million dollars)	554	650	749	701	733
	Apparent U.S. consumption (million dollars)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Trade balance (million dollars)	-223	-267	-244	-206	-231
	Ratio of imports to consumption (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Ratio of exports to shipments (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
CH024	Pesticide products and formulations:					
	Number of establishments	59	59	55	55	55
	Employees (thousands)	22	22	20	20	20
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	4,580	4,580	4,580	4,900	5,000
	U.S. exports (million dollars)	1,584	1,736	1,968	2,013	2,276
	U.S. imports (million dollars)	825	852	1,017	1,153	1,188
	Apparent U.S. consumption (million dollars)	3,821	3,696	3,629	4,040	3,912
	Trade balance (million dollars)	759	884	951	860	1,088
	Ratio of imports to consumption (percent)	21.6	23.0	28.0	28.5	30.4
	Ratio of exports to shipments (percent)	34.6	37.9	43.0	41.1	45.5
CH025	Adhesives and glues:					
	Number of establishments	480	482	490	500	500
	Employees (thousands)	10	10	10	10	10
	Capacity utilization (percent)	80	85	84	85	86
	U.S. shipments (million dollars)	4,350	4,340	4,500	4,700	4,800
	U.S. exports (million dollars)	256	308	348	394	457
	U.S. imports (million dollars)	118	134	138	141	150
	Apparent U.S. consumption (million dollars)	4,212	4,166	4,289	4,447	4,493
	Trade balance (million dollars)	138	174	211	253	307
	Ratio of imports to consumption (percent)	2.8	3.2	3.2	3.2	3.3
	Ratio of exports to shipments (percent)	5.9	7.1	7.7	8.4	9.5
CH026	Medicinal chemicals:					
	Number of establishments	770	718	717	720	720
	Employees (thousands)	197	184	174	203	205
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	58,428	59,600	60,300	63,000	67,400
	U.S. exports (million dollars)	7,270	7,615	8,090	8,546	10,344
	U.S. imports (million dollars)	6,123	6,971	8,654	11,189	14,184
	Apparent U.S. consumption (million dollars)	57,281	58,956	60,864	65,643	71,240
	Trade balance (million dollars)	1,147	644	-564	-2,643	-3,840
	Ratio of imports to consumption (percent)	10.7	11.8	14.2	17.0	19.9

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	12.4	12.8	13.4	13.6	15.3
CH027	Essential oils and other flavoring materials:					
	Number of establishments	58	57	55	53	53
	Employees (thousands)	50	51	52	50	50
	Capacity utilization (percent)	77	80	80	80	80
	U.S. shipments (million dollars)	2,800	2,900	3,000	3,000	3,100
	U.S. exports (million dollars)	734	848	910	981	1,014
	U.S. imports (million dollars)	557	624	810	780	809
	Apparent U.S. consumption (million dollars)	2,623	2,676	2,900	2,799	2,895
	Trade balance (million dollars)	177	224	100	201	205
	Ratio of imports to consumption (percent)	21.2	23.3	27.9	27.9	28.0
	Ratio of exports to shipments (percent)	26.2	29.2	30.3	32.7	32.7
CH028	Perfumes, cosmetics, and toiletries:					
	Number of establishments	650	650	650	650	650
	Employees (thousands)	57	57	58	58	57
	Capacity utilization (percent)	85	87	88	85	85
	U.S. shipments (million dollars)	17,900	18,500	19,000	19,300	19,350
	U.S. exports (million dollars)	1,415	1,715	1,875	2,537	2,607
	U.S. imports (million dollars)	973	1,055	1,168	1,276	1,428
	Apparent U.S. consumption (million dollars)	17,458	17,840	18,293	18,039	18,171
	Trade balance (million dollars)	442	660	707	1,261	1,179
	Ratio of imports to consumption (percent)	5.6	5.9	6.4	7.1	7.9
	Ratio of exports to shipments (percent)	7.9	9.3	9.9	13.1	13.5
CH029	Soaps, detergents, and surface-active agents:					
	Number of establishments	950	950	950	950	950
	Employees (thousands)	47	47	48	48	50
	Capacity utilization (percent)	85	87	88	85	87
	U.S. shipments (million dollars)	15,400	16,000	16,500	16,500	16,600
	U.S. exports (million dollars)	1,263	1,454	1,644	1,814	2,029
	U.S. imports (million dollars)	450	556	653	760	854
	Apparent U.S. consumption (million dollars)	14,588	15,102	15,508	15,447	15,425
	Trade balance (million dollars)	812	898	992	1,053	1,175
	Ratio of imports to consumption (percent)	3.1	3.7	4.2	4.9	5.5
	Ratio of exports to shipments (percent)	8.2	9.1	10.0	11.0	12.2
CH030	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)	1,464	1,584	1,814	1,987	2,183
	U.S. imports (million dollars)	653	774	944	1,030	1,200
	Apparent U.S. consumption (million dollars)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Trade balance (million dollars)	811	810	869	957	982
	Ratio of imports to consumption (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Ratio of exports to shipments (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
CH031	Explosives, propellant powders, and related items:					
	Number of establishments	135	135	135	130	130
	Employees (thousands)	13	13	13	13	13
	Capacity utilization (percent)	92	90	89	90	90
	U.S. shipments (million dollars)	1,522	1,650	1,620	1,765	1,850
	U.S. exports (million dollars)	259	252	250	328	291
	U.S. imports (million dollars)	209	196	187	208	237
	Apparent U.S. consumption (million dollars)	1,472	1,594	1,557	1,645	1,796
	Trade balance (million dollars)	50	56	63	120	54

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of imports to consumption (percent)	14.2	12.3	12.0	12.6	13.2
	Ratio of exports to shipments (percent)	17.0	15.3	15.4	18.6	15.7
CH032	Polyethylene resins in primary forms:					
	Number of establishments	40	40	41	42	43
	Employees (thousands)	21	21	20	20	20
	Capacity utilization (percent)	86	88	88	88	88
	U.S. shipments (million dollars)	6,890	7,493	7,671	8,400	8,600
	U.S. exports (million dollars)	1,260	1,459	1,988	2,134	2,455
	U.S. imports (million dollars)	571	783	1,192	1,086	1,261
	Apparent U.S. consumption (million dollars)	6,201	6,817	6,875	7,353	7,406
	Trade balance (million dollars)	689	676	796	1,047	1,194
	Ratio of imports to consumption (percent)	9.2	11.5	17.3	14.8	17.0
	Ratio of exports to shipments (percent)	18.3	19.5	25.9	25.4	28.5
CH033	Polypropylene resins in primary forms:					
	Number of establishments	23	23	23	24	25
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	86	88	87	91	91
	U.S. shipments (million dollars)	2,801	3,065	3,119	3,550	3,700
	U.S. exports (million dollars)	432	449	660	742	844
	U.S. imports (million dollars)	116	155	190	210	212
	Apparent U.S. consumption (million dollars)	2,485	2,771	2,649	3,018	3,068
	Trade balance (million dollars)	316	294	470	532	632
	Ratio of imports to consumption (percent)	4.7	5.6	7.2	7.0	6.9
	Ratio of exports to shipments (percent)	15.4	14.7	21.2	20.9	22.8
CH034	Polyvinyl chloride resins in primary forms:					
	Number of establishments	27	27	27	27	28
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	97	100	97	96	96
	U.S. shipments (million dollars)	3,243	3,475	3,519	3,600	3,700
	U.S. exports (million dollars)	500	671	856	680	858
	U.S. imports (million dollars)	117	182	192	203	271
	Apparent U.S. consumption (million dollars)	2,860	2,986	2,855	3,124	3,113
	Trade balance (million dollars)	383	489	664	476	587
	Ratio of imports to consumption (percent)	4.1	6.1	6.7	6.5	8.7
	Ratio of exports to shipments (percent)	15.4	19.3	24.3	18.9	23.2
CH035	Styrene polymers in primary forms:					
	Number of establishments	68	68	68	68	69
	Employees (thousands)	11	11	11	11	11
	Capacity utilization (percent)	90	94	94	93	92
	U.S. shipments (million dollars)	4,611	4,999	5,013	5,240	5,400
	U.S. exports (million dollars)	600	662	790	799	824
	U.S. imports (million dollars)	235	300	351	335	353
	Apparent U.S. consumption (million dollars)	4,247	4,638	4,574	4,776	4,929
	Trade balance (million dollars)	364	361	439	464	471
	Ratio of imports to consumption (percent)	5.5	6.5	7.7	7.0	7.2
	Ratio of exports to shipments (percent)	13.0	13.2	15.7	15.2	15.3
CH036	Saturated polyester resins:					
	Number of establishments	49	49	50	50	50
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	79	83	86	85	83
	U.S. shipments (million dollars)	3,221	3,925	4,216	4,500	4,700
	U.S. exports (million dollars)	390	491	640	623	696
	U.S. imports (million dollars)	108	197	242	230	355
	Apparent U.S. consumption (million dollars)	2,939	3,632	3,818	4,108	4,359

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Trade balance (million dollars)	282	293	398	392	341
	Ratio of imports to consumption (percent)	3.7	5.4	6.3	5.6	8.1
	Ratio of exports to shipments (percent)	12.1	12.5	15.2	13.8	14.8
CH037	Other plastics in primary forms:					
	Number of establishments	279	279	278	278	280
	Employees (thousands)	32	32	32	32	32
	Capacity utilization (percent)	90	93	92	92	90
	U.S. shipments (million dollars)	14,012	14,900	14,958	15,700	16,000
	U.S. exports (million dollars)	3,992	4,670	5,398	5,598	6,064
	U.S. imports (million dollars)	1,386	1,684	1,937	2,127	2,204
	Apparent U.S. consumption (million dollars)	11,406	11,914	11,496	12,228	12,140
	Trade balance (million dollars)	2,606	2,986	3,462	3,472	3,860
	Ratio of imports to consumption (percent)	12.2	14.1	16.8	17.4	18.2
	Ratio of exports to shipments (percent)	28.5	31.3	36.1	35.7	37.9
CH038	Styrene-butadiene rubber in primary forms:					
	Number of establishments	11	11	11	11	11
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	89	90	91	90	90
	U.S. shipments (million dollars)	968	1,025	1,187	1,150	1,150
	U.S. exports (million dollars)	255	298	353	361	348
	U.S. imports (million dollars)	111	137	159	143	163
	Apparent U.S. consumption (million dollars)	824	865	992	932	966
	Trade balance (million dollars)	144	160	195	218	184
	Ratio of imports to consumption (percent)	13.5	15.9	16.0	15.4	16.9
	Ratio of exports to shipments (percent)	26.4	29.0	29.8	31.4	30.2
CH039	Other synthetic rubber:					
	Number of establishments	34	34	34	34	34
	Employees (thousands)	11	11	11	11	11
	Capacity utilization (percent)	79	80	81	80	80
	U.S. shipments (million dollars)	2,906	3,070	3,111	3,100	3,100
	U.S. exports (million dollars)	769	874	1,011	1,090	1,111
	U.S. imports (million dollars)	445	491	557	565	614
	Apparent U.S. consumption (million dollars)	2,581	2,687	2,657	2,575	2,604
	Trade balance (million dollars)	325	383	454	525	496
	Ratio of imports to consumption (percent)	17.2	18.3	21.0	21.9	23.6
	Ratio of exports to shipments (percent)	26.5	28.5	32.5	35.1	35.8
CH040	Pneumatic tires and tubes (new):					
	Number of establishments	39	37	40	40	42
	Employees (thousands)	63	63	62	62	62
	Capacity utilization (percent)	95	97	98	95	92
	U.S. shipments (million dollars)	10,600	10,900	11,000	11,400	11,800
	U.S. exports (million dollars)	1,464	1,614	1,869	1,960	2,403
	U.S. imports (million dollars)	2,661	2,960	3,073	3,011	3,343
	Apparent U.S. consumption (million dollars)	11,797	12,245	12,204	12,451	12,739
	Trade balance (million dollars)	-1,197	-1,345	-1,204	-1,051	-939
	Ratio of imports to consumption (percent)	22.6	24.2	25.2	24.2	26.2
	Ratio of exports to shipments (percent)	13.8	14.8	17.0	17.2	20.4
CH041	Other tires:					
	Number of establishments	1,750	1,600	1,400	1,400	1,400
	Employees (thousands)	6	5	5	5	5
	Capacity utilization (percent)	88	90	92	90	90
	U.S. shipments (million dollars)	1,800	1,800	1,750	1,800	1,800
	U.S. exports (million dollars)	66	79	73	84	86
	U.S. imports (million dollars)	107	114	121	116	132

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Apparent U.S. consumption (million dollars)	1,841	1,835	1,797	1,832	1,846
	Trade balance (million dollars)	-41	-35	-47	-32	-46
	Ratio of imports to consumption (percent)	5.8	6.2	6.7	6.3	7.2
	Ratio of exports to shipments (percent)	3.7	4.4	4.2	4.7	4.8
CH042	Plastic or rubber semifabricated forms:					
	Number of establishments	1,551	1,551	1,555	1,555	1,555
	Employees (thousands)	103	103	103	103	102
	Capacity utilization (percent)	81	81	82	82	81
	U.S. shipments (million dollars)	17,462	17,800	18,127	18,300	18,000
	U.S. exports (million dollars)	3,139	3,596	4,116	4,244	4,791
	U.S. imports (million dollars)	2,015	2,286	2,647	2,800	3,073
	Apparent U.S. consumption (million dollars)	16,338	16,490	16,658	16,856	16,282
	Trade balance (million dollars)	1,124	1,310	1,469	1,444	1,718
	Ratio of imports to consumption (percent)	12.3	13.9	15.9	16.6	18.9
	Ratio of exports to shipments (percent)	18.0	20.2	22.7	23.2	26.6
CH043	Plastic containers and closures:					
	Number of establishments	1,860	1,860	1,860	1,860	1,860
	Employees (thousands)	77	76	76	76	76
	Capacity utilization (percent)	90	90	90	91	90
	U.S. shipments (million dollars)	9,280	9,466	9,578	9,800	9,600
	U.S. exports (million dollars)	914	1,060	1,264	1,434	1,649
	U.S. imports (million dollars)	845	968	1,210	1,279	1,489
	Apparent U.S. consumption (million dollars)	9,211	9,374	9,524	9,645	9,440
	Trade balance (million dollars)	69	92	54	155	160
	Ratio of imports to consumption (percent)	9.2	10.3	12.7	13.3	15.8
	Ratio of exports to shipments (percent)	9.8	11.2	13.2	14.6	17.2
CH044	Hose, belting, and plastic pipe:					
	Number of establishments	438	475	476	478	478
	Employees (thousands)	36	38	38	38	38
	Capacity utilization (percent)	72	75	76	77	76
	U.S. shipments (million dollars)	5,355	5,900	6,129	6,300	6,200
	U.S. exports (million dollars)	880	1,027	1,137	1,377	1,583
	U.S. imports (million dollars)	699	855	991	1,063	1,134
	Apparent U.S. consumption (million dollars)	5,174	5,728	5,983	5,986	5,751
	Trade balance (million dollars)	181	172	146	314	449
	Ratio of imports to consumption (percent)	13.5	14.9	16.6	17.8	19.7
	Ratio of exports to shipments (percent)	16.4	17.4	18.5	21.9	25.5
CH045	Miscellaneous rubber or plastic products:					
	Number of establishments	12,900	12,900	12,800	12,800	12,800
	Employees (thousands)	605	605	595	600	600
	Capacity utilization (percent)	85	87	88	85	85
	U.S. shipments (million dollars)	70,000	72,000	71,000	72,400	73,000
	U.S. exports (million dollars)	2,592	3,110	3,253	3,757	4,429
	U.S. imports (million dollars)	3,815	4,456	4,914	5,115	5,387
	Apparent U.S. consumption (million dollars)	71,222	73,346	72,661	73,758	73,958
	Trade balance (million dollars)	-1,222	-1,346	-1,661	-1,358	-958
	Ratio of imports to consumption (percent)	5.4	6.1	6.8	6.9	7.3
	Ratio of exports to shipments (percent)	3.7	4.3	4.6	5.2	6.1
CH046	Gelatin:					
	Number of establishments	8	8	8	8	8
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	90	90	90	90	92
	U.S. shipments (million dollars)	172	180	202	240	250
	U.S. exports (million dollars)	35	36	42	46	59

See footnote(s) at end of table.

Table B-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	U.S. imports (million dollars)	97	90	102	130	133
	Apparent U.S. consumption (million dollars)	235	235	261	324	324
	Trade balance (million dollars)	-63	-55	-59	-84	-74
	Ratio of imports to consumption (percent)	41.4	38.5	38.9	40.2	41.1
	Ratio of exports to shipments (percent)	20.1	19.8	21.0	19.3	23.6
CH047	Natural rubber:					
	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)	0	0	0	0	0
	U.S. exports (million dollars)	27	33	42	44	41
	U.S. imports (million dollars)	852	965	1,629	1,468	1,229
	Apparent U.S. consumption (million dollars)	824	933	1,587	1,424	1,189
	Trade balance (million dollars)	-824	-933	-1,587	-1,424	-1,189
	Ratio of imports to consumption (percent)	103.3	103.5	102.6	103.1	103.4
	Ratio of exports to shipments (percent) . . . . .	(^{2})	(^{2})	(^{2})	(^{2})	(²)

¹Not available.

²Not meaningful.

Note.--Calculations based on unrounded data.

Table B-4

Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
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)	163,261	185,062	190,428	196,141	214,322
	U.S. exports (million dollars)	61	30	47	69	124
	U.S. imports (million dollars)	662	960	856	902	978
	Apparent U.S. consumption (million dollars)	163,862	185,992	191,237	196,973	215,176
	Trade balance (million dollars)	-601	-930	-809	-832	-854
	Ratio of imports to consumption (percent)	0.4	0.5	0.4	0.5	0.5
	Ratio of exports to shipments (percent)	(²)	(²)	(²)	(²)	0.1
CH002	Nuclear materials:					
	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)	1,139	1,226	965	1,047	1,444
	U.S. imports (million dollars)	930	1,114	1,127	1,326	1,219
	Apparent U.S. consumption (million dollars)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Trade balance (million dollars)	209	112	-162	-279	225
	Ratio of imports to consumption (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Ratio of exports to shipments (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
CH003	Coal, coke, and related chemical products:					
	Number of establishments	520	520	520	520	520
	Employees (thousands)	155	150	150	150	150
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	25,980	30,000	29,700	33,173	32,658
	U.S. exports (million dollars)	3,587	3,464	4,328	4,452	4,276
	U.S. imports (million dollars)	603	799	847	1,253	1,688
	Apparent U.S. consumption (million dollars)	22,996	27,335	26,219	29,975	30,070
	Trade balance (million dollars)	2,984	2,665	3,481	3,198	2,588
	Ratio of imports to consumption (percent)	2.6	2.9	3.2	4.2	5.6
	Ratio of exports to shipments (percent)	13.8	11.5	14.6	13.4	13.1
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)	35,613	34,000	34,846	43,601	40,342
	U.S. exports (million dollars)	20	44	1	460	780
	U.S. imports (million dollars)	38,248	38,530	42,077	44,849	38,394
	Apparent U.S. consumption (million dollars)	73,841	72,486	76,922	87,990	77,957
	Trade balance (million dollars)	-38,228	-38,486	-42,076	-44,389	-37,615
	Ratio of imports to consumption (percent)	51.8	53.2	54.7	51.0	49.3
	Ratio of exports to shipments (percent)	0.1	0.1	(²)	1.1	1.9
CH005	Petroleum products:					
	Number of establishments	190	190	190	190	190
	Employees (thousands)	75	75	75	75	75
	Capacity utilization (percent)	85	85	85	90	90
	U.S. shipments (million dollars)	127,488	130,000	131,549	147,961	129,409
	U.S. exports (million dollars)	6,654	6,014	6,583	7,604	7,728
	U.S. imports (million dollars)	11,041	10,450	9,777	18,915	21,523
	Apparent U.S. consumption (million dollars)	131,875	134,436	134,743	159,273	143,203
	Trade balance (million dollars)	-4,387	-4,436	-3,194	-11,312	-13,794
	Ratio of imports to consumption (percent)	8.4	7.8	7.3	11.9	15.0
	Ratio of exports to shipments (percent)	5.2	4.6	5.0	5.1	6.0

See footnote(s) at end of table.

Table B-4--Continued

Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH006	Natural gas and components:					
	Number of establishments	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Employees (thousands)	200	205	205	200	200
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	77,000	76,000	76,000	77,000	79,000
	U.S. exports (million dollars)	603	568	775	770	814
	U.S. imports (million dollars)	4,421	5,201	5,157	8,253	10,215
	Apparent U.S. consumption (million dollars)	80,818	80,633	80,382	84,484	88,401
	Trade balance (million dollars)	-3,818	-4,633	-4,382	-7,484	-9,401
	Ratio of imports to consumption (percent)	5.5	6.5	6.4	9.8	11.6
	Ratio of exports to shipments (percent)	0.8	0.7	1.0	1.0	1.0

¹Not available.

²Less than 0.05 percent.

Note.--Calculations based on unrounded data.

