

Shifts in U.S. Merchandise Trade 2001

July 2002

Publication No. 3525

Investigation No. 332-345

United States International Trade Commission



U.S. International Trade Commission

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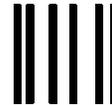
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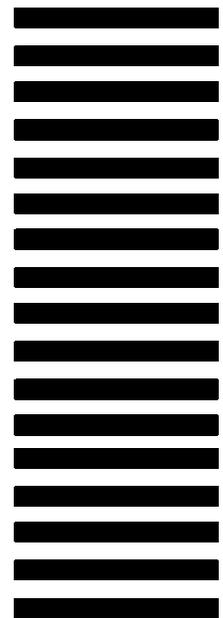
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PREFACE

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 or the Commission) instituted investigation No. 332-345, *Annual Reports on U.S. Trade Shifts in Selected Industries*. The 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. trade partners in all natural-resource, 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 separate reports annually: *Shifts in U.S. Merchandise Trade* and *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 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 customers of global industry trends and competition issues. The information compiled in this report, such as export, import, trade balance, and industry profile data (establishments, employees, capacity utilization, and production or shipments) for over 250 major industry/commodity groups, is not replicated elsewhere in the U.S. Government.

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—*Continued***

NAFTA	North American Free-Trade Agreement
OE	original equipment
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
PC	personal computer
PL	Public Law
SMEs	square meter equivalents
SPS	Sanitary-Phytosanitary
SSA	sub-Saharan Africa
TBT	Technical Barriers to Trade
TMB	Textiles Monitoring Body
TRIMS	trade-related investment measures
TRIPS	trade-related aspects of intellectual property rights
TRQs	tariff-rate quotas
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
URA	Uruguay Round Agreements
U.S.C.	U.S. Code
USDA	U.S. Department of Agriculture
USDOC	U.S. Department of Commerce
USITC	U.S. International Trade Commission
USTR	Office of the United States Representative
WTO	World Trade Organization
Y2K	Year-2000

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CHAPTER 1

Introduction

The international trade analysts of the U.S. International Trade Commission (USITC or the Commission), Office of Industries, routinely monitor trade developments in all natural resource, agricultural, and manufacturing industries, and in the services sector, which enables the USITC to better anticipate and address the issues of concern in its various roles under U.S. trade statutes.¹ Trade monitoring at the industry/commodity sector and subsector levels (the latter referred to as industry/commodity groups and subgroups² in this report) is a facet of the research and analysis undertaken by the Office of Industries as part of its responsibility to provide advice and technical information on industry and trade issues. This annual report analyzes significant merchandise trade shifts on an aggregate basis, on a bilateral basis, and at the industry/commodity-group or -subgroup level.³ This series is part of the recurring Commission 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 President or executive branch, other Federal agencies, and the general public, related to emerging and complex international trade and economic issues.

For trade-monitoring purposes, the USITC assigns U.S. Harmonized Tariff Schedule (HTS) import headings/subheadings, and the corresponding Schedule B export categories, to industry/commodity groups and subgroups. These groups are aggregated into 10 sectors. Appendix A lists these sectors and the industry/commodity groups and subgroups included in each sector. Appendix B provides the HTS 8-digit subheading ranges included in each industry/commodity group and subgroup.

U.S. trade shifts in services are the subject of a separate USITC annual report.⁴ Thus, throughout this report, unless otherwise specified, references to trade balances represent U.S. merchandise trade only. In assessing the U.S. merchandise trade deficit in 2001, it is important to note that the United States recorded a trade surplus in services of \$107.4 billion,⁵ which, when added to the \$466.6 billion merchandise trade deficit, reduced the combined trade deficit (merchandise plus services) to \$359.2 billion.

Chapter 1 of the report is the general introduction. Chapter 2 summarizes U.S. merchandise trade for 2001, in comparison with such trade for 2000. Coverage of the individual merchandise sectors

¹ Major 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.

² In some cases, industry/commodity groups have been further broken down into subgroups to create more meaningful data sets.

³ This report analyzes changes in U.S. merchandise trade on a value basis chiefly because trade data aggregated by quantity are generally hard to use due to mixed units of measure. Consequently, it is possible (if prices change significantly) for the value of trade to change considerably, but for the quantity of trade to remain the same. Where appropriate, this report also provides trade data on a quantity basis.

⁴ See USITC, *Recent Trends in U.S. Services Trade*, investigation No. 332-345, USITC publication 3409, May 2002.

⁵ Official statistics of the U.S. Department of Commerce (USDOC), reported in USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Table 1.1, Gross Domestic Product, Apr. 2002, p. D-3.

includes data showing U.S. export, import, and trade balance shifts by industry/commodity groups (and in some cases subgroups), and shifts in trade with U.S. trade partners. In addition, the chapter also discusses the significance of international trade in the gross domestic product of the United States compared with its major trade partners.

Chapter 3 analyzes the shifts in U.S. trade with each of the top five U.S. trade partners—Canada, China, the European Union, Japan, and Mexico. Summary tables detail the important shifts in U.S. bilateral trade and highlight leading changes in industry/commodity groups for each of the five major trade partners. This chapter also examines the 10-year trade trends for five selected industry/commodity groups—semiconductor-manufacturing machinery; furniture; pork; telephone and telegraph apparatus; and aircraft, spacecraft, and related equipment.

Chapters 4 through 13 address specific industry/commodity groups, with each chapter providing a general sector overview and identifying significant shifts in merchandise trade within the sector. In most cases, these chapters identify significant shifts in specific industry/commodity groups or subgroups, and focus on trade (exports, imports, or trade balance) exhibiting shifts exceeding \$1.5 billion. Finally, a statistical summary table of industry/commodity groups or subgroups concludes each sector analysis chapter, showing absolute and percent changes in a year-to-year comparison for 2000 and 2001.

Appendix C provides official and estimated data (1997-2001) for domestic consumption, production, employment, trade, and import penetration for most of the industry/commodity groups and subgroups covered in this report.⁶ USITC international trade analysts have estimated certain components of these data, based on publically available primary and secondary government and industry sources. The estimated data are subject to change as information from these sources are updated. Appendix D ranks the industry/commodity groups exhibiting the most significant annual growth and decline in U.S. exports, imports, and trade balances in 2001, and includes additional statistical trade data. Appendix E lists the political entities included in the country groups shown in this report.

Appendix F discusses the effect of exchange rate shifts on trade flows and summarizes the major shifts in exchange rates that occurred during 2001, highlighting the depreciation of both the Japanese yen and European Monetary Union euro against the U.S. dollar.

Finally, as part of the trade monitoring effort, the Commission also keeps track of U.S. trade disputes that are referred to the World Trade Organization (WTO). Appendix G lists the current status of existing WTO dispute settlement cases involving the United States.

⁶ Appendix C does not include certain industry/commodity groups that cover a wide variety of products or a miscellaneous group of products because data in these cases are of limited value. In some cases, certain subgroups have been included in place of the related aggregate group.

TRADE DATA NOTE

Although all import and export data presented in this report are official statistics of the U.S. Department of Commerce (Commerce), these data may be substantially different from the data 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:

- C Data in this report include merchandise trade only; other reported data may include services.
- C Data are not seasonally adjusted; the values of other reported data may be so adjusted.
- C Data are not adjusted on a balance of payments (BOP) basis; the values of other reported data may be so adjusted in line with the concepts and definitions used to prepare national and international accounts.
- C Exports are on a domestic export/f.a.s. basis; other reported export data may be on a total export/f.a.s. basis, which include re-exports of foreign merchandise.
- C Imports are on an imports-for-consumption/customs value basis; other reported import data may be on a general imports/customs value basis.
- C Exports and imports may not include all errata because certain errors may not be corrected by Commerce in time to be included in this report.
- C Data in this report may be adjusted for errors that are not of sufficient magnitude to be changed in Commerce data.
- C There are no adjustments for carryover (exports and imports received late or not processed for any reason and then subsequently included in a later month's data are reassigned to the month of exportation/entry), and trade is reported as originally released by Commerce. Other reported data may adjust export/import trade for carryover.
- C The industry/commodity groups contained in this report are developed by the USITC and may differ from similarly labeled groups from other sources.

and intensified into the third quarter of 2001 when the terrorist acts of September 11 further aggravated an already struggling U.S. and world economies.

Against a backdrop of lower investment returns from the stock market and increasing unemployment, consumers spent a slightly lower portion of disposable income. However, durable expenditures, particularly purchases of household equipment and automobiles, were relatively strong for a period of economic uncertainty. Factors supporting this pattern of consumption included low and declining interest rates combined with rebates from tax cuts implemented in 2001 and financing incentives offered by automotive manufacturers for purchases of new vehicles. Much of this demand was met by liquidating inventories as manufacturers began to reduce production late in 2000 to avoid an inventory buildup at the beginning of the economic slowdown.

Likewise, business investment and expenditures were discouraged by poor corporate-sector performance and reduced productivity along with slowing growth rates among most global economies. Also, the continued strength of the U.S. dollar against the currencies of major U.S. trade partners tended to lessen the competitiveness of U.S. merchandise in foreign markets.⁴

U.S. TRADE BY INDUSTRY/COMMODITY GROUPS AND SECTORS

U.S. Trade Balance

Contraction of the U.S. merchandise trade deficit during 2001 reflects significant shifts in key industry/commodity groups shown in tables D-1 through D-8 in appendix D. Several shifts toward increased exports (table D-1) contributed to the smaller deficit, primarily aircraft, spacecraft, and related equipment (hereafter aircraft equipment); medicinal chemicals (both active ingredients and formulated product); medical goods; and aircraft engines and gas turbines. However, the notable cause for a smaller deficit was a substantial decrease in imports (table D-4) of semiconductors and integrated circuits (hereafter semiconductors); and computers, peripherals, and parts (hereafter computer hardware), which together dropped by \$33.3 billion or 24 percent for the year. Counter shifts somewhat tempered the deficit reduction during this period, particularly decreased exports (table D-2) of semiconductors and increased imports (table D-3) of medicinal chemicals.

Overall, the predominant industry/commodity groups contributing to the 2001 deficit were motor vehicles, apparel, crude petroleum, and computer hardware (table D-7). Trade deficits in these four groups together accounted for \$248 billion, or about 53 percent of the U.S. merchandise trade deficit in 2001, a slight decrease from the previous year when they accounted for a 54-percent share. In contrast, aircraft equipment again recorded the largest surplus (\$21.5 billion), see table D-8. These five groups were not only a large component of the 2001 U.S. trade position, but also exhibited significant shifts in exports, imports, or both during 2001.

³ (...continued)

Economic Advisers, "Macroeconomic Performance in 2001: Softer Economy, Harder Choices," Feb. 2002, pp. 23-43; Federal Reserve Board of Governors, *Monetary Policy Report Submitted to Congress*, Feb. 27, 2002; and OECD, "United States," *OECD Economic Outlook* (Paris: OECD, Dec. 2001), pp. 49-53.

⁴ See app. F for a more detailed discussion about how exchange rate shifts and other macroeconomic factors affect trade flows.

Each of the major industry/commodity sectors covered in this report registered trade deficits in 2001 (table 2-1)⁵ with the exception of agricultural products, which recorded a wider trade surplus. The most significant change for the year was in electronic products, which recorded a sizeable reduction in its trade deficit. Although other sectors recorded mixed movement in their trade deficit, the larger shifts were reductions which lowered the overall trade deficit.

Table 2-1
U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Agricultural products	59,112	60,109	997	1.7
Forest products	26,434	23,743	-2,691	-10.2
Chemicals and related products	92,433	91,274	-1,159	-1.3
Energy-related products	15,529	15,073	-455	-2.9
Textiles and apparel	20,353	18,118	-2,235	-11.0
Footwear	664	638	-25	-3.8
Minerals and metals	47,280	43,507	-3,773	-8.0
Machinery	79,140	69,234	-9,906	-12.5
Transportation equipment	143,641	144,536	895	0.6
Electronic products	189,109	160,717	-28,392	-15.0
Miscellaneous manufactures	16,872	16,428	-444	-2.6
Special provisions	21,721	22,644	923	4.2
Total	712,287	666,021	-46,266	-6.5
U.S. imports for consumption:				
Agricultural products	52,159	52,599	439	0.8
Forest products	38,195	36,678	-1,517	-4.0
Chemicals and related products	95,295	98,564	3,269	3.4
Energy-related products	122,650	114,226	-8,423	-6.9
Textiles and apparel	80,909	79,946	-963	-1.2
Footwear	14,856	15,249	394	2.7
Minerals and metals	95,015	83,847	-11,168	-11.8
Machinery	89,293	84,719	-4,574	-5.1
Transportation equipment	223,355	222,055	-1,300	-0.6
Electronic products	277,854	229,571	-48,282	-17.4
Miscellaneous manufactures	67,322	66,575	-747	-1.1
Special provisions	48,436	48,605	169	0.3
Total	1,205,339	1,132,635	-72,704	-6.0
U.S. merchandise trade balance:				
Agricultural products	6,953	7,511	558	8.0
Forest products	-11,761	-12,935	-1,174	-10.0
Chemicals and related products	-2,862	-7,290	-4,428	-154.7
Energy-related products	-107,121	-99,153	7,968	7.4
Textiles and apparel	-60,555	-61,828	-1,272	-2.1
Footwear	-14,192	-14,611	-419	-3.0
Minerals and metals	-47,735	-40,341	7,395	15.5
Machinery	-10,153	-15,485	-5,332	-52.5
Transportation equipment	-79,714	-77,519	2,195	2.8
Electronic products	-88,745	-68,855	19,890	22.4
Miscellaneous manufactures	-50,450	-50,147	304	0.6
Special provisions	-26,715	-25,961	754	2.8
Total	-493,052	-466,614	26,437	5.4

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.

⁵ Discussion of U.S. merchandise trade by industry/commodity sectors excludes products covered by special provisions of the HTS (import schedule) in chs. 98-99. Chapter 98 in both the HTS and Schedule B (export schedule) covers special classification provisions (including articles exported and returned; substantial containers or holders; personal exemptions; importations of the U.S. Government, foreign governments, and other institutions; and articles for exhibition), but they are not comparable in content. Chapter 99 in the HTS covers temporary legislation, temporary modifications established pursuant trade legislation, and additional import restrictions established pursuant to section 22 of the Agricultural Adjustment Act, as amended. There is no chapter 99 for Schedule B.

U.S. Exports

U.S. merchandise exports decreased in 2001 for each industry/commodity sector except agricultural products and transportation equipment (table 2-1). The most significant drop (exceeding \$1.5 billion) was in electronic products, which recorded a \$28.4-billion decrease in exports and accounted for 61 percent of the net decrease of all U.S. merchandise exports in 2001. Further analyses of the underlying factors and the leading products responsible for export shifts in these and other industry/commodity sectors are provided in chapters 4-13.

U.S. Imports

U.S. merchandise imports fell in 2001 for a majority of industry/commodity sectors (table 2-1), the exceptions being agricultural products, chemicals and related products, and footwear. As with the downturn in exports, electronic products also registered the largest decline (exceeding \$1.5 billion) in imports, accounting for \$48.3 billion (66 percent) of the net decrease in merchandise imports. Further analyses of the underlying factors and the leading products responsible for import shifts in these and other industry/commodity sectors are provided in chapters 4-13.

U.S. BILATERAL/MULTILATERAL TRADE

Significant Bilateral/Multilateral Shifts

The reduction of the U.S. merchandise trade deficit during 2001 also reflected significant shifts with certain key trade partners. Table 2-2 shows U.S. bilateral merchandise trade with its 10 largest partners (ranked by total trade) and U.S. multilateral merchandise trade with selected country groups⁶ during 2001. The U.S. trade deficit showed mixed movement with its five major partners—Canada, China, the European Union (EU), Japan, and Mexico.⁷ The deficit with Japan recorded the largest reduction of \$12.4 billion and accounted for 47 percent of the net decrease in the trade deficit. Analyses of the underlying factors and the leading products responsible for trade shifts for each of these five major partners are provided in chapter 3.

Significance of International Trade in the Gross Domestic Product

To provide perspective on the significance of international trade in the U.S. economy, merchandise trade values are compared with various macroeconomic measures. For the United States and its five major trade partners, the relative sizes of their economies, U.S. bilateral merchandise trade flows, and the ratios of such balances to U.S. gross domestic product (GDP) are compared in table 2-3. The U.S. merchandise trade deficit with all worldwide trade partners combined—4.6 percent of the nominal U.S. GDP in 2001—was lower than the previous year but higher as compared to ratios of 4.1 percent in 1999 and 3.2 percent in 1998. In 2001, U.S. merchandise trade deficits with its five major trade partners accounted for a combined 3.3 percent of nominal U.S. GDP. During the 5-year period

⁶ See app. E for a list of countries/political entities included in the selected country groupings of table 2-2.

⁷ In recent years, these countries consistently appeared as the top five U.S. partners in terms of total trade, although it should also be noted that the United States may not be a top trading partner for these countries. The 15-member countries of the EU are considered together as a single U.S. trade partner, although no individual EU country was consistently ranked among the top five U.S. trade partners from year to year.

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, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	155,601	144,621	-10,980	-7.1
Mexico	100,442	90,537	-9,905	-9.9
Japan	60,751	53,546	-7,205	-11.9
China	15,335	17,959	2,624	17.1
Germany	27,403	28,068	665	2.4
United Kingdom	38,148	37,097	-1,051	-2.8
Korea	26,302	20,900	-5,403	-20.5
Taiwan	22,404	16,626	-5,778	-25.8
France	18,921	18,626	-295	-1.6
Italy	9,509	9,021	-488	-5.1
All Other	237,471	229,020	-8,451	-3.6
Total	712,287	666,021	-46,266	-6.5
EU-15	152,652	147,327	-5,325	-3.5
OPEC	18,234	18,934	699	3.8
Latin America	156,292	145,252	-11,040	-7.1
CBERA	20,728	20,117	-611	-2.9
Asia	185,282	165,879	-19,403	-10.5
Sub-Saharan Africa	5,563	6,750	1,187	21.3
Central and Eastern Europe	2,743	2,888	145	5.3
U.S. imports for consumption:				
Canada	229,060	216,836	-12,224	-5.3
Mexico	134,734	130,509	-4,225	-3.1
Japan	145,742	126,139	-19,602	-13.5
China	99,581	102,069	2,489	2.5
Germany	58,349	58,939	589	1.0
United Kingdom	42,843	41,118	-1,724	-4.0
Korea	39,829	34,917	-4,912	-12.3
Taiwan	40,384	33,262	-7,122	-17.6
France	29,435	30,024	589	2.0
Italy	24,794	23,707	-1,087	-4.4
All Other	360,589	335,115	-25,474	-7.1
Total	1,205,339	1,132,635	-72,704	-6.0
EU-15	218,375	218,911	536	0.2
OPEC	62,934	55,728	-7,206	-11.5
Latin America	206,087	196,096	-9,991	-4.8
CBERA	22,161	20,679	-1,482	-6.7
Asia	443,490	399,750	-43,740	-9.9
Sub-Saharan Africa	22,213	21,060	-1,152	-5.2
Central and Eastern Europe	6,385	6,696	311	4.9
U.S. merchandise trade balance:				
Canada	-73,459	-72,215	1,244	1.7
Mexico	-34,292	-39,971	-5,679	-16.6
Japan	-84,991	-72,593	12,397	14.6
China	-84,245	-84,110	135	0.2
Germany	-30,946	-30,871	75	0.2
United Kingdom	-4,695	-4,021	674	14.4
Korea	-13,526	-14,018	-491	-3.6
Taiwan	-17,980	-16,636	1,344	7.5
France	-10,514	-11,398	-884	-8.4
Italy	-15,285	-14,686	599	3.9
All Other	-123,118	-106,094	17,023	13.8
Total	-493,052	-466,614	26,437	5.4
EU-15	-65,723	-71,584	-5,861	-8.9
OPEC	-44,699	-36,794	7,905	17.7
Latin America	-49,795	-50,844	-1,049	-2.1
CBERA	-1,433	-562	871	60.8
Asia	-258,208	-233,871	24,337	9.4
Sub-Saharan Africa	-16,649	-14,310	2,339	14.0
Central and Eastern Europe	-3,642	-3,808	-166	-4.6

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 2001.