Table B-5
Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups,
1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH048	Manmade fibers and filament yarns:					
	Number of establishments	230	230	230	230	241
	Employees (thousands)	69	69	68	65	64
	Capacity utilization (percent)	84	85	89	88	90
	U.S. shipments (million dollars)	13,100	14,100	14,700	14,700	15,557
	U.S. exports (million dollars)	1,393	1,585	2,064	2,109	2,166
	U.S. imports (million dollars)	1,126	1,299	1,381	1,402	1,555
	Apparent U.S. consumption (million dollars)	12,833	13,814	14,017	13,992	14,946
	Trade balance (million dollars)	267	286	683	708	611
	Ratio of imports to consumption (percent)	8.8	9.4	9.9	10.0	10.4
	Ratio of exports to shipments (percent)	10.6	11.2	14.0	14.3	13.9
CH049	Spun yarns and miscellaneous yarns:					
	Number of establishments	465	460	468	468	400
	Employees (thousands)	97	97	94	87	87
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	8,583	8,070	7,900	10,000	10,371
	U.S. exports (million dollars)	347	458	574	654	712
	U.S. imports (million dollars)	497	594	613	645	777
	Apparent U.S. consumption (million dollars)	8,732	8,207	7,939	9,991	10,436
	Trade balance (million dollars)	-149	-137	-39	9	-65
	Ratio of imports to consumption (percent)	5.7	7.2	7.7	6.5	7.4
	Ratio of exports to shipments (percent)	4.0	5.7	7.3	6.5	6.9
CH050	Broadwoven fabrics:					
	Number of establishments	1,330	2,086	1,976	2,000	1,900
	Employees (thousands)	243	225	226	214	200
	Capacity utilization (percent)	92	93	90	92	94
	U.S. shipments (million dollars)	22,330	22,720	23,200	21,700	18,600
	U.S. exports (million dollars)	1,592	1,747	1,888	2,089	2,254
	U.S. imports (million dollars)	3,339	3,362	3,462	3,384	3,802
	Apparent U.S. consumption (million dollars)	24,077	24,335	24,774	22,994	20,148
	Trade balance (million dollars)	-1,747	-1,615	-1,574	-1,294	-1,548
	Ratio of imports to consumption (percent)	13.9	13.8	14.0	14.7	18.9
	Ratio of exports to shipments (percent)	7.1	7.7	8.1	9.6	12.1
CH051	Knit fabrics:					
	Number of establishments	(¹)	(¹)	(¹)	(¹)	536
	Employees (thousands)	49	49	48	46	44
	Capacity utilization (percent)	75	75	77	80	85
	U.S. shipments (million dollars)	7,469	7,530	7,800	7,700	7,600
	U.S. exports (million dollars)	322	344	437	497	615
	U.S. imports (million dollars)	286	336	334	520	784
	Apparent U.S. consumption (million dollars)	7,432	7,523	7,698	7,723	7,769
	Trade balance (million dollars)	37	7	102	-23	-169
	Ratio of imports to consumption (percent)	3.8	4.5	4.3	6.7	10.1
	Ratio of exports to shipments (percent)	4.3	4.6	5.6	6.5	8.1
CH052	Miscellaneous fabrics:					
	Number of establishments	400	400	400	400	400
	Employees (thousands)	26	26	25	25	25
	Capacity utilization (percent)	78	80	80	80	80
	U.S. shipments (million dollars)	1,520	1,730	1,810	1,755	1,750
	U.S. exports (million dollars)	199	234	268	260	311
	U.S. imports (million dollars)	105	130	151	153	180
	Apparent U.S. consumption (million dollars)	1,426	1,626	1,693	1,648	1,619
	Trade balance (million dollars)	94	104	117	107	131
	Ratio of imports to consumption (percent)	7.4	8.0	8.9	9.3	11.1
	Ratio of exports to shipments (percent)	13.1	13.5	14.8	14.8	17.8

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
CH053	Coated, covered, impregnated, or laminated textile fabrics:					
	Number of establishments	230	230	231	232	232
	Employees (thousands)	10	11	11	11	9
	Capacity utilization (percent)	84	84	85	85	85
	U.S. shipments (million dollars)	1,650	1,750	1,800	1,850	1,850
	U.S. exports (million dollars)	370	450	492	542	678
	U.S. imports (million dollars)	206	227	243	255	288
	Apparent U.S. consumption (million dollars)	1,486	1,527	1,551	1,563	1,459
	Trade balance (million dollars)	164	223	249	287	391
	Ratio of imports to consumption (percent)	13.9	14.9	15.7	16.3	19.7
	Ratio of exports to shipments (percent)	22.4	25.7	27.4	29.3	36.7
CH054	Cordage, nets, and netting:					
	Number of establishments	200	195	200	200	194
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	80	77	78	78	78
	U.S. shipments (million dollars)	610	660	700	690	690
	U.S. exports (million dollars)	50	43	48	55	58
	U.S. imports (million dollars)	123	147	162	140	171
	Apparent U.S. consumption (million dollars)	683	764	814	775	803
	Trade balance (million dollars)	-73	-104	-114	-85	-113
	Ratio of imports to consumption (percent)	18.0	19.3	19.9	18.1	21.3
	Ratio of exports to shipments (percent)	8.2	6.5	6.9	7.9	8.4
CH055	Certain textile articles and fabrics suitable for industrial use:					
	Number of establishments	80	80	78	78	78
	Employees (thousands)	14	14	13	13	13
	Capacity utilization (percent)	85	85	85	86	86
	U.S. shipments (million dollars)	3,250	3,500	3,400	3,400	3,400
	U.S. exports (million dollars)	277	282	277	262	302
	U.S. imports (million dollars)	177	202	235	262	264
	Apparent U.S. consumption (million dollars)	3,150	3,420	3,358	3,400	3,362
	Trade balance (million dollars)	100	80	42	(²)	38
	Ratio of imports to consumption (percent)	5.6	5.9	7.0	7.7	7.9
	Ratio of exports to shipments (percent)	8.5	8.1	8.1	7.7	8.9
CH056	Miscellaneous textiles and articles:					
	Number of establishments	1,250	1,250	1,252	1,252	1,254
	Employees (thousands)	12	12	12	12	12
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	5,340	6,050	6,270	6,550	6,550
	U.S. exports (million dollars)	793	848	976	1,045	1,225
	U.S. imports (million dollars)	983	1,179	1,417	1,492	1,703
	Apparent U.S. consumption (million dollars)	5,530	6,381	6,711	6,996	7,028
	Trade balance (million dollars)	-190	-331	-441	-446	-478
	Ratio of imports to consumption (percent)	17.8	18.5	21.1	21.3	24.2
	Ratio of exports to shipments (percent)	14.8	14.0	15.6	16.0	18.7
CH057	Sacks and bags of textile materials:					
	Number of establishments	260	260	250	250	248
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	75	73	70	70	70
	U.S. shipments (million dollars)	700	860	870	880	897
	U.S. exports (million dollars)	30	22	26	19	20
	U.S. imports (million dollars)	50	52	76	17	18
	Apparent U.S. consumption (million dollars)	720	890	920	877	895
	Trade balance (million dollars)	-20	-30	-50	3	2

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of imports to consumption (percent)	6.9	5.9	8.3	1.9	2.0
	Ratio of exports to shipments (percent)	4.3	2.6	3.0	2.2	2.2
CH058	Carpets and rugs:					
	Number of establishments	570	570	570	570	569
	Employees (thousands)	60	64	63	61	62
	Capacity utilization (percent)	84	84	84	84	84
	U.S. shipments (million dollars)	10,000	10,100	10,400	10,800	11,000
	U.S. exports (million dollars)	730	713	686	757	858
	U.S. imports (million dollars)	671	748	858	845	961
	Apparent U.S. consumption (million dollars)	9,941	10,135	10,571	10,887	11,103
	Trade balance (million dollars)	59	-35	-171	-87	-103
	Ratio of imports to consumption (percent)	6.7	7.4	8.1	7.8	8.7
	Ratio of exports to shipments (percent)	7.3	7.1	6.6	7.0	7.8
CH059	Home furnishings:					
	Number of establishments	2,020	2,030	2,040	2,050	2,060
	Employees (thousands)	65	66	72	74	74
	Capacity utilization (percent)	80	85	85	85	85
	U.S. shipments (million dollars)	9,700	9,600	9,700	9,800	10,584
	U.S. exports (million dollars)	253	261	266	280	328
	U.S. imports (million dollars)	939	1,075	1,258	1,255	1,530
	Apparent U.S. consumption (million dollars)	10,387	10,414	10,692	10,774	11,785
	Trade balance (million dollars)	-687	-814	-992	-974	-1,201
	Ratio of imports to consumption (percent)	9.0	10.3	11.8	11.6	13.0
	Ratio of exports to shipments (percent)	2.6	2.7	2.7	2.9	3.1
CH060	Men's and boys' suits and sports coats:					
	Number of establishments	314	304	313	300	295
	Employees (thousands)	35	33	31	27	26
	Capacity utilization (percent)	82	87	82	80	80
	U.S. shipments (million dollars)	1,860	1,935	1,677	1,552	1,512
	U.S. exports (million dollars)	125	148	149	133	126
	U.S. imports (million dollars)	664	748	850	924	1,054
	Apparent U.S. consumption (million dollars)	2,398	2,535	2,378	2,344	2,440
	Trade balance (million dollars)	-538	-600	-701	-792	-928
	Ratio of imports to consumption (percent)	27.7	29.5	35.8	39.4	43.2
	Ratio of exports to shipments (percent)	6.7	7.6	8.9	8.5	8.3
CH061	Men's and boys' coats and jackets:					
	Number of establishments	423	410	410	405	400
	Employees (thousands)	25	21	21	20	19
	Capacity utilization (percent)	87	90	91	92	90
	U.S. shipments (million dollars)	1,274	1,253	1,312	1,491	1,699
	U.S. exports (million dollars)	102	136	125	144	131
	U.S. imports (million dollars)	1,563	1,773	1,692	1,783	2,230
	Apparent U.S. consumption (million dollars)	2,734	2,890	2,879	3,130	3,798
	Trade balance (million dollars)	-1,460	-1,637	-1,567	-1,639	-2,099
	Ratio of imports to consumption (percent)	57.1	61.3	58.8	57.0	58.7
	Ratio of exports to shipments (percent)	8.0	10.9	9.5	9.7	7.7
CH062	Men's and boys' trousers:					
	Number of establishments	726	713	732	720	710
	Employees (thousands)	103	102	98	93	87
	Capacity utilization (percent)	90	92	88	90	88
	U.S. shipments (million dollars)	7,488	7,736	8,055	7,963	7,822
	U.S. exports (million dollars)	975	1,050	1,082	1,232	1,364
	U.S. imports (million dollars)	2,797	3,145	3,755	4,083	4,933
	Apparent U.S. consumption (million dollars)	9,310	9,831	10,728	10,813	11,391
	Trade balance (million dollars)	-1,822	-2,095	-2,673	-2,850	-3,569

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of imports to consumption (percent)	30.0	32.0	35.0	37.8	43.3
	Ratio of exports to shipments (percent)	13.0	13.6	13.4	15.5	17.4
CH063	Women's and girls' trousers:					
	Number of establishments	1,712	1,700	1,835	1,750	1,700
	Employees (thousands)	66	65	62	54	51
	Capacity utilization (percent)	94	93	94	92	91
	U.S. shipments (million dollars)	5,143	5,099	5,131	4,865	4,817
	U.S. exports (million dollars)	325	409	486	570	637
	U.S. imports (million dollars)	3,354	3,583	3,670	3,948	5,097
	Apparent U.S. consumption (million dollars)	8,172	8,272	8,315	8,243	9,277
	Trade balance (million dollars)	-3,029	-3,173	-3,184	-3,378	-4,460
	Ratio of imports to consumption (percent)	41.0	43.3	44.1	47.9	54.9
	Ratio of exports to shipments (percent)	6.3	8.0	9.5	11.7	13.2
CH064	Shirts and blouses:					
	Number of establishments	2,004	1,986	2,066	2,005	1,945
	Employees (thousands)	133	121	114	98	94
	Capacity utilization (percent)	89	89	87	90	89
	U.S. shipments (million dollars)	11,329	11,511	11,728	11,611	11,192
	U.S. exports (million dollars)	854	1,021	1,285	1,402	1,657
	U.S. imports (million dollars)	10,042	10,840	11,986	12,377	14,416
	Apparent U.S. consumption (million dollars)	20,516	21,330	22,429	22,586	23,951
	Trade balance (million dollars)	-9,187	-9,819	-10,701	-10,975	-12,759
	Ratio of imports to consumption (percent)	48.9	50.8	53.4	54.8	60.2
	Ratio of exports to shipments (percent)	7.5	8.9	11.0	12.1	14.8
CH065	Sweaters:					
	Number of establishments	312	314	327	310	300
	Employees (thousands)	14	14	14	13	12
	Capacity utilization (percent)	90	90	76	80	80
	U.S. shipments (million dollars)	895	897	792	826	953
	U.S. exports (million dollars)	32	30	32	46	34
	U.S. imports (million dollars)	1,961	2,052	1,750	1,765	2,239
	Apparent U.S. consumption (million dollars)	2,824	2,919	2,510	2,545	3,157
	Trade balance (million dollars)	-1,929	-2,022	-1,718	-1,719	-2,204
	Ratio of imports to consumption (percent)	69.4	70.3	69.7	69.3	70.9
	Ratio of exports to shipments (percent)	3.6	3.4	4.1	5.6	3.6
CH066	Women's and girls' suits, skirts, and coats:					
	Number of establishments	1,081	1,016	966	950	941
	Employees (thousands)	54	48	45	42	39
	Capacity utilization (percent)	90	86	85	84	83
	U.S. shipments (million dollars)	4,082	3,713	3,401	3,335	3,282
	U.S. exports (million dollars)	283	255	274	287	311
	U.S. imports (million dollars)	3,244	3,261	3,548	3,857	4,144
	Apparent U.S. consumption (million dollars)	7,043	6,718	6,675	6,905	7,115
	Trade balance (million dollars)	-2,961	-3,005	-3,274	-3,570	-3,833
	Ratio of imports to consumption (percent)	46.1	48.5	53.2	55.9	58.2
	Ratio of exports to shipments (percent)	6.9	6.9	8.1	8.6	9.5
CH067	Women's and girls' dresses:					
	Number of establishments	2,314	2,182	2,056	2,010	1,980
	Employees (thousands)	59	54	50	47	44
	Capacity utilization (percent)	85	82	85	83	82
	U.S. shipments (million dollars)	4,633	4,804	4,674	4,382	4,379
	U.S. exports (million dollars)	105	103	112	115	148
	U.S. imports (million dollars)	1,082	1,260	1,443	1,574	1,636

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Apparent U.S. consumption (million dollars)	5,609	5,961	6,004	5,841	5,867
	Trade balance (million dollars)	-976	-1,157	-1,330	-1,459	-1,488
	Ratio of imports to consumption (percent)	19.3	21.1	24.0	26.9	27.9
	Ratio of exports to shipments (percent)	2.3	2.2	2.4	2.6	3.4
CH068	Robes, nightwear, and underwear:					
	Number of establishments	688	664	624	600	590
	Employees (thousands)	62	59	55	46	43
	Capacity utilization (percent)	92	92	94	86	85
	U.S. shipments (million dollars)	3,916	3,970	4,023	3,644	3,586
	U.S. exports (million dollars)	512	569	712	813	978
	U.S. imports (million dollars)	1,909	2,197	2,673	2,947	3,597
	Apparent U.S. consumption (million dollars)	5,313	5,598	5,984	5,778	6,205
	Trade balance (million dollars)	-1,397	-1,628	-1,961	-2,134	-2,619
	Ratio of imports to consumption (percent)	35.9	39.2	44.7	51.0	58.0
	Ratio of exports to shipments (percent)	13.1	14.3	17.7	22.3	27.3
CH069	Hosiery:					
	Number of establishments	679	679	675	670	670
	Employees (thousands)	69	67	64	61	59
	Capacity utilization (percent)	85	88	85	86	88
	U.S. shipments (million dollars)	4,691	4,832	4,784	5,070	5,200
	U.S. exports (million dollars)	206	220	257	273	352
	U.S. imports (million dollars)	231	291	363	404	566
	Apparent U.S. consumption (million dollars)	4,716	4,903	4,890	5,201	5,414
	Trade balance (million dollars)	-25	-71	-106	-131	-214
	Ratio of imports to consumption (percent)	4.9	5.9	7.4	7.8	10.5
	Ratio of exports to shipments (percent)	4.4	4.6	5.4	5.4	6.8
CH070	Body-supporting garments:					
	Number of establishments	110	104	101	95	93
	Employees (thousands)	12	12	12	11	10
	Capacity utilization (percent)	88	91	92	92	91
	U.S. shipments (million dollars)	1,588	1,795	1,853	1,878	1,920
	U.S. exports (million dollars)	316	344	431	405	507
	U.S. imports (million dollars)	639	751	927	864	968
	Apparent U.S. consumption (million dollars)	1,911	2,202	2,349	2,337	2,381
	Trade balance (million dollars)	-323	-407	-496	-459	-461
	Ratio of imports to consumption (percent)	33.4	34.1	39.5	37.0	40.7
	Ratio of exports to shipments (percent)	19.9	19.2	23.3	21.6	26.4
CH071	Neckwear, handkerchiefs, and scarves: ³					
	Number of establishments	167	171	160	147	140
	Employees (thousands)	6	6	6	5	5
	Capacity utilization (percent)	73	65	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	529	594	618	574	545
	U.S. exports (million dollars)	31	26	29	39	40
	U.S. imports (million dollars)	322	336	339	351	414
	Apparent U.S. consumption (million dollars)	821	904	928	886	919
	Trade balance (million dollars)	-292	-310	-310	-312	-374
	Ratio of imports to consumption (percent)	39.3	37.2	36.5	39.7	45.0
	Ratio of exports to shipments (percent)	5.8	4.3	4.8	6.9	7.3
CH072	Gloves, including gloves for sports:					
	Number of establishments	175	160	160	155	150
	Employees (thousands)	10	8	8	7	7
	Capacity utilization (percent)	84	82	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	868	897	1,010	964	945

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	U.S. exports (million dollars)	157	168	175	186	205
	U.S. imports (million dollars)	1,349	1,499	1,733	1,893	2,004
	Apparent U.S. consumption (million dollars)	2,060	2,229	2,568	2,672	2,744
	Trade balance (million dollars)	-1,192	-1,332	-1,558	-1,708	-1,799
	Ratio of imports to consumption (percent)	65.5	67.3	67.5	70.9	73.0
	Ratio of exports to shipments (percent)	18.1	18.7	17.3	19.2	21.7
CH073	Headwear:					
	Number of establishments	335	345	360	380	375
	Employees (thousands)	20	21	20	19	18
	Capacity utilization (percent)	86	87	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	937	886	932	872	865
	U.S. exports (million dollars)	109	112	115	118	113
	U.S. imports (million dollars)	778	821	842	883	867
	Apparent U.S. consumption (million dollars)	1,607	1,595	1,660	1,637	1,619
	Trade balance (million dollars)	-670	-709	-728	-765	-754
	Ratio of imports to consumption (percent)	48.4	51.5	50.7	53.9	53.5
	Ratio of exports to shipments (percent)	11.6	12.6	12.3	13.5	13.1
CH074	Leather apparel and accessories:					
	Number of establishments	405	382	366	330	315
	Employees (thousands)	11	10	9	8	8
	Capacity utilization (percent)	72	70	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	558	676	662	679	685
	U.S. exports (million dollars)	97	93	122	103	104
	U.S. imports (million dollars)	1,418	1,456	1,199	1,149	1,227
	Apparent U.S. consumption (million dollars)	1,879	2,039	1,740	1,725	1,808
	Trade balance (million dollars)	-1,321	-1,363	-1,078	-1,046	-1,123
	Ratio of imports to consumption (percent)	75.5	71.4	68.9	66.6	67.9
	Ratio of exports to shipments (percent)	17.4	13.8	18.4	15.1	15.2
CH075	Fur apparel and other fur articles:					
	Number of establishments	213	190	176	161	155
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	154	131	98	101	98
	U.S. exports (million dollars)	55	58	72	74	91
	U.S. imports (million dollars)	173	187	146	187	177
	Apparent U.S. consumption (million dollars)	272	259	172	214	184
	Trade balance (million dollars)	-118	-128	-74	-113	-86
	Ratio of imports to consumption (percent)	63.6	72.0	84.8	87.3	96.0
	Ratio of exports to shipments (percent)	35.7	44.5	73.2	73.1	92.5
CH076	Rubber, plastic, and coated-fabric apparel:					
	Number of establishments	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Employees (thousands)	3	2	2	2	2
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	122	120	120	125	135
	U.S. exports (million dollars)	70	87	91	97	88
	U.S. imports (million dollars)	160	172	192	178	230
	Apparent U.S. consumption (million dollars)	213	205	221	206	277
	Trade balance (million dollars)	-91	-85	-101	-81	-142
	Ratio of imports to consumption (percent)	75.4	84.0	86.8	86.5	83.0
	Ratio of exports to shipments (percent)	57.1	72.6	75.6	77.7	65.2
CH077	Nonwoven and related products:					
	Number of establishments	83	85	96	102	105
	Employees (thousands)	9	10	11	11	11

See footnote(s) at end of table.

Table B-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Capacity utilization (percent)	83	84	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	3,550	3,750	3,900	4,055	4,255
	U.S. exports (million dollars)	447	526	577	621	726
	U.S. imports (million dollars)	435	437	476	456	548
	Apparent U.S. consumption (million dollars)	3,538	3,661	3,798	3,890	4,077
	Trade balance (million dollars)	12	89	102	165	178
	Ratio of imports to consumption (percent)	12.3	11.9	12.5	11.7	13.4
	Ratio of exports to shipments (percent)	12.6	14.0	14.8	15.3	17.1
CH078	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)	448	603	910	1,230	1,469
	U.S. imports (million dollars)	2,006	2,292	2,297	2,276	2,414
	Apparent U.S. consumption (million dollars)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Trade balance (million dollars)	-1,558	-1,689	-1,388	-1,046	-945
	Ratio of imports to consumption (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Ratio of exports to shipments (percent) . . . . .	(^{1})	(^{1})	(^{1})	(^{1})	(¹)
CH079	Footwear and footwear parts:					
	Number of establishments	665	668	678	650	640
	Employees (thousands)	76	72	64	54	51
	Capacity utilization (percent)	80	82	79	80	80
	U.S. shipments (million dollars)	4,403	4,701	3,986	3,692	3,206
	U.S. exports (million dollars)	604	646	671	761	802
	U.S. imports (million dollars)	11,105	11,714	12,095	12,708	13,951
	Apparent U.S. consumption (million dollars)	14,904	15,769	15,410	15,640	16,355
	Trade balance (million dollars)	-10,501	-11,068	-11,424	-11,948	-13,149
	Ratio of imports to consumption (percent)	74.5	74.3	78.5	81.3	85.3
	Ratio of exports to shipments (percent)	13.7	13.8	16.8	20.6	25.0

¹Not available.

²Less than \$500,000.

³Includes neckties, muffles, scarves, shawls, and veils.

Note.--Calculations based on unrounded data.

Table B-6

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM001	Clays and nonmetallic minerals and products, not elsewhere specified or included:					
	Number of establishments	320	320	320	320	320
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	72	74	78	80	84
	U.S. shipments (million dollars)	2,450	2,550	2,700	2,780	2,840
	U.S. exports (million dollars)	855	950	1,023	1,033	1,083
	U.S. imports (million dollars)	125	153	183	211	240
	Apparent U.S. consumption (million dollars)	1,721	1,753	1,860	1,958	1,997
	Trade balance (million dollars)	729	797	840	822	843
	Ratio of imports to consumption (percent)	7.3	8.7	9.8	10.8	12.0
	Ratio of exports to shipments (percent)	34.9	37.2	37.9	37.2	38.1
MM002	Certain miscellaneous minerals substances:					
	Number of establishments	9	9	8	8	6
	Employees (thousands)	2	2	2	2	1
	Capacity utilization (percent)	82	82	80	80	80
	U.S. shipments (million dollars)	40	42	40	40	38
	U.S. exports (million dollars)	3	5	7	11	14
	U.S. imports (million dollars)	33	34	47	49	57
	Apparent U.S. consumption (million dollars)	70	71	80	77	80
	Trade balance (million dollars)	-30	-29	-40	-37	-42
	Ratio of imports to consumption (percent)	47.3	48.3	58.9	62.9	70.6
	Ratio of exports to shipments (percent)	7.8	13.0	18.3	28.2	38.0
MM003	Iron ores and concentrates:					
	Number of establishments	16	16	18	14	14
	Employees (thousands)	7	7	7	8	8
	Capacity utilization (percent)	87	91	97	97	98
	U.S. shipments (million dollars)	1,800	1,900	2,200	2,300	2,300
	U.S. exports (million dollars)	167	162	184	232	235
	U.S. imports (million dollars)	415	510	486	556	551
	Apparent U.S. consumption (million dollars)	2,048	2,247	2,501	2,624	2,616
	Trade balance (million dollars)	-248	-347	-301	-324	-316
	Ratio of imports to consumption (percent)	20.3	22.7	19.4	21.2	21.1
	Ratio of exports to shipments (percent)	9.3	8.6	8.4	10.1	10.2
MM004	Copper ores and concentrates:					
	Number of establishments	50	50	40	40	35
	Employees (thousands)	13	13	14	13	13
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	2,180	2,720	3,380	2,770	2,740
	U.S. exports (million dollars)	342	393	486	287	211
	U.S. imports (million dollars)	42	126	127	70	68
	Apparent U.S. consumption (million dollars)	1,880	2,453	3,020	2,553	2,597
	Trade balance (million dollars)	300	267	360	217	143
	Ratio of imports to consumption (percent)	2.2	5.1	4.2	2.8	2.6
	Ratio of exports to shipments (percent)	15.7	14.4	14.4	10.4	7.7
MM005	Lead ores and residues:					
	Number of establishments	15	16	16	16	16
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	138	177	198	257	252
	U.S. exports (million dollars)	14	23	25	28	35
	U.S. imports (million dollars)	(²)	(²)	2	2	6
	Apparent U.S. consumption (million dollars)	124	154	176	231	222
	Trade balance (million dollars)	14	23	22	26	30
	Ratio of imports to consumption (percent)	0.3	0.2	1.3	1.0	2.5
	Ratio of exports to shipments (percent)	10.1	13.0	12.4	10.9	14.1

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM006	Zinc ores and residues:					
	Number of establishments	26	26	26	26	26
	Employees (thousands)	2	2	3	3	3
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	398	502	611	549	869
	U.S. exports (million dollars)	137	191	242	227	379
	U.S. imports (million dollars)	18	18	13	18	45
	Apparent U.S. consumption (million dollars)	279	329	382	340	536
	Trade balance (million dollars)	119	173	229	209	333
	Ratio of imports to consumption (percent)	6.5	5.4	3.3	5.2	8.5
	Ratio of exports to shipments (percent)	34.4	38.0	39.6	41.4	43.6
MM007	Certain ores, concentrates, ash, and residues:					
	Number of establishments	180	175	175	175	175
	Employees (thousands)	4	4	4	4	4
	Capacity utilization (percent)	50	48	51	51	52
	U.S. shipments (million dollars)	340	410	690	675	700
	U.S. exports (million dollars)	191	301	704	362	432
	U.S. imports (million dollars)	476	508	622	604	645
	Apparent U.S. consumption (million dollars)	626	617	608	917	913
	Trade balance (million dollars)	-286	-207	82	-242	-213
	Ratio of imports to consumption (percent)	76.1	82.3	102.3	65.9	70.7
	Ratio of exports to shipments (percent)	56.1	73.4	102.0	53.6	61.7
MM008	Precious metal ores and concentrates:					
	Number of establishments	378	355	334	334	334
	Employees (thousands)	18	17	17	17	17
	Capacity utilization (percent)	80	73	79	76	75
	U.S. shipments (million dollars)	3,267	3,517	3,399	3,413	3,140
	U.S. exports (million dollars)	3	16	8	9	21
	U.S. imports (million dollars)	20	49	87	74	38
	Apparent U.S. consumption (million dollars)	3,284	3,550	3,478	3,478	3,157
	Trade balance (million dollars)	-17	-33	-79	-65	-17
	Ratio of imports to consumption (percent)	0.6	1.4	2.5	2.1	1.2
	Ratio of exports to shipments (percent)	0.1	0.4	0.2	0.3	0.7
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)	34,000	37,000	40,000	44,000	46,000
	U.S. exports (million dollars)	861	944	995	1,063	1,213
	U.S. imports (million dollars)	1,438	1,820	2,144	2,361	2,860
	Apparent U.S. consumption (million dollars)	34,577	37,875	41,149	45,297	47,647
	Trade balance (million dollars)	-577	-875	-1,149	-1,297	-1,647
	Ratio of imports to consumption (percent)	4.2	4.8	5.2	5.2	6.0
	Ratio of exports to shipments (percent)	2.5	2.6	2.5	2.4	2.6
MM010	Industrial ceramics:					
	Number of establishments	190	220	220	220	220
	Employees (thousands)	11	11	11	11	12
	Capacity utilization (percent)	73	74	76	76	78
	U.S. shipments (million dollars)	2,400	2,500	2,700	2,750	2,830
	U.S. exports (million dollars)	387	411	635	620	723
	U.S. imports (million dollars)	330	356	425	448	550
	Apparent U.S. consumption (million dollars)	2,343	2,444	2,490	2,578	2,656
	Trade balance (million dollars)	57	56	210	172	174
	Ratio of imports to consumption (percent)	14.1	14.5	17.1	17.4	20.7
	Ratio of exports to shipments (percent)	16.1	16.4	23.5	22.5	25.6

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM011	Ceramic bricks and miscellaneous ceramic construction articles:					
	Number of establishments	326	326	326	326	326
	Employees (thousands)	17	16	16	16	16
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	1,200	1,300	1,400	1,600	1,700
	U.S. exports (million dollars)	17	19	20	22	25
	U.S. imports (million dollars)	22	15	16	18	17
	Apparent U.S. consumption (million dollars)	1,205	1,296	1,397	1,596	1,693
	Trade balance (million dollars)	-5	4	3	4	7
	Ratio of imports to consumption (percent)	1.8	1.2	1.2	1.1	1.0
	Ratio of exports to shipments (percent)	1.4	1.5	1.4	1.4	1.4
MM012	Ceramic floor and wall tiles:					
	Number of establishments	110	110	110	110	110
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	740	730	790	840	920
	U.S. exports (million dollars)	23	24	26	25	29
	U.S. imports (million dollars)	472	519	562	628	716
	Apparent U.S. consumption (million dollars)	1,189	1,226	1,326	1,444	1,607
	Trade balance (million dollars)	-449	-496	-536	-604	-687
	Ratio of imports to consumption (percent)	39.7	42.4	42.4	43.5	44.5
	Ratio of exports to shipments (percent)	3.1	3.2	3.3	2.9	3.1
MM013	Ceramic household articles:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	11	11	11	11	12
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	710	720	760	790	820
	U.S. exports (million dollars)	110	105	99	95	101
	U.S. imports (million dollars)	1,426	1,563	1,658	1,556	1,675
	Apparent U.S. consumption (million dollars)	2,026	2,179	2,318	2,251	2,395
	Trade balance (million dollars)	-1,316	-1,459	-1,558	-1,461	-1,575
	Ratio of imports to consumption (percent)	70.4	71.8	71.5	69.1	70.0
	Ratio of exports to shipments (percent)	15.5	14.5	13.0	12.1	12.3
MM014	Flat glass and certain flat-glass products:					
	Number of establishments	1,100	1,100	1,100	1,100	1,100
	Employees (thousands)	48	50	52	54	62
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	7,200	7,700	7,900	8,600	9,800
	U.S. exports (million dollars)	951	1,031	1,135	1,278	1,488
	U.S. imports (million dollars)	698	864	917	1,050	1,063
	Apparent U.S. consumption (million dollars)	6,947	7,533	7,682	8,372	9,375
	Trade balance (million dollars)	253	167	218	228	425
	Ratio of imports to consumption (percent)	10.1	11.5	11.9	12.5	11.3
	Ratio of exports to shipments (percent)	13.2	13.4	14.4	14.9	15.2
MM015	Glass containers:					
	Number of establishments	76	76	76	76	76
	Employees (thousands)	31	29	25	24	24
	Capacity utilization (percent)	93	93	90	90	(¹)
	U.S. shipments (million dollars)	4,782	4,650	4,343	4,271	4,200
	U.S. exports (million dollars)	133	127	129	148	157
	U.S. imports (million dollars)	265	323	377	407	428
	Apparent U.S. consumption (million dollars)	4,914	4,846	4,591	4,530	4,471
	Trade balance (million dollars)	-132	-196	-248	-259	-271
	Ratio of imports to consumption (percent)	5.4	6.7	8.2	9.0	9.6
	Ratio of exports to shipments (percent)	2.8	2.7	3.0	3.5	3.7

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM016	Household glassware:					
	Number of establishments	218	218	218	218	218
	Employees (thousands)	17	19	20	20	23
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	1,600	1,700	1,800	1,900	2,200
	U.S. exports (million dollars)	167	192	198	205	250
	U.S. imports (million dollars)	568	643	729	746	818
	Apparent U.S. consumption (million dollars)	2,002	2,151	2,331	2,440	2,768
	Trade balance (million dollars)	-402	-451	-531	-540	-568
	Ratio of imports to consumption (percent)	28.4	29.9	31.3	30.6	29.5
	Ratio of exports to shipments (percent)	10.4	11.3	11.0	10.8	11.3
MM017	Certain glass and glass products:					
	Number of establishments	443	443	443	443	443
	Employees (thousands)	20	22	23	25	28
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	2,600	2,900	3,000	3,000	3,900
	U.S. exports (million dollars)	387	437	576	604	770
	U.S. imports (million dollars)	408	518	583	679	767
	Apparent U.S. consumption (million dollars)	2,621	2,981	3,007	3,075	3,897
	Trade balance (million dollars)	-21	-81	-7	-75	3
	Ratio of imports to consumption (percent)	15.6	17.4	19.4	22.1	19.7
	Ratio of exports to shipments (percent)	14.9	15.1	19.2	20.1	19.7
MM018	Fiberglass products:					
	Number of establishments	253	253	253	253	253
	Employees (thousands)	33	35	36	37	42
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	5,100	5,700	6,100	6,200	7,100
	U.S. exports (million dollars)	387	448	490	538	562
	U.S. imports (million dollars)	200	255	294	342	347
	Apparent U.S. consumption (million dollars)	4,913	5,506	5,903	6,004	6,885
	Trade balance (million dollars)	187	194	197	196	215
	Ratio of imports to consumption (percent)	4.1	4.6	5.0	5.7	5.0
	Ratio of exports to shipments (percent)	7.6	7.9	8.0	8.7	7.9
MM019	Natural and synthetic gemstones:					
	Number of establishments	391	391	370	370	370
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	600	800	700	700	600
	U.S. exports (million dollars)	231	268	268	247	231
	U.S. imports (million dollars)	5,739	6,429	6,666	7,412	8,564
	Apparent U.S. consumption (million dollars)	6,108	6,960	7,098	7,865	8,933
	Trade balance (million dollars)	-5,508	-6,160	-6,398	-7,165	-8,333
	Ratio of imports to consumption (percent)	94.0	92.4	93.9	94.2	95.9
	Ratio of exports to shipments (percent)	38.5	33.5	38.3	35.3	38.5
MM020	Precious metals and related articles:					
	Number of establishments	131	131	131	131	131
	Employees (thousands)	9	8	9	9	9
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	2,874	3,386	3,304	2,848	2,994
	U.S. exports (million dollars)	9,895	6,531	6,475	7,886	7,149
	U.S. imports (million dollars)	3,994	4,033	4,676	5,330	5,869
	Apparent U.S. consumption (million dollars)	-3,027	888	1,506	292	1,714
	Trade balance (million dollars)	5,901	2,498	1,798	2,556	1,280
	Ratio of imports to consumption (percent)	-132.0	454.1	310.6	1,826.2	342.5
	Ratio of exports to shipments (percent)	344.3	192.9	196.0	276.9	238.8

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM021	Primary iron products:					
	Number of establishments	23	23	23	22	21
	Employees (thousands)	22	23	23	22	21
	Capacity utilization (percent)	83	85	87	88	92
	U.S. shipments (million dollars)	8,000	8,200	8,500	8,200	8,300
	U.S. exports (million dollars)	8	12	13	13	19
	U.S. imports (million dollars)	213	450	541	552	608
	Apparent U.S. consumption (million dollars)	8,205	8,638	9,028	8,739	8,890
	Trade balance (million dollars)	-205	-438	-528	-539	-590
	Ratio of imports to consumption (percent)	2.6	5.2	6.0	6.3	6.8
	Ratio of exports to shipments (percent)	0.1	0.1	0.2	0.2	0.2
MM022	Ferroalloys:					
	Number of establishments	26	26	25	25	24
	Employees (thousands)	5	5	4	4	4
	Capacity utilization (percent)	72	80	80	80	85
	U.S. shipments (million dollars)	985	990	1,125	1,205	1,275
	U.S. exports (million dollars)	95	87	114	137	153
	U.S. imports (million dollars)	760	777	1,245	1,217	1,044
	Apparent U.S. consumption (million dollars)	1,650	1,680	2,256	2,286	2,166
	Trade balance (million dollars)	-665	-690	-1,131	-1,081	-891
	Ratio of imports to consumption (percent)	46.1	46.2	55.2	53.3	48.2
	Ratio of exports to shipments (percent)	9.6	8.8	10.1	11.3	12.0
MM023	Iron and steel waste and scrap:					
	Number of establishments	5,000	5,000	5,000	5,000	5,000
	Employees (thousands)	36	36	36	36	36
	Capacity utilization (percent)	86	90	90	90	90
	U.S. shipments (million dollars)	5,900	7,200	7,700	7,200	7,200
	U.S. exports (million dollars)	1,323	1,269	1,703	1,347	1,356
	U.S. imports (million dollars)	182	238	300	355	400
	Apparent U.S. consumption (million dollars)	4,760	6,169	6,298	6,208	6,244
	Trade balance (million dollars)	1,140	1,031	1,402	992	956
	Ratio of imports to consumption (percent)	3.8	3.9	4.8	5.7	6.4
	Ratio of exports to shipments (percent)	22.4	17.6	22.1	18.7	18.8
MM024	Abrasive and ferrous products:					
	Number of establishments	50	45	45	45	45
	Employees (thousands)	19	19	18	18	19
	Capacity utilization (percent)	78	80	82	80	83
	U.S. shipments (million dollars)	2,571	2,650	2,700	2,800	2,920
	U.S. exports (million dollars)	398	432	410	449	529
	U.S. imports (million dollars)	545	595	633	662	735
	Apparent U.S. consumption (million dollars)	2,718	2,813	2,923	3,013	3,126
	Trade balance (million dollars)	-147	-163	-223	-213	-206
	Ratio of imports to consumption (percent)	20.1	21.2	21.7	22.0	23.5
	Ratio of exports to shipments (percent)	15.5	16.3	15.2	16.1	18.1
MM025	Steel mill products, all grades:					
	Number of establishments	850	850	850	850	850
	Employees (thousands)	200	200	198	200	203
	Capacity utilization (percent)	89	90	88	89	90
	U.S. shipments (million dollars)	55,250	62,150	66,400	65,600	68,600
	U.S. exports (million dollars)	2,811	3,029	4,665	4,076	4,843
	U.S. imports (million dollars)	8,670	12,435	11,786	12,756	13,602
	Apparent U.S. consumption (million dollars)	61,109	71,555	73,521	74,280	77,358
	Trade balance (million dollars)	-5,859	-9,405	-7,121	-8,680	-8,758
	Ratio of imports to consumption (percent)	14.2	17.4	16.0	17.2	17.6
	Ratio of exports to shipments (percent)	5.1	4.9	7.0	6.2	7.1

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM026	Steel pipe and tube fittings and certain cast products:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	27	27	28	26	27
	Capacity utilization (percent)	84	79	82	82	83
	U.S. shipments (million dollars)	3,000	3,300	3,400	3,500	3,800
	U.S. exports (million dollars)	484	484	630	663	749
	U.S. imports (million dollars)	310	367	427	515	555
	Apparent U.S. consumption (million dollars)	2,825	3,182	3,196	3,351	3,606
	Trade balance (million dollars)	175	118	204	149	194
	Ratio of imports to consumption (percent)	11.0	11.5	13.3	15.4	15.4
	Ratio of exports to shipments (percent)	16.1	14.7	18.5	18.9	19.7
MM027	Fabricated structurals:					
	Number of establishments	2,231	2,226	2,216	2,209	2,203
	Employees (thousands)	68	67	69	66	64
	Capacity utilization (percent)	71	74	70	67	65
	U.S. shipments (million dollars)	8,256	8,781	8,641	8,732	8,823
	U.S. exports (million dollars)	117	122	143	178	189
	U.S. imports (million dollars)	85	109	143	177	205
	Apparent U.S. consumption (million dollars)	8,224	8,768	8,641	8,731	8,838
	Trade balance (million dollars)	32	13	(²)	1	-15
	Ratio of imports to consumption (percent)	1.0	1.2	1.7	2.0	2.3
	Ratio of exports to shipments (percent)	1.4	1.4	1.7	2.0	2.1
MM028	Metal construction components:					
	Number of establishments	3,930	3,820	3,800	3,850	3,850
	Employees (thousands)	126	131	130	130	130
	Capacity utilization (percent)	78	80	85	90	90
	U.S. shipments (million dollars)	12,722	14,077	15,111	16,600	17,155
	U.S. exports (million dollars)	407	453	483	551	689
	U.S. imports (million dollars)	138	181	258	353	435
	Apparent U.S. consumption (million dollars)	12,454	13,804	14,886	16,402	16,901
	Trade balance (million dollars)	268	273	225	198	254
	Ratio of imports to consumption (percent)	1.1	1.3	1.7	2.2	2.6
	Ratio of exports to shipments (percent)	3.2	3.2	3.2	3.3	4.0
MM029	Metallic containers:					
	Number of establishments	520	521	521	520	520
	Employees (thousands)	58	60	59	60	60
	Capacity utilization (percent)	80	82	82	82	82
	U.S. shipments (million dollars)	15,200	15,950	16,760	16,925	17,602
	U.S. exports (million dollars)	635	642	787	796	901
	U.S. imports (million dollars)	282	324	380	449	458
	Apparent U.S. consumption (million dollars)	14,847	15,631	16,353	16,578	17,159
	Trade balance (million dollars)	353	319	407	347	443
	Ratio of imports to consumption (percent)	1.9	2.1	2.3	2.7	2.7
	Ratio of exports to shipments (percent)	4.2	4.0	4.7	4.7	5.1
MM030	Wire products of iron, steel, aluminum, copper, and nickel:					
	Number of establishments	1,300	1,300	1,300	1,300	1,300
	Employees (thousands)	100	102	108	112	115
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	13,832	15,057	16,351	16,000	17,500
	U.S. exports (million dollars)	395	474	604	693	817
	U.S. imports (million dollars)	948	990	1,127	1,169	1,247
	Apparent U.S. consumption (million dollars)	14,385	15,573	16,874	16,477	17,930
	Trade balance (million dollars)	-553	-516	-523	-477	-430
	Ratio of imports to consumption (percent)	6.6	6.4	6.7	7.1	7.0