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

Table 2-3

U.S. bilateral merchandise trade balances with major partners, in U.S. dollars and as a ratio to nominal U.S. gross domestic product (GDP), 2001

Partner	Nominal GDP	U.S. exports	U.S. imports	U.S. merchandise trade balance	Ratio of the merchandise trade balance to U.S. GDP
	<i>Billion dollars</i>	<i>Million dollars</i>			<i>Percent</i>
European Union (EU)	8,280.7	147,327	218,911	-71,584	0.7
Japan	4,129.0	53,546	126,139	-72,593	0.7
China	1,160.0	17,959	102,069	-84,110	0.8
Canada	727.5	144,621	216,836	-72,215	0.7
Mexico	590.0	90,537	130,509	-39,971	0.4
United States	10,208.1	666,021	1,132,635	-466,614	4.6

Note.—Calculations based on rounded data.

Source: U.S. trade data compiled from official statistics of the U.S. Department of Commerce (USDOC). GDP data for the United States are from USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Table 1.1, Gross Domestic Product, Apr. 2002, p. D-3. Estimated GDP data for Canada, Japan, Mexico, EU, and China are from U.S. Department of State, *Country Reports on Economic Policy and Trade Practices*, 2001, found at <http://www.state.gov/e/eb/rls/rpts/eptp/2001>, retrieved Mar. 22, 2002.

1997-2001, imports of merchandise (goods) became a larger component of the U.S. economy; in 2001 the measure dropped by only 1 percentage point. Exports of U.S. goods relative to the economy fluctuated over the same period to represent a smaller share of GDP in 2001 compared with 2000 (table 2-4).

Comparing U.S. global merchandise imports and exports as shares of GDP with such ratios for each of its major trade partners (table 2-5)⁸ indicates that during 1997-2001, global merchandise trade accounted for a smaller portion of GDP for the United States and Japan (the world's two largest economies) than for other major partners.⁹ In terms of exports, U.S. trade partners generally benefitted from growth (albeit slowing) in the U.S. economy until 2001, when Japan, Mexico, and Germany recorded roughly 50-percent decreases in exports to the United States and foreign markets overall. Although the ratio of merchandise imports to GDP was higher for the United States than for Japan over the 5-year period, it was roughly one-third to one-half the ratios for China, Canada, Mexico, and Germany until 2001, when Mexico and Germany reduced imports from the United States and foreign markets overall by about one-half. Canada and China were the only top five U.S. trading partners that recorded growth in their ratios of total merchandise trade to nominal GDP through 2001.¹⁰

⁸ Because EU data are not available at the time of publication, German data are used for comparison purposes.

⁹ This is typical since countries with larger internal markets tend to have low ratios of trade to GDP than countries with relatively smaller markets.

¹⁰ See ch. 3 for more information about significant shifts with leading trade partners.

Table 2-4
Components of U.S. gross domestic product (GDP) and trade as a share of GDP, 1997-2001

Component	1997	1998	1999	2000	2001
<i>Billion current dollars</i>					
Personal consumption expenditures:					
Goods	2,284.6	2,407.1	2,601.7	2,809.2	2,913.4
Services	3,239.8	3,441.5	3,655.6	3,919.2	4,151.1
Gross private domestic investment	1,383.7	1,531.2	1,622.7	1,767.5	1,633.9
Exports:					
Goods	643.2	634.7	642.2	712.3	666.0
Services	279.0	285.1	299.3	317.3	314.0
Imports:					
Goods	862.4	907.6	1,017.4	1,205.3	1,132.6
Services	171.2	185.5	203.1	221.9	206.6
Government consumption expenditures and gross investment	1,481.0	1,529.7	1,630.1	1,741.0	1,839.5
Gross Domestic Product	8,300.8	8,759.9	9,299.2	9,872.9	10,208.1
<i>Percent</i>					
Exports as a share of GDP:					
Goods	7.7	7.2	6.9	7.2	6.5
Services	3.4	3.3	3.2	3.2	3.1
Imports as a share of GDP:					
Goods	10.4	10.4	11.0	12.2	11.1
Services	2.1	2.1	2.2	2.3	2.0

Note.--Calculations based on rounded data. Components of U.S. GDP may not sum to total, as merchandise trade data are consistent with other trade statistics cited in this report.

Source: Merchandise trade data are compiled from official statistics of the U.S. Department of Commerce (USDOC). All other data (balance-of-payments basis) are from USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Table 1.1, Gross Domestic Product, Apr. 2002, p. D-3.

Table 2-5
Total merchandise trade (exports and imports) as a share of gross domestic product (GDP) for the United States and major trade partners, 1997-2001

Country	<i>(Percent)</i>					Change 1997-2001
	1997	1998	1999	2000	2001	
Exports as a share of GDP:						
United States	7.7	7.2	6.9	7.2	6.5	-1.2
Japan	9.8	9.9	9.4	9.1	4.4	-5.4
China	20.2	19.1	19.5	23.1	23.2	3.0
Canada	34.5	36.0	37.4	40.0	38.3	3.8
Mexico	27.5	28.3	29.2	30.8	13.6	-13.9
Germany	24.5	25.8	28.9	29.4	13.5	-11.0
Imports as a share of GDP:						
United States	10.4	10.4	11.0	12.2	11.1	0.7
Japan	7.3	6.7	6.3	7.2	4.5	-2.8
China	15.8	14.6	15.3	19.9	20.8	5.0
Canada	31.8	33.9	34.4	34.4	32.7	0.9
Mexico	27.3	30.2	30.4	32.3	14.3	-13.0
Germany	21.3	22.0	27.8	26.5	15.4	-5.9

Note.--Calculations based on rounded data, U.S. dollars.

Source: U.S. trade data compiled from official statistics of the U.S. Department of Commerce (USDOC). GDP data for the United States are from USDOC, Bureau of Economic Analysis, *Survey of Current Business*, Table 1.1, Gross Domestic Product, Apr. 2002, p. D-3. Estimated trade and GDP data for Japan, China, Canada, Mexico, and Germany are from U.S. Department of State, *Country Reports on Economic Policy and Trade Practices*, 2001, found at <http://www.state.gov/e/eb/rls/rpts/eptp/2001>, retrieved Mar. 22, 2002.

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CHAPTER 3

Significant Shifts With Leading Partners and Factors Affecting Trends in Selected Industry/Commodity Groups

This chapter examines noteworthy economic and trade developments among major U.S. trade partners during 2001 and selected industries during 1991-2001. Significant shifts in U.S. trade with each of the top five U.S. trade partners are discussed, including highlights of trade-related developments and analyses of trade trends. Long-term trade trends are analyzed for five selected industry/commodity groups.

SIGNIFICANT SHIFTS WITH LEADING PARTNERS

The following sections summarize key shifts in U.S. merchandise trade with each of its top five trade partners in terms of U.S. total trade (exports plus imports)—Canada, China, the European Union, Japan, and Mexico. For each partner, U.S. trade flows are discussed for the relevant industry/commodity groups and subgroups. A tabulation of significant shifts in trade is included at the end of the discussions for each partner.

Canada

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$1.2 billion (2 percent) to \$72.2 billion

U.S. exports: Decreased by \$11.0 billion (7 percent) to \$144.6 billion

U.S. imports: Decreased by \$12.2 billion (5 percent) to \$216.8 billion

- Total trade (exports plus imports) with Canada decreased by \$23.2 billion (6 percent) in 2001 to \$361.5 billion (table 3-1). The events of September 11 worsened an already difficult situation in the global economy, as worldwide consumer and business confidence has further weakened.¹ Annual growth in U.S. and Canadian output each fell from 4 percent in 2000 to 1 percent in 2001.²
- Canada remained the largest market for U.S. exports and the principal source of U.S. imports in 2001. Bilateral trade with Canada is strongly influenced by the highly integrated nature of North

¹ IMF, *World Economic Outlook*, Dec. 2001, p. 1, retrieved Mar. 7, 2002.

² *Ibid.*, p. 2.

Table 3-1
Leading changes in U.S. exports to and U.S. imports from Canada, 2000 and 2001

Sector and industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Transportation equipment:				
Aircraft, spacecraft, and related equipment (ET013)	2,000	2,262	262	13.1
Aircraft engines and gas turbines (ET001)	1,841	1,971	130	7.1
Other:				
Electrical energy (CH001)	398	1,258	861	216.5
Decreases:				
Transportation equipment:				
Certain motor-vehicle parts (ET010)	15,832	14,119	-1,713	-10.8
Motor vehicles (ET009)	14,485	12,834	-1,651	-11.4
Internal combustion piston engines, other than for aircraft (ET002)	7,670	6,719	-951	-12.4
Miscellaneous vehicles and transportation-related equipment (ET012)	1,376	1,209	-167	-12.1
Ignition, starting, lighting, and other electrical equipment (ET007)	1,049	911	-138	-13.1
Electronic products:				
Semiconductors and integrated circuits (ET033)	3,302	1,834	-1,468	-44.5
Telephone and telegraph apparatus (ET017)	3,105	2,048	-1,057	-34.0
Computers, peripherals, and parts (ET035)	5,889	4,981	-908	-15.4
Other:				
Copper and related articles (MM036)	1,462	465	-997	-68.2
Seats for motor vehicles and aircraft (MM067)	997	772	-225	-22.6
All other	96,196	93,238	-2,957	-3.1
TOTAL	155,601	144,621	-10,980	-7.1
U.S. IMPORTS:				
Increases:				
Energy-related products:				
Natural gas and components (CH006)	11,970	16,817	4,847	40.5
Petroleum products (CH005)	3,911	4,287	376	9.6
Transportation equipment:				
Aircraft, spacecraft, and related equipment (ET013)	4,747	6,094	1,347	28.4
Aircraft engines and gas turbines (ET001)	1,957	2,465	508	26.0
Decreases:				
Electronic products:				
Telephone and telegraph apparatus (ET017)	9,156	3,902	-5,254	-57.4
Computers, peripherals, and parts (ET035)	3,742	2,836	-907	-24.2
Semiconductors and integrated circuits (ET033)	2,110	1,761	-350	-16.6
Transportation equipment:				
Motor vehicles (ET009)	45,656	41,150	-4,506	-9.9
Internal combustion piston engines, other than for aircraft (ET002)	4,104	3,315	-788	-19.2
Certain motor-vehicle parts (ET010)	9,343	8,611	-732	-7.8
Other:				
Crude petroleum (CH004)	12,654	10,121	-2,533	-20.0
All other	119,709	115,478	-4,232	-3.5
TOTAL	229,060	216,836	-12,224	-5.3

Note.-Calculations based on unrounded data.

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

American manufacturing, facilitated by shared infrastructure and markets, and a high level of foreign direct investment (FDI).³

- The slowdown in the U.S. and Canadian economies led to reduced two-way trade in motor vehicles, internal combustion piston engines other than for aircraft (hereafter engines), and certain motor-vehicle parts as U.S. exports fell by \$4.3 billion (11 percent) to \$33.7 billion and U.S. imports dropped by \$6.0 billion (10 percent) to \$53.1 billion. Engines and certain motor-vehicle parts accounted for 62 percent of U.S. exports of this group of products to Canada in 2001, whereas assembled vehicles accounted for 78 percent of U.S. imports from Canada.⁴
- U.S.-Canada trade in electronic products declined significantly in 2001 as the slowdown in the global economy led businesses and consumers to postpone equipment purchases and as vendors worked off significant built-up inventories. Electronic industry commodity groups experiencing the greatest decrease in U.S.-Canada trade included semiconductors and telephone and telegraph apparatus (telecommunications equipment).⁵
- Despite the reduced U.S.-Canadian trade in the electronic products sector in 2001 (down by \$7.3 billion for U.S. imports from Canada and by \$4.9 billion for U.S. exports to Canada), the U.S. bilateral trade surplus with Canada in this sector increased from \$3.8 billion to \$6.2 billion (table 12-1).⁶ However, the U.S. trade deficit with Canada in energy and related products expanded by \$1.8 billion in 2001, to \$30.7 billion, and largely reflects the growing importance of Canada as a source of energy (table 7-1).
- An exception with Canada in 2001 was the growth in aircraft, spacecraft, and related equipment and in aircraft engines and gas turbines, for which U.S. exports rose by \$392 million (10 percent) to \$4.2 billion, whereas imports from Canada expanded by \$1.9 billion (28 percent) to \$8.6 billion (table 3-1). The rise in imports from Canada reflects deliveries of regional jet aircraft by Quebec-based Bombardier and efforts by Boeing to outsource assembly of certain aircraft structures to Canadian vendors having lower labor costs than U.S. competitors.

U.S. exports

- The decreased U.S. exports of engines and certain motor-vehicle parts reflected a 15-percent decline in Canadian motor vehicle production in 2001, as U.S. demand weakened for certain models of vehicles assembled in Canada and the supply of parts to Canadian assembly plants was

³ Canada was the second-largest destination for U.S. foreign direct investment in 2000 (latest data available) at \$126.4 billion, after the United Kingdom at \$233.4 billion, according to the BEA, "U.S. Direct Investment Abroad, International Data, Country Detail for Position, Capital Flow, and Income," found at <http://www.bea.doc.gov/bea/di/diapos>, retrieved Mar. 2002. Canada was the sixth-largest source of FDI in the United States at \$100.8 billion in 2000, preceded by the United Kingdom, \$229.8 billion, Japan, \$163.2 billion, the Netherlands, \$152.4 billion, Germany, \$122.8 billion, and France, \$119.1 billion. Found at <http://www.bea.doc.gov/bea/di/dfipos> (latest data available), retrieved Mar. 2002.

⁴ Analysts at Scotiabank Group predict that Mexico will soon surpass Canada as the leading foreign supplier of parts to the U.S. automobile industry. The Scotia Bank, *Canadian Auto Report*, p. 2, found at www.scotiabank.com, retrieved Nov. 30, 2001.

⁵ "Semiconductor Growth Succumbs to Slowing U.S. Economy," *U.S. Business Reporter*, found at http://www.activemedia-guide.com/semiconductor_industry.htm, retrieved Feb. 21, 2002.

⁶ See "Telephones and Telegraph Apparatus" in this chapter, and "Semiconductors and Integrated Circuits" and "Computers, Peripherals, and Parts" in ch. 12.

disrupted following September 11.⁷ According to analysts at Scotia Bank, Canada's increase in imports of automobiles from Japan, Brazil, and Germany rose in 2001, reflecting a growing preference in Canada for more fuel-efficient cars.

- U.S. exports of copper and related articles to Canada declined significantly in 2001, largely reflecting sharply reduced shipments of semifabricated copper articles by a U.S. entity to facilities in Canada where the metal was fabricated, then returned to the United States for further processing.

U.S. imports

- A \$4.8 billion rise in U.S. imports of natural gas and components from Canada in 2001 was partially offset by a \$2.5 billion decrease in the value of crude petroleum imports and a \$861 million increase in U.S. exports of electrical energy to Canada, thus mitigating the expansion of the U.S. bilateral deficit in the energy-related products sector. Although U.S. imports of crude petroleum decreased in terms of value because of the decline in price in 2001, the quantity imported actually increased.
- U.S. imports of electronic products from Canada fell by \$7.3 billion (35 percent) to \$13.9 billion in 2001, the sluggish market also affected U.S. exports of such products to Canada, which declined by \$4.9 billion (20 percent) to \$20.1 billion (table 12-1).

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China

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$135 million (0.2 percent) to \$84.1 billion

U.S. exports: Increased by \$2.6 billion (17 percent) to \$17.9 billion

U.S. imports: Increased by \$2.5 billion (3 percent) to \$102 billion

- After 17 years of consecutive increases, the U.S. trade deficit with China declined in 2001.⁸ U.S. total trade (imports plus exports) with China increased only by 4 percent as compared with an increase of 22 percent in 2000. China continued to rank as the fourth-leading U.S. trade partner.
- The continued expansion in U.S. trade with China despite the slowdown in the world economy in 2001 reflects growing domestic consumption in China⁹ and the use of U.S.-made machinery and intermediate goods in the assembly of articles that China exports. Foreign direct investment

⁷ See "Motor Vehicles and Certain Motor Vehicle Parts" in ch. 11.

⁸ The largest U.S. bilateral trade deficit in 2001 was with China, surpassing the deficit with Japan, which contracted in 2001 (table 2-2).

⁹ China's rapid economic development in the eastern cities of the country, coupled with its large population, has led to the rise of a large base of affluent urban consumers. U.S. Department of Commerce, International Trade Administration, "Furniture China 2000-Sept.2000," Apr. 4, 2001, found at <http://www.stat-usa.gov/mrd/nsf/vw...penDocument&sessID=309604BC05B2D15>, retrieved Apr. 5, 2002.

inflows, which reached a record \$46.9 billion in 2001,¹⁰ contributed to China's 7.3 percent growth in gross domestic product (GDP) in 2001.¹¹

- China's gradual transformation towards a market economy and its accession to the World Trade Organization (WTO) on December 11, 2001, likely will result in a continued evolution of its trade relationship with the United States. In accordance with its WTO accession agreement, China must lower tariff rates on a wide range of products, which is expected to improve access to the Chinese market for foreign-made goods.
- The bulk of U.S. exports to China traditionally have consisted of machinery, intermediate goods, aircraft, and fertilizers. By contrast, imports from China chiefly have consisted of low-technology and/or labor-intensive goods, such as sewn products (e.g. apparel, footwear, and luggage) and entertainment or recreational goods (toys, games, dolls, sporting goods, and bicycles). These two groupings accounted for 21 percent and 14 percent, respectively, of total U.S. imports from China in 2001. Increasingly, contract assemblers and other investors have established plants in China to supply global markets for telecommunications equipment, computer hardware, and other electronic products. Such products accounted for 27 percent of U.S. imports from China in 2001.
- U.S. trade with China in telephone and telegraph apparatus increased in 2001 (table 3-2). Some companies, seeking lower labor costs, shifted production to China from other Asian countries and from Mexico in response to price pressures in the global market. Increased exports to China reflects a growing share of U.S.-made parts in the assembly of telecommunications equipment and the expanding domestic market in China.¹² Sharply rising use of the Internet has contributed to expanded demand for telecommunications equipment in China.¹³

U.S. exports

- Increased U.S. exports of aircraft, spacecraft, and related equipment (hereafter aircraft equipment), up \$740 million (44 percent) in 2001, reflect China's effort to expand its civil aviation industry to service growing demand. The Chinese Government has invested heavily in air transport, airport construction, auxiliary infrastructure, and transport capacity.¹⁴

¹⁰ In 2001, China received a record \$46.85 billion in paid-in FDI, up by 14.9 percent over FDI inflow in 2000 and 3 percent higher than the record set in 1998. U.S. Department of State telegram Beijing 00528, prepared by U.S. Embassy, Beijing, Jan. 22, 2002.