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	2.9	3.1	3.7	4.3	4.7
MM031	Chain and miscellaneous products of base metal:					
	Number of establishments	4,350	4,400	4,400	4,450	4,500
	Employees (thousands)	380	400	450	450	460
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	28,200	31,300	36,600	36,700	37,300
	U.S. exports (million dollars)	2,670	3,178	3,555	4,255	4,645
	U.S. imports (million dollars)	3,492	4,154	4,553	5,053	5,866
	Apparent U.S. consumption (million dollars)	29,022	32,276	37,599	37,498	38,521
	Trade balance (million dollars)	-822	-976	-999	-798	-1,221
	Ratio of imports to consumption (percent)	12.0	12.9	12.1	13.5	15.2
	Ratio of exports to shipments (percent)	9.5	10.2	9.7	11.6	12.5
MM032	Industrial fasteners of base metal:					
	Number of establishments	935	925	925	920	920
	Employees (thousands)	44	43	46	45	45
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	5,043	5,439	5,881	5,700	5,870
	U.S. exports (million dollars)	684	873	1,022	1,325	1,280
	U.S. imports (million dollars)	1,362	1,640	1,863	1,818	1,874
	Apparent U.S. consumption (million dollars)	5,721	6,206	6,723	6,194	6,464
	Trade balance (million dollars)	-678	-767	-842	-494	-594
	Ratio of imports to consumption (percent)	23.8	26.4	27.7	29.4	29.0
	Ratio of exports to shipments (percent)	13.6	16.1	17.4	23.2	21.8
MM033	Cooking and kitchen ware:					
	Number of establishments	23	23	23	23	23
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	884	958	999	973	950
	U.S. exports (million dollars)	216	233	245	278	242
	U.S. imports (million dollars)	881	1,001	1,158	1,140	1,303
	Apparent U.S. consumption (million dollars)	1,549	1,726	1,912	1,835	2,011
	Trade balance (million dollars)	-665	-768	-913	-862	-1,061
	Ratio of imports to consumption (percent)	56.9	58.0	60.6	62.1	64.8
	Ratio of exports to shipments (percent)	24.4	24.3	24.5	28.6	25.5
MM034	Metal and ceramic sanitary ware:					
	Number of establishments	145	150	150	150	150
	Employees (thousands)	15	16	16	16	15
	Capacity utilization (percent)	80	85	83	85	85
	U.S. shipments (million dollars)	1,539	1,642	1,602	1,628	1,661
	U.S. exports (million dollars)	165	153	159	142	159
	U.S. imports (million dollars)	204	249	271	318	332
	Apparent U.S. consumption (million dollars)	1,578	1,738	1,714	1,804	1,834
	Trade balance (million dollars)	-39	-96	-112	-176	-173
	Ratio of imports to consumption (percent)	12.9	14.3	15.8	17.6	18.1
	Ratio of exports to shipments (percent)	10.7	9.3	9.9	8.7	9.6
MM035	Iron construction castings and other nonmalleable cast-iron articles:					
	Number of establishments	50	50	50	50	50
	Employees (thousands)	6	7	6	6	6
	Capacity utilization (percent)	85	88	84	85	85
	U.S. shipments (million dollars)	700	900	800	900	900
	U.S. exports (million dollars)	29	26	26	44	46
	U.S. imports (million dollars)	57	72	87	91	99
	Apparent U.S. consumption (million dollars)	728	945	861	947	953
	Trade balance (million dollars)	-28	-45	-61	-47	-53
	Ratio of imports to consumption (percent)	7.9	7.6	10.1	9.6	10.4

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	4.2	2.9	3.2	4.9	5.1
MM036	Copper and related articles:					
	Number of establishments	840	830	680	675	676
	Employees (thousands)	39	41	41	40	40
	Capacity utilization (percent)	87	88	87	88	88
	U.S. shipments (million dollars)	10,400	12,500	15,400	13,000	13,300
	U.S. exports (million dollars)	1,562	1,813	2,708	2,370	2,228
	U.S. imports (million dollars)	2,068	2,655	3,401	3,472	3,743
	Apparent U.S. consumption (million dollars)	10,906	13,342	16,094	14,102	14,816
	Trade balance (million dollars)	-506	-842	-694	-1,102	-1,516
	Ratio of imports to consumption (percent)	19.0	19.9	21.1	24.6	25.3
	Ratio of exports to shipments (percent)	15.0	14.5	17.6	18.2	16.7
MM037	Unwrought aluminum:					
	Number of establishments	91	91	91	90	90
	Employees (thousands)	21	21	21	22	22
	Capacity utilization (percent)	89	79	81	86	86
	U.S. shipments (million dollars)	6,257	7,533	9,251	7,716	8,763
	U.S. exports (million dollars)	771	896	1,294	1,057	1,023
	U.S. imports (million dollars)	2,774	4,221	4,585	3,828	4,389
	Apparent U.S. consumption (million dollars)	8,261	10,858	12,542	10,488	12,129
	Trade balance (million dollars)	-2,004	-3,325	-3,291	-2,772	-3,366
	Ratio of imports to consumption (percent)	33.6	38.9	36.6	36.5	36.2
	Ratio of exports to shipments (percent)	12.3	11.9	14.0	13.7	11.7
MM038	Aluminum mill products:					
	Number of establishments	295	300	300	300	300
	Employees (thousands)	55	55	60	60	60
	Capacity utilization (percent)	82	90	94	95	95
	U.S. shipments (million dollars)	14,166	15,624	19,094	19,101	20,085
	U.S. exports (million dollars)	1,728	2,177	2,974	2,771	3,133
	U.S. imports (million dollars)	1,096	1,446	2,048	1,737	2,009
	Apparent U.S. consumption (million dollars)	13,533	14,893	18,168	18,068	18,961
	Trade balance (million dollars)	633	731	926	1,033	1,124
	Ratio of imports to consumption (percent)	8.1	9.7	11.3	9.6	10.6
	Ratio of exports to shipments (percent)	12.2	13.9	15.6	14.5	15.6
MM039	Lead and related articles:					
	Number of establishments	48	48	48	53	53
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	1,400	1,700	1,900	2,300	2,300
	U.S. exports (million dollars)	64	70	86	163	181
	U.S. imports (million dollars)	97	149	195	240	201
	Apparent U.S. consumption (million dollars)	1,432	1,780	2,009	2,377	2,319
	Trade balance (million dollars)	-32	-80	-109	-77	-19
	Ratio of imports to consumption (percent)	6.8	8.4	9.7	10.1	8.7
	Ratio of exports to shipments (percent)	4.6	4.1	4.5	7.1	7.9
MM040	Zinc and related articles:					
	Number of establishments	40	39	39	39	39
	Employees (thousands)	4	4	4	4	4
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	545	590	665	600	970
	U.S. exports (million dollars)	58	67	81	98	113
	U.S. imports (million dollars)	746	813	952	979	1,328
	Apparent U.S. consumption (million dollars)	1,233	1,336	1,535	1,482	2,185
	Trade balance (million dollars)	-688	-746	-870	-882	-1,215
	Ratio of imports to consumption (percent)	60.5	60.9	62.0	66.1	60.8

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	10.6	11.3	12.2	16.3	11.7
MM041	Certain base metals and chemical elements:					
	Number of establishments	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Employees (thousands)	20	20	22	25	25
	Capacity utilization (percent)	81	85	82	82	82
	U.S. shipments (million dollars)	3,700	4,700	5,700	6,800	6,900
	U.S. exports (million dollars)	808	927	1,190	1,263	1,401
	U.S. imports (million dollars)	1,472	1,720	2,536	2,640	2,777
	Apparent U.S. consumption (million dollars)	4,364	5,493	7,046	8,178	8,276
	Trade balance (million dollars)	-664	-793	-1,346	-1,378	-1,376
	Ratio of imports to consumption (percent)	33.7	31.3	36.0	32.3	33.6
	Ratio of exports to shipments (percent)	21.8	19.7	20.9	18.6	20.3
MM042	Nonpowered handtools:					
	Number of establishments	1,250	1,250	1,250	1,220	1,200
	Employees (thousands)	121	125	121	120	123
	Capacity utilization (percent)	80	85	85	85	85
	U.S. shipments (million dollars)	11,472	13,193	13,868	15,356	16,278
	U.S. exports (million dollars)	1,315	1,455	1,639	1,732	2,188
	U.S. imports (million dollars)	1,789	1,939	2,230	2,280	2,725
	Apparent U.S. consumption (million dollars)	11,946	13,677	14,459	15,904	16,815
	Trade balance (million dollars)	-474	-484	-591	-548	-537
	Ratio of imports to consumption (percent)	15.0	14.2	15.4	14.3	16.2
	Ratio of exports to shipments (percent)	11.5	11.0	11.8	11.3	13.4
MM043	Cutlery other than tableware, certain sewing implements, and related products:					
	Number of establishments	135	135	132	130	130
	Employees (thousands)	12	11	11	11	11
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	1,635	1,800	1,900	2,100	2,300
	U.S. exports (million dollars)	308	385	420	480	475
	U.S. imports (million dollars)	525	585	656	673	719
	Apparent U.S. consumption (million dollars)	1,852	2,000	2,136	2,293	2,544
	Trade balance (million dollars)	-217	-200	-236	-193	-244
	Ratio of imports to consumption (percent)	28.3	29.3	30.7	29.3	28.3
	Ratio of exports to shipments (percent)	18.8	21.4	22.1	22.8	20.7
MM044	Table flatware and related products:					
	Number of establishments	6	5	5	5	5
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	85	90	90	90	93
	U.S. shipments (million dollars)	195	198	200	194	205
	U.S. exports (million dollars)	21	28	35	30	36
	U.S. imports (million dollars)	209	224	272	287	325
	Apparent U.S. consumption (million dollars)	383	394	436	452	494
	Trade balance (million dollars)	-188	-196	-236	-258	-289
	Ratio of imports to consumption (percent)	54.7	56.8	62.3	63.6	65.8
	Ratio of exports to shipments (percent)	11.0	14.1	17.7	15.4	17.6

See footnote(s) at end of table.

Table B-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM045	Certain builders' hardware:					
	Number of establishments	210	212	212	213	215
	Employees (thousands)	32	33	33	33	34
	Capacity utilization (percent)	86	86	87	91	90
	U.S. shipments (million dollars)	3,513	3,983	4,177	4,606	4,790
	U.S. exports (million dollars)	553	620	637	562	600
	U.S. imports (million dollars)	646	709	763	866	908
	Apparent U.S. consumption (million dollars)	3,606	4,071	4,303	4,910	5,098
	Trade balance (million dollars)	-93	-88	-126	-304	-308
	Ratio of imports to consumption (percent)	17.9	17.4	17.7	17.6	17.8
	Ratio of exports to shipments (percent)	15.7	15.6	15.2	12.2	12.5

¹Not available.

²Less than \$500,000.

Note.--Calculations based on unrounded data.

Table B-7

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT003	Pumps for liquids:					
	Number of establishments	585	572	585	586	590
	Employees (thousands)	53	51	55	55	57
	Capacity utilization (percent)	63	64	69	70	72
	U.S. shipments (million dollars)	6,784	6,920	7,152	7,367	7,735
	U.S. exports (million dollars)	2,043	2,222	2,368	2,504	2,978
	U.S. imports (million dollars)	1,477	1,777	1,967	2,061	2,203
	Apparent U.S. consumption (million dollars)	6,218	6,475	6,750	6,924	6,960
	Trade balance (million dollars)	566	445	402	443	775
	Ratio of imports to consumption (percent)	23.8	27.4	29.1	29.8	31.7
	Ratio of exports to shipments (percent)	30.1	32.1	33.1	34.0	38.5
MT004	Air-conditioning equipment and parts:					
	Number of establishments	1,109	1,165	1,275	1,300	1,222
	Employees (thousands)	143	146	152	155	146
	Capacity utilization (percent)	76	79	85	87	77
	U.S. shipments (million dollars)	21,386	22,455	26,946	28,293	26,595
	U.S. exports (million dollars)	3,739	4,121	4,538	4,988	5,726
	U.S. imports (million dollars)	3,055	3,666	4,129	4,576	4,433
	Apparent U.S. consumption (million dollars)	20,702	22,000	26,537	27,881	25,301
	Trade balance (million dollars)	684	455	409	412	1,294
	Ratio of imports to consumption (percent)	14.8	16.7	15.6	16.4	17.5
	Ratio of exports to shipments (percent)	17.5	18.4	16.8	17.6	21.5
MT005	Certain industrial thermal-processing equipment and certain furnaces:					
	Number of establishments	302	305	308	315	300
	Employees (thousands)	31	33	35	36	34
	Capacity utilization (percent)	66	66	67	70	67
	U.S. shipments (million dollars)	3,314	3,380	3,549	3,726	3,539
	U.S. exports (million dollars)	1,532	1,879	2,098	2,195	2,698
	U.S. imports (million dollars)	794	1,003	1,089	1,338	1,374
	Apparent U.S. consumption (million dollars)	2,576	2,504	2,540	2,869	2,215
	Trade balance (million dollars)	738	876	1,009	857	1,324
	Ratio of imports to consumption (percent)	30.8	40.1	42.9	46.7	62.0
	Ratio of exports to shipments (percent)	46.2	55.6	59.1	58.9	76.2
MT006	Commercial machinery:					
	Number of establishments	510	500	520	518	497
	Employees (thousands)	40	40	41	41	39
	Capacity utilization (percent)	80	83	83	83	79
	U.S. shipments (million dollars)	6,760	6,895	7,240	7,457	7,159
	U.S. exports (million dollars)	1,870	2,031	2,390	2,463	2,667
	U.S. imports (million dollars)	964	1,082	1,191	1,223	1,329
	Apparent U.S. consumption (million dollars)	5,854	5,946	6,041	6,217	5,821
	Trade balance (million dollars)	906	949	1,199	1,240	1,338
	Ratio of imports to consumption (percent)	16.5	18.2	19.7	19.7	22.8
	Ratio of exports to shipments (percent)	27.7	29.5	33.0	33.0	37.3
MT007	Electrical household appliances and certain heating equipment:					
	Number of establishments	440	420	422	430	414
	Employees (thousands)	98	98	102	104	100
	Capacity utilization (percent)	83	83	84	87	82
	U.S. shipments (million dollars)	19,851	20,248	21,260	21,685	20,926
	U.S. exports (million dollars)	2,277	2,348	2,433	2,585	2,724
	U.S. imports (million dollars)	3,570	3,858	4,074	4,261	4,593
	Apparent U.S. consumption (million dollars)	21,144	21,759	22,901	23,361	22,795
	Trade balance (million dollars)	-1,293	-1,511	-1,641	-1,676	-1,869
	Ratio of imports to consumption (percent)	16.9	17.7	17.8	18.2	20.1
	Ratio of exports to shipments (percent)	11.5	11.6	11.4	11.9	13.0

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT008	Centrifuges and filtering and purifying equipment:					
	Number of establishments	278	270	280	280	280
	Employees (thousands)	28	28	29	32	32
	Capacity utilization (percent)	74	73	70	69	70
	U.S. shipments (million dollars)	3,884	3,798	4,086	4,455	4,500
	U.S. exports (million dollars)	1,728	1,902	2,134	2,389	2,845
	U.S. imports (million dollars)	706	1,067	1,211	1,353	1,291
	Apparent U.S. consumption (million dollars)	2,863	2,963	3,162	3,419	2,946
	Trade balance (million dollars)	1,021	835	924	1,036	1,554
	Ratio of imports to consumption (percent)	24.7	36.0	38.3	39.6	43.8
	Ratio of exports to shipments (percent)	44.5	50.1	52.2	53.6	63.2
MT009	Wrapping, packaging, and can-sealing machinery:					
	Number of establishments	630	630	630	630	630
	Employees (thousands)	25	25	28	27	27
	Capacity utilization (percent)	84	83	81	77	78
	U.S. shipments (million dollars)	3,098	3,272	3,630	3,435	3,500
	U.S. exports (million dollars)	672	792	839	841	871
	U.S. imports (million dollars)	719	842	932	1,042	1,104
	Apparent U.S. consumption (million dollars)	3,144	3,322	3,723	3,636	3,733
	Trade balance (million dollars)	-46	-50	-93	-201	-233
	Ratio of imports to consumption (percent)	22.9	25.3	25.0	28.6	29.6
	Ratio of exports to shipments (percent)	21.7	24.2	23.1	24.5	24.9
MT010	Scales and weighing machinery:					
	Number of establishments	97	95	90	85	85
	Employees (thousands)	6	6	6	5	5
	Capacity utilization (percent)	83	85	71	68	70
	U.S. shipments (million dollars)	660	589	596	582	600
	U.S. exports (million dollars)	108	120	127	136	154
	U.S. imports (million dollars)	162	183	201	197	228
	Apparent U.S. consumption (million dollars)	714	653	669	643	674
	Trade balance (million dollars)	-54	-64	-73	-61	-74
	Ratio of imports to consumption (percent)	22.7	28.1	30.0	30.6	33.9
	Ratio of exports to shipments (percent)	16.4	20.3	21.4	23.4	25.7
MT013	Mineral processing machinery:					
	Number of establishments	100	90	90	90	90
	Employees (thousands)	6	7	7	7	7
	Capacity utilization (percent)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	U.S. shipments (million dollars)	537	409	619	605	673
	U.S. exports (million dollars)	539	569	673	674	915
	U.S. imports (million dollars)	236	260	371	432	508
	Apparent U.S. consumption (million dollars)	234	100	317	363	266
	Trade balance (million dollars)	303	309	302	242	407
	Ratio of imports to consumption (percent)	100.8	259.6	117.0	119.0	191.2
	Ratio of exports to shipments (percent)	100.4	139.0	108.7	111.4	136.0
MT014	Farm and garden machinery and equipment:					
	Number of establishments	1,900	1,900	1,870	1,820	1,800
	Employees (thousands)	98	103	100	98	101
	Capacity utilization (percent)	75	87	85	89	90
	U.S. shipments (million dollars)	13,916	16,560	16,200	17,000	17,500
	U.S. exports (million dollars)	3,727	3,934	4,317	4,848	5,855
	U.S. imports (million dollars)	2,470	3,279	3,477	3,382	3,887
	Apparent U.S. consumption (million dollars)	12,659	15,904	15,360	15,535	15,533
	Trade balance (million dollars)	1,257	656	840	1,465	1,967
	Ratio of imports to consumption (percent)	19.5	20.6	22.6	21.8	25.0
	Ratio of exports to shipments (percent)	26.8	23.8	26.6	28.5	33.5

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT015	Industrial food-processing and related machinery:					
	Number of establishments	500	500	500	500	(²)
	Employees (thousands)	19	20	20	20	20
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	2,600	2,700	2,800	2,800	2,880
	U.S. exports (million dollars)	609	641	694	708	697
	U.S. imports (million dollars)	411	439	552	505	549
	Apparent U.S. consumption (million dollars)	2,401	2,498	2,658	2,597	2,733
	Trade balance (million dollars)	199	202	142	203	147
	Ratio of imports to consumption (percent)	17.1	17.6	20.8	19.4	20.1
	Ratio of exports to shipments (percent)	23.4	23.7	24.8	25.3	24.2
MT016	Pulp, paper, and paperboard machinery:					
	Number of establishments	237	237	237	237	237
	Employees (thousands)	18	17	20	20	20
	Capacity utilization (percent)	82	89	92	87	88
	U.S. shipments (million dollars)	2,253	2,479	2,970	3,039	3,100
	U.S. exports (million dollars)	655	644	857	851	990
	U.S. imports (million dollars)	709	893	978	1,178	1,105
	Apparent U.S. consumption (million dollars)	2,306	2,729	3,091	3,366	3,215
	Trade balance (million dollars)	-53	-250	-121	-327	-115
	Ratio of imports to consumption (percent)	30.7	32.7	31.6	35.0	34.4
	Ratio of exports to shipments (percent)	29.1	26.0	28.9	28.0	31.9
MT017	Printing, typesetting, and bookbinding machinery and printing plates:					
	Number of establishments	1,745	1,745	1,745	1,745	1,745
	Employees (thousands)	19	21	22	22	22
	Capacity utilization (percent)	79	87	74	74	75
	U.S. shipments (million dollars)	2,345	2,814	3,213	3,019	3,100
	U.S. exports (million dollars)	1,125	1,094	1,297	1,421	1,486
	U.S. imports (million dollars)	1,366	1,574	2,009	1,796	2,048
	Apparent U.S. consumption (million dollars)	2,586	3,294	3,925	3,394	3,662
	Trade balance (million dollars)	-241	-480	-712	-375	-562
	Ratio of imports to consumption (percent)	52.8	47.8	51.2	52.9	55.9
	Ratio of exports to shipments (percent)	48.0	38.9	40.4	47.1	47.9
MT018	Textile machinery and parts:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	14	15	15	15	15
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	1,612	1,615	1,620	1,475	1,642
	U.S. exports (million dollars)	657	687	752	728	849
	U.S. imports (million dollars)	1,843	1,833	1,752	1,528	1,686
	Apparent U.S. consumption (million dollars)	2,798	2,761	2,620	2,275	2,479
	Trade balance (million dollars)	-1,186	-1,146	-1,000	-800	-837
	Ratio of imports to consumption (percent)	65.9	66.4	66.9	67.2	68.0
	Ratio of exports to shipments (percent)	40.7	42.5	46.4	49.3	51.7
MT019	Metal rolling mills and parts thereof:					
	Number of establishments	18	17	15	15	15
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	75	80	80	80
	U.S. shipments (million dollars)	516	482	610	685	762
	U.S. exports (million dollars)	265	287	235	205	262
	U.S. imports (million dollars)	144	201	278	533	394
	Apparent U.S. consumption (million dollars)	395	395	653	1,013	894
	Trade balance (million dollars)	121	87	-43	-328	-132
	Ratio of imports to consumption (percent)	36.5	50.8	42.6	52.6	44.1
	Ratio of exports to shipments (percent)	51.4	59.6	38.5	29.9	34.4