¹¹ In order to maintain the growth rate, "...fiscal stimulus measures designed to raise incomes, increase employment, and strengthen domestic demand remain a priority" to the Chinese Government. U.S. Department of State telegram No. 9208, "Beijing," prepared by U.S. Embassy, Beijing, Dec. 11, 2001.

¹² Consulate General of the People's Republic of China in Houston, "Doing Business with China: Telecommunications," found at <http://www.chinahouston.org/economy/English/Telecommunication.htm>, retrieved Apr. 10, 2002.

¹³ The Internet user population in China will reach approximately 9.4 million by 2002, which is an increase of 1.4 million since 1997. "The State of the Internet Business in Asia Pacific," IDC Asian/Pacific, a market research firm, found at <http://www.interdata.com.au/anz/default.htm?marketview/content/east/2001-03-07.htm&2>, retrieved Apr. 10, 2002.

¹⁴ U.S. Department of Commerce, International Trade Administration, "Regional Aviation Market," Mar. 14, 2001, found at <http://www.statista.gov/mrd.nsf/vw...penDocument&sessID=E019048F05B2D30>, retrieved Apr. 5, 2002.

Table 3-2
Leading changes in U.S. exports to and U.S. imports from China, 2000 and 2001

Sector and industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Electronic products:				
Semiconductors and integrated circuits (ET033) . . .	686	946	260	37.9
Telephone and telegraph apparatus (ET017)	639	874	235	36.7
Other:				
Aircraft, spacecraft, and related equipment (ET013)	1,689	2,429	740	43.8
Decreases:				
Fertilizers (CH016)	662	420	-241	-36.5
All other	11,659	13,289	1,630	14.0
TOTAL	15,335	17,959	2,624	17.1
U.S. IMPORTS:				
Increases:				
Miscellaneous manufactures:				
Furniture (MM054)	4,060	4,608	548	13.5
Games (MM060)	1,211	1,518	307	25.3
Machinery:				
Household appliances, including commercial applications (MM073)	2,374	2,845	471	19.8
Electric lamps (bulbs) and portable electric lights (MM095)	308	541	234	75.9
Other:				
Footwear (CH051)	9,206	9,767	561	6.1
Apparel (CH049)	8,528	8,912	384	4.5
Telephone and telegraph apparatus (ET017)	2,942	3,222	280	9.5
Decreases:				
Miscellaneous manufactures:				
Toys (MM059)	6,907	6,410	-497	-7.2
Dolls (MM058)	1,295	1,073	-222	-17.1
Bicycles and certain parts (MM053)	710	592	-117	-16.5
Other:				
Miscellaneous vehicles and transportation-related equipment (ET012)	613	170	-443	-72.2
Photographic cameras and equipment (ET039)	1,213	919	-293	-24.2
All other	60,214	61,490	1,276	2.1
TOTAL	99,581	102,069	2,489	2.5

Note.-Calculations based on unrounded data.

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

- Most of the increase in U.S. aircraft equipment exports to China in 2001 can be attributed to deliveries of 15 large civil aircraft (LCA) by Boeing, valued at \$1.4 billion.¹⁵ Boeing's LCA now account for 64 percent of the Chinese market,¹⁶ and new orders for 40 LCAs valued at \$2.4 billion were placed with Boeing in 2001.¹⁷

¹⁵ Boeing representative, telephone interview by USITC staff, Apr. 11, 2002.

¹⁶ Boeing, "Boeing and China," Aug. 2001, found at <http://www.boeing.com/companyoffices/aboutus/boechina.htm>, retrieved Apr. 10, 2002.

¹⁷ With its accession to WTO, China is expected to eliminate import licenses for civil aircraft and parts. According to the U.S. Department of Commerce, for all items covered by the WTO Agreement on Trade in Civil Aircraft, tariffs will be bound and reduced from the current average rate of 14.7 % to a final average rate of 8%

(continued...)

- U.S. exports of semiconductors and integrated circuits to China grew by \$260 million (38 percent) in 2001, countering the global contraction in semiconductor trade. Demand remained strong within China for domestically made articles that incorporate semiconductors.
- U.S. exports of fertilizers to China decreased by \$241 million (37 percent) in 2001. China has become the most important export market for U.S. fertilizer, primarily diammonium phosphate (DAP). In terms of quantity, China accounted for one-half of U.S. DAP global exports in 2000 and 2001.¹⁸ The decline in exports is likely a result of China's pattern of purchasing DAP in bulk quantities to save on shipping costs.¹⁹ China's DAP purchases are therefore erratic as a large inventory accumulates and is drawn down before another order is placed.

U.S. imports

- China is the world's leading low-cost supplier of footwear and apparel, and U.S. imports from China in these categories rose by \$561 million (6 percent) and \$383 million (5 percent), respectively, in 2001. Although growth in imports of apparel from China is limited by the U.S. textile quota program, China benefitted from a 15-percent increase in Mexican manufacturing wages relative to the U.S. dollar. Because of rising costs in Mexico, several U.S. apparel companies shifted their sourcing from Mexico to China in 2001. In contrast to the growth in U.S. apparel imports from China in 2001, imports from Mexico fell by \$602 million.
- U.S. imports of household appliances from China rose by \$471 million (20 percent) in 2001, reflecting growth in home construction and renovation in the United States as consumers responded to low interest rates.²⁰ Similarly, U.S. imports of furniture from China increased by \$548 million (14 percent) in 2001.²¹
- Trends in electronic game technology had a significant effect on U.S. imports from China as well as Japan. Sony introduced its version of the latest generation of home video games in October 2000; Nintendo and Microsoft followed suit in October 2001. Game consoles, which must be attached to a television for viewing, retail at \$200 to \$300, whereas each game software package for the consoles retails at \$30 to \$50. Limits placed by parents on children's entertainment spending and the popularity of these video games have displaced sales of competing forms of entertainment, such as other games, dolls, toys, scooters, and sporting goods. Although Nintendo

¹⁷ (...continued)

starting with China's accession to the WTO, with most reductions to have been completed by January 1, 2002. For information about the market for aircraft and airport equipment in China, see U.S. Department of commerce, "Aircraft, Air Traffic, and Ground Support Equipment," in *International Market Insight*, found at <http://170.110.104.27/autosuggest.asp?docid=1472301&url=http%3A%2F%2Fwww%2Eusatrade%2Egov%2Fwebsite%5CMRD%2Ens%2FAllwithout%5FCCG%2F5e6763427ccf085148256a95002cc925%3FOpenDocument&ip=&port=&imgflg=&sumflg=ContextSummary&author=>, retrieved Jul. 1, 2002.

¹⁸ In 2000, the United States exported 7.2 million metric tons (mmt) of DAP to the world market, of which China received 4.0 mmt. See U.S. Department of the Interior, U.S. Geological Survey, Stephen M Jasinski, "Phosphate Rock," *Survey of Minerals Yearbook—2000*, Table 8. In 2001, the United States exported 6.4 mmt, of which China received 2.9 mmt. Stephen M. Jasinski, telephone interview by USITC staff, Jun. 3, 2002.

¹⁹ Kieth Klindworth, transportation specialist, The Fertilizer Institute, telephone interview by USITC staff, May 31, 2002.

²⁰ By comparison, U.S. producers' shipments of household appliances also rose by \$902 million (4 percent) in 2001. U.S. Department of Commerce, Bureau of the Census, Economics and Statistics Administration, "Table 1. Value of Manufacturers' Shipments for Industry Groups," *Manufacturers' Shipments, Inventories, and Orders December 2001*, Feb. 2002.

²¹ See "Furniture" in this chapter for U.S. trade with China.

and Sony, the leading video game producers, manufacture their video game consoles in Japan, China supplies certain injection molded accessories (such as joysticks), assemblies of game software, and handheld electronic games. As a result, U.S. imports of games from Japan (almost all video game consoles) rose by \$1.1 billion in 2001 and games from China grew by \$307 million (25 percent). Meanwhile, U.S. imports of toys and dolls from China fell by a collective \$719 million (9 percent) to \$7.5 billion.

- U.S. imports of photographic cameras and equipment (including photocopying apparatus) from China fell by \$293 million (24 percent) in 2001 as the U.S. market continues to shift to digital equipment. China still produces analog (film) cameras.

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European Union

Change in 2001 from 2000:

U.S. trade deficit: Increased by \$5.9 billion (9 percent) to \$71.6 billion

U.S. exports: Decreased by \$5.3 billion (3 percent) to \$147.3 billion

U.S. imports: Increased by \$0.5 billion (0.2 percent) to \$218.9 billion

- Sluggish growth in both the United States and the European Union (EU) in 2001, with real GDP up just 1.2 percent and 1.6 percent,²² respectively, coupled with low consumer confidence, suppressed trade between these partners. Reduced shipments of computer, peripherals, and parts (hereafter computer hardware) and aircraft, spacecraft, and related equipment (hereafter aircraft equipment) accounted for most of the decline in total U.S. exports to the EU in 2001, and, hence, most of the increase in the U.S. trade deficit with the EU (table 3-3). The U.S. trade deficit with the EU grew for the fourth consecutive year, increasing just over twofold from \$34.7 billion in 1998.
- The slumping world economy led commercial and residential customers alike to defer their purchases of computer hardware and telecommunications equipment in 2001. As a result, two-way trade between the United States and the EU in computer equipment, semiconductors, and semiconductor manufacturing equipment fell sharply, with U.S. exports down by \$4.0 billion and U.S. imports down by \$2.3 billion.

²² The EU GDP growth rate in 2001 was a reduction from 3.3 percent growth in 2000. Eurostat Economic Statistics, European Commission, found at <http://www.europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat>, retrieved Apr. 4, 2002. The U.S. growth rate was a reduction from 4.1 percent. U.S. Department of Commerce, Bureau of Economic Analysis, found at http://www.economy.com/freelunch/fl_dictionary.asp?c=0010&h=H000200020004, retrieved Apr. 16, 2002.

Table 3-3
Leading changes in U.S. exports to and U.S. imports from EU-15, 2000 and 2001

Sector and industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Medicinal chemicals (CH025)	8,341	10,258	1,917	23.0
Medical goods (ET040)	5,979	6,922	943	15.8
Motor vehicles (ET009)	2,055	2,950	895	43.6
Decreases:				
Electronic products:				
Computers, peripherals, and parts (ET035)	15,451	12,718	-2,733	-17.7
Semiconductors and integrated circuits (ET033) ...	4,956	4,345	-611	-12.3
Telephone and telegraph apparatus (ET017)	4,734	4,240	-494	-10.4
Other:				
Aircraft, spacecraft, and related equipment (ET013)	15,628	13,940	-1,688	-10.8
Semiconductor manufacturing equipment and robotics (MM087)	2,920	2,129	-791	-27.1
All other	92,589	89,825	-2,764	-3.0
TOTAL	152,652	147,327	-5,325	-3.5
U.S. IMPORTS:				
Increases:				
Electronic products:				
Medical goods (ET040)	3,760	4,854	1,094	29.1
Telephone and telegraph apparatus (ET017)	2,663	2,856	193	7.2
Other:				
Medicinal chemicals (CH025)	22,678	26,353	3,675	16.2
Aircraft engines and gas turbines (ET001)	7,487	8,997	1,509	20.2
Decreases:				
Computers, peripherals, and parts (ET035)	5,986	4,504	-1,482	-24.8
All other	175,801	171,348	-4,453	-2.5
TOTAL	218,375	218,911	536	0.2

Note.-Calculations based on unrounded data.

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

- A period of high demand in 1999-2000 prompted semiconductor manufacturers to increase capacity, but a sharp decline in demand in 2001 led to significant overcapacity as the global semiconductor industry incurred its worst year ever.²³ Demand for semiconductors was driven down by weaker end-use markets, including decreased consumer demand for personal computers and wireless telephones, and corporate demand for computer upgrades.²⁴
- Despite the downturn in the global economy, industrialized nations continued to increase expenditures on healthcare, leading to increased two-way trade between the United States and the EU in medicinal chemicals (hereafter pharmaceuticals) and medical goods. This trend, in part, reflects a large amount of intracompany movement of precursor and finished pharmaceutical

²³ "Semiconductor Growth Succumbs to Slowing U.S. Economy," *US Business Reporter*, found at http://www.activemedia-guide.com/semiconductor_industry.htm, retrieved Apr. 4, 2002 and Bolaji Ojo, "Semiconductor Sales Suffered Worst Decline Ever in 2001," *EBN*, found at <http://www.ebnonline.com/>, retrieved Apr. 8, 2002.

²⁴ James Hines, "The Semiconductor Manufacturing Outlook: When Will the Upturn Start?" *SEMI*, December 2001, located at <http://www.semi.org>, retrieved Apr. 8, 2002 and Craig Klootwyk, "Overcapacity Causes Problems for Equipment Suppliers in 2001," *SEMI*, March 2002, found at <http://www.semi.org>, retrieved Apr. 8, 2002.

products,²⁵ along with sustained emphasis by U.S. drug companies on outsourcing to capitalize on available European production capacity.²⁶

- Both the United States and Europe are home to companies that are leaders in the development of high-technology medical equipment. As a result, there is substantial two-way trade in medical goods between the United States and Europe. In 2001, U.S. imports of medical goods from the EU rose by \$1.1 billion (29 percent), whereas U.S. exports to the EU climbed by \$943 million (16 percent).
- The soft U.S. economy did not deter consumers from increasing their purchases of luxury vehicles from Germany and Sweden as U.S. imports of motor vehicles from the EU rose by \$919 million (4 percent). Over the past decade, German motor-vehicle producers BMW and Daimler-Benz (now DaimlerChrysler) have built factories in South Carolina and Alabama, respectively, and models that are assembled only in the United States are popular in Europe. This contributed to a \$895-million (44 percent) rise in U.S. exports of motor vehicles to the EU in 2001.

U.S. exports

- The leading EU market for U.S. manufacturers in 2001 was the United Kingdom, accounting for 25 percent of total exports to the EU (unchanged from 2000), followed by Germany with 19 percent (up 1 percent from 2000). Both countries are major markets for U.S. aircraft and aircraft parts, pharmaceuticals, and computer hardware.
- The decline in exports of computer hardware (\$2.7 billion) accounted for over one-half of the total decrease in U.S. exports to the EU in 2001, with the drop in exports of semiconductors and semiconductor manufacturing equipment (\$1.4 billion) accounting for about one quarter.
- Slower growth in the world economy decreased business and other air travel in 2001. That, in turn, led to reduced or deferred deliveries of aircraft and certain aircraft parts internationally.²⁷ As a result, U.S. exports of aircraft equipment to the EU fell by \$1.7 billion (11 percent) in 2001.
- Increases in exports of pharmaceuticals to the EU, up \$1.9 billion (23 percent) in 2001, centered on the United Kingdom, France, and Germany. Each country has a major multinational pharmaceutical company with a presence in the United States, and each country is a large pharmaceutical consumer.²⁸

²⁵ U.S. & Foreign Commercial Service, "Drugs/Pharmaceutical Sector-Industry Update 2001," found at http://www.usatrade.gov/website/mrd.nsf/MRDurl/IMI_IRELAND_DRG_DRUGS-PHARMACEUTICAL_003B7EA7, retrieved Apr. 10, 2002 and "Ireland: Leading Sectors for U.S. Export and Investment," *Tradeport.org*, found at <http://www.tradeport.org/ts/countries/ireland/sectors.html>, retrieved Apr. 10, 2002.

²⁶ For additional information, see Elizabeth Howlett, "Outsourcing by the Pharmaceutical Industry Provides Opportunities for Fine Chemical Producers Worldwide," *Industry Trade and Technology Review*, Publication 3253, Oct. 1999, found at <ftp://ftp.usitc.gov/pub/reports/ittr/PUB3253.PDF>.

²⁷ Air Transport Association, "States of the U.S. Airline Industry: A Report on Recent Trends for U.S. Air Carriers," found at <http://www.airlines.org/public/industry/bin/state.pdf>, retrieved Apr. 10, 2002.

²⁸ See "Medicinal Chemicals" in chapter 6 for further information.

U.S. imports

- U.S. imports of aircraft engines and gas turbines from the EU rose by \$1.5 billion (20 percent) in 2001 as increasing demand by Boeing, the sole U.S. maker of large civil aircraft (LCA), for foreign-built turbojet engines used primarily in LCA construction led to import increases of these products.²⁹
- U.S. imports of computer hardware from the EU fell by \$1.5 billion in 2001 and imports of semiconductors and semiconductor manufacturing equipment dropped by a collective \$799 million.
- U.S. imports of pharmaceuticals from the EU increased by \$3.7 billion (16 percent) in 2001, due largely to the continued presence in Ireland of many multinational pharmaceutical companies' production facilities and the favorable tax treatment accorded to these multinational companies.³⁰

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Japan

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$12.4 billion (15 percent) to \$72.6 billion

U.S. exports: Decreased by \$7.2 billion (12 percent) to \$53.5 billion

U.S. imports: Decreased by \$19.6 billion (14 percent) to \$126.1 billion

- The Japanese economy declined in 2001³¹ as prices and wages dropped,³² unemployment rose to record levels,³³ corporate failures increased,³⁴ and industrial production fell.³⁵ Real GDP began

²⁹ See "Commercial Airplanes Orders and Deliveries," found at <http://active.boeing.com/commercial/orders/customreport.cfm?RequestTimeout=500>, retrieved Apr. 10, 2002.

³⁰ U.S. Department of State, "FY 2001 Country Commercial Guide: Ireland," found at http://www.state.gov/www/about_state/business/com_guides/2001/europe/ireland_ccg2001.pdf, retrieved Apr. 10, 2002.

³¹ The forecast for fiscal 2001 (April 2001 to March 2002) calls for real GDP to decline by 1 percent. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002.

³² James C. Cooper and Kathleen Madigan, "Japan: The World's No. 2 Economy Teeters on the Brink," *Business Week*, Dec. 17, 2000.

³³ The Japanese unemployment rate rose to an all-time high of just under 6 percent in Dec. 2001. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization, found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002.