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT020	Machine tools for cutting metal and parts; tool holders, work holders; dividing heads and other special attachments for machine tools:					
	Number of establishments	800	820	800	750	750
	Employees (thousands)	82	86	88	87	88
	Capacity utilization (percent)	80	89	85	85	85
	U.S. shipments (million dollars)	5,812	6,535	6,650	7,100	7,300
	U.S. exports (million dollars)	1,292	1,653	1,722	2,228	2,206
	U.S. imports (million dollars)	2,188	2,735	3,512	3,880	4,298
	Apparent U.S. consumption (million dollars)	6,709	7,617	8,440	8,752	9,392
	Trade balance (million dollars)	-897	-1,082	-1,790	-1,652	-2,092
	Ratio of imports to consumption (percent)	32.6	35.9	41.6	44.3	45.8
	Ratio of exports to shipments (percent)	22.2	25.3	25.9	31.4	30.2
MT021	Machine tools for metal forming and parts thereof:					
	Number of establishments	350	360	340	340	310
	Employees (thousands)	17	17	18	18	17
	Capacity utilization (percent)	80	89	85	85	80
	U.S. shipments (million dollars)	1,735	1,933	2,153	2,500	2,400
	U.S. exports (million dollars)	737	778	862	1,033	1,054
	U.S. imports (million dollars)	644	913	1,125	1,226	1,355
	Apparent U.S. consumption (million dollars)	1,642	2,067	2,416	2,693	2,701
	Trade balance (million dollars)	93	-134	-263	-193	-301
	Ratio of imports to consumption (percent)	39.2	44.1	46.6	45.5	50.2
	Ratio of exports to shipments (percent)	42.5	40.3	40.0	41.3	43.9
MT022	Non-metalworking machine tools and parts thereof:					
	Number of establishments	330	340	330	330	300
	Employees (thousands)	13	15	16	17	17
	Capacity utilization (percent)	80	89	85	85	85
	U.S. shipments (million dollars)	1,885	2,249	2,564	2,900	2,950
	U.S. exports (million dollars)	665	861	1,456	1,368	1,610
	U.S. imports (million dollars)	681	818	993	1,207	1,464
	Apparent U.S. consumption (million dollars)	1,901	2,206	2,101	2,739	2,804
	Trade balance (million dollars)	-16	43	463	161	146
	Ratio of imports to consumption (percent)	35.8	37.1	47.3	44.1	52.2
	Ratio of exports to shipments (percent)	35.3	38.3	56.8	47.2	54.6
MT023	Semiconductor manufacturing equipment and robotics:					
	Number of establishments	550	450	400	380	380
	Employees (thousands)	25	30	40	48	48
	Capacity utilization (percent)	75	80	100	100	98
	U.S. shipments (million dollars)	3,020	4,263	7,381	9,790	9,500
	U.S. exports (million dollars)	2,286	3,114	5,141	5,662	6,062
	U.S. imports (million dollars)	1,179	1,831	2,053	2,188	2,569
	Apparent U.S. consumption (million dollars)	1,913	2,980	4,294	6,315	6,007
	Trade balance (million dollars)	1,107	1,283	3,087	3,475	3,493
	Ratio of imports to consumption (percent)	61.6	61.4	47.8	34.6	42.8
	Ratio of exports to shipments (percent)	75.7	73.0	69.6	57.8	63.8
MT024	Taps, cocks, valves, and similar devices:					
	Number of establishments	895	889	893	890	935
	Employees (thousands)	74	71	74	72	74
	Capacity utilization (percent)	72	73	76	76	78
	U.S. shipments (million dollars)	9,669	9,862	10,355	10,614	11,144
	U.S. exports (million dollars)	1,665	1,909	2,180	2,423	2,745
	U.S. imports (million dollars)	2,175	2,600	2,931	3,128	3,566
	Apparent U.S. consumption (million dollars)	10,180	10,554	11,107	11,319	11,965
	Trade balance (million dollars)	-511	-692	-752	-705	-821
	Ratio of imports to consumption (percent)	21.4	24.6	26.4	27.6	29.8
	Ratio of exports to shipments (percent)	17.2	19.4	21.0	22.8	24.6

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT026	Gear boxes and other speed changers; torque converters; ball screws; flywheels and pulleys; clutches and shaft couplings; universal joints; and parts thereof:					
	Number of establishments	230	230	230	210	210
	Employees (thousands)	39	38	40	38	39
	Capacity utilization (percent)	80	89	85	85	85
	U.S. shipments (million dollars)	3,876	3,803	4,334	4,551	4,606
	U.S. exports (million dollars)	652	764	818	889	1,027
	U.S. imports (million dollars)	1,102	1,412	1,607	1,607	1,650
	Apparent U.S. consumption (million dollars)	4,326	4,451	5,123	5,269	5,229
	Trade balance (million dollars)	-450	-648	-789	-718	-623
	Ratio of imports to consumption (percent)	25.5	31.7	31.4	30.5	31.6
	Ratio of exports to shipments (percent)	16.8	20.1	18.9	19.5	22.3
MT027	Boilers, turbines, and related machinery:					
	Number of establishments	35	35	30	30	30
	Employees (thousands)	11	11	9	9	9
	Capacity utilization (percent)	65	74	75	79	75
	U.S. shipments (million dollars)	1,634	1,797	1,805	2,100	2,000
	U.S. exports (million dollars)	1,134	1,231	1,540	1,560	1,864
	U.S. imports (million dollars)	306	348	363	499	345
	Apparent U.S. consumption (million dollars)	806	914	628	1,040	481
	Trade balance (million dollars)	828	883	1,177	1,060	1,519
	Ratio of imports to consumption (percent)	37.9	38.1	57.8	48.0	71.7
	Ratio of exports to shipments (percent)	69.4	68.5	85.3	74.3	93.2
MT028	Electric motors, generators, and related equipment:					
	Number of establishments	500	510	510	510	515
	Employees (thousands)	90	93	96	96	94
	Capacity utilization (percent)	80	82	80	81	82
	U.S. shipments (million dollars)	16,300	17,205	17,770	17,800	18,250
	U.S. exports (million dollars)	2,925	2,955	3,391	3,316	3,849
	U.S. imports (million dollars)	2,974	3,457	3,880	3,875	4,179
	Apparent U.S. consumption (million dollars)	16,349	17,707	18,259	18,360	18,580
	Trade balance (million dollars)	-49	-502	-489	-560	-330
	Ratio of imports to consumption (percent)	18.2	19.5	21.2	21.1	22.5
	Ratio of exports to shipments (percent)	17.9	17.2	19.1	18.6	21.1
MT029	Electrical transformers, static converters, and inductors:					
	Number of establishments	305	310	310	315	315
	Employees (thousands)	50	52	51	53	51
	Capacity utilization (percent)	70	75	74	75	76
	U.S. shipments (million dollars)	6,345	7,110	7,585	7,700	7,900
	U.S. exports (million dollars)	1,421	1,750	2,000	1,923	2,480
	U.S. imports (million dollars)	2,467	2,713	3,537	3,631	4,290
	Apparent U.S. consumption (million dollars)	7,391	8,073	9,123	9,408	9,710
	Trade balance (million dollars)	-1,046	-963	-1,538	-1,708	-1,810
	Ratio of imports to consumption (percent)	33.4	33.6	38.8	38.6	44.2
	Ratio of exports to shipments (percent)	22.4	24.6	26.4	25.0	31.4
MT031	Portable electric handtools:					
	Number of establishments	29	30	30	30	29
	Employees (thousands)	9	9	10	10	10
	Capacity utilization (percent)	70	78	80	78	80
	U.S. shipments (million dollars)	1,775	1,900	1,930	1,945	2,030
	U.S. exports (million dollars)	307	350	369	333	443
	U.S. imports (million dollars)	359	421	481	607	765
	Apparent U.S. consumption (million dollars)	1,827	1,971	2,042	2,220	2,352
	Trade balance (million dollars)	-52	-71	-112	-275	-322
	Ratio of imports to consumption (percent)	19.7	21.4	23.6	27.4	32.5
	Ratio of exports to shipments (percent)	17.3	18.4	19.1	17.1	21.8

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT032	Nonelectrically powered handtools and parts thereof:					
	Number of establishments	45	48	46	42	42
	Employees (thousands)	12	13	12	12	12
	Capacity utilization (percent)	82	89	85	85	85
	U.S. shipments (million dollars)	1,495	1,491	1,558	1,800	1,875
	U.S. exports (million dollars)	378	474	462	478	579
	U.S. imports (million dollars)	550	619	661	684	735
	Apparent U.S. consumption (million dollars)	1,667	1,636	1,757	2,006	2,031
	Trade balance (million dollars)	-172	-145	-199	-206	-156
	Ratio of imports to consumption (percent)	33.0	37.8	37.6	34.1	36.2
	Ratio of exports to shipments (percent)	25.3	31.8	29.7	26.6	30.9
MT034	Flashlights and other similar electric lights, light bulbs and fluorescent tubes; arc lamps:					
	Number of establishments	125	125	125	127	125
	Employees (thousands)	25	26	25	26	27
	Capacity utilization (percent)	84	84	72	71	73
	U.S. shipments (million dollars)	3,200	3,330	3,200	3,400	3,500
	U.S. exports (million dollars)	712	811	786	833	955
	U.S. imports (million dollars)	965	1,030	1,097	1,153	1,215
	Apparent U.S. consumption (million dollars)	3,453	3,549	3,511	3,720	3,760
	Trade balance (million dollars)	-253	-219	-311	-320	-260
	Ratio of imports to consumption (percent)	27.9	29.0	31.3	31.0	32.3
	Ratio of exports to shipments (percent)	22.2	24.4	24.6	24.5	27.3
MT035	Electric and gas welding and soldering equipment:					
	Number of establishments	178	183	225	250	245
	Employees (thousands)	18	19	22	21	22
	Capacity utilization (percent)	86	86	75	80	82
	U.S. shipments (million dollars)	2,717	3,043	3,301	3,565	3,725
	U.S. exports (million dollars)	405	460	507	534	762
	U.S. imports (million dollars)	502	486	596	683	810
	Apparent U.S. consumption (million dollars)	2,813	3,069	3,390	3,714	3,772
	Trade balance (million dollars)	-96	-26	-89	-149	-47
	Ratio of imports to consumption (percent)	17.8	15.8	17.6	18.4	21.5
	Ratio of exports to shipments (percent)	14.9	15.1	15.4	15.0	20.5
MT036	Insulated electrical wire and cable and conduit; glass and ceramic insulators:					
	Number of establishments	525	530	535	535	530
	Employees (thousands)	75	83	87	90	91
	Capacity utilization (percent)	87	83	85	85	86
	U.S. shipments (million dollars)	13,200	15,210	16,565	17,200	17,975
	U.S. exports (million dollars)	2,991	3,289	3,566	3,936	4,491
	U.S. imports (million dollars)	3,564	4,810	5,398	5,935	6,819
	Apparent U.S. consumption (million dollars)	13,773	16,731	18,397	19,199	20,303
	Trade balance (million dollars)	-573	-1,521	-1,832	-1,999	-2,328
	Ratio of imports to consumption (percent)	25.9	28.8	29.3	30.9	33.6
	Ratio of exports to shipments (percent)	22.7	21.6	21.5	22.9	25.0
MT045	Miscellaneous machinery:					
	Number of establishments	4,900	5,000	5,500	5,500	5,550
	Employees (thousands)	220	220	230	230	230
	Capacity utilization (percent)	(²)	(^{2})	(^{2})	(^{2})	(^{2})
	U.S. shipments (million dollars)	20,000	22,000	24,000	24,000	26,712
	U.S. exports (million dollars)	4,024	4,759	4,957	5,474	6,131
	U.S. imports (million dollars)	2,908	3,160	4,117	4,377	4,715
	Apparent U.S. consumption (million dollars)	18,885	20,402	23,160	22,903	25,296
	Trade balance (million dollars)	1,115	1,598	840	1,097	1,416
	Ratio of imports to consumption (percent)	15.4	15.5	17.8	19.1	18.6
	Ratio of exports to shipments (percent)	20.1	21.6	20.7	22.8	23.0

See footnote(s) at end of table.

Table B-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT046	Molds and molding machinery:					
	Number of establishments	120	120	120	120	120
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	70	70	70	70	70
	U.S. shipments (million dollars)	3,746	4,265	4,775	4,922	5,478
	U.S. exports (million dollars)	1,157	1,287	1,301	1,442	1,681
	U.S. imports (million dollars)	2,037	3,121	3,528	3,030	3,227
	Apparent U.S. consumption (million dollars)	4,626	6,099	7,002	6,510	7,024
	Trade balance (million dollars)	-880	-1,834	-2,227	-1,588	-1,546
	Ratio of imports to consumption (percent)	44.0	51.2	50.4	46.5	45.9
	Ratio of exports to shipments (percent)	30.9	30.2	27.2	29.3	30.7

¹Capacity utilization could not be meaningfully calculated for this industry.

²Not available.

Note.--Calculations based on unrounded data.

Table B-8
Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups,
1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT001	Aircraft engines and gas turbines:					
	Number of establishments	26	26	30	30	30
	Employees (thousands)	140	121	114	122	91
	Capacity utilization (percent)	88	80	80	85	90
	U.S. shipments (million dollars)	17,704	16,060	15,099	15,853	16,500
	U.S. exports (million dollars)	8,266	8,467	8,641	8,963	11,594
	U.S. imports (million dollars)	5,735	5,825	5,285	6,241	8,380
	Apparent U.S. consumption (million dollars)	15,173	13,418	11,743	13,131	13,287
	Trade balance (million dollars)	2,531	2,642	3,356	2,722	3,213
	Ratio of imports to consumption (percent)	37.8	43.4	45.0	47.5	63.1
	Ratio of exports to shipments (percent)	46.7	52.7	57.2	56.5	70.3
MT002	Internal combustion piston engines, other than for aircraft:					
	Number of establishments	800	800	800	800	800
	Employees (thousands)	150	155	160	160	160
	Capacity utilization (percent)	76	80	82	85	85
	U.S. shipments (million dollars)	36,900	41,400	43,600	46,900	47,000
	U.S. exports (million dollars)	7,450	8,288	8,906	9,167	10,625
	U.S. imports (million dollars)	6,340	7,424	8,508	9,533	9,987
	Apparent U.S. consumption (million dollars)	35,790	40,536	43,202	47,266	46,362
	Trade balance (million dollars)	1,110	864	398	-366	638
	Ratio of imports to consumption (percent)	17.7	18.3	19.7	20.2	21.5
	Ratio of exports to shipments (percent)	20.2	20.0	20.4	19.5	22.6
MT011	Forklift trucks and similar industrial vehicles:					
	Number of establishments	432	432	435	435	436
	Employees (thousands)	17	18	20	20	24
	Capacity utilization (percent)	72	75	95	94	93
	U.S. shipments (million dollars)	2,900	3,440	4,600	4,590	4,817
	U.S. exports (million dollars)	566	691	928	920	1,161
	U.S. imports (million dollars)	721	955	1,136	1,007	1,164
	Apparent U.S. consumption (million dollars)	3,055	3,705	4,808	4,678	4,820
	Trade balance (million dollars)	-155	-265	-208	-88	-3
	Ratio of imports to consumption (percent)	23.6	25.8	23.6	21.5	24.1
	Ratio of exports to shipments (percent)	19.5	20.1	20.2	20.0	24.1
MT012	Construction and mining equipment:					
	Number of establishments	1,600	1,600	1,600	1,600	1,605
	Employees (thousands)	79	80	78	79	110
	Capacity utilization (percent)	71	73	75	77	85
	U.S. shipments (million dollars)	13,050	13,870	15,500	18,406	25,665
	U.S. exports (million dollars)	7,194	7,526	8,426	9,953	11,070
	U.S. imports (million dollars)	2,407	3,622	3,812	3,928	4,884
	Apparent U.S. consumption (million dollars)	8,263	9,966	10,886	12,381	19,479
	Trade balance (million dollars)	4,787	3,904	4,614	6,025	6,186
	Ratio of imports to consumption (percent)	29.1	36.3	35.0	31.7	25.1
	Ratio of exports to shipments (percent)	55.1	54.3	54.4	54.1	43.1
MT025	Ball and rollers bearings:					
	Number of establishments	143	140	145	146	150
	Employees (thousands)	37	37	38	39	36
	Capacity utilization (percent)	65	67	75	75	80
	U.S. shipments (million dollars)	4,278	4,470	5,400	5,600	5,498
	U.S. exports (million dollars)	719	801	967	1,008	1,140
	U.S. imports (million dollars)	1,114	1,302	1,520	1,526	1,615
	Apparent U.S. consumption (million dollars)	4,673	4,970	5,953	6,118	5,973
	Trade balance (million dollars)	-395	-500	-553	-518	-475
	Ratio of imports to consumption (percent)	23.8	26.2	25.5	24.9	27.0
	Ratio of exports to shipments (percent)	16.8	17.9	17.9	18.0	20.7

Table B-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MT030	Primary cells and batteries and electric storage batteries:					
	Number of establishments	225	230	232	230	230
	Employees (thousands)	35	40	42	42	42
	Capacity utilization (percent)	85	87	87	85	80
	U.S. shipments (million dollars)	5,500	5,800	5,900	6,075	6,100
	U.S. exports (million dollars)	957	1,125	1,208	1,310	1,494
	U.S. imports (million dollars)	1,079	1,441	1,637	1,710	1,896
	Apparent U.S. consumption (million dollars)	5,623	6,116	6,329	6,475	6,503
	Trade balance (million dollars)	-123	-316	-429	-400	-403
	Ratio of imports to consumption (percent)	19.2	23.6	25.9	26.4	29.2
	Ratio of exports to shipments (percent)	17.4	19.4	20.5	21.6	24.5
MT033	Ignition, starting, lighting, and other electrical equipment:					
	Number of establishments	523	523	520	520	520
	Employees (thousands)	65	70	71	71	70
	Capacity utilization (percent)	79	77	75	75	75
	U.S. shipments (million dollars)	8,200	9,000	8,500	8,500	8,800
	U.S. exports (million dollars)	1,432	1,409	1,336	1,404	1,579
	U.S. imports (million dollars)	1,495	1,699	1,833	2,032	2,170
	Apparent U.S. consumption (million dollars)	8,263	9,290	8,997	9,129	9,391
	Trade balance (million dollars)	-63	-290	-497	-629	-591
	Ratio of imports to consumption (percent)	18.1	18.3	20.4	22.3	23.1
	Ratio of exports to shipments (percent)	17.5	15.7	15.7	16.5	17.9
MT037	Rail locomotive and rolling stock:					
	Number of establishments	135	140	140	140	142
	Employees (thousands)	25	25	25	25	27
	Capacity utilization (percent)	75	90	95	93	95
	U.S. shipments (million dollars)	4,703	4,913	5,623	5,305	5,700
	U.S. exports (million dollars)	574	750	877	851	1,229
	U.S. imports (million dollars)	729	1,161	1,292	1,312	1,372
	Apparent U.S. consumption (million dollars)	4,858	5,324	6,037	5,766	5,843
	Trade balance (million dollars)	-155	-411	-414	-461	-143
	Ratio of imports to consumption (percent)	15.0	21.8	21.4	22.8	23.5
	Ratio of exports to shipments (percent)	12.2	15.3	15.6	16.1	21.6
MT038	Automobiles, trucks, buses, and bodies and chassis of the foregoing:					
	Number of establishments	1,025	1,125	1,125	1,125	1,130
	Employees (thousands)	328	338	360	355	358
	Capacity utilization (percent)	77	87	85	85	87
	U.S. shipments (million dollars)	161,500	175,800	170,500	160,270	163,475
	U.S. exports (million dollars)	18,107	20,904	21,345	22,693	24,394
	U.S. imports (million dollars)	68,505	79,086	84,217	87,116	92,988
	Apparent U.S. consumption (million dollars)	211,898	233,982	233,372	224,693	232,069
	Trade balance (million dollars)	-50,398	-58,182	-62,872	-64,423	-68,594
	Ratio of imports to consumption (percent)	32.3	33.8	36.1	38.8	40.1
	Ratio of exports to shipments (percent)	11.2	11.9	12.5	14.2	14.9
MT039	Certain motor-vehicle parts:					
	Number of establishments	5,910	5,900	5,895	5,900	5,900
	Employees (thousands)	404	396	385	400	425
	Capacity utilization (percent)	79	85	81	78	78
	U.S. shipments (million dollars)	73,300	79,000	85,000	92,400	100,300
	U.S. exports (million dollars)	18,469	20,685	22,265	22,793	26,324
	U.S. imports (million dollars)	14,646	16,085	16,298	16,867	17,804
	Apparent U.S. consumption (million dollars)	69,477	74,399	79,033	86,473	91,780
	Trade balance (million dollars)	3,823	4,601	5,967	5,927	8,520
	Ratio of imports to consumption (percent)	21.1	21.6	20.6	19.5	19.4

Table B-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	25.2	26.2	26.2	24.7	26.2
MT040	Motorcycles, mopeds, and parts:					
	Number of establishments	58	58	60	65	70
	Employees (thousands)	8	8	8	8	9
	Capacity utilization (percent)	88	88	88	88	88
	U.S. shipments (million dollars)	1,200	1,370	1,560	1,700	1,850
	U.S. exports (million dollars)	506	511	593	638	666
	U.S. imports (million dollars)	877	937	1,162	1,137	1,104
	Apparent U.S. consumption (million dollars)	1,571	1,796	2,128	2,199	2,288
	Trade balance (million dollars)	-371	-426	-568	-499	-438
	Ratio of imports to consumption (percent)	55.8	52.2	54.6	51.7	48.3
	Ratio of exports to shipments (percent)	42.2	37.3	38.0	37.6	36.0
MT041	Miscellaneous vehicles and transportation-related equipment:					
	Number of establishments	1,200	1,200	1,200	1,200	1,200
	Employees (thousands)	36	35	36	36	35
	Capacity utilization (percent)	60	60	62	64	63
	U.S. shipments (million dollars)	5,750	5,500	5,900	5,900	5,782
	U.S. exports (million dollars)	2,466	3,171	3,396	3,980	3,166
	U.S. imports (million dollars)	1,477	1,458	1,510	1,418	1,522
	Apparent U.S. consumption (million dollars)	4,761	3,787	4,013	3,338	4,137
	Trade balance (million dollars)	989	1,713	1,887	2,562	1,645
	Ratio of imports to consumption (percent)	31.0	38.5	37.6	42.5	36.8
	Ratio of exports to shipments (percent)	42.9	57.7	57.6	67.5	54.8
MT042	Aircraft, spacecraft, and related equipment:					
	Number of establishments	275	270	275	280	260
	Employees (thousands)	464	413	386	473	498
	Capacity utilization (percent)	87	78	80	85	90
	U.S. shipments (million dollars)	50,748	47,918	45,816	47,513	56,674
	U.S. exports (million dollars)	30,673	28,576	23,839	30,754	38,698
	U.S. imports (million dollars)	6,255	6,431	6,135	7,353	9,459
	Apparent U.S. consumption (million dollars)	26,330	25,772	28,112	24,112	27,435
	Trade balance (million dollars)	24,418	22,146	17,704	23,401	29,239
	Ratio of imports to consumption (percent)	23.8	25.0	21.8	30.5	34.5
	Ratio of exports to shipments (percent)	60.4	59.6	52.0	64.7	68.3
MT043	Ships, tugs, pleasure boats, and similar vessels:					
	Number of establishments	2,350	2,200	2,200	2,100	2,100
	Employees (thousands)	142	146	145	140	138
	Capacity utilization (percent)	60	70	75	70	70
	U.S. shipments (million dollars)	13,602	14,497	14,992	14,800	14,600
	U.S. exports (million dollars)	1,002	1,203	1,220	1,058	1,408
	U.S. imports (million dollars)	1,019	653	919	1,130	924
	Apparent U.S. consumption (million dollars)	13,619	13,947	14,691	14,872	14,115
	Trade balance (million dollars)	-17	550	301	-72	485
	Ratio of imports to consumption (percent)	7.5	4.7	6.3	7.6	6.5
	Ratio of exports to shipments (percent)	7.4	8.3	8.1	7.1	9.6
MT044	Motors and engines, except internal combustion, aircraft, or electric:					
	Number of establishments	45	45	45	45	45
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	84	84	86	85	85
	U.S. shipments (million dollars)	4,150	4,200	4,200	4,250	4,300
	U.S. exports (million dollars)	244	275	315	335	402
	U.S. imports (million dollars)	283	374	474	511	567
	Apparent U.S. consumption (million dollars)	4,189	4,299	4,359	4,426	4,466
	Trade balance (million dollars)	-39	-99	-159	-176	-166
	Ratio of imports to consumption (percent)	6.8	8.7	10.9	11.5	12.7

Table B-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
	Ratio of exports to shipments (percent)	5.9	6.5	7.5	7.9	9.3

Note.--Calculations based on unrounded data.