³⁴ Japanese corporate failures rose 2 percent to 19,164, the second-largest figure since the end of WWII, in 2001. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization, found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002.

³⁵ Preliminary Ministry of Economy, Trade, and Industry figures indicate that the Japanese industrial production index fell 8 percent in 2001. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization, found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002.

falling in the second quarter of 2001 and is expected to contract through mid-2002.³⁶ Japan's trade surplus with the world decreased for the second consecutive year,³⁷ declining by 38 percent in 2001.³⁸

- After 4 years of expansion, the U.S. trade deficit with Japan declined, falling from the largest among U.S. bilateral trade partners in 2000 to second-largest behind the deficit with China in 2001. U.S. imports from Japan declined despite a 14-percent depreciation of the yen against the dollar in 2001.³⁹

U.S. exports

- During 2001, the United States supplied the majority of Japanese demand for aircraft, spacecraft, and related equipment (hereafter aircraft equipment).⁴⁰ Exports of aircraft engines and gas turbines (hereafter aircraft engines) posted a modest increase, but exports of aircraft equipment registered a large (\$604 million) decrease (table 3-4). The \$178-million increase in exports of aircraft engines was due to demand for parts of turbojet and turbo-propeller engines for use in civil aircraft. The decrease in exports of aircraft equipment was due to a drop in shipments of large civil aircraft (LCA). Both shifts, however, were within the normal variation resulting from extended planning horizons for aircraft maintenance, the consequent order pattern for replacement parts, and the large values of contracts to purchase new equipment.
- In a reversal from the previous year, exports of information technology products such as semiconductors; semiconductor-manufacturing equipment; computers, peripherals, and parts (hereafter computer hardware); and telephone and telegraph apparatus decreased during 2001, collectively falling by \$2.9 billion (24 percent) to \$9.3 billion.⁴¹ This grouping, nonetheless, accounted for 17 percent of total U.S. exports to Japan in 2001. The value of the Japanese semiconductor market dropped by 26 percent in 2001.⁴² In spite of ongoing government and industry efforts to open the Japanese semiconductor market to U.S. products,⁴³ U.S. suppliers

³⁶ James C. Cooper and Kathleen Madigan, "Japan: The World's No. 2 Economy Teeters on the Brink," *Business Week*, Dec. 17, 2000.

³⁷ During 2000, the Japanese trade balance declined by 8 percent, the first decline since 1996. "Jetro White Paper on International Trade 2001," Japan External Trade Organization, p. 17, found at www.jetro.go.jp/it/e/pub/whitepaper/trade2001.pdf, retrieved Apr. 3, 2002.

³⁸ The main causes of the decline were the global economic slowdown and an increase in imports resulting from the shift to overseas production by Japanese manufacturers. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization, found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002, and "Japan Trade Surplus Down 38.3 Percent in 2001," Jiji Press English News Service, Jan. 24, 2001.

³⁹ Factors accounting for the weakening yen included the stagnation in the Japanese economy and the downgrading of Japanese Government bond credit ratings. "Economic Outlook For Fiscal 2002," UFJ Group, SRIC Corporation, Dec. 14, 2001, p. 5. For more on shifts of the dollar-yen exchange rate during 2001, see "Background on Exchange Rate Shifts" in app. F.

⁴⁰ The United States accounted for 83 percent of Japanese aerospace imports in 2001. *2002 National Trade Estimate Report on Foreign Trade Barriers*, Apr. 2002, p. 241.

⁴¹ For more on trade shifts in semiconductor manufacturing machinery during 2001, see "Semiconductor Manufacturing Machinery" later in this chapter.

⁴² "November 2001 Forecast," Semiconductor Industry of America, found at <http://www.semichips.org/downloads/forecast%20summary%20-%20fall%20'01.pdf>, retrieved Apr. 3, 2002.

⁴³ *2002 National Trade Estimate Report on Foreign Trade Barriers*, Apr. 2002, p. 246.

Table 3-4
Leading changes in U.S. exports to and U.S. imports from Japan, 2000 and 2001

Sector and industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Aircraft engines and gas turbines (ET001)	1,216	1,394	178	14.6
Decreases:				
Electronic products:				
Semiconductors and integrated circuits (ET033) . . .	3,296	2,558	-737	-22.4
Telephone and telegraph apparatus (ET017)	2,223	1,542	-681	-30.6
Computers, peripherals, and parts (ET035)	4,454	3,780	-674	-15.1
Other:				
Semiconductor manufacturing machinery (MM087A)	2,192	1,426	-766	-35.0
Cigarettes (AG045)	1,937	1,175	-762	-39.3
Aircraft, spacecraft, and related equipment (ET013)	3,252	2,648	-604	-18.6
All other	42,181	39,023	-3,158	-7.5
TOTAL	60,751	53,546	-7,205	-11.9
U.S. IMPORTS:				
Increases:				
Games (MM060)	2,179	3,264	1,085	49.8
Television receivers and video monitors (ET022)	732	1,280	549	75.0
Electric motors, generators, and related equipment (MM091)	1,161	1,588	427	36.8
Decreases:				
Electronic products:				
Computers, peripherals, and parts (ET035)	14,540	10,200	-4,340	-29.9
Semiconductors and integrated circuits (ET033) . . .	8,045	4,531	-3,514	-43.7
Consumer electronics (except televisions) (ET018) . .	5,834	4,165	-1,669	-28.6
Telephone and telegraph apparatus (ET017)	3,896	2,488	-1,408	-36.1
Photographic cameras and equipment (ET039)	2,063	1,325	-738	-35.8
All other	107,293	97,299	-9,994	-9.3
TOTAL	145,742	126,139	-19,602	-13.5

Note.-Calculations based on unrounded data.

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

continue to have difficulties exporting to Japan.⁴⁴ Efforts to export semiconductors and semiconductor manufacturing equipment were complicated by the contraction of Japanese production of articles that incorporate semiconductors. Furthermore, the depressed business environment in Japan discouraged purchases of new office equipment (e.g. computers and telephones) by commercial customers, suppressing U.S. exports.

- Japan remains the largest export market for U.S. cigarettes. The large decrease in exports during 2001 (\$762 million) was almost entirely due to a drop in export value resulting from manufacturer discounting.

⁴⁴ Rob Spiegel, "Can Japan be cracked?" *Electronic News*, vol. 47, iss. 33 (Aug. 13, 2001), p. 30 and Spiegel, Rob, "Can the U.S. sell to Japan?" *Electronic News*, vol. 48, iss. 9 (Feb. 25, 2002), pp. 1, 6.

U.S. imports

- After a strong year in 2000, the U.S. computer hardware market declined in 2001. Imports of computer hardware from all countries decreased by 18 percent. The Japanese share of U.S. computer hardware imports has declined in recent years, and U.S. imports from Japan fell by \$4.3 billion (30 percent) in 2001. The sluggish U.S. economy, the shifting of some Japanese production to lower-cost locations (e.g., China, Southeast Asia), and outsourcing of personal computer production by Japanese producers to OEMs in Taiwan and Korea contributed to the decline.⁴⁵
- Slower growth in the U.S. economy in 2001 led many businesses to defer spending on upgrades of photo copiers, computer hardware, and telecommunications equipment. As a result, U.S. imports of telephone and telegraph apparatus from Japan fell by \$1.4 billion (36 percent) in 2001, and imports of photographic cameras and equipment (including copiers) dropped by \$738 million (36 percent).
- Similarly, the U.S. market for semiconductors also declined in 2001,⁴⁶ as U.S. production of computer hardware and telecommunications equipment, heavy users of semiconductors, fell sharply in 2001. Consequently, U.S. imports of semiconductors from Japan dropped by \$3.5 billion (44 percent) in 2001. For similar reasons, U.S. imports from Japan of electrical capacitors and resistors, and circuit apparatus not exceeding 1,000 volts, dropped by \$1.1 billion (40 percent) in 2001.
- U.S. imports of consumer electronics (except televisions) decreased by \$1.7 billion (29 percent) in 2001. Sales of products in this sector (e.g., VCRs and camcorders) typically are discretionary purchases and, therefore, were affected by the downturn in the U.S. economy.⁴⁷ However, imports of television receivers and video monitors increased by \$549 million (75 percent) as a result of strong sales of computer video projectors, the prices of which have declined sharply, coinciding with a rise in usage of computer-based presentation software.
- U.S. imports of electric motors, generators, and related equipment increased by \$427 million (37 percent) in 2001 as a result of increased shipments of gas-turbine generator sets, which likely reflected the California energy crisis.⁴⁸
- Contrary to the overall decline in U.S. imports from Japan in 2001, imports of games climbed by \$1.1 billion (50 percent). Japan is the world's leading supplier of all three types of video games (arcade, home, and handheld) and accounted for 59 percent of total U.S. imports of all games in 2001. The increase was due to two factors--the introduction of new, more powerful video game consoles by Sony and Nintendo, which permitted the development of video game software with more sophisticated animation and special effects, and the simpler versions of certain highly popular console games, which were created for handheld video games. The increase in U.S.

⁴⁵ According to the Japan Electronics and Information Technology Industries Association, Japanese domestic electronics industry production dropped by 15 percent during 2000-01. "The State of the Japanese Economy, Statistics and Trends through 4Q 2001," Japan External Trade Organization, found at www.jetro.go.jp/ec/e/report/4Q_2001.pdf, retrieved Apr. 3, 2002.

⁴⁶ The market for semiconductors in the Americas was forecast to decline by 43 percent in 2001. "November 2001 Forecast," Semiconductor Industry of America, found at <http://www.semichips.org/downloads/forecast%20summary%20-%20fall%20'01.pdf>, retrieved Apr. 3, 2002.

⁴⁷ See "Electronic Products" in ch. 12.

⁴⁸ See "Machinery" in ch. 10.

imports of video games from Japan coincided with a decrease in imports of toys and dolls from China, reflecting a greater share of child-oriented U.S. entertainment dollars going towards the new generation video games.⁴⁹

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Mexico

Change in 2001 from 2000:

U.S. trade deficit: Increased by \$5.7 billion (17 percent) to \$39.9 billion

U.S. exports: Decreased by \$9.9 billion (9 percent) to \$90.5 billion

U.S. imports: Decreased by \$4.2 billion (3 percent) to \$130.5 billion

- The merchandise trade deficit with Mexico continued to rise in 2001 as the decrease in exports outpaced the reduction in imports from Mexico. Two-way trade with Mexico decreased by 6 percent (\$14.1 billion) to \$221 billion in 2001. The decrease was due principally to a slowing of the U.S. economy along with a 0.3-percent contraction of the Mexican economy in 2001. This was the first decline in Mexico's GDP since the peso crisis of 1995 and a sharp reversal from its 6.9-percent economic growth registered in 2000.⁵⁰
- Leading product groups experiencing decreases in two-way trade with Mexico in 2001 were semiconductors (\$1.5 billion); electrical capacitors and resistors (\$1.2 billion); and circuit apparatus not exceeding 1000 volts (\$918 million). See table 3-5. Declining demand for these parts and components that are used extensively in computers, and telephone equipment was largely the result of the U.S. recession in 2001.⁵¹
- The other leading product group experiencing a decrease in two-way trade was apparel (\$990 million). The decrease in imports from Mexico accounted for 55 percent of the reduction in total U.S. imports of apparel in 2001 as economic uncertainty led some consumers to defer purchases of clothing.⁵² Decreased U.S. imports of finished apparel from Mexico led to reduced exports of apparel parts to assembly plants there.

⁴⁹ Home video games accounted for \$2.6 billion (80 percent) of U.S. imports of games from Japan in 2001, while handheld video games accounted for an estimated \$520 million (16 percent). For more on trade shifts in games during 2001, see "Miscellaneous Manufactures" in ch. 13.

⁵⁰ "Quarterly Economic Forecast," *Mexico Watch*, Apr. 1, 2002, vol. 8, no. 4, p. 1.

⁵¹ See Wes Basel, "United States GDP—First Take," found at <http://www.dismalscientist.com/economy/releases/gdp/htm>, retrieved Mar. 30, 2002.

⁵² Mexico also experienced greater competition from low-cost imports from China and from other Asian countries whose currencies depreciated significantly in recent years. Moreover, a strong Mexican peso and higher manufacturing wages resulted in numerous U.S. apparel firms shifting their sourcing from Mexico to China in 2001. See ch. 8 for data on the slowdown in U.S. consumer spending.

Table 3-5
Leading changes in U.S. exports to and U.S. imports from Mexico, 2000 and 2001

Sector and industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. EXPORTS:				
Increases:				
Transportation equipment:				
Motor vehicles (ET009)	3,207	3,610	402	12.5
Aircraft, spacecraft, and related equipment (ET013)	271	549	278	102.6
Decreases:				
Electronic products:				
Semiconductors and integrated circuits (ET033) . . .	4,488	3,382	-1,105	-24.6
Electrical capacitors and resistors (ET025)	1,822	954	-867	-47.6
Circuit apparatus not exceeding 1000V (ET028)	2,299	1,851	-448	-19.5
Cathode-ray tubes (ET031)	2,110	1,773	-337	-16.0
Telephone and telegraph apparatus (ET017)	2,401	2,189	-212	-8.8
Computers, peripherals, and parts (ET035)	3,305	3,187	-118	-3.6
Transportation equipment:				
Internal combustion piston engines, other than for aircraft (ET002)	2,407	1,917	-489	-20.3
Certain motor-vehicle parts (ET010)	6,669	6,265	-404	-6.1
Other:				
Petroleum products (CH005)	3,508	2,677	-831	-23.7
Miscellaneous products of base metal (MM031)	2,099	1,631	-468	-22.3
Miscellaneous plastic products (CH041)	4,517	4,072	-445	-9.8
Apparel (CH049)	2,296	1,908	-388	-16.9
All other	59,042	54,571	-4,472	-7.6
TOTAL	100,442	90,537	-9,905	-9.9
U.S. IMPORTS:				
Increases:				
Electronic products:				
Computers, peripherals, and parts (ET035)	9,047	10,365	1,318	14.6
Medical goods (ET040)	1,280	1,533	253	19.8
Other:				
Household appliances, including commercial applications (MM073)	1,517	1,839	322	21.2
Motor vehicles (ET009)	21,025	21,327	302	1.4
Decreases:				
Electronic products:				
Circuit apparatus not exceeding 1000V (ET028)	2,153	1,683	-470	-21.8
Semiconductors and integrated circuits (ET033)	1,511	1,072	-439	-29.0
Electrical capacitors and resistors (ET025)	837	547	-290	-34.6
Telephone and telegraph apparatus (ET017)	4,641	4,390	-251	-5.4
Other:				
Crude petroleum (CH004)	9,838	7,957	-1,881	-19.1
Apparel (CH049)	8,731	8,129	-602	-6.9
Coffee and tea (AG028)	471	193	-279	-59.1
All other	73,684	71,474	-2,210	-3.0
TOTAL	134,734	130,509	-4,225	-3.1

Note.-Calculations based on unrounded data.

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

- Finished motor vehicles was the leading industry group in which two-way trade between the United States and Mexico increased. Despite the slight contraction in Mexico's GDP in 2001, including a 10-percent reduction in manufacturing employment, the economic performance of Mexico's middle class continued to improve. Higher incomes for this group, the strength of the Mexican peso relative to the U.S. dollar,⁵³ greater access to credit, and lower consumer interest rates led to a growth in U.S. exports of motor vehicles to Mexico by 13 percent in 2001. At the same time, a 30-year low in motor-vehicle financing rates helped maintain a record high level of purchases in the United States in 2001. Although U.S. production of motor vehicles slowed by 10 percent to \$237.7 billion in 2001,⁵⁴ imports from car and truck assembly plants in Mexico rose by 1 percent to \$21.3 billion. Strong U.S. demand for Mexican-produced subcompact automobiles such as the Chrysler PT Cruiser, Ford Focus, and Nissan Sentra models contributed to the relatively high level of U.S. imports from Mexico.⁵⁵

U.S. exports

- Additional product groups contributing significantly to the decrease in U.S. exports to Mexico in 2001 were petroleum products (e.g. heating and jet fuels); internal combustion piston engines, other than for aircraft (hereafter motor vehicle engines); certain motor-vehicle parts; miscellaneous products of base metals (e.g. iron and steel articles for the automotive industry); miscellaneous plastic products (e.g. plumbing fixtures and kitchenware); and cathode-ray tubes (e.g. television picture tubes). The greater part of these products are destined for assembly plants operating under Mexico's two temporary import programs: the Maquiladora Program and the Temporary Import Program for Exports (PITEX). Exports and employment under the Maquiladora Program declined by 3 percent and 10 percent, respectively, in 2001. Demand for U.S. exports supplying the maquiladora industries have been slowed by a 15-percent increase in manufacturing wages in dollar terms in 2001 that has reduced the competitiveness of products assembled in Mexico.
- Countering the downturn in total U.S. exports to Mexico, aircraft equipment exports more than doubled in 2001. Intense competition between Boeing and Airbus Industries in the large civil aircraft (LCA) market and between Bombardier (Canada) and Embraer (Brazil) in the regional jet aircraft market has influenced these companies to require lower costs from their suppliers to remain globally competitive. In response, several U.S. producers of and subcontractors for aircraft engines and other parts (i.e., wiring harnesses, valve assemblies, and structures for aircraft engines) have established assembly plants in Mexico, making aircraft equipment the fastest growing maquiladora industry in 2001. These plants rely chiefly on U.S.-made parts, leading to rising exports.⁵⁶

U.S. imports

- A \$1.8-billion drop in crude petroleum imports accounted for nearly one-half of the total decrease in U.S. imports from Mexico in 2001. Falling petroleum prices were responsible for much of the decrease in the value of crude petroleum imports, but lower demand for gasoline and heating oil as a result of a mild winter and a slowdown in the U.S. economy contributed as well.

⁵³ The value of the Mexican peso rose by 6.3 percent against the U.S. dollar in 2001. "Quarterly Economic Forecast," *Mexico Watch*, Apr. 1, 2002, Vol. 8, No. 4, p. 3.

⁵⁴ U.S. Department of Commerce, Bureau of the Census, Economics and Statistics Administration, "Table 1, Value of Manufacturers' Shipments for Industry Groups," *Manufacturers' Shipments, Inventories, and Orders, December 2001*, Feb. 2002.

⁵⁵ Elliot Blair Smith, "Early PT Cruiser Took a Bruisin," *USA Today*, Aug. 8, 2001, p. 2B.

⁵⁶ Joe Millman, "Aerospace Suppliers Gravitare to Mexico," *Wall Street Journal*, Jan. 23, 2002, p. A 17.

- Other industry groups experiencing significant decreases in U.S. imports from Mexico were wiring harnesses for motor vehicles and motor vehicle engines. The decline in U.S. motor vehicle production in 2001 reduced U.S. demand for engines and wiring harnesses from assembly plants in Mexico.
- Coffee plantations planted in Vietnam a few years ago are now yielding significant harvests and are causing a glut of coffee in world markets.⁵⁷ Depressed coffee prices have made it difficult for high-cost coffee producers in Mexico to compete not only with coffee from Vietnam, but also with more efficient producers in Brazil and Colombia. As a result, U.S. imports of coffee and tea from Mexico fell by nearly 60 percent in 2001.
- Countering the declining trend in total imports from Mexico, products with significant increases in U.S. imports in 2001 were computer hardware, major household appliances, and medical goods. Despite a decrease in total U.S. imports of computer hardware, U.S. demand was strong for certain types of equipment and models assembled in Mexico. Relatively low interest rates in the United States encouraged home purchases and renovations in the United States, leading to increases in both U.S. producers' shipments of household appliances (up by 4 percent to \$24.3 billion⁵⁸) and imports of major household appliances from Mexico (up by 68 percent to \$826 million). The market for medical goods continues to grow with the expansion and aging of the U.S. population. Efforts to decrease medical costs have led some companies to establish assembly plants in Mexico.

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⁵⁷ "Vietnam: Robust Coffee Production Seen at 13 Million Bags in 2001/02," *International Coffee Report*, Mar. 3, 2002, Vol. 16, No. 20, p. 326.

⁵⁸ U.S. Department of Commerce, Bureau of the Census, Economics and Statistics Administration, "Table 1, Value of Manufacturers' Shipments for Industry Groups," *Manufacturers' Shipments, Inventories, and Orders, December 2001*, Feb. 2002.

TEN-YEAR TRENDS IN SELECTED INDUSTRY/COMMODITY GROUPS

This section provides added perspective on trade shifts in five industry/commodity groups by examining longer term trends in exports, imports, and trade balance for the period 1991-2001. The selected groups were chosen on the basis of their general widespread attention among the industry, trade, and business community as well as important global developments influencing their trade.

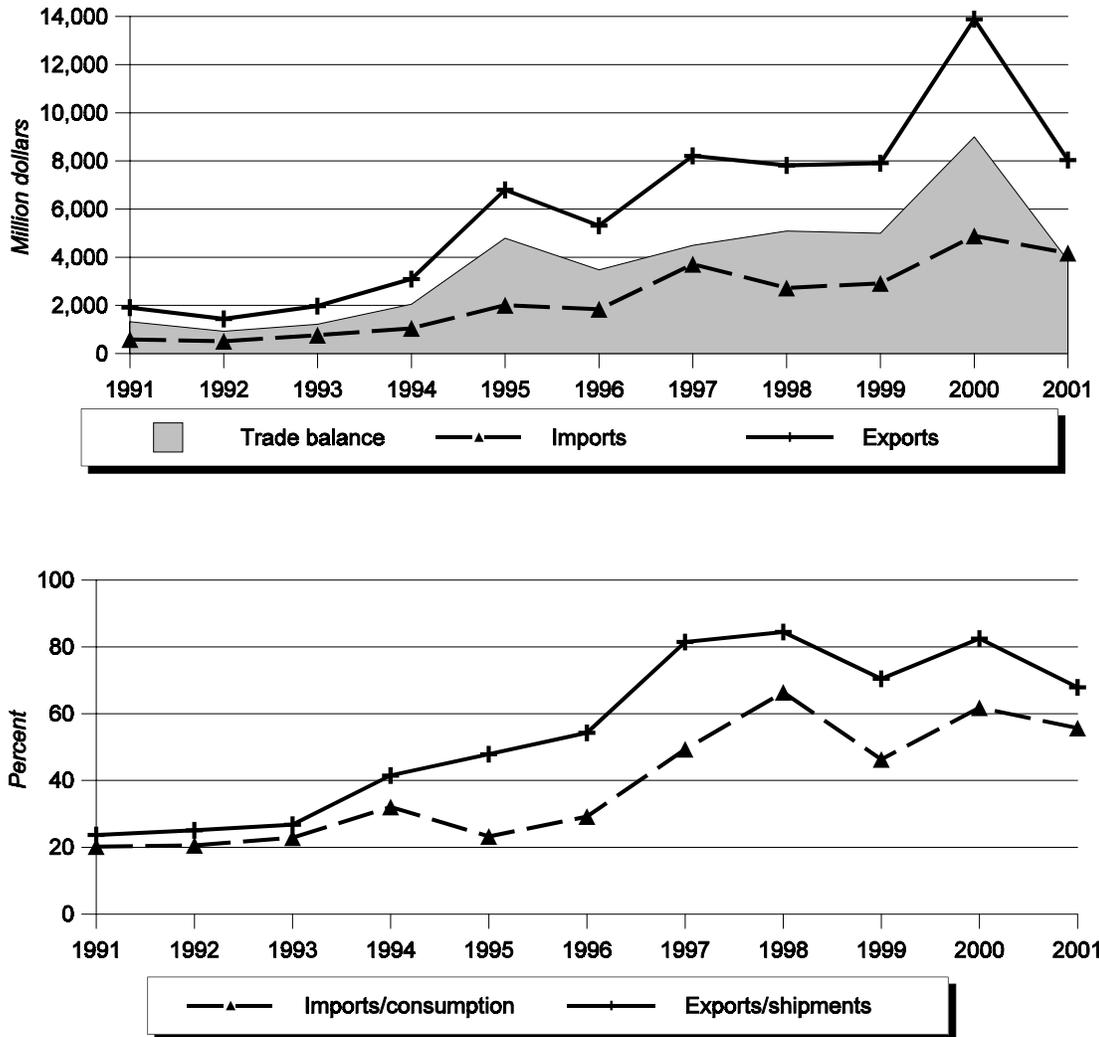
Summary

Although 2001 marked the first year in a decade that the United States recorded a contraction to its overall trade deficit,⁵⁹ global economic developments during the same time frame had mixed effects on the trade balance of selected product groups. For example, the competitive strength of China's furniture manufacturers in terms of improved production technology combined with low-cost labor resulted in a growing deficit for furniture during the 10-year period with little change from 2000 to 2001. Under a somewhat similar set of circumstances, telephone and telegraph apparatus recorded a surplus until 1999 when it shifted to a deficit due in part to moving U.S. production to lower-cost facilities offshore. In contrast, the aircraft equipment group recorded a substantial surplus during 1991-2001, but it fluctuated in a slightly downward trend as exports declined modestly during the latter years of the period against a steady rise in imports, reflecting global economic difficulties and consolidation in an already competitive industry. Despite the trade balance difficulties incurred by these groups, trade prospects for two of the selected groups substantially improved. U.S. pork shifted from a trade deficit to a surplus in 1992 and has maintained a relatively consistent surplus margin whereas the semiconductor manufacturing equipment group recorded a fluctuating but marked growth in its trade surplus. The following sections provide a more detailed explanation of 10-year-development in these selected product groups.

⁵⁹ See ch. 2 for a more detailed discussion about the merchandise trade performance and trade balance.

Semiconductor-Manufacturing Equipment

Figure 3-1
Semiconductor-manufacturing equipment: Imports, exports, trade balance, and trade ratios, 1991-2001



Note--Negative trade balance indicates a deficit. Positive trade balance indicates a surplus.

Source: Compiled by the U.S. International Trade Commission.

- The U.S. trade surplus for semiconductor manufacturing equipment (SME) increased by sixfold during 1991-2000 (figure 3-1), reflecting a significant increase in semiconductor production in Asian countries. Over the past 10 years, production of lower valued semiconductors (although using U.S. silicon wafers) has relocated from the United States to Asia due to tax incentives and lower labor costs. Asian producers tend to manufacture commodity semiconductors, such as DRAMs, while higher value-added specialty semiconductors are usually produced in the United

States. The largest growth in U.S. exports during 1991-2001 was in front-end equipment,⁶⁰ where U.S. producers are particularly competitive in chemical vapor deposition, sputtering, and etch and clean equipment. This strength is attributable to advanced U.S. technology and highly dependable equipment.

- U.S. and Japanese companies dominated SME production throughout the 10-year period. For example, each country accounted for 48 and 44 percent of the world market share, respectively, in 1999. The production process consists of two distinct stages, with U.S. companies specializing in front-end equipment and Japanese companies specializing in back-end equipment.
- The semiconductor industry is often adapting to new technology introduced to build the next generation of semiconductor chips, which are more durable and have more memory than those of the previous generation. With each upgrade, new SME is needed. SME use has also expanded because of the proliferation of semiconductor-containing products on the market, now ranging from personal computers to clocks to musical greeting cards.
- During 2001, the decline in the U.S. SME trade surplus was caused by a 26-percent downturn in consumption due to weakened demand for semiconductors and overcapacity in the semiconductor industry. Japan and the Netherlands, however, are the only countries with which the United States had a trade deficit, amounting to more than \$1.1 billion and \$374 million, respectively, in 2001.

U.S. exports

- U.S. exports represent a substantial and increasing portion of U.S. shipments. Although exports fell by more than 40 percent in 2001, the exports-to-shipments ratio declined by only 14 percent. The U.S. export level of SME has increased by fourfold since 1991. The major markets for U.S. exports of SME throughout the period were Taiwan, Japan, and Korea.

U.S. imports

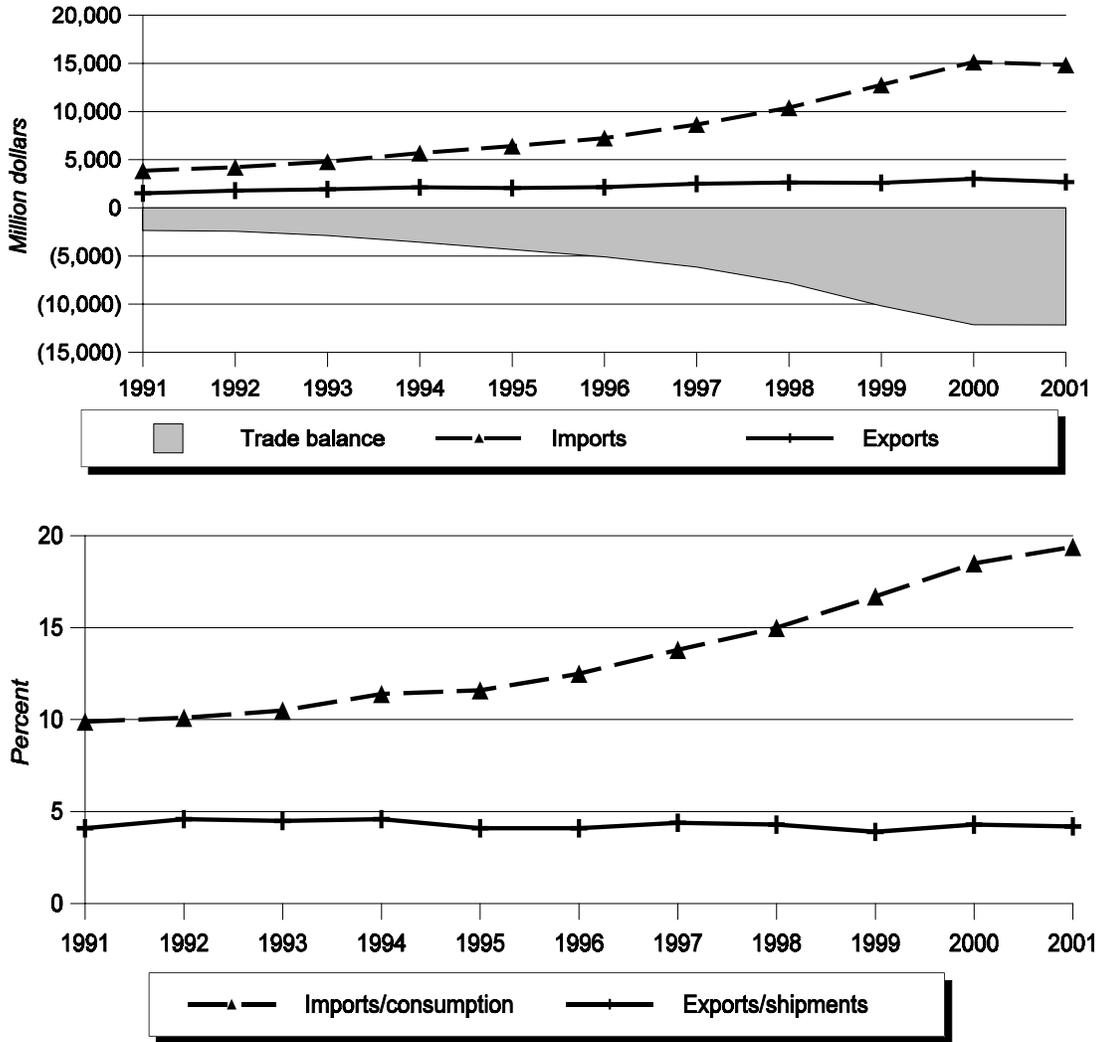
- U.S. imports rose during 1991-2001, reflecting the specialized equipment needed for the separate stages of semiconductor manufacture, as well as the higher prices and increased demand from electronic equipment manufacturers in the United States. The principal sources for U.S. SME imports are Japan, the Netherlands, and Germany. Japan's focus on the back-end process was a significant factor in its SME exports to the U.S. market throughout the 10-year period, accounting for about 60 percent of total U.S. imports of such equipment.
- Japanese companies are the world leaders in the production of photolithography equipment used in wafer exposure, for which there are no competitive U.S. producers. High research and development expenditures required in the photolithography segment have deterred U.S. firms from competing in the market.

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⁶⁰ Front-end equipment is the machinery used to convert raw materials into semiconductor chips, whereas back-end equipment is used to package and test semiconductors. The front-end equipment is much higher in value and adds more value to the final product than back-end equipment.

Furniture⁶¹

Figure 3-2
Furniture: Imports, exports, trade balance, and trade ratios, 1991-2001



Note--Negative trade balance indicates a deficit. Positive trade balance indicates a surplus.

Source: Compiled by the U.S. International Trade Commission.

- The steadily increasing U.S. trade deficit in furniture during 1991-2001 is largely a result of producers in China, Canada, Italy, Mexico, and Taiwan successfully focusing on specific U.S.

⁶¹ This industry group includes movable, utilitarian articles that are generally placed on the floor such as sofas, bookcases, desks, chairs, tables, chests, cabinets, and bed frames. For the purpose of tariff classification, such furniture found on a cruise ship is also classified as furniture even if it is designed for bolting to the floor. For this report, motor vehicle seating is not included in this industry group.

market segments and adapting production to meet U.S. style preferences (figure 3-2).⁶² This strategy is believed to confer a competitive advantage on these foreign producers. U.S. imports of furniture rose at an average annual rate of 14 percent during 1991-2001, significantly outpacing the growth of U.S. exports and shipments, which also rose but at an average annual rate of 6 percent. At the same time, the import penetration ratio for furniture rose from 12 percent in 1991 to 19 percent in 2001. The United States is the world's largest furniture market with consumption in 2001 reaching \$77.3 billion.

- The United States is a major global exporter of furniture to the EU, Latin America, and the Middle East despite having a significant deficit with all of its leading trade partners (China, Canada, Italy, Mexico, and Taiwan).⁶³ Canada is the leading market for U.S.-made household and office furniture because of proximity and shared preferences in furniture. The growth in EU markets for U.S.-made furniture is constrained by high transportation costs and cultural preferences for contemporary furniture made by manufacturers in Italy, Germany, and Sweden. However, such EU market limitations may be somewhat mitigated, as several U.S. producers of office furniture and a few U.S. household furniture manufacturers have established fabrication facilities in Europe. East Asian demand for significantly larger U.S.-made furniture is limited by constraints in housing and floor spaces.

U.S. exports

- North American Free-Trade Agreement (NAFTA) partners Canada and Mexico are the top two markets for U.S. exports of furniture, attributable by industry sources to market proximity that both lowers shipping costs and encourages the development of efficient distribution channels. U.S.-made furniture is competitively priced in the NAFTA markets because producers in the United States operate at higher volumes than producers in Canada and Mexico. As a result, U.S. manufacturers are able to pass on the cost savings to the consumer. Chief competitors of the United States in the Canadian market are East Asian producers of low-cost, ready-to-assemble (RTA) furniture.
- U.S. exports to Canada rose at an average annual rate of 15 percent during 1991-2001, from \$679 million to \$1.2 billion; while such exports to Mexico rose at an average annual rate of 17 percent, from \$149 million to \$284 million.⁶⁴ Shared tastes in furniture and high levels of U.S. direct investment in Canada's furniture industry⁶⁵ have promoted the growth in U.S. exports to Canada of both finished furniture and components used in the assembly of furniture in Canada. The increase in U.S. exports of furniture to Mexico is the result of both increased demand by Mexico's growing middle class for furniture made in the United States and the use of maquiladora operations to manufacture and assemble complete articles of furniture or RTA furniture kits made of U.S. components.

⁶² China accounted for \$4.6 billion (32 percent) of total U.S. imports of furniture in 2001, followed by Canada, \$3.9 billion (26 percent); Italy, \$1.2 billion (8 percent); Mexico, \$923 million (6 percent); and Taiwan, \$792 million (5 percent).

⁶³ For further details on principal U.S. markets and foreign industry profiles, see Josephine Spalding-Masgarha, *Industry and Trade Summary: Furniture and Motor Vehicle Seats*, USITC publication 3382, Jan. 2001.

⁶⁴ Mexico replaced Japan as the second-largest market for U.S. exports in 1996.

⁶⁵ See "Canada" in this chapter.

U.S. imports

- China is the principal source of U.S. furniture imports, accounting for \$4.6 billion (31 percent) of the total in 2001. Furniture producers in China initially entered the U.S. market as a low-cost producer of RTA furniture. Production technology has evolved steadily during the last decade and production is currently focused on the high-end wood household furniture market characterized by intricate carving and a hand-polished finish. Producers of household furniture in China have access to a highly skilled, lower cost labor force, and industry expertise was greatly enhanced in the early 1990s when a number of leading Taiwan furniture producers relocated their manufacturing facilities to China.
- Chinese furniture manufacturers have been so successful in the U.S. market that a number of leading U.S. producers have closed or significantly reduced their production of wood household furniture that involves labor-intensive components such as intricately carved bed posts, ball and claw table and chair legs, and chests of drawers with carved designs. An annual survey sent in 2000 to residential furniture manufacturers with sales over \$30 million or plants with over 100 employees reported that 18 of the 35 respondents sourced parts or complete furniture from foreign countries and that China was the principal source owing to its rapid improvements in style and finishing techniques.⁶⁶ Furniture analysts have indicated that U.S. producers are likely to increase the amount of furniture sourced from China and that the U.S. production base for furniture will likely be vastly smaller in 5 years.⁶⁷ The China National Furniture Association reported that total shipments of furniture were \$14.5 billion in 2000, of which about \$4.0 billion was exported, primarily to the United States; producers in China expect furniture shipments to reach \$24 billion by 2010.⁶⁸
- Canada, Italy, and Mexico were the next largest sources of U.S. furniture imports, accounting for 26 percent, 8 percent, and 7 percent, respectively, of such imports in 2001. Imports from these countries have risen steadily throughout the last decade until 2000. Like other durable goods, many consumers postponed their purchase of furniture during the recession of 2001, leading to a decrease in both U.S. consumption and imports from these sources in that year. Canada's success in the U.S. market is the result of its significant capital expenditures, effective marketing of its European contemporary furniture, geographic proximity, and similar channels of distribution. The Italian furniture industry has a flexible structure that allows producers to respond quickly to changes in both domestic and international market trends. Representatives of Italian furniture production cooperatives meet regularly to discuss market trends, furniture designs, use of materials, and technological innovation. The Mexican furniture industry's competitive strength lies in its highly skilled low-cost labor force, proximity to the United States, access to domestically milled lumber, and steadily improving finishes. World-class manufacturers of finishes have opened facilities in Mexico.⁶⁹

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⁶⁶ Greg Landgraf, "A Rough Patch for Residential Furniture," *Wood and Wood Products*, June 2001, p. 53.