Table B-9

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST001	Office machines:					
	Number of establishments	350	350	350	350	350
	Employees (thousands)	58	50	47	44	42
	Capacity utilization (percent)	72	74	75	75	75
	U.S. shipments (million dollars)	9,085	8,650	8,850	8,925	9,015
	U.S. exports (million dollars)	1,770	1,777	1,930	2,099	2,307
	U.S. imports (million dollars)	5,052	5,781	6,366	6,296	6,688
	Apparent U.S. consumption (million dollars)	12,367	12,654	13,286	13,121	13,396
	Trade balance (million dollars)	-3,282	-4,004	-4,436	-4,196	-4,381
	Ratio of imports to consumption (percent)	40.9	45.7	47.9	48.0	49.9
	Ratio of exports to shipments (percent)	19.5	20.5	21.8	23.5	25.6
ST002	Telephone and telegraph apparatus:					
	Number of establishments	418	431	388	390	382
	Employees (thousands)	89	87	88	89	90
	Capacity utilization (percent)	72	74	75	77	80
	U.S. shipments (million dollars)	21,039	24,751	27,305	33,312	38,110
	U.S. exports (million dollars)	5,199	6,724	8,203	8,630	9,370
	U.S. imports (million dollars)	6,143	7,448	7,742	8,202	9,261
	Apparent U.S. consumption (million dollars)	21,983	25,474	26,845	32,884	38,001
	Trade balance (million dollars)	-944	-723	460	428	109
	Ratio of imports to consumption (percent)	27.9	29.2	28.8	24.9	24.4
	Ratio of exports to shipments (percent)	24.7	27.2	30.0	25.9	24.6
ST003	Microphones, loudspeakers, audio amplifiers, and combinations thereof:					
	Number of establishments	110	110	110	100	100
	Employees (thousands)	12	12	12	12	12
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	1,750	1,890	1,880	2,075	2,290
	U.S. exports (million dollars)	851	1,006	1,046	1,138	1,228
	U.S. imports (million dollars)	1,473	1,827	2,001	2,108	2,168
	Apparent U.S. consumption (million dollars)	2,372	2,711	2,835	3,045	3,230
	Trade balance (million dollars)	-622	-821	-955	-970	-940
	Ratio of imports to consumption (percent)	62.1	67.4	70.6	69.2	67.1
	Ratio of exports to shipments (percent)	48.6	53.2	55.6	54.8	53.6
ST004	Tape recorders, tape players, video cassette recorders, turntables, and compact disc players:					
	Number of establishments	24	24	24	24	24
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	245	340	425	388	415
	U.S. exports (million dollars)	579	640	754	964	1,058
	U.S. imports (million dollars)	5,445	6,283	6,733	5,873	6,128
	Apparent U.S. consumption (million dollars)	5,111	5,983	6,403	5,296	5,486
	Trade balance (million dollars)	-4,866	-5,643	-5,978	-4,908	-5,071
	Ratio of imports to consumption (percent)	106.5	105.0	105.1	110.9	111.7
	Ratio of exports to shipments (percent)	236.3	188.4	177.5	248.6	254.9
ST005	Unrecorded magnetic tapes, discs, and other media:					
	Number of establishments	58	55	55	59	59
	Employees (thousands)	25	25	25	24	24
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	4,485	4,780	5,000	5,156	5,300
	U.S. exports (million dollars)	1,675	1,736	2,030	2,670	2,603
	U.S. imports (million dollars)	1,928	1,943	1,936	2,072	2,090
	Apparent U.S. consumption (million dollars)	4,738	4,987	4,906	4,557	4,787
	Trade balance (million dollars)	-253	-207	94	599	513
	Ratio of imports to consumption (percent)	40.7	39.0	39.5	45.5	43.7
	Ratio of exports to shipments (percent)	37.3	36.3	40.6	51.8	49.1

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST006	Records, tapes, compact discs, computer software, and other recorded media:					
	Number of establishments	11,000	11,200	11,400	11,920	12,400
	Employees (thousands)	175	180	185	225	250
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	24,838	27,000	30,800	60,000	65,000
	U.S. exports (million dollars)	3,281	3,742	3,814	3,453	3,785
	U.S. imports (million dollars)	616	755	916	994	981
	Apparent U.S. consumption (million dollars)	22,174	24,013	27,902	57,541	62,196
	Trade balance (million dollars)	2,664	2,987	2,898	2,459	2,804
	Ratio of imports to consumption (percent)	2.8	3.1	3.3	1.7	1.6
	Ratio of exports to shipments (percent)	13.2	13.9	12.4	5.8	5.8
ST007	Radio transmission and reception apparatus, and combinations thereof:					
	Number of establishments	330	381	350	350	350
	Employees (thousands)	71	70	70	65	65
	Capacity utilization (percent)	87	87	87	84	84
	U.S. shipments (million dollars)	10,870	13,128	14,192	14,589	15,190
	U.S. exports (million dollars)	4,283	5,166	6,604	6,500	9,217
	U.S. imports (million dollars)	6,420	7,764	8,528	8,071	9,060
	Apparent U.S. consumption (million dollars)	13,007	15,727	16,116	16,160	15,034
	Trade balance (million dollars)	-2,137	-2,599	-1,924	-1,571	156
	Ratio of imports to consumption (percent)	49.4	49.4	52.9	49.9	60.3
	Ratio of exports to shipments (percent)	39.4	39.3	46.5	44.6	60.7
ST008	Radio navigational aid, radar, and remote control apparatus:					
	Number of establishments	105	100	100	100	100
	Employees (thousands)	116	108	105	105	110
	Capacity utilization (percent)	72	72	72	72	75
	U.S. shipments (million dollars)	13,500	13,170	13,565	13,972	14,391
	U.S. exports (million dollars)	1,249	1,242	1,198	1,215	1,570
	U.S. imports (million dollars)	408	438	522	594	691
	Apparent U.S. consumption (million dollars)	12,660	12,366	12,889	13,351	13,512
	Trade balance (million dollars)	840	804	676	621	879
	Ratio of imports to consumption (percent)	3.2	3.5	4.1	4.5	5.1
	Ratio of exports to shipments (percent)	9.2	9.4	8.8	8.7	10.9
ST009	Television receivers, video monitors, and combinations including television receivers:					
	Number of establishments	28	26	25	23	21
	Employees (thousands)	21	21	20	16	14
	Capacity utilization (percent)	86	85	85	85	85
	U.S. shipments (million dollars)	4,780	5,020	5,130	4,650	4,200
	U.S. exports (million dollars)	1,169	1,302	1,331	1,268	1,542
	U.S. imports (million dollars)	3,610	4,320	4,540	4,498	4,403
	Apparent U.S. consumption (million dollars)	7,221	8,037	8,339	7,880	7,061
	Trade balance (million dollars)	-2,441	-3,017	-3,209	-3,230	-2,861
	Ratio of imports to consumption (percent)	50.0	53.7	54.4	57.1	62.4
	Ratio of exports to shipments (percent)	24.5	25.9	25.9	27.3	36.7

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST010	Television apparatus (except receivers and monitors), including cameras, camcorders, and cable apparatus:					
	Number of establishments	120	115	115	110	110
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	72	72	72	70	70
	U.S. shipments (million dollars)	1,430	1,780	2,110	2,175	2,260
	U.S. exports (million dollars)	369	427	637	726	969
	U.S. imports (million dollars)	2,633	3,265	3,881	4,353	4,039
	Apparent U.S. consumption (million dollars)	3,694	4,619	5,354	5,802	5,330
	Trade balance (million dollars)	-2,264	-2,839	-3,244	-3,627	-3,070
	Ratio of imports to consumption (percent)	71.3	70.7	72.5	75.0	75.8
	Ratio of exports to shipments (percent)	25.8	24.0	30.2	33.4	42.9
ST011	Electric sound and visual signaling apparatus:					
	Number of establishments	210	205	200	200	200
	Employees (thousands)	14	14	15	15	15
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	1,585	1,565	1,750	1,700	1,775
	U.S. exports (million dollars)	560	578	692	788	903
	U.S. imports (million dollars)	1,261	1,576	1,748	1,883	2,053
	Apparent U.S. consumption (million dollars)	2,286	2,563	2,806	2,795	2,925
	Trade balance (million dollars)	-701	-998	-1,056	-1,095	-1,150
	Ratio of imports to consumption (percent)	55.2	61.5	62.3	67.4	70.2
	Ratio of exports to shipments (percent)	35.3	36.9	39.5	46.4	50.9
ST012	Electrical capacitors and resistors:					
	Number of establishments	230	240	230	225	225
	Employees (thousands)	30	30	32	29	30
	Capacity utilization (percent)	80	80	80	75	80
	U.S. shipments (million dollars)	2,520	2,730	3,261	2,990	3,100
	U.S. exports (million dollars)	960	1,186	1,571	1,807	2,194
	U.S. imports (million dollars)	1,181	1,475	1,879	1,691	1,950
	Apparent U.S. consumption (million dollars)	2,741	3,019	3,569	2,874	2,856
	Trade balance (million dollars)	-221	-289	-308	116	244
	Ratio of imports to consumption (percent)	43.1	48.9	52.7	58.8	68.3
	Ratio of exports to shipments (percent)	38.1	43.4	48.2	60.4	70.8
ST013	Apparatus for making, breaking, protecting, or connecting electrical circuits:					
	Number of establishments	1,800	1,825	1,820	1,820	1,820
	Employees (thousands)	174	176	179	180	185
	Capacity utilization (percent)	80	85	85	80	85
	U.S. shipments (million dollars)	26,252	28,900	30,400	32,000	35,000
	U.S. exports (million dollars)	5,224	6,471	7,502	8,200	9,268
	U.S. imports (million dollars)	6,254	7,380	8,528	8,829	9,965
	Apparent U.S. consumption (million dollars)	27,282	29,809	31,426	32,628	35,697
	Trade balance (million dollars)	-1,030	-909	-1,026	-628	-697
	Ratio of imports to consumption (percent)	22.9	24.8	27.1	27.1	27.9
	Ratio of exports to shipments (percent)	19.9	22.4	24.7	25.6	26.5
ST014	Television picture tubes and other cathode-ray tubes:					
	Number of establishments	19	19	19	18	18
	Employees (thousands)	21	22	22	22	22
	Capacity utilization (percent)	87	85	85	85	85
	U.S. shipments (million dollars)	2,510	2,990	3,255	3,540	4,020
	U.S. exports (million dollars)	769	1,061	1,391	1,566	2,085
	U.S. imports (million dollars)	822	1,003	1,116	987	876
	Apparent U.S. consumption (million dollars)	2,563	2,932	2,980	2,961	2,811
	Trade balance (million dollars)	-53	58	275	579	1,209
	Ratio of imports to consumption (percent)	32.1	34.2	37.4	33.3	31.2
	Ratio of exports to shipments (percent)	30.7	35.5	42.7	44.2	51.9

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST015	Special-purpose tubes:					
	Number of establishments	40	40	38	38	38
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	71	70	70	70	70
	U.S. shipments (million dollars)	725	750	750	670	650
	U.S. exports (million dollars)	159	171	150	153	174
	U.S. imports (million dollars)	168	215	274	252	247
	Apparent U.S. consumption (million dollars)	734	794	874	769	724
	Trade balance (million dollars)	-9	-44	-124	-99	-74
	Ratio of imports to consumption (percent)	22.9	27.0	31.4	32.8	34.2
	Ratio of exports to shipments (percent)	22.0	22.8	20.0	22.9	26.7
ST016	Diodes, transistors, integrated circuits, and similar semiconductor solid-state devices:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	214	222	241	255	265
	Capacity utilization (percent)	84	85	88	86	88
	U.S. shipments (million dollars)	33,689	44,064	60,330	67,069	74,000
	U.S. exports (million dollars)	13,813	18,098	23,317	24,135	29,037
	U.S. imports (million dollars)	19,466	26,020	39,168	36,771	36,878
	Apparent U.S. consumption (million dollars)	39,342	51,986	76,181	79,705	81,841
	Trade balance (million dollars)	-5,653	-7,922	-15,851	-12,636	-7,841
	Ratio of imports to consumption (percent)	49.5	50.1	51.4	46.1	45.1
	Ratio of exports to shipments (percent)	41.0	41.1	38.6	36.0	39.2
ST017	Electrical and electronic articles, apparatus, and parts not elsewhere provided for:					
	Number of establishments	660	640	640	650	650
	Employees (thousands)	24	23	23	24	24
	Capacity utilization (percent)	70	75	78	78	78
	U.S. shipments (million dollars)	3,700	3,700	3,800	4,000	4,200
	U.S. exports (million dollars)	1,871	2,117	2,814	2,904	3,064
	U.S. imports (million dollars)	987	1,137	1,463	1,472	1,597
	Apparent U.S. consumption (million dollars)	2,816	2,720	2,449	2,568	2,733
	Trade balance (million dollars)	884	980	1,351	1,432	1,467
	Ratio of imports to consumption (percent)	35.0	41.8	59.8	57.3	58.4
	Ratio of exports to shipments (percent)	50.6	57.2	74.1	72.6	73.0
ST018	Automatic data processing machines:					
	Number of establishments	754	770	785	795	795
	Employees (thousands)	189	180	190	202	204
	Capacity utilization (percent)	80	81	90	88	85
	U.S. shipments (million dollars)	55,053	62,353	73,150	82,733	92,661
	U.S. exports (million dollars)	25,397	29,102	34,476	37,977	41,792
	U.S. imports (million dollars)	37,906	46,161	56,308	61,457	69,953
	Apparent U.S. consumption (million dollars)	67,562	79,412	94,982	106,213	120,822
	Trade balance (million dollars)	-12,509	-17,059	-21,832	-23,480	-28,161
	Ratio of imports to consumption (percent)	56.1	58.1	59.3	57.9	57.9
	Ratio of exports to shipments (percent)	46.1	46.7	47.1	45.9	45.1
ST019	Photographic supplies:					
	Number of establishments	112	112	110	110	110
	Employees (thousands)	34	34	33	32	32
	Capacity utilization (percent)	85	85	85	83	85
	U.S. shipments (million dollars)	9,500	9,500	9,750	9,950	10,450
	U.S. exports (million dollars)	1,636	1,621	1,780	2,148	2,302
	U.S. imports (million dollars)	1,702	1,675	1,754	1,702	1,766
	Apparent U.S. consumption (million dollars)	9,566	9,555	9,724	9,504	9,914
	Trade balance (million dollars)	-66	-55	26	446	536
	Ratio of imports to consumption (percent)	17.8	17.5	18.0	17.9	17.8
	Ratio of exports to shipments (percent)	17.2	17.1	18.3	21.6	22.0

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST020	Exposed photographic plates, film, and paper:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	230	230	230	230	230
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	5,500	6,290	6,440	6,600	6,650
	U.S. exports (million dollars)	100	110	98	101	99
	U.S. imports (million dollars)	156	107	125	150	147
	Apparent U.S. consumption (million dollars)	5,556	6,287	6,467	6,649	6,698
	Trade balance (million dollars)	-56	3	-27	-49	-48
	Ratio of imports to consumption (percent)	2.8	1.7	1.9	2.3	2.2
	Ratio of exports to shipments (percent)	1.8	1.7	1.5	1.5	1.5
ST021	Optical fibers, optical fiber bundles and cables:					
	Number of establishments	56	58	60	62	63
	Employees (thousands)	7	8	9	10	11
	Capacity utilization (percent)	90	90	90	92	93
	U.S. shipments (million dollars)	1,829	2,290	2,750	3,300	3,500
	U.S. exports (million dollars)	325	418	475	646	806
	U.S. imports (million dollars)	90	104	154	216	272
	Apparent U.S. consumption (million dollars)	1,594	1,976	2,429	2,870	2,966
	Trade balance (million dollars)	235	314	321	430	534
	Ratio of imports to consumption (percent)	5.6	5.3	6.3	7.5	9.2
	Ratio of exports to shipments (percent)	17.8	18.3	17.3	19.6	23.0
ST022	Optical goods, including ophthalmic goods:					
	Number of establishments	902	904	900	905	904
	Employees (thousands)	58	60	58	60	60
	Capacity utilization (percent)	78	80	78	82	83
	U.S. shipments (million dollars)	4,250	4,750	4,900	5,400	5,700
	U.S. exports (million dollars)	1,150	1,324	1,527	1,941	2,380
	U.S. imports (million dollars)	2,181	2,385	2,820	3,114	3,397
	Apparent U.S. consumption (million dollars)	5,281	5,811	6,193	6,573	6,717
	Trade balance (million dollars)	-1,031	-1,061	-1,293	-1,173	-1,017
	Ratio of imports to consumption (percent)	41.3	41.0	45.5	47.4	50.6
	Ratio of exports to shipments (percent)	27.0	27.9	31.2	35.9	41.8
ST023	Photographic cameras and equipment:					
	Number of establishments	635	635	630	630	630
	Employees (thousands)	12	12	11	11	11
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	1,530	1,510	1,550	1,600	1,610
	U.S. exports (million dollars)	940	980	1,038	1,075	1,055
	U.S. imports (million dollars)	1,968	2,315	2,618	2,748	3,117
	Apparent U.S. consumption (million dollars)	2,558	2,845	3,131	3,273	3,671
	Trade balance (million dollars)	-1,028	-1,335	-1,581	-1,673	-2,061
	Ratio of imports to consumption (percent)	76.9	81.4	83.6	84.0	84.9
	Ratio of exports to shipments (percent)	61.4	64.9	66.9	67.2	65.5
ST024	Medical goods:					
	Number of establishments	2,320	2,325	2,325	2,338	2,340
	Employees (thousands)	175	178	180	181	182
	Capacity utilization (percent)	85	87	88	90	90
	U.S. shipments (million dollars)	24,000	25,200	27,000	28,900	30,200
	U.S. exports (million dollars)	7,360	7,997	8,966	10,217	11,226
	U.S. imports (million dollars)	4,381	4,405	4,951	5,368	5,895
	Apparent U.S. consumption (million dollars)	21,022	21,608	22,985	24,050	24,869
	Trade balance (million dollars)	2,978	3,592	4,015	4,850	5,331
	Ratio of imports to consumption (percent)	20.8	20.4	21.5	22.3	23.7
	Ratio of exports to shipments (percent)	30.7	31.7	33.2	35.4	37.2

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST025	Surveying and navigational instruments:					
	Number of establishments	360	356	355	355	357
	Employees (thousands)	45	42	41	41	43
	Capacity utilization (percent)	65	63	63	65	70
	U.S. shipments (million dollars)	6,700	6,435	6,762	6,965	7,313
	U.S. exports (million dollars)	1,556	1,470	1,511	1,547	1,809
	U.S. imports (million dollars)	477	461	556	571	757
	Apparent U.S. consumption (million dollars)	5,621	5,426	5,807	5,989	6,261
	Trade balance (million dollars)	1,079	1,009	955	976	1,052
	Ratio of imports to consumption (percent)	8.5	8.5	9.6	9.5	12.1
	Ratio of exports to shipments (percent)	23.2	22.8	22.3	22.2	24.7
ST026	Watches:					
	Number of establishments	20	20	20	20	20
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	61	61	60	59	60
	U.S. shipments (million dollars)	230	250	240	250	310
	U.S. exports (million dollars)	138	163	139	154	190
	U.S. imports (million dollars)	2,048	2,127	2,243	2,268	2,311
	Apparent U.S. consumption (million dollars)	2,139	2,214	2,344	2,364	2,430
	Trade balance (million dollars)	-1,909	-1,964	-2,104	-2,114	-2,120
	Ratio of imports to consumption (percent)	95.7	96.1	95.7	95.9	95.1
	Ratio of exports to shipments (percent)	60.2	65.2	57.8	61.6	61.4
ST027	Clocks and timing devices:					
	Number of establishments	49	47	46	42	42
	Employees (thousands)	5	4	4	3	3
	Capacity utilization (percent)	68	67	65	64	65
	U.S. shipments (million dollars)	535	520	510	490	475
	U.S. exports (million dollars)	97	113	108	123	119
	U.S. imports (million dollars)	400	424	430	447	447
	Apparent U.S. consumption (million dollars)	838	830	832	814	803
	Trade balance (million dollars)	-303	-310	-322	-324	-328
	Ratio of imports to consumption (percent)	47.7	51.0	51.7	54.9	55.7
	Ratio of exports to shipments (percent)	18.1	21.8	21.2	25.1	25.0
ST028	Balances of a sensitivity of 5 cgs or better:					
	Number of establishments	10	10	10	10	10
	Employees (thousands)	(¹)	(^{1})	(^{1})	(^{1})	(^{1})
	Capacity utilization (percent)	60	61	61	65	65
	U.S. shipments (million dollars)	30	34	32	35	37
	U.S. exports (million dollars)	18	18	21	23	23
	U.S. imports (million dollars)	38	37	35	36	41
	Apparent U.S. consumption (million dollars)	50	53	46	48	55
	Trade balance (million dollars)	-20	-19	-14	-13	-18
	Ratio of imports to consumption (percent)	75.9	69.7	75.1	74.8	73.8
	Ratio of exports to shipments (percent)	60.2	52.9	64.1	65.1	60.8
ST029	Drawing and mathematical calculating and measuring instruments:					
	Number of establishments	175	175	175	175	175
	Employees (thousands)	6	6	6	6	7
	Capacity utilization (percent)	65	64	64	65	70
	U.S. shipments (million dollars)	545	543	545	550	578
	U.S. exports (million dollars)	162	145	172	275	400
	U.S. imports (million dollars)	235	322	401	385	428
	Apparent U.S. consumption (million dollars)	618	721	774	660	606
	Trade balance (million dollars)	-73	-178	-229	-110	-28
	Ratio of imports to consumption (percent)	38.0	44.7	51.8	58.3	70.7
	Ratio of exports to shipments (percent)	29.7	26.6	31.5	50.0	69.2

See footnote(s) at end of table.