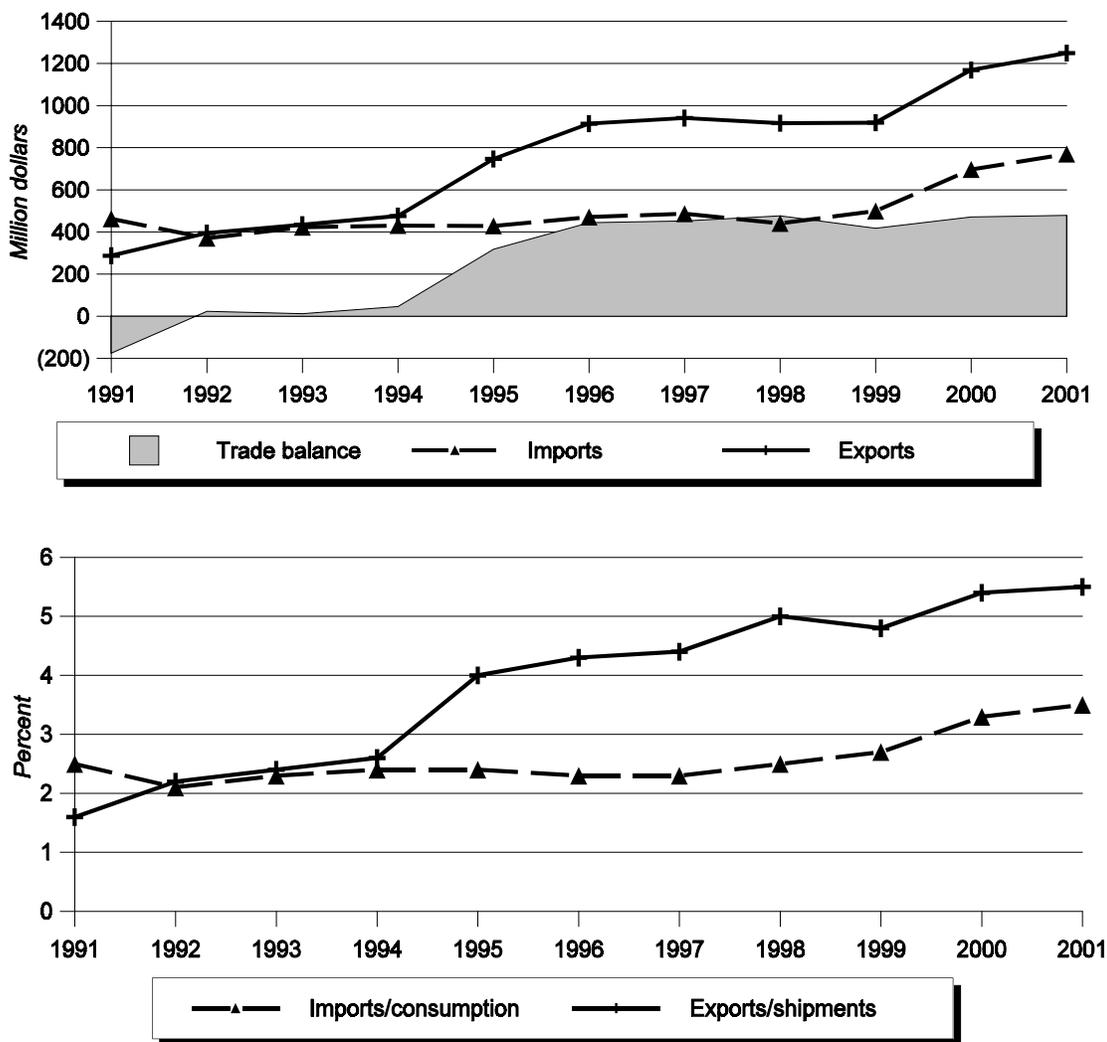
⁶⁷ Brian Carroll, "Imports Unlikely to Abate," *Furniture Today*, Apr. 30, 2001, p. 70.

⁶⁸ Brian Carroll, "China Sees Further Growth in Furniture Exports," *Furniture Today*, Dec. 3, 2001, p. 20.

⁶⁹ Josephine Spalding-Masgarha, *Industry and Trade Summary: Furniture and Motor Vehicle Seats*, p. 38.

Pork⁷⁰

Figure 3-3
Pork: Imports, exports, trade balance, and trade ratios, 1991-2001



Note--Negative trade balance indicates a deficit. Positive trade balance indicates a surplus.

Source: Compiled by the U.S. International Trade Commission.

- Since 1991, the value of fresh, chilled, and frozen pork exports has increased by 334 percent. The value of pork imports, meanwhile, increased by just 67 percent. Consequently, in the past decade, the United States shifted from a net pork importer to a net pork exporter. Based on value, the shift

⁷⁰ This industry/commodity group includes fresh, chilled, and frozen pork. Edible pork offal, and prepared or preserved pork products are not included in this analysis.

occurred in 1992 (figure 3-3). On a volume basis, however, pork exports did not exceed imports until 1995.⁷¹

- This shift coincided with and has been attributed to industry and market restructuring.⁷² Consolidation and rationalization among hog producers have resulted in fewer and larger operations, driving improved operating efficiency and increased productivity, which along with favorable feed prices, have made U.S. production costs among the lowest in the world. Increased market coordination between producers and processors, which increased the flow of information related to the quality of pork demanded by consumers, has reduced transaction costs and improved product quality, further enhancing the international reputation and competitiveness of U.S. pork.

U.S. exports

- Responding to increased world demand for pork, U.S. production grew at a greater rate than U.S. domestic demand. Consequently, the proportion of U.S. production value⁷³ that was exported increased from less than 2 percent in 1991 to more than 5 percent in pork (see figure 3-3).
- Japan is the primary export market for U.S. pork, accounting for 70 percent of total U.S. pork exports between 1991 and 2001. During the period, market liberalization negotiated during the Uruguay Round and increased demand contributed to a 321-percent increase in the value of U.S. pork exports to Japan, which totaled more than \$830 million in 2001.
- Proximity and the North American Free-Trade Agreement help make Mexico the second-largest market for U.S. pork. Since 1991, the value of pork exports to Mexico have more than doubled, from \$83 million to more than \$174 million, between 1998 and 2001.
- During the past decade, Russia emerged as an important market for U.S. pork as demand rose more quickly than the Russian industry's ability to supply product. From slightly more than \$100,000 in 1992, U.S. pork exports to Russia increased to \$81 million in 2000, but declined to less than \$40 million in 2001 as the result of increased Russian imports from Brazil and the EU. U.S. pork exports to Russia averaged \$34 million annually between 1991 and 2001.⁷⁴
- Canada is the third-largest market for U.S. pork exports, increasing from nearly \$15 million in 1991 to more than \$103 million in 2001. Other major export markets for U.S. pork include Korea, Taiwan, Hong Kong, and China, which totaled nearly \$54.4 million in 2001.

⁷¹ U.S. Department of Agriculture, Economic Research Service, "Hogs: Trade, Briefing Room" found at <http://www.ers.usda.gov/briefing/hogs/trade.htm>, retrieved on Apr. 10, 2002.

⁷² Ibid.

⁷³ The value of shipments was calculated as the wholesale value of pork production on a carcass-weight basis. The value of apparent consumption was calculated as shipments plus the value of imports minus the value of exports.

⁷⁴ Customs data show that pork exports to Russia dropped precipitously, from \$64 million in 1998 to less than \$5 million in 1999. The customs value does not, however, reflect the value of pork included in the U.S. food aid package following the Russian financial crisis in 1998-99. U.S. food aid to Russia in 1999 included more than 47,000 metric tons of pork, which exceeded 1998 commercial pork exports of more than 41,000 metric tons. U.S. Meat Export Federation, "Key Factors for Pork Trade With Russia," found at http://www.globalbuyer.org/Russia/statistics/pork_factors.asp, retrieved Apr. 11, 2002.

U.S. imports

- Canadian pork is extremely competitive in world markets, primarily as a result of low-cost feed grains, efficient large-scale hog production facilities, and favorable exchange rates (especially relative to the U.S. dollar).⁷⁵ These factors and proximity help make Canada the largest supplier of pork to the U.S. market. The value of pork imports from Canada totaled nearly \$619 million in 2001, about 80 percent of total U.S. pork imports, and represents a nearly 95-percent increase from \$317 million in 1991.⁷⁶
- Imports of pork from Denmark reached more than \$143 million in 2001. Denmark is a primary source for the cut of meat restaurants serve as the increasingly popular baby back ribs.⁷⁷ Pork imports from no other country exceeded \$5 million.

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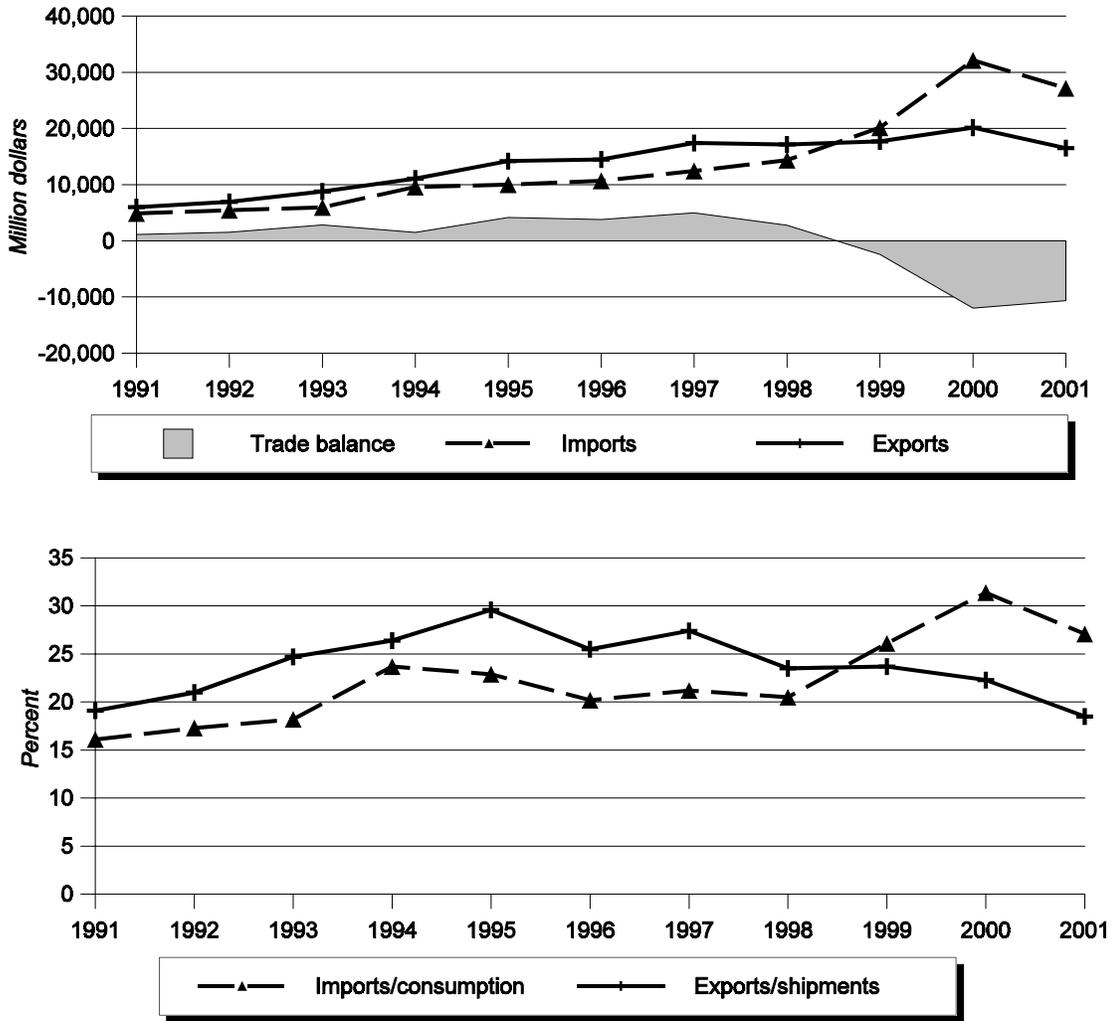
⁷⁵ See app. F for a more detailed discussion about how exchange rate shifts and other macroeconomic factors affect trade shifts.

⁷⁶ The Canadian and United States pork markets are highly integrated. Canada also exports large numbers of feeder pigs and market hogs for slaughter to the United States, contributing to U.S. production levels. Between 1991 and 2001, the amount by which U.S. pork imports from Canada exceeded U.S. exports to Canada ranged from \$245 million in 1998 to \$516 million in 2001. The average amount by which U.S. imports exceeded U.S. exports was \$324 million.

⁷⁷ National Pork Board, "Pork use grows by billions in food service," News Release, Feb. 18, 2000, found at <http://www.porkboard.org/News/NewsEdit.asp?NewsID=175>, retrieved Jun. 4, 2002.

Telephone and Telegraph Apparatus

Figure 3-4
Telephone and telegraph apparatus: Imports, exports, trade balance, and trade ratios, 1991- 2001



Note--Negative trade balance indicates a deficit. Positive trade balance indicates a surplus.

Source: Compiled by the U.S. International Trade Commission.

- The United States was the world's largest producer and consumer of telephone and telegraph apparatus (telecommunications equipment) during 1991-2001. U.S. production grew throughout the period, and generally coincided with the growth of the global industry as a whole.
- The cellular telephone industry has been one of the fastest growing equipment subgroups. In the last decade, U.S. production of cellular handsets increased by 300 percent, reaching \$12 billion in

2000. The growth of U.S. and global cellular telephone industries was exceptionally strong during 1998-2000 relative to the rest of the period.⁷⁸

- During 1991-1998, the U.S. trade surplus in telecommunications equipment averaged \$2.8 billion annually. However, by 2001 the U.S. was running a trade deficit of \$10.6 billion. This substantial shift in the trade balance can be attributed in part to the rapid shift of production abroad by U.S. firms. Many of these firms have also outsourced portions of their production to contract electronics manufacturers (CEMs),⁷⁹ many of which found it to be more profitable to produce outside of the United States, thereby increasing the importance of international trade to the industry.⁸⁰
- The general decline in the economy during 2001 contributed in part to a downturn in purchases of equipment by telecommunications service providers (the primary consumers of such products), and marked a rare decline in U.S. demand and production of telecommunications equipment.⁸¹

U.S. exports

- U.S. exports of telecommunications equipment increased at an average annual rate of 9 percent during 1991-2001, reaching a peak of \$20 billion in 2000 before decreasing to \$16.5 billion in 2001 (figure 3-4). Exports as a share of shipments peaked in 1995 at about 30 percent, then steadily declined to below 20 percent by 2001.
- The liberalization of telecommunications services in a number of important foreign markets during the 1990s contributed to increased demand for U.S. telecommunications equipment, which led to a rise in U.S. exports.⁸²
- U.S. exports of telecommunications equipment have been affected in recent years by a shift in production by U.S. companies to countries abroad, as these firms sought to maintain international competitiveness by producing in lower-cost locations.⁸³ For example, significant portions of U.S. cellular handset production moved to lower-cost locales such as Mexico and Korea.⁸⁴ U.S. export growth matched that of imports during the first half of the 1990s, but, as a result of shifting production, lagged behind import growth after 1997.

⁷⁸ Data obtained from *Yearbook of World Electronics Data 2000*, Vol. 2 - America, Japan, & Asia-Pacific.

⁷⁹ J. Keith Dunne, "EMS boosted by outsourcing trend," *Electronic Buyers' Monthly*, Feb. 8, 1999, found at www.ebnews.com, retrieved Oct. 24, 2001.

⁸⁰ *Ibid.*

⁸¹ Ari Bensinger, "Communications Equipment," *Standard and Poor's Industry Survey*, Jan. 31, 2002, pp. 1-8, found at <http://www.netadvantage.standardandpoors.com>, retrieved May 21, 2002.

⁸² Several countries in Europe and Asia privatized their telecommunications services industries during the 1990s. In connection with this privatization, these countries began allowing the gradual entry of new competitors to their once dominant national services suppliers. This resulted not only in new customers for equipment, but also increased pressures on the dominant national carriers to upgrade their existing telecommunications networks with the latest technology. This advantaged North American manufacturers such as Lucent and Nortel, which were able to take advantage of their expertise in advanced digital and fiber optic technology. For more information, see U.S. International Trade Commission, *Telecommunications Equipment: U.S. Performance in Selected Major Markets*, Staff Research Study 24, USITC publication 3150, Dec. 1998, pp. 3-11 to 3-13.

⁸³ Robert Norberg, "China shaping up as EMS hotspot," *Electronic Buyers' News*, Nov. 29, 1999, found at <http://www.ebnews.com>, retrieved Oct. 24, 2001.

⁸⁴ Bolaji Ojo, "In Depth: Eye on Mexico, Manufacturing Mecca," *Electronic Buyers' News*, Mar. 16, 2001, found at <http://www.ebnews.com>, retrieved Jan. 9, 2002.

- During 1991-2000, U.S. exports of telecommunications equipment increased to each of its most significant markets, including Canada, Mexico, the United Kingdom, and Korea. Exports to Mexico experienced some of the largest increases, as many U.S.-headquartered firms engaged in production-sharing with their Mexican subsidiary plants. However, exports to most markets declined in 2001, with the exception of developing economies such as China and Malaysia, which experienced slight increases.

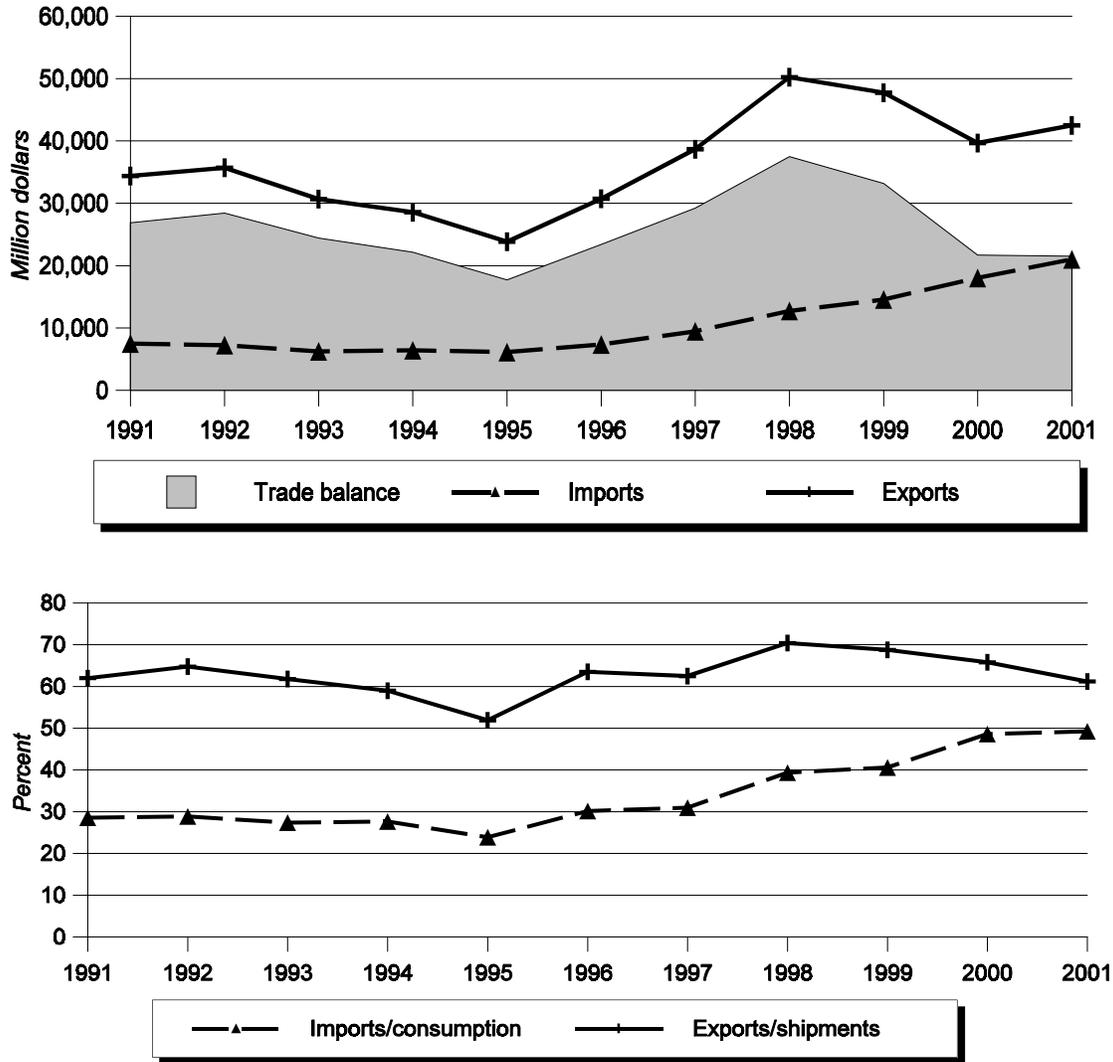
U.S. imports

- During 1991-2001, U.S. imports of telecommunications equipment increased at an average annual rate of 14 percent to \$27 billion. This growth accelerated during 1997-2000, driven mainly by rising domestic demand from telecommunications service providers, particularly in the areas of wireless and data communications. During this period, the growth of imports supplemented U.S. production to meet the rising domestic demand. However, in 2001, a general decline in the U.S. economy led to lower domestic demand for telecommunications equipment, and, as a result, imports decreased by 15 percent.
- Japan was, by far, the largest supplier of U.S. imports in the early 1990s, accounting for over one-third of U.S. imports of telecommunications equipment. However, while Japan remains a significant U.S. supplier, it has been overtaken by Canada and Mexico. Canada increased its share of U.S. imports largely through networking equipment and Mexico through lower-end equipment such as traditional telephones, and, later, cellular telephones.

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Aircraft, Spacecraft, and Related Equipment

Figure 3-5
Aircraft, spacecraft, and related equipment: Imports, exports, trade balance, and trade ratios, 1991-2001



Note—Negative trade balance indicates a deficit. Positive trade balance indicates a surplus.

Source: Compiled by the U.S. International Trade Commission.

- Trade in large civil aircraft (LCA) and parts has consistently accounted for the largest share of the value of imports and exports of aircraft, spacecraft (excluding communication satellites and parts), and related equipment (hereafter aircraft equipment) during the period 1991-2001 (figure 3-5). In 2001, LCA and parts accounted for \$36.4 billion (86 percent) of U.S. exports of these products and \$12.8 billion (61 percent) of U.S. imports. The United States produces and uses the majority of its needs for spacecraft, thus, there is only a small amount of trade in such products.

- Five companies began the 1990s producing LCA.⁸⁵ At the end of 2001, only the Boeing Commercial Aircraft Group in the United States and Airbus SAS in Europe were accepting new orders for LCA.
- During 1991-2001, demand for LCA was primarily driven by the need to replace Stage II⁸⁶ aircraft with Stage III aircraft and by increased demand for air travel both from passengers and cargo carriers later in the decade. Boeing and Airbus responded by introducing several new LCA models to meet these market needs.
- A new type of aircraft, the regional jet, was introduced in the global market in the mid-1990s; orders and deliveries have grown steadily since then. There are no U.S. producers of regional jet aircraft. Reliance on imports has gradually eroded the U.S. trade surplus.
- Major markets for LCA include the United States, Europe, and Asia. During 1991-2001, global orders for Boeing LCA peaked in 1996 at 727;⁸⁷ deliveries to worldwide customers crested in 1999 at 622.⁸⁸ Shipments for general aviation aircraft continued to rise each year during 1992-2000 (from 941 units to 2,816), while billings rose by threefold during that period, from \$1.8 billion to \$8.6 billion.⁸⁹

U.S. exports

- During 1991-2001, major U.S. export markets principally for aircraft equipment included Europe (the United Kingdom, Germany, and France), Asia (Japan, Korea, and Taiwan), Canada, and Saudi Arabia.
- During the period, U.S. exports of these items were influenced by global events such as the Gulf War, U.S. economic slowdowns in the early 1990s and in 2001, and Asian economic difficulties in 1997-98.⁹⁰ During 2000-01, the number of economically viable used aircraft available in the global market⁹¹ served to depress demand for new aircraft.⁹²
- By value, U.S. exports of primarily aircraft and related equipment peaked in 1998, declined in 1999 and 2000, and rose again in 2001. Peak foreign deliveries of LCA by unit occurred in 1992, representing 68 percent of total U.S. LCA deliveries. Deliveries worldwide were at their lowest at 256 units in 1995; exports accounted for 137 units, or 54 percent of deliveries. Exports of LCA accounted for the least percentage of total deliveries in 2001, when they represented 31 percent (163 out of 527) of total LCA deliveries.

⁸⁵ Airbus, BAe, Boeing, Fokker, and McDonnell Douglas.

⁸⁶ The FAA Federal Aviation Regulation (FAR) Part 36 identifies three stages of aircraft noise, each progressively quieter than the preceding one.

⁸⁷ Boeing Commercial Aircraft Co., Orders by year, found at <http://www.boeing.com/commercial/orders/ordsumbyyear.html>, retrieved Apr. 10, 2002.

⁸⁸ Boeing Commercial Aircraft Co., deliveries by year, found at <http://www.boeing.com/commercial/orders/delsumbyyear.html>, retrieved Apr. 10, 2002.

⁸⁹ General Aviation Manufacturers Association, Databook 2001, p. 5, found at http://www.generalaviation.org/databook/2001/pages4_8.pdf, retrieved Apr. 10, 2002.

⁹⁰ Tim Meskill, *Aircraft Delivery and Retirement Forecasts*, paper presented at 16th Annual Aviation Industry Suppliers Conference, Mar. 18-20, 2002, p. 2; also, Plueger, John, *Opening Address*, 16th Annual Aviation Industry Suppliers Conference, Mar. 18-20, 2002, p. 4.

⁹¹ Bruce A. Smith, "Desert Fleet Seen as 'Wild Card' in Boeing's Recovery Plan," *Aviation Week & Space Technology*, Mar. 18, 2002.

⁹² *Ibid.*

- Year to year, the greatest decline in LCA deliveries by unit occurred between 2000 and 2001. The slowing global economy set the stage for lower deliveries; the events of September 11, 2001 accelerated the decline in demand for LCA.⁹³

U.S. imports

- During 1991-2001, the United States principally imported aircraft equipment predominantly from Canada, France, Germany, Brazil, Japan, and the United Kingdom.
- U.S. imports of these items have trended upward steadily since 1995. The increased popularity of Airbus LCA from France and Germany and regional jets imported from Brazil, Canada, Germany, and the United Kingdom reduced the U.S. trade surplus during the period and more than doubled the import penetration ratio from about 20 percent in 1995 to about 50 percent in 2001.
- U.S. imports of aircraft equipment continued to rise at an accelerated pace after Boeing purchased McDonnell Douglas in 1997. This purchase effectively limited worldwide airlines' choice of LCA producers to two. Since the purchase, airlines have been increasingly placing orders with Airbus, thereby assuring themselves of a strong second source of aircraft and Airbus of an expanded global market.

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⁹³ Plueger, *Opening Address*, p. 4.

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CHAPTER 4
Agricultural Products

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Change in 2001 from 2000:

U.S. trade surplus: Increased by \$558 million (8 percent) to \$7.5 billion
U.S. exports: Increased by \$997 million (1.7 percent) to \$60.1 billion
U.S. imports: Increased by \$439 million (0.8 percent) to \$52.6 billion

Much of the improvement in the U.S. balance of trade in agriculture products was driven by increased exports of oilseed meals and oilseeds (both used in animal feeds), which were exported to the European Union (EU) following an EU-wide ban on the use of animal products in animal feeds,¹ and a shift to an increased use of oilseeds, particularly oilseed meals, to boost the protein content in animal feeds. This trend was accentuated by the low harvest of oilseeds, such as sunflower and rapeseed, in the EU. U.S. exports of oilseeds and oilseed meals to the EU and China would have been greater except for the bumper crop of soybeans in Brazil and Argentina, the principal U.S. competitors. U.S. poultry exports rebounded by almost 16 percent in 2001 as two of the principal importers, Russia and China, recovered from economic crises and resumed normal imports. For additional statistical detail on major import suppliers and export markets, see table 4-1.

The largest shift in trade in agricultural products in 2001 was in cigarettes (table 4-2). U.S. cigarette exports in 2001 dropped to 133 billion pieces, valued at \$2.12 billion, down by 9 percent in quantity and by 36 percent in value from 2000. Much of this decline can be attributed to U.S. manufacturers moving production facilities overseas coupled with flat demand in these markets, particularly the EU and Japan. Sales to these markets were down by 60 percent and by 2 percent, respectively, and can be attributed, in part, to increased health awareness. Another trend driving down prices was a tendency to use cheaper foreign tobacco leaf in U.S. cigarettes sold overseas. The leading U.S. cigarette export markets in 2001 were Japan (\$1.2 billion); Saudi Arabia (\$189 million); Korea (\$111 million); the EU (\$79 million); Lebanon (\$77 million); and Israel (\$74 million).

Another important shift in trade in 2001 was a \$1 billion (34 percent) decline in U.S. imports of coffee and tea. The shift was driven mainly by a 45-percent decline in the value of coffee bean imports, the result of a severe price decline owing to a glut of coffee in the major producing countries.

The largest increase in imports was of cattle and beef, which rose by \$613 million (18.3 percent) to \$4.0 billion in 2001, owing to reduced U.S. production as the U.S. cattle production cycle was in its

¹ Bovine Spongiform Encephalopathy (commonly called BSE or mad cow disease) originated in and was transmitted through the use of infected animal protein products in ruminant feed rations. To break the cycle of infection, and reduce the possibility of cross contamination, the EU has banned the use of animal proteins in all animal feed products. More information on BSE is available at <http://www.defra.gov.uk/animalh/bse/index.html>.

Table 4-1

Agricultural products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	8,209	8,694	485	5.9
Mexico	6,772	7,645	873	12.9
Japan	12,573	11,342	-1,232	-9.8
China	1,895	2,101	206	10.9
Korea	2,978	3,085	107	3.6
Netherlands	1,526	1,420	-107	-7.0
Thailand	531	606	75	14.0
Italy	682	719	37	5.4
Taiwan	2,181	2,150	-31	-1.4
France	411	450	39	9.6
All other	21,354	21,899	545	2.6
Total	59,112	60,109	997	1.7
EU-15	7,177	7,290	112	1.6
OPEC	2,705	2,880	175	6.5
Latin America	11,079	12,119	1,040	9.4
CBERA	2,511	2,687	176	7.0
Asia	24,346	23,912	-434	-1.8
Sub-Saharan Africa	769	657	-112	-14.5
Central and Eastern Europe	231	263	32	13.8
U.S. imports for consumption:				
Canada	11,189	12,373	1,184	10.6
Mexico	6,033	6,157	124	2.1
Japan	487	441	-46	-9.5
China	1,396	1,489	93	6.7
Korea	210	230	20	9.4
Netherlands	1,642	1,714	72	4.4
Thailand	2,356	2,155	-201	-8.5
Italy	1,939	1,933	-6	-0.3
Taiwan	381	371	-11	-2.8
France	2,068	2,014	-54	-2.6
All other	24,459	23,721	-737	-3.0
Total	52,159	52,599	439	0.8
EU-15	10,341	10,316	-25	-0.2
OPEC	1,268	1,147	-120	-9.5
Latin America	16,028	15,441	-587	-3.7
CBERA	3,481	3,218	-264	-7.6
Asia	8,662	8,303	-359	-4.1
Sub-Saharan Africa	875	836	-39	-4.5
Central and Eastern Europe	263	329	66	25.1
U.S. merchandise trade balance:				
Canada	-2,980	-3,679	-699	-23.4
Mexico	739	1,488	748	101.2
Japan	12,087	10,901	-1,186	-9.8
China	499	612	113	22.6
Korea	2,768	2,855	87	3.2
Netherlands	-115	-294	-179	-155.6
Thailand	-1,824	-1,549	275	15.1
Italy	-1,257	-1,214	42	3.4
Taiwan	1,800	1,779	-21	-1.1
France	-1,658	-1,565	93	5.6
All other	-3,105	-1,823	1,282	41.3
Total	6,953	7,511	558	8.0
EU-15	-3,164	-3,027	138	4.4
OPEC	1,437	1,732	295	20.6
Latin America	-4,950	-3,322	1,628	32.9
CBERA	-970	-530	440	45.3
Asia	15,684	15,610	-75	-0.5
Sub-Saharan Africa	-106	-179	-73	-68.4
Central and Eastern Europe	-31	-65	-34	-108.6

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 2001.

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

Table 4-2
Leading changes in U.S. exports and imports of agricultural products, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Animal feeds (AG013)	4,061	4,508	447	11.0
Infant formulas, malt extracts, and other edible preparations (AG036)	2,401	2,729	328	13.7
Poultry (AG005)	2,055	2,376	321	15.6
Hides, skins, and leather (AG046)	2,330	2,650	320	13.7
Decreases:				
Cigarettes (AG045)	3,308	2,118	-1,189	-36.0
Cattle and beef (AG002)	3,287	2,795	-491	-14.9
All other	41,671	42,934	1,262	3.0
TOTAL	59,112	60,109	997	1.7
U.S. IMPORTS:				
Increases:				
Cattle and beef (AG002)	3,357	3,970	613	18.3
Fresh, chilled, or frozen vegetables (AG018)	2,350	2,643	294	12.5
Decreases:				
Coffee and tea (AG028)	2,921	1,915	-1,006	-34.5
All other	43,532	44,071	539	1.2
TOTAL	52,159	52,599	439	0.8

Note.-Calculations based on unrounded data.

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

trough.² Increased imports were driven by higher prices and higher quantities imported, particularly of lean beef from Australia and New Zealand, which was needed to blend with domestic product. U.S. cattle and beef exports declined by \$491 million (14.9 percent) to \$2.8 billion in 2001. Trade statistics for all product groups in the agriculture products sector are presented in table 4-3 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

- Japan: U.S. surplus decreased by \$1.2 billion (9.8 percent) to \$10.9 billion**
- Mexico: U.S. surplus increased by \$748 million (101 percent) to \$1.5 billion**
- Canada: U.S. deficit increased by \$699 million (23 percent) to \$3.7 billion**

Exports to the two largest destinations for U.S. agricultural products, Japan and Canada, declined by 10 percent and increased by 6 percent, respectively. Exports to Mexico and the EU, the third- and fourth- largest destinations, increased by 13 percent and 2 percent, respectively. The United States is a net exporter of agricultural products to China, with which the surplus grew by \$113 million (23 percent), driven mainly by increased exports of oilseeds.

² The cattle cycle refers to increases and decreases in cattle herd size over time. Factors that affect the length of the cycle are biological, environmental, and economical. U.S. cattle numbers have been in cyclical decline since 1996. The current liquidation has been affected by poor forage conditions due to drought in various western states, which discourages cow herd expansion, and more recently by reduced beef demand in Japan, a key U.S. market, related to the discovery of BSE in Japan's cattle.

Japan was the largest purchaser of U.S. agricultural products in 2001, and U.S. agricultural exports to Japan greatly exceeded U.S. imports from Japan. Excluding Japan, the U.S. agricultural trade surplus would have been a deficit.

U.S. exports to Mexico of edible animal byproducts such as frozen pork intestine (e.g. for sausage casings) and frozen beef tripe, increased by 181 percent to \$173 million as Mexico curtailed shipments of like product from Europe and South America over concerns about hoof and mouth disease and bovine spongiform encephalopathy (commonly referred to as mad-cow disease). U.S. meat and livestock imports from Mexico and Canada increased substantially as the U.S. cattle cycle is in a production trough. Imports of live cattle from Canada increased by 40 percent to over \$1 billion. Beer imports from Mexico increased by 16 percent to \$878 million and imports from Canada increased by 14 percent to \$436 million as sales of imported beer in the U.S. market rose nearly 9 percent compared to static sales for domestic brands during the period.³ However, coffee imports from Mexico declined by 49 percent to \$101 million as world coffee prices fell.

³ At the end of 2001, imported beer represented 11 percent of the U.S. beer market, with the Mexican brand “Corona Especial” the leading import. “The next Beer War,” *Modern Brewery Age*, Mar. 25, 2002, p. 8.