Table B-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
ST030	Measuring, testing, controlling, and analyzing instruments:					
	Number of establishments	3,215	3,210	3,210	3,210	3,210
	Employees (thousands)	222	225	225	225	225
	Capacity utilization (percent)	72	74	74	75	75
	U.S. shipments (million dollars)	24,400	25,800	27,090	29,257	30,950
	U.S. exports (million dollars)	9,026	10,060	11,572	12,578	14,587
	U.S. imports (million dollars)	4,553	5,727	6,665	7,136	8,089
	Apparent U.S. consumption (million dollars)	19,927	21,468	22,183	23,815	24,452
	Trade balance (million dollars)	4,473	4,332	4,907	5,442	6,498
	Ratio of imports to consumption (percent)	22.8	26.7	30.0	30.0	33.1
	Ratio of exports to shipments (percent)	37.0	39.0	42.7	43.0	47.1

¹Not available.

Note.--Calculations based on unrounded data.

Table B-10
Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups,
1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM046	Luggage, handbags, and flat goods:					
	Number of establishments	655	655	590	580	575
	Employees (thousands)	20	19	19	19	18
	Capacity utilization (percent)	73	74	67	73	75
	U.S. shipments (million dollars)	1,683	1,712	1,531	1,515	1,508
	U.S. exports (million dollars)	199	233	253	306	331
	U.S. imports (million dollars)	2,584	3,008	3,333	3,512	3,779
	Apparent U.S. consumption (million dollars)	4,068	4,488	4,610	4,721	4,956
	Trade balance (million dollars)	-2,385	-2,776	-3,079	-3,206	-3,448
	Ratio of imports to consumption (percent)	63.5	67.0	72.3	74.4	76.2
	Ratio of exports to shipments (percent)	11.8	13.6	16.5	20.2	21.9
MM047	Certain other leather goods:					
	Number of establishments	450	450	445	445	450
	Employees (thousands)	8	7	7	7	7
	Capacity utilization (percent)	77	77	76	76	75
	U.S. shipments (million dollars)	568	543	512	521	531
	U.S. exports (million dollars)	79	88	93	80	103
	U.S. imports (million dollars)	168	196	229	239	198
	Apparent U.S. consumption (million dollars)	657	651	648	681	626
	Trade balance (million dollars)	-89	-108	-136	-160	-95
	Ratio of imports to consumption (percent)	25.6	30.1	35.4	35.2	31.6
	Ratio of exports to shipments (percent)	13.9	16.2	18.2	15.3	19.4
MM048	Musical instruments and accessories:					
	Number of establishments	468	470	470	470	470
	Employees (thousands)	12	12	12	14	14
	Capacity utilization (percent)	59	60	61	65	65
	U.S. shipments (million dollars)	990	973	995	1,045	1,076
	U.S. exports (million dollars)	354	389	418	432	425
	U.S. imports (million dollars)	861	883	1,015	995	1,063
	Apparent U.S. consumption (million dollars)	1,497	1,467	1,593	1,608	1,714
	Trade balance (million dollars)	-507	-494	-598	-563	-638
	Ratio of imports to consumption (percent)	57.5	60.2	63.8	61.9	62.0
	Ratio of exports to shipments (percent)	35.7	39.9	42.0	41.3	39.5
MM049	Umbrellas, whips, riding crops, and canes:					
	Number of establishments	15	15	17	17	17
	Employees (thousands)	405	400	405	405	410
	Capacity utilization (percent)	78	78	78	78	78
	U.S. shipments (million dollars)	61	62	64	66	67
	U.S. exports (million dollars)	9	8	10	9	11
	U.S. imports (million dollars)	180	188	198	196	233
	Apparent U.S. consumption (million dollars)	231	242	252	253	288
	Trade balance (million dollars)	-170	-180	-188	-187	-221
	Ratio of imports to consumption (percent)	77.6	77.7	78.7	77.3	80.7
	Ratio of exports to shipments (percent)	14.8	12.8	16.2	13.0	16.9
MM050	Silverware and certain other articles of precious metal:					
	Number of establishments	45	44	44	42	42
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	78	75	80	80	85
	U.S. shipments (million dollars)	185	180	185	205	215
	U.S. exports (million dollars)	87	89	74	103	109
	U.S. imports (million dollars)	109	317	139	83	78
	Apparent U.S. consumption (million dollars)	208	408	250	186	184
	Trade balance (million dollars)	-23	-228	-65	19	31
	Ratio of imports to consumption (percent)	52.7	77.6	55.4	44.9	42.3
	Ratio of exports to shipments (percent)	47.0	49.3	39.8	50.1	50.5

Table B-10--Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM051	Precious jewelry and related articles:					
	Number of establishments	2,200	2,210	2,212	2,214	2,214
	Employees (thousands)	39	38	38	37	36
	Capacity utilization (percent)	86	89	79	82	78
	U.S. shipments (million dollars)	4,006	4,060	4,030	4,010	4,075
	U.S. exports (million dollars)	407	381	386	402	486
	U.S. imports (million dollars)	3,232	3,525	3,642	3,790	4,021
	Apparent U.S. consumption (million dollars)	6,831	7,204	7,286	7,398	7,611
	Trade balance (million dollars)	-2,825	-3,144	-3,256	-3,388	-3,536
	Ratio of imports to consumption (percent)	47.3	48.9	50.0	51.2	52.8
	Ratio of exports to shipments (percent)	10.2	9.4	9.6	10.0	11.9
MM052	Costume jewelry and related articles:					
	Number of establishments	910	908	908	910	910
	Employees (thousands)	19	19	16	16	16
	Capacity utilization (percent)	75	74	74	72	72
	U.S. shipments (million dollars)	1,556	1,679	1,769	1,666	1,800
	U.S. exports (million dollars)	120	126	124	113	136
	U.S. imports (million dollars)	544	567	493	462	464
	Apparent U.S. consumption (million dollars)	1,980	2,120	2,138	2,014	2,128
	Trade balance (million dollars)	-424	-441	-369	-348	-328
	Ratio of imports to consumption (percent)	27.5	26.7	23.1	22.9	21.8
	Ratio of exports to shipments (percent)	7.7	7.5	7.0	6.8	7.6
MM053	Bicycles and certain parts:					
	Number of establishments	30	30	30	30	30
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	88	75	67	70	70
	U.S. shipments (million dollars)	1,210	1,205	1,140	1,095	1,135
	U.S. exports (million dollars)	197	200	257	268	310
	U.S. imports (million dollars)	841	825	968	878	979
	Apparent U.S. consumption (million dollars)	1,854	1,831	1,852	1,705	1,804
	Trade balance (million dollars)	-644	-626	-712	-610	-669
	Ratio of imports to consumption (percent)	45.4	45.1	52.3	51.5	54.3
	Ratio of exports to shipments (percent)	16.3	16.6	22.5	24.4	27.3
MM054	Furniture and selected furnishings:					
	Number of establishments	14,500	14,600	14,600	14,600	14,700
	Employees (thousands)	477	481	494	506	525
	Capacity utilization (percent)	73	74	74	75	75
	U.S. shipments (million dollars)	54,000	58,800	60,350	62,800	67,400
	U.S. exports (million dollars)	2,941	3,300	3,302	3,519	4,158
	U.S. imports (million dollars)	6,298	7,638	8,423	9,497	11,224
	Apparent U.S. consumption (million dollars)	57,357	63,138	65,472	68,778	74,466
	Trade balance (million dollars)	-3,357	-4,338	-5,122	-5,978	-7,066
	Ratio of imports to consumption (percent)	11.0	12.1	12.9	13.8	15.1
	Ratio of exports to shipments (percent)	5.4	5.6	5.5	5.6	6.2
MM055	Writing instruments and related articles:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	13	12	12	12	12
	Capacity utilization (percent)	63	65	81	79	80
	U.S. shipments (million dollars)	1,600	1,650	1,690	1,850	1,950
	U.S. exports (million dollars)	242	233	264	304	400
	U.S. imports (million dollars)	568	611	668	719	800
	Apparent U.S. consumption (million dollars)	1,926	2,027	2,094	2,265	2,350
	Trade balance (million dollars)	-326	-377	-404	-415	-400
	Ratio of imports to consumption (percent)	29.5	30.1	31.9	31.7	34.1
	Ratio of exports to shipments (percent)	15.1	14.1	15.6	16.4	20.5

Table B-10--Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM056	Lamps and lighting fittings:					
	Number of establishments	1,570	1,560	1,560	1,550	1,550
	Employees (thousands)	63	62	62	60	62
	Capacity utilization (percent)	73	75	80	80	85
	U.S. shipments (million dollars)	7,500	8,100	8,400	8,650	9,515
	U.S. exports (million dollars)	472	519	543	529	655
	U.S. imports (million dollars)	1,712	1,956	2,198	2,422	2,729
	Apparent U.S. consumption (million dollars)	8,740	9,537	10,055	10,543	11,589
	Trade balance (million dollars)	-1,240	-1,437	-1,655	-1,893	-2,074
	Ratio of imports to consumption (percent)	19.6	20.5	21.9	23.0	23.6
	Ratio of exports to shipments (percent)	6.3	6.4	6.5	6.1	6.9
MM057	Prefabricated buildings:					
	Number of establishments	1,100	1,200	1,300	1,300	1,300
	Employees (thousands)	74	75	81	88	90
	Capacity utilization (percent)	79	79	80	80	80
	U.S. shipments (million dollars)	11,128	13,341	15,210	16,401	17,700
	U.S. exports (million dollars)	329	415	409	465	463
	U.S. imports (million dollars)	71	48	67	92	129
	Apparent U.S. consumption (million dollars)	10,869	12,974	14,868	16,028	17,366
	Trade balance (million dollars)	259	367	342	373	334
	Ratio of imports to consumption (percent)	0.6	0.4	0.5	0.6	0.7
	Ratio of exports to shipments (percent)	3.0	3.1	2.7	2.8	2.6
MM058	Children's vehicles:					
	Number of establishments	45	45	45	43	43
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	75	70	70	68	68
	U.S. shipments (million dollars)	548	544	471	445	540
	U.S. exports (million dollars)	34	44	44	36	46
	U.S. imports (million dollars)	228	249	266	293	300
	Apparent U.S. consumption (million dollars)	741	749	693	702	793
	Trade balance (million dollars)	-193	-205	-222	-257	-253
	Ratio of imports to consumption (percent)	30.7	33.2	38.4	41.8	37.8
	Ratio of exports to shipments (percent)	6.3	8.1	9.4	8.1	8.6
MM059	Dolls:					
	Number of establishments	165	165	160	158	154
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	70	60	68	65	65
	U.S. shipments (million dollars)	117	116	87	94	100
	U.S. exports (million dollars)	27	29	28	26	30
	U.S. imports (million dollars)	885	934	1,167	1,356	1,516
	Apparent U.S. consumption (million dollars)	976	1,021	1,225	1,424	1,586
	Trade balance (million dollars)	-859	-905	-1,138	-1,330	-1,486
	Ratio of imports to consumption (percent)	90.7	91.4	95.2	95.2	95.6
	Ratio of exports to shipments (percent)	22.7	24.6	32.7	27.8	30.2
MM060	Toys and models:					
	Number of establishments	315	312	312	312	310
	Employees (thousands)	12	11	11	11	10
	Capacity utilization (percent)	74	72	72	70	70
	U.S. shipments (million dollars)	2,250	2,311	2,592	2,369	2,490
	U.S. exports (million dollars)	468	528	581	597	627
	U.S. imports (million dollars)	3,666	4,010	4,526	5,481	6,728
	Apparent U.S. consumption (million dollars)	5,448	5,792	6,538	7,253	8,592
	Trade balance (million dollars)	-3,198	-3,481	-3,946	-4,884	-6,102
	Ratio of imports to consumption (percent)	67.3	69.2	69.2	75.6	78.3
	Ratio of exports to shipments (percent)	20.8	22.9	22.4	25.2	25.2

Table B-10--Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM061	Games and fairground amusements:					
	Number of establishments	325	320	315	310	310
	Employees (thousands)	50	45	45	45	45
	Capacity utilization (percent)	83	80	80	83	85
	U.S. shipments (million dollars)	2,378	2,360	2,427	2,495	2,520
	U.S. exports (million dollars)	1,000	1,117	1,130	1,089	1,144
	U.S. imports (million dollars)	3,461	2,575	2,494	2,881	4,033
	Apparent U.S. consumption (million dollars)	4,839	3,818	3,791	4,287	5,409
	Trade balance (million dollars)	-2,461	-1,458	-1,364	-1,792	-2,889
	Ratio of imports to consumption (percent)	71.5	67.4	65.8	67.2	74.6
	Ratio of exports to shipments (percent)	42.1	47.3	46.6	43.6	45.4
MM062	Sporting goods:					
	Number of establishments	2,125	2,130	2,135	2,138	2,142
	Employees (thousands)	55	58	58	60	62
	Capacity utilization (percent)	72	73	73	69	70
	U.S. shipments (million dollars)	7,239	7,672	8,225	8,698	9,161
	U.S. exports (million dollars)	1,140	1,326	1,731	1,900	1,934
	U.S. imports (million dollars)	2,159	2,699	2,956	3,068	3,070
	Apparent U.S. consumption (million dollars)	8,258	9,045	9,450	9,866	10,298
	Trade balance (million dollars)	-1,019	-1,373	-1,225	-1,168	-1,137
	Ratio of imports to consumption (percent)	26.1	29.8	31.3	31.1	29.8
	Ratio of exports to shipments (percent)	15.7	17.3	21.0	21.8	21.1
MM063	Smokers' articles:					
	Number of establishments	15	12	10	10	10
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	65	65	70	75	70
	U.S. shipments (million dollars)	168	165	170	195	190
	U.S. exports (million dollars)	74	75	85	97	88
	U.S. imports (million dollars)	137	145	153	149	139
	Apparent U.S. consumption (million dollars)	231	235	238	247	241
	Trade balance (million dollars)	-63	-70	-68	-52	-51
	Ratio of imports to consumption (percent)	59.4	61.5	64.1	60.2	57.6
	Ratio of exports to shipments (percent)	44.3	45.2	49.7	49.5	46.3
MM064	Brooms, brushes, and hair grooming articles:					
	Number of establishments	285	280	280	280	280
	Employees (thousands)	11	10	10	10	10
	Capacity utilization (percent)	65	70	75	75	75
	U.S. shipments (million dollars)	1,700	1,650	1,700	1,900	1,995
	U.S. exports (million dollars)	143	148	149	163	176
	U.S. imports (million dollars)	491	525	610	625	655
	Apparent U.S. consumption (million dollars)	2,047	2,027	2,161	2,362	2,474
	Trade balance (million dollars)	-347	-377	-461	-462	-479
	Ratio of imports to consumption (percent)	24.0	25.9	28.2	26.5	26.5
	Ratio of exports to shipments (percent)	8.4	8.9	8.8	8.6	8.8
MM065	Miscellaneous articles:					
	Number of establishments	2,100	2,200	2,200	2,200	2,300
	Employees (thousands)	37	38	39	39	40
	Capacity utilization (percent)	60	60	62	62	62
	U.S. shipments (million dollars)	24,100	26,000	27,300	28,500	29,000
	U.S. exports (million dollars)	1,250	1,524	1,420	1,254	1,513
	U.S. imports (million dollars)	4,449	4,449	5,037	5,056	6,079
	Apparent U.S. consumption (million dollars)	27,299	28,926	30,917	32,303	33,566
	Trade balance (million dollars)	-3,199	-2,926	-3,617	-3,803	-4,566
	Ratio of imports to consumption (percent)	16.3	15.4	16.3	15.7	18.1
	Ratio of exports to shipments (percent)	5.2	5.9	5.2	4.4	5.2

Table B-10--Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups, 1993-97

USITC code	Industry/commodity group	1993	1994	1995	1996	1997
MM066	Apparel fasteners:					
	Number of establishments	96	93	90	90	90
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	86	87	85	90	90
	U.S. shipments (million dollars)	475	425	500	515	541
	U.S. exports (million dollars)	81	88	84	98	119
	U.S. imports (million dollars)	122	122	127	123	126
	Apparent U.S. consumption (million dollars)	516	459	543	541	548
	Trade balance (million dollars)	-41	-34	-43	-26	-7
	Ratio of imports to consumption (percent)	23.6	26.6	23.3	22.8	22.9
	Ratio of exports to shipments (percent)	17.0	20.7	16.7	19.0	21.9
MM067	Arms and ammunition:					
	Number of establishments	283	279	275	271	265
	Employees (thousands)	19	19	19	18	16
	Capacity utilization (percent)	68	74	77	69	65
	U.S. shipments (million dollars)	2,289	2,203	2,159	1,975	1,800
	U.S. exports (million dollars)	2,372	2,212	2,662	2,606	2,395
	U.S. imports (million dollars)	682	777	657	598	611
	Apparent U.S. consumption (million dollars)	599	767	154	-33	16
	Trade balance (million dollars)	1,690	1,436	2,005	2,008	1,784
	Ratio of imports to consumption (percent)	113.8	101.2	426.2	-1,792.1	3,851.3
	Ratio of exports to shipments (percent)	103.6	100.4	123.3	132.0	133.1

Note.--Calculations based on unrounded data.



APPENDIX C
Political Entities Included in Selected
Country Groupings

ASEAN¹

Brunei
Indonesia
Malaysia
Philippines

Singapore
Thailand
Vietnam

ASIAN PACIFIC RIM

Australia
Brunei
Cambodia
China
Christmas Island
Cocos Island
Cook Islands
Heard Island and McDonald Islands
Hong Kong
Indonesia
Japan
Korea
Laos

Macao
Malaysia
New Zealand
Niue
Norfolk Island
North Korea
Papua New Guinea
Philippines
Singapore
Taiwan
Thailand
Tokelau
Vietnam

CBERA²

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

¹Association of Southeast Asian Nations.
²Caribbean Basin Economic Recovery Act beneficiaries.

CENTRAL AND EASTERN EUROPE

Albania	Macedonia
Bosnia-Herzegovina	Poland
Bulgaria	Romania
Croatia	Slovakia
Czech Republic	Slovenia
Hungary	

EUROPEAN UNION (EU-15)

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Portugal
France	Spain
Germany	Sweden
Greece	United Kingdom
Ireland	

LATIN AMERICA

Anguilla	Guatemala
Antigua and Barbuda	Guyana
Argentina	Haiti
Aruba	Honduras
Bahamas, The	Jamaica
Barbados	Leeward and Windward Islands
Belize	Martinique
Bermuda	Mexico
Bolivia	Montserrat
Brazil	Netherlands Antilles
British Virgin Islands	Nicaragua
Cayman Islands	Panama
Chile	Paraguay
Costa Rica	Peru
Cuba	St. Kitts and Nevis
Dominica Island	St. Lucia
Dominican Republic	St. Pierre and Miquelon
Ecuador	St. Vincent and the Grenadines
El Salvador	Suriname
Falkland Islands	Trinidad and Tobago
French Guiana	Turks and Caicos Islands
Grenada	Uruguay
Guadeloupe	Venezuela

OPEC³

Algeria
Indonesia
Iran
Iraq
Kuwait
Libya

Nigeria
Qatar
Saudi Arabia
United Arab Emirates
Venezuela

³Organization of Petroleum Exporting Countries.



APPENDIX D
Effect of Exchange Rate Shifts On Trade

This appendix provides general background information and data on exchange rates.¹ Specifically, it covers the effect of exchange rate movements and other variables on trade flows, and the factors that induce appreciation or depreciation in a country's exchange rate. It discusses the general behavior of the U.S. dollar with respect to foreign currencies historically and during 1997, as well as the relationship of these exchange rate movements to recent trends in U.S. exports and imports.

Definitions and Measurement Issues

The exchange rate is the price of one currency in terms of another, i.e., the number of units of a currency that it takes to purchase one unit of a different currency. Since there are two different ways to express any given exchange rate, it is important to carefully note which currency's price is being measured. For example, the exchange rate between the U.S. dollar and British pound on April 8, 1998, could be cited in different sources as either 0.5966 (i.e., 0.5966 British pounds per U.S. dollar) or 1.676 (i.e., 1.676 U.S. dollars per British pound). A currency is said to *appreciate* when its value increases relative to other currencies and is said to *depreciate*² when its value decreases relative to other currencies.³

Exchange rates as quoted in the financial press are referred to as *nominal exchange rates*. The *real exchange rate* is a measure of the purchasing power of a currency in terms of goods and services, correcting for relative price differences between countries.

The real exchange rate is particularly useful in analyzing the effects of exchange rate movements on international trade.⁴ A country's real exchange rate can appreciate if its nominal exchange rate (1) remains fixed while it experiences higher domestic price inflation than the rest of the world, (2) appreciates while it experiences

¹For accessible introductions to the economics of exchange rates, see Richard E. Caves, Jeffrey A. Frankel, and Ronald W. Jones, *World Trade and Payments: An Introduction*, 6th ed., (New York: Harper Collins, 1993), chs. 17, 24, and 25; and Paul R. Krugman and Maurice Obstfeld, *International Economics: Theory and Policy*, 3d ed. (New York: Harper Collins, 1994), chs. 14 through 18.