Table 4-3
Agricultural products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG001	Certain miscellaneous animals and meats:				
	Exports	2,106	2,279	173	8.2
	Imports	1,689	1,615	-74	-4.4
	Trade balance	417	664	247	59.2
AG002	Cattle and beef:				
	Exports	3,287	2,795	-491	-14.9
	Imports	3,357	3,970	613	18.3
	Trade balance	-70	-1,174	-1,104	-1,573.6
AG003	Swine and pork:				
	Exports	1,174	1,256	82	7.0
	Imports	986	1,115	130	13.1
	Trade balance	188	141	-47	-25.1
AG004	Sheep and meat of sheep:				
	Exports	23	25	1	5.8
	Imports	206	238	32	15.4
	Trade balance	-183	-213	-30	-16.6
AG005	Poultry:				
	Exports	2,055	2,376	321	15.6
	Imports	71	97	26	37.4
	Trade balance	1,984	2,279	294	14.8
AG006	Fresh or frozen fish:				
	Exports	1,705	2,016	311	18.2
	Imports	3,103	2,958	-145	-4.7
	Trade balance	-1,398	-943	456	32.6
AG007	Canned fish:				
	Exports	170	202	32	18.8
	Imports	538	568	30	5.5
	Trade balance	-369	-367	2	0.6
AG008	Cured and other fish:				
	Exports	168	193	25	15.1
	Imports	294	298	4	1.3
	Trade balance	-126	-104	21	17.1
AG009	Shellfish:				
	Exports	799	708	-91	-11.4
	Imports	6,007	5,908	-99	-1.7
	Trade balance	-5,208	-5,200	8	0.2
AG010	Dairy produce:				
	Exports	664	723	59	8.8
	Imports	1,474	1,574	100	6.8
	Trade balance	-810	-851	-41	-5.1
AG011	Eggs:				
	Exports	159	162	3	2.1
	Imports	18	20	2	11.8
	Trade balance	141	142	1	0.9
AG012	Sugar and other sweeteners:				
	Exports	350	391	42	11.9
	Imports	805	843	38	4.7
	Trade balance	-455	-451	4	0.9
AG012A	Sugar:				
	Exports	64	90	27	42.1
	Imports	551	547	-4	-0.7
	Trade balance	-488	-457	31	6.3
AG012B	High fructose corn sweetener:				
	Exports	101	83	-19	-18.7
	Imports	32	39	7	21.1
	Trade balance	70	44	-26	-37.0

See footnote(s) at end of table.

Table 4-3--Continued
Agricultural products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG013	Animal feeds:				
	Exports	4,061	4,508	447	11.0
	Imports	641	626	-15	-2.4
	Trade balance	3,419	3,881	462	13.5
AG014	Live plants:				
	Exports	132	116	-16	-11.9
	Imports	460	495	34	7.4
	Trade balance	-329	-379	-50	-15.2
AG015	Seeds:				
	Exports	766	747	-18	-2.4
	Imports	471	421	-50	-10.7
	Trade balance	295	327	32	10.9
AG016	Cut flowers:				
	Exports	40	39	(³)	-0.2
	Imports	611	565	-46	-7.5
	Trade balance	-572	-526	46	8.0
AG017	Miscellaneous vegetable substances:				
	Exports	485	505	20	4.2
	Imports	790	794	4	0.5
	Trade balance	-305	-288	16	5.4
AG018	Fresh, chilled, or frozen vegetables:				
	Exports	1,351	1,311	-40	-3.0
	Imports	2,350	2,643	294	12.5
	Trade balance	-999	-1,333	-334	-33.4
AG019	Prepared or preserved vegetables, mushrooms, and olives:				
	Exports	1,464	1,401	-63	-4.3
	Imports	1,408	1,493	85	6.0
	Trade balance	56	-92	-147	(⁴)
AG020	Edible nuts:				
	Exports	1,361	1,309	-53	-3.9
	Imports	808	670	-138	-17.1
	Trade balance	553	639	86	15.5
AG021	Tropical fruit:				
	Exports	57	49	-9	-14.8
	Imports	1,548	1,616	68	4.4
	Trade balance	-1,490	-1,567	-77	-5.1
AG022	Citrus fruit:				
	Exports	635	613	-22	-3.5
	Imports	311	308	-3	-0.9
	Trade balance	324	305	-19	-6.0
AG023	Deciduous fruit:				
	Exports	797	832	35	4.4
	Imports	247	270	24	9.6
	Trade balance	551	562	11	2.0
AG024	Other fresh fruit:				
	Exports	638	674	36	5.6
	Imports	1,024	1,065	41	4.1
	Trade balance	-386	-392	-6	-1.5
AG025	Dried fruit other than tropical:				
	Exports	342	349	6	1.8
	Imports	63	63	(³)	-0.2
	Trade balance	279	285	6	2.3

See footnote(s) at end of table.

Table 4-3--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG026	Frozen fruit:				
	Exports	86	80	-6	-6.4
	Imports	122	117	-5	-3.8
	Trade balance	-36	-37	-1	-2.4
AG027	Prepared or preserved fruit:				
	Exports	190	195	5	2.5
	Imports	547	559	12	2.3
	Trade balance	-356	-364	-7	-2.1
AG028	Coffee and tea:				
	Exports	298	314	16	5.4
	Imports	2,921	1,915	-1,006	-34.5
	Trade balance	-2,623	-1,601	1,022	39.0
AG029	Spices:				
	Exports	80	76	-4	-4.6
	Imports	552	517	-34	-6.2
	Trade balance	-472	-441	31	6.5
AG030	Cereals:				
	Exports	9,467	9,397	-70	-0.7
	Imports	660	761	101	15.3
	Trade balance	8,808	8,636	-171	-1.9
AG031	Milled grains, malts, and starches:				
	Exports	402	446	44	11.0
	Imports	304	305	1	0.3
	Trade balance	98	142	43	44.2
AG032	Oilseeds:				
	Exports	5,419	5,642	223	4.1
	Imports	231	203	-28	-12.2
	Trade balance	5,188	5,439	251	4.8
AG033	Animal or vegetable fats and oils:				
	Exports	1,450	1,405	-45	-3.1
	Imports	1,311	1,128	-183	-14.0
	Trade balance	139	277	138	99.2
AG034	Pasta, cereals, and other bakery goods:				
	Exports	1,092	1,153	61	5.6
	Imports	1,755	1,902	147	8.4
	Trade balance	-662	-748	-86	-13.0
AG035	Sauces, condiments, and soups:				
	Exports	641	737	96	15.0
	Imports	502	576	74	14.6
	Trade balance	139	161	22	16.0
AG036	Infant formulas, malt extracts, and other edible preparations:				
	Exports	2,401	2,729	328	13.7
	Imports	556	659	103	18.4
	Trade balance	1,845	2,070	226	12.2
AG037	Cocoa, chocolate, and confectionery:				
	Exports	851	997	147	17.2
	Imports	2,178	2,301	123	5.6
	Trade balance	-1,328	-1,304	24	1.8
AG038	Fruit and vegetable juices:				
	Exports	713	665	-48	-6.7
	Imports	767	661	-106	-13.8
	Trade balance	-53	5	58	(⁴)

See footnote(s) at end of table.

Table 4-3--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG039	Nonalcoholic beverages, excluding fruit and vegetable juices:				
	Exports	312	312	(³)	-0.1
	Imports	683	745	63	9.2
	Trade balance	-371	-434	-63	-17.0
AG040	Malt beverages:				
	Exports	169	191	22	13.0
	Imports	2,166	2,333	167	7.7
	Trade balance	-1,996	-2,142	-145	-7.3
AG041	Wine and certain other fermented beverages:				
	Exports	551	531	-20	-3.5
	Imports	2,259	2,316	57	2.5
	Trade balance	-1,708	-1,785	-77	-4.5
AG042	Distilled spirits:				
	Exports	483	534	51	10.5
	Imports	2,727	2,848	121	4.4
	Trade balance	-2,244	-2,313	-70	-3.1
AG043	Unmanufactured tobacco:				
	Exports	1,222	1,268	47	3.8
	Imports	628	680	52	8.3
	Trade balance	594	588	-5	-0.9
AG044	Cigars and certain other manufactured tobacco:				
	Exports	709	616	-93	-13.1
	Imports	290	285	-5	-1.7
	Trade balance	419	331	-88	-21.0
AG045	Cigarettes:				
	Exports	3,308	2,118	-1,189	-36.0
	Imports	212	189	-23	-10.9
	Trade balance	3,096	1,930	-1,166	-37.7
AG046	Hides, skins, and leather:				
	Exports	2,330	2,650	320	13.7
	Imports	1,167	1,032	-134	-11.5
	Trade balance	1,163	1,617	454	39.0
AG047	Furskins:				
	Exports	158	173	15	9.7
	Imports	87	96	8	9.3
	Trade balance	70	77	7	10.2
AG048	Wool and other animal hair:				
	Exports	19	11	-8	-41.4
	Imports	74	57	-16	-22.1
	Trade balance	-55	-46	9	15.5
AG049	Cotton, not carded or combed:				
	Exports	1,883	2,164	282	15.0
	Imports	21	4	-17	-80.1
	Trade balance	1,862	2,160	298	16.0

See footnote(s) at end of table.

Table 4-3--Continued

Agricultural products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG050	Ethyl alcohol for nonbeverage purposes:				
	Exports	91	125	33	36.3
	Imports	162	178	16	10.1
	Trade balance	-70	-53	17	24.1

¹Import values are 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.

⁴Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

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CHAPTER 5

Forest Products

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Change in 2001 from 2000:

U.S. trade deficit: Increased by \$1.2 billion (10 percent) to \$12.9 billion
U.S. exports: Decreased by \$2.7 billion (10 percent) to \$23.7 billion
U.S. imports: Decreased by \$1.5 billion (4 percent) to \$36.7 billion

The U.S. trade deficit in forest products increased between 2000 and 2001, as a decline in imports was more than offset by a decline in exports (table 5-1). Product groups with the largest decreases in exports included wood pulp and wastepaper, lumber, logs and rough wood products, and industrial papers and paperboards (table 5-2). Declining production of paper and paperboard in some major paper-producing countries led to a fall in the volume and price of U.S. exports of pulp. Continued weakness in the Japanese housing market accounted for much of the decrease in U.S. exports of lumber and of logs and rough wood products. Decreased worldwide economic activity reduced demand for packaging materials and, hence, U.S. exports of industrial papers and paperboards, particularly kraft linerboard. An increase in linerboard capacity in China also contributed to a decline in U.S. exports of this product to China. Product groups with the largest decreases in U.S. imports were wood pulp and wastepaper, printing and writing papers, lumber, and newsprint (table 5-2). During 2001, weakness in global pulp markets caused pulp prices to decline. Consequently, although the volume of U.S. imports of major grades of pulp was flat in 2001 as compared with that of 2000, the value of these imports decreased due to lower pulp prices. A sluggish U.S. economy during 2001 reduced demand for printing and writing papers and newsprint, causing imports of these products to decline. Trade statistics for all product groups in the forest products sector are presented in table 5-3 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Canada: U.S. deficit decreased by \$936 million (6 percent) to \$16.0 billion
Japan: U.S. surplus decreased by \$397 million (17 percent) to \$2.0 billion
Mexico: U.S. surplus decreased by \$290 million (11 percent) to \$2.3 billion

In 2001, the United States had a trade surplus in forest products with 6 of its top 10 trade partners (Mexico, Japan, the United Kingdom, Italy, Korea, and Hong Kong) and a trade deficit with the remainder (table 5-1). Canada was the largest sector trade partner of the United States, accounting for 51 percent of total U.S. trade (exports plus imports) in forest products in 2001. Mexico, the second-largest trade partner, accounted for only 7 percent of total U.S. trade in forest products.

U.S. trade in forest products with Canada contracted during 2001 compared with 2000. U.S. exports and imports fell, but the decline in U.S. imports was more than three times that of exports

Table 5-1

Forest products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada	7,858	7,462	-397	-5.0
Mexico	3,628	3,282	-346	-9.5
Japan	3,004	2,497	-507	-16.9
China	787	820	33	4.2
United Kingdom	1,276	1,143	-133	-10.4
Germany	790	671	-118	-15.0
Brazil	260	223	-37	-14.1
Italy	737	636	-102	-13.8
Korea	808	561	-247	-30.6
Hong Kong	447	444	-3	-0.7
All other	6,840	6,005	-835	-12.2
Total	26,434	23,743	-2,691	-10.2
EU-15	4,834	4,240	-594	-12.3
OPEC	625	516	-109	-17.4
Latin America	5,769	5,170	-599	-10.4
CBERA	1,088	985	-103	-9.5
Asia	6,537	5,570	-967	-14.8
Sub-Saharan Africa	159	148	-11	-7.2
Central and Eastern Europe	69	79	10	13.9
U.S. imports for consumption:				
Canada	24,782	23,449	-1,333	-5.4
Mexico	1,055	999	-55	-5.2
Japan	652	542	-110	-16.8
China	1,967	2,168	201	10.2
United Kingdom	875	805	-70	-8.0
Germany	893	906	13	1.5
Brazil	1,145	1,145	1	0.1
Italy	447	403	-44	-9.9
Korea	394	348	-46	-11.7
Hong Kong	390	390	(²)	0.1
All other	5,596	5,522	-74	-1.3
Total	38,195	36,678	-1,517	-4.0
EU-15	4,504	4,371	-132	-2.9
OPEC	696	610	-86	-12.3
Latin America	2,936	2,933	-3	-0.1
CBERA	102	113	10	10.3
Asia	5,085	4,960	-124	-2.4
Sub-Saharan Africa	141	119	-21	-15.1
Central and Eastern Europe	36	57	21	58.8
U.S. merchandise trade balance:				
Canada	-16,924	-15,987	936	5.5
Mexico	2,573	2,283	-290	-11.3
Japan	2,352	1,955	-397	-16.9
China	-1,180	-1,348	-168	-14.2
United Kingdom	401	338	-63	-15.6
Germany	-104	-235	-132	-127.2
Brazil	-884	-922	-37	-4.2
Italy	290	233	-57	-19.8
Korea	413	212	-201	-48.6
Hong Kong	57	54	-4	-6.2
All other	1,244	482	-762	-61.2
Total	-11,761	-12,935	-1,174	-10.0
EU-15	331	-132	-462	(³)
OPEC	-71	-94	-23	-32.8
Latin America	2,833	2,236	-596	-21.1
CBERA	986	872	-114	-11.5
Asia	1,452	610	-842	-58.0
Sub-Saharan Africa	18	28	10	54.1
Central and Eastern Europe	33	22	-11	-34.4

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

² Less than \$500,000.

³ Not 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 2001.

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

Table 5-2
Leading changes in U.S. exports and imports of forest products, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. EXPORTS:				
Increases:				
Printed matter (AG066)	4,306	4,353	46	1.1
Decreases:				
Wood pulp and wastepaper (AG059)	4,619	3,711	-908	-19.7
Lumber (AG052)	2,210	1,781	-429	-19.4
Logs and rough wood products (AG051)	1,941	1,622	-320	-16.5
Industrial papers and paperboards (AG061)	5,490	5,208	-283	-5.2
All other	7,866	7,069	-797	-10.1
TOTAL	26,434	23,743	-2,691	-10.2
U.S. IMPORTS:				
Increases:				
Industrial papers and paperboards (AG061)	2,928	3,053	126	4.3
Decreases:				
Wood pulp and wastepaper (AG059)	3,388	2,650	-738	-21.8
Printing and writing papers (AG063)	5,206	4,983	-223	-4.3
Lumber (AG052)	7,071	6,854	-216	-3.1
Newsprint (AG062)	3,789	3,597	-192	-5.1
Wood veneer and wood panels (AG054)	3,471	3,280	-191	-5.5
All other	12,343	12,260	-82	-0.7
TOTAL	38,195	36,678	-1,517	-4.0

Note.-Calculations based on unrounded data.

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

(table 5-1). Weakening prices in the United States for pulp caused a decline in the value of these imports from Canada. A drop in newsprint demand in the United States led to a decline in the volume and the value of newsprint imports from Canada. Likewise, reduced papermaking activity in Canada lessened demand for U.S. exports of pulp and wastepaper.

The United States enjoyed its largest trade surplus in forest products in 2001 with Mexico (table 5-1). This surplus, however, was lower than that recorded in 2000 as U.S. exports of forest products to Mexico fell moderately in 2001 while U.S. imports of forest products from Mexico exhibited little change. A slowing Mexican economy during 2001¹ reduced demand for U.S. exports of printing and writing papers, wood pulp and wastepaper, miscellaneous paper products, and paper boxes and bags.

Japan was the third-largest trade partner of the United States in forest products in 2001 and a country with which the United States has consistently maintained a trade surplus. Nevertheless, in 2001, the surplus in forest products decreased as a small decline in imports from Japan was more than offset by the decline in exports to Japan (table 5-1). Continued weakness in the Japanese economy during 2001 led to a decline in housing starts and reduced demand for lumber, which in turn caused a decline in U.S. exports of logs and rough wood products and of lumber.² Japan's economic sluggishness in 2001 also depressed demand for paper,³ causing a drop in U.S. exports of wood pulp and wastepaper to the country.

¹ U.S. Department of Agriculture, Foreign Agricultural Service, *Mexico Solid Wood Products Annual (Part 1, Production and Trade Sections) 2001*, Mexico City, AGR No. MX1176, Oct. 10, 2001.

² U.S. Department of Agriculture, Foreign Agricultural Service, *Japan Solid Wood Products Annual 2001*, Tokyo, AGR No. JA1085, Sep. 5, 2001.

³ Paul Blamire, "Japanese producers held in check," *Pulp & Paper International*, Jan. 2002.

Table 5-3
Forest products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG051	Logs and rough wood products:				
	Exports	1,941	1,622	-320	-16.5
	Imports	576	582	6	1.1
	Trade balance	1,365	1,039	-326	-23.9
AG052	Lumber:				
	Exports	2,210	1,781	-429	-19.4
	Imports	7,071	6,854	-216	-3.1
	Trade balance	-4,860	-5,073	-213	-4.4
AG053	Moldings, millwork, and joinery:				
	Exports	553	467	-85	-15.4
	Imports	2,518	2,521	3	0.1
	Trade balance	-1,966	-2,054	-88	-4.5
AG054	Wood veneer and wood panels:				
	Exports	1,029	889	-139	-13.5
	Imports	3,471	3,280	-191	-5.5
	Trade balance	-2,443	-2,391	52	2.1
AG055	Wooden containers:				
	Exports	197	150	-47	-24.0
	Imports	565	555	-10	-1.8
	Trade balance	-369	-405	-37	-10.0
AG056	Tools and tool handles of wood:				
	Exports	53	37	-16	-30.8
	Imports	136	130	-6	-4.3
	Trade balance	-82	-93	-11	-12.9
AG057	Miscellaneous articles of wood:				
	Exports	193	175	-18	-9.1
	Imports	1,111	1,041	-70	-6.3
	Trade balance	-918	-866	53	5.7
AG058	Cork and rattan:				
	Exports	86	53	-32	-37.8
	Imports	485	522	37	7.7
	Trade balance	-399	-469	-70	-17.5
AG059	Wood pulp and wastepaper:				
	Exports	4,619	3,711	-908	-19.7
	Imports	3,388	2,650	-738	-21.8
	Trade balance	1,231	1,061	-170	-13.8
AG060	Paper boxes and bags:				
	Exports	1,500	1,445	-55	-3.7
	Imports	940	1,011	71	7.6
	Trade balance	561	435	-126	-22.5
AG061	Industrial papers and paperboards:				