²The terms *depreciation* and *appreciation* are more usual than *devaluation* and *revaluation* in referring to exchange rate movements driven primarily by market forces. *Devaluation* usually refers to actions taken by a government to reduce the value of its national currency, with *revaluation* referring to government action to increase the value of a currency.

³If the exchange rate is measured as units of another currency per 1 unit of the currency of interest, an appreciation is expressed by a rising number and a depreciation by a falling number. The reverse is true when exchange rates are represented as units of the currency of interest per one 1 unit of another currency.

⁴A common way of defining the real exchange rate (RXR) is

$$RXR = e * \frac{P_D}{P_F}$$

in which e is the nominal exchange rate expressed as units of foreign currency per unit of domestic currency, P_D is an index of the domestic price level, and P_F is an index of the foreign price level. Using this definition of the real exchange rate, an increase in RXR represents an appreciation of the domestic currency and a decrease represents a depreciation.

An alternate definition of the real exchange rate is $P_{NT,D}/P_{T,D}$, the ratio of the domestic price of non-traded goods to the domestic price of traded goods. Although this definition is not strictly equivalent to the definition given above, the two measures of the exchange rate will behave similarly in many circumstances, depending partly on the choice of price indexes (wholesale prices, consumer prices, GDP deflators, etc.) used for calculating the real exchange rate. See Sebastian Edwards, *Real Exchange Rates, Devaluation, and Adjustment: Exchange Policy in Developing Countries* (Cambridge, MA: MIT Press, 1989), pp. 4-7, for a discussion.

the same rate of inflation as the rest of the world, or (3) appreciates by more than (depreciates by less than) the amount needed to account for the difference between domestic and foreign inflation.

Determinants of Trade Flows

Other things being equal, countries which undergo significant depreciations of their real exchange rate eventually experience rising exports, falling imports, and a merchandise trade balance that moves toward surplus. This is because a depreciating real exchange rate means that the country's goods become cheaper on international markets relative to goods produced in other countries. Conversely, a country's goods become more costly when a significant appreciation of the real exchange rate occurs, which will tend to result in falling exports, rising imports, and a merchandise trade balance that moves toward deficit, other things being equal.

These effects of exchange rates on trade flows are usually experienced gradually, over a period of approximately 6 months to 2 years after the initial shift in the real exchange rate. This lag takes place because it takes firms time to adjust their export prices, as expressed in foreign currencies, to account for exchange rate changes. Initially, when exchange rates move and firms have not yet adjusted their prices, the merchandise trade balance may move in the opposite direction to its longer run tendency; for example, after a depreciation, the trade balance may move toward deficit for several months before ultimately switching direction and moving toward surplus. This phenomenon is known as the *J-curve effect* because a graph of the path of the trade balance after an exchange rate depreciation resembles the letter "J".

The long-run tendency of the trade balance to move toward surplus (deficit) after a depreciation (appreciation) also depends on the sensitivity of importers and exporters to changes in prices.⁵ Theoretically, if firms change their prices to reflect exchange rate movements, but the behavior of buyers is relatively unchanged, the trade balance expressed in monetary terms may move in the opposite direction from that anticipated.⁶ The impact of exchange rates on trade flows is also affected by decisions of firms about passing on the full effects of a depreciation or appreciation to their foreign customers. In practice, exchange rate pass-through is often incomplete, with firms deciding to absorb some part of any depreciation or appreciation rather than change prices. Incomplete exchange rate pass-through can also weaken the effects of exchange rate changes on trade flows.

In addition to exchange rate changes, other economic factors influence shifts in trade flows. Among the most important of these are differences in economic growth between countries. Since a country's demand for imports is determined partially by its income, countries with economic growth exceeding that of their trading partners tend to experience trade balances moving towards deficit. Conversely, countries with economic growth slower than that of their trading partners, or which experience recessions in a growing world economy, tend to experience trade balances moving toward surplus. Empirical evidence suggests that differences in economic growth are at least as important determinants of trade balances as exchange rate movements. For example, since 1983 the U.S. economy has experienced only one recession, that of 1990-91. Although both the U.S. merchandise trade balance and the broader current account balance⁷ remained in deficit throughout the period, these deficits reached their smallest levels of the period in 1991 due to the contraction of U.S. demand for

⁵For example, the so-called Marshall-Lerner condition, which applies to some simple models of exports and imports, states that the sum of the absolute value of the price elasticity of export supply and import demand must exceed unity for a depreciation to induce a move toward surplus in the merchandise trade balance.

⁶This phenomenon, known as *elasticity pessimism*, has been analyzed primarily in the context of the trade of some developing countries whose exports are specialized in particular primary products. It is unlikely to be important for countries such as the United States that export and import predominantly manufactures, and its empirical significance even for developing countries has been questioned.

⁷The current account balance includes as its largest part the merchandise trade balance, plus international payments of labor and capital income, and unrequited foreign transfers (payments and receipts of foreign aid).

imports.⁸

Other influences on aggregate trade flows include macroeconomic imbalances and commodity price movements. Countries with high and rising government budget deficits are likely to see trade balances moving in the direction of deficit, whereas reductions in government budget deficits have the opposite effect.⁹ Countries which experience net capital imports (e.g. foreign borrowing or inflows of direct investment) will usually use these capital imports to finance a corresponding trade deficit, while countries with net capital exports (those which on balance lend or invest abroad) generally finance these investments out of current account surpluses.¹⁰ Significant shifts in aggregate trade flows may also be induced by changes in the prices of export or import commodities which make up a large share of a country's trade. In recent years, shifts in the price of oil have caused significant changes in trade flows for many countries. Changes in the prices of certain other primary products have caused changes in trade flows for some other countries.

Determinants of Exchange Rates

Since the exchange rate is the price of one currency in terms of another, the determinants of exchange rates may be analyzed in the same way as the determinants of other prices--by considering the supply and demand for currencies. A country's exchange rate tends to appreciate when demand for that currency is expanding relative to supply, and to depreciate when demand lags relative to supply.

The demand for currencies is determined by several factors. One of these is income--countries with relatively rapidly growing incomes may experience currency appreciation due to domestic demand for the currency as a medium for transactions. Currencies may also respond to international differences in interest rates. Since short-term capital is attracted to markets that offer high interest rates,¹¹ economic theory suggests that countries with higher interest rates should tend to experience exchange rate appreciation in the short run. However, empirical evidence on the relationship among interest rates, spot exchange rates, and forward market exchange rates indicates that no single simple theory of the relationship between interest rates and exchange rates

⁸However, the U.S. merchandise trade deficit had decreased from \$158.1 billion in 1987 to \$118.3 billion in 1990, simultaneously with a significant depreciation of the real value of the U.S. dollar relative to most of the world's major currencies that began in 1985. Consistent with the j-curve effect, the merchandise trade deficit increased from \$130.6 billion in 1985 to \$158.2 billion in 1987.

⁹In this context, the following relationship from national income accounting is useful:

$$(\text{Exports} - \text{Imports}) = (\text{Private Savings} - \text{Private Investment}) + (\text{Tax Revenue} - \text{Government Purchases})$$

This relationship, which is true by definition when the quantities are appropriately measured, shows that when net private capital inflows (private savings - private investment) are unchanged, movement of the government budget towards surplus is associated with movement of the trade balance towards surplus and vice versa. Similarly, if the government budget surplus or deficit remains constant, the trade balance is closely related to net private capital flows.

¹⁰As a matter of balance-of-payments accounting, a country's current account deficit (surplus) should precisely equal its capital account surplus (deficit) in the absence of statistical discrepancies and as long as its foreign exchange reserves remain unchanged. The balance obtained by summing the current account, the capital account, and the statistical discrepancy is known as the balance of official reserve transactions. If the current account and the capital account taken together are in surplus, the difference takes the form of an accumulation of official reserves. If the current account and capital account taken together are in deficit, then there is an outflow of official reserves.

¹¹Specifically, this means a high real interest rate, adjusted for risk. The real interest rate is the nominal or market interest rate net of expected price inflation.

fits the data well.¹²

One simple theory of long-run exchange rate determination is the *purchasing power parity* (PPP) hypothesis. Under this hypothesis, exchange rates should adjust so that the prices of goods in all countries are equal, when expressed in a common currency. Using the example above, if PPP had held on April 8, 1998, a representative basket of goods costing £100 in the United Kingdom would cost \$167.60 in the United States, and a similar basket of goods costing \$100 in the United States would cost £59.66 in the United Kingdom. If PPP held in fact, then nominal exchange rates would move by just enough to offset international differences in price inflation, and real exchange rates would remain constant. In fact, nominal exchange rates often differ substantially from their PPP values and for long periods of time, converging only slowly towards the values implied by PPP.¹³ Hence, countries have real exchange rates that both differ in absolute terms and fluctuate over time. The absolute difference in real exchange rates between countries accounts for the fact that U.S. travelers visiting countries with high absolute real exchange rates (e.g. Japan and many European countries) find shopping to be expensive compared to home, while U.S. travelers visiting countries with low absolute real exchange rates (e.g., many developing countries) find shopping to be relatively cheap.

A useful indicator of the balance between supply and demand for a currency is a country's balance of official reserve transactions (see footnote 9 above). If a country's current (capital) account surplus exceeds its capital (current) account deficit, the demand for its currency will usually exceed the supply; official reserves will accumulate, and the exchange rate may appreciate. On the other hand, if the deficit in either the current or capital account exceeds the surplus in the other account (e.g., if capital inflows are insufficient to cover a trade deficit), there will be an outflow of official reserves, which cannot be maintained indefinitely without the country losing its ability to make international payments. In this case the currency is likely to depreciate.

If a country has a floating (market-determined) exchange rate, the exchange rate will fluctuate to keep demand and supply for the currency roughly in balance, and over the long run official reserve transactions will be small relative to other international transactions. The most common form of national exchange rate regime is some form of floating exchange rate. As of December 31, 1997,¹⁴ the IMF categorized 53 of 181 countries as having "independently floating" exchange rates.¹⁵ The exchange rates of these countries are primarily determined in markets, although monetary authorities may occasionally seek to manage the rate by means of market transactions in official reserves. Another 46 countries are characterized as having "managed floating" exchange rate systems.¹⁶ Such systems often feature gradual, planned movements of an exchange rate against a basket of currencies (sometimes called "crawling pegs"), designed in order to keep the real exchange rate roughly constant.

Another 60 countries have currencies that are pegged more or less closely to the currency of a major trading partner, or to a basket of currencies. For example, Argentina and Lithuania peg their currencies to the U.S. dollar. Twenty-three other countries, primarily oil exporters and smaller Caribbean countries, either peg to or maintain limited flexibility with respect to the dollar. A group of 15 West African countries peg their

¹²On the general difficulties of successfully modeling exchange rates empirically, see Karen K. Lewis, "Puzzles in International Financial Markets," ch. 37 in Gene M. Grossman and Kenneth Rogoff, eds., *Handbook of International Economics Vol. 3*; (Amsterdam: Elsevier/North Holland, 1995), and Mark Taylor, "The Economics of Exchange Rates," *Journal of Economic Literature*, vol. 33, No. 1 (Mar. 1995), pp. 13-47.

¹³For a recent review of the literature in this area, see Kenneth Rogoff, "The Purchasing Power Parity Puzzle," *Journal of Economic Literature*, vol. 34, No. 2 (June 1996), pp. 647-668.

¹⁴International Monetary Fund, *International Financial Statistics*, Mar. 1998, p. 8.

¹⁵Examples of countries with independently floating exchange rates are Australia, Canada, India, Japan, Korea, Mexico, the Philippines, Switzerland, the United Kingdom, and the United States.

¹⁶Examples of countries with managed floating exchange rates are Brazil, Chile, China, Israel, Malaysia, Russia, Singapore, and Thailand.

currencies to the French franc. During 1997, 12 of the 15 members of the EU maintained approximately fixed exchange rates among themselves under the European Monetary System.¹⁷

In countries with forms of fixed exchange rate systems, the monetary authorities must periodically intervene to maintain the exchange rate peg. This is done by buying foreign exchange when the national currency is in excess demand, and by selling foreign exchange when the national currency is in excess supply. If participants in foreign exchange markets believe that a pegged currency will chronically be in excess supply, they may decide that the country is likely to run out of official reserves in the attempt to defend the currency, and begin to sell the currency heavily. This may cause the fixed exchange rate policy to become unsustainable, causing monetary authorities in the country in question either to implement a sharp devaluation or to let the currency float.

Recent Behavior of the U.S. Dollar and U.S. Trade

The real exchange rate of the U.S. dollar continued its medium-term appreciation during 1997. As measured by the Federal Reserve Bank of Dallas' monthly index of the real trade-weighted value of the dollar, which uses a base of 100 in the first quarter of 1990 and for which a rising index number indicates a real appreciation, the real value of U.S. dollar depreciated from a high of 125.6 in March 1985 to 94.5 in February 1991. From March 1991 to April 1995, the real exchange rate fluctuated in a range from 93.0 to 99.9. Since reaching a level of 93.0 in May 1995, the primary trend has been one of appreciation, with the trade-weighted real exchange rate reaching a level of 106.8 in December 1997 and 107.1 in March 1998. During calendar 1997, the average annual real exchange rate of the dollar was 3.5 percent higher than during calendar 1996 (table D-1).

The U.S. merchandise trade balance continued its recent shift towards deficit during 1997. After narrowing from \$158.2 billion in 1987 to \$83.9 billion in 1991, the merchandise trade deficit in 1997 stood at \$219.2 billion, up from \$208.3 billion in 1996. This amounted to a 5-percent increase in the trade deficit. By comparison, the increase in U.S. nominal gross domestic product (GDP) was 5.8 percent during 1997, so that the trade deficit as a share of GDP remained largely unchanged, declining slightly from 2.73 percent of GDP in 1996 to 2.71 percent in 1997.

During 1997, U.S. real annual GDP growth at 3.8 percent per year was close to, but slightly less than, global annual GDP growth at 4.1 percent (table D-2). The Federal budget deficit declined from \$107.5 billion (1.4 percent of GDP) in fiscal year 1996 to \$21.9 billion (0.3 percent of GDP) in fiscal year 1997.¹⁸ Thus, real appreciation of the U.S. dollar during 1997 and previous years tended to push the U.S. merchandise trade balance towards deficit; differences in U.S. and foreign economic growth were approximately neutral; and the declining U.S. budget deficit tended to induce a movement towards surplus in merchandise trade. The net result of these effects was to leave the merchandise trade deficit as a share of the national economy approximately unchanged.

¹⁷The countries participating in the exchange rate mechanism of the European Monetary System in 1997 were Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. Among other EU members, Sweden and the United Kingdom had independently floating rates while Greece used a form of managed floating.

¹⁸Council of Economic Advisers, *Economic Report of the President*, Feb. 1998, tables B-78 and B-79. The Federal fiscal year ends on Sept. 30 of the corresponding calendar year.

Table D-1

Real exchange rates: Indexes of foreign currencies, or baskets of currencies, against the U.S. dollar, annual averages 1993-97, and average for the first 3 months of 1998

Year	World average	Canada	Mexico	Europe	Japan	Pacific NICs¹	Western Hemisphere²	Other
Indexes (First quarter 1990=100)								
1993	97.8	111.0	77.3	103.7	78.7	97.0	101.1	116.5
1994	97.9	120.3	80.3	102.6	73.6	98.4	98.1	111.9
1995	95.6	121.7	117.0	94.0	69.7	92.4	88.4	103.0
1996	98.0	122.5	105.8	96.8	82.8	92.1	90.5	100.3
1997	101.4	125.3	93.3	106.2	92.7	94.8	86.5	103.2
1998 ³	108.1	129.9	90.7	110.3	99.5	114.9	85.1	109.8
Change from previous period (Percent)								
1993	2.1	7.9	-5.6	12.1	-10.7	-0.4	-1.2	3.3
1994	0.1	8.4	3.9	-1.1	-6.4	1.4	-3.0	-4.0
1995	-2.3	1.1	45.6	-8.3	-5.3	-6.1	-9.9	-7.9
1996	2.5	0.7	-9.5	2.9	18.9	-0.3	2.3	-2.6
1997	3.5	2.3	-11.8	10.2	11.9	2.9	-4.4	-2.9
1998 ³	6.6	3.6	-2.8	3.9	7.4	21.2	-1.6	6.4

¹China, Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, and Thailand.

²Excluding Canada and Mexico.

³The index number is the simple average of the monthly indexes for January through March of 1998. The percentage change is the difference between this index and the 1997 average. Thus, it is not an annual rate of change and is not strictly comparable to the other percentage changes in the table.

Source: Federal Reserve Bank of Dallas.

Bilateral Exchange Rate Movements and Trade Flows

Among U.S. trading partners, percentage shifts in trade flows were more significant (table 2-2). Some portion of these bilateral shifts can be explained by differences in the exchange rate movements and economic growth rates of different countries. Table D-2 summarizes GDP growth rates in different regions of the world during 1997.

Table D-2
Growth in real GDP during 1997

World	4.1
Advanced economies	3.0
United States	3.8
Japan	0.9
European Union	2.6
Germany	2.2
France	2.4
Italy	1.5
United Kingdom	3.3
Canada	3.8
Korea	5.5
Taiwan	6.9
Hong Kong	5.3
Singapore	7.8
Developing countries	5.8
Africa	3.2
Asia	6.7
China	8.8
ASEAN-4 ¹	3.9
Middle East and Europe	4.4
Western Hemisphere	5.0
Mexico	7.0
Argentina	8.4
Brazil	3.0
Countries in transition ²	1.7

¹Indonesia, Malaysia, Philippines, Thailand.

²Central and eastern Europe, Russia, Transcaucasia and central Asia.

Source: International Monetary Fund, *World Economic Outlook*, (Washington, DC: IMF, May 1998) ch. II and statistical appendix.

The real exchange rate of the U.S. dollar with respect to the Canadian dollar has steadily appreciated since late 1991, though recent appreciations have been modest. The average annual value of this rate was 2.3 percent higher in 1997 than in 1996 and 0.7 percent higher in 1996 than in 1995 (table D-1). The rate of real GDP growth in Canada was the same as the U.S. rate in 1997 (table D-2). The U.S. bilateral merchandise trade deficit with Canada decreased \$4.1 billion (11 percent) to \$33.1 billion in 1997. Since the appreciation of the U.S. dollar would tend to induce an increase in the bilateral trade deficit, the observed shift may be largely due to commodity-specific factors (see chapter 3).

After an earlier period of depreciation, the U.S. dollar has appreciated sharply in real terms against the Japanese yen since April 1995, by 11.9 percent in 1997 and 18.9 percent in 1996 (table D-1). During 1997, real GDP growth in Japan was minimal (table D-2). Both the real depreciation of the yen and the slow Japanese growth rate relative to the United States help to explain the increase in the bilateral trade deficit with Japan of \$7.2 billion (14 percent) to \$58.4 billion in 1997.

The Mexican peso continued to appreciate significantly in real terms against the U.S. dollar in 1997, recovering from lows sustained during the sharp depreciation of November 1994-March 1995. The real exchange rate of the U.S. dollar relative to the peso declined by 11.8 percent in 1997 and 9.5 percent in 1996 (table D-1). Continuing its recovery from the recession associated with the peso crisis, real percentage GDP growth in Mexico was nearly double that in the United States in 1997 (table D-2). Both the higher Mexican growth rate and the appreciation of the peso contributed to the decrease in the U.S. bilateral trade deficit with Mexico of \$2.9 billion (15 percent) to \$16.6 billion in 1997.

The dollar appreciated in real terms against European currencies as a group in recent years, by 10.2 percent in 1997 and 2.9 percent in 1996 (table D-1). Aggregate GDP growth in the EU lagged U.S. growth during 1997 (table D-2). As in the case of Japan, a strong U.S. dollar and a rapidly growing U.S. economy were sufficient to account for an increase in the U.S. merchandise trade deficit with the EU of \$2.4 billion (11 percent) to \$24.1 billion in 1997.

The U.S. dollar sharply appreciated against currencies of Pacific Rim newly industrialized countries (NICs)¹⁹ during 1997. The 2.9-percent real appreciation shown in table D-1 significantly understates exchange rate movements later in the year, inasmuch as it compares the average full-year exchange rates. The U.S. dollar rose in real terms from 90.1 in June 1997 to 110.9 in December 1997 against the currencies of the Pacific Rim NICs, for an appreciation of 23.1 percent in the latter half of 1997. Even this average obscures marked differences in the performance of individual currencies within the Pacific NICs basket. For more information on currency movements and trade shifts associated with the Asian currency crisis, see chapter 3 of this report.

During 1997 as a whole, economic growth in the Asian NICs continued to outpace that of the United States (table D-1), with contractionary effects concentrated later in the year and likely spilling over into 1998. The exception to this pattern was Thailand, which experienced a drop in real GDP of 0.4 percent in 1997. This rapid regional growth dominated exchange rate movements in terms of U.S. trade with ASEAN. The bilateral U.S. trade deficit with ASEAN decreased by \$588 million (2 percent) to \$25.1 billion. By contrast, the U.S. bilateral merchandise trade deficit with China increased by \$10.1 billion (26 percent) to \$49.5 billion, and the bilateral surplus with Korea declined by \$1.6 billion (54 percent) to \$1.4 billion. For a more detailed discussion of the situation in certain individual Asian countries, see chapter 3.

Latin American currencies other than the Mexican peso continued to appreciate against the U.S. dollar in 1997. The Federal Reserve Bank of Dallas' real trade-weighted index of the dollar against other Latin American currencies has largely declined since 1988, with occasional reversals, and fell by an additional 4.4 percent in 1997 after rising by 2.3 percent in 1996 (table D-1). Real GDP growth in developing Western Hemisphere countries as a group (including Mexico) outpaced U.S. growth in 1997 (table D-2). The continued appreciation of Latin American currencies and strong Latin American growth led to a sharp increase in the U.S. bilateral trade surplus with Latin American countries other than Mexico of \$6.4 billion (372 percent) to \$8.2 billion in 1997.²⁰

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¹⁹In the Federal Reserve Bank of Dallas real exchange rate index, these included China, Hong Kong, Indonesia, Korea, Malaysia, Singapore, Taiwan, and Thailand.

²⁰USITC staff calculations based on table 2-2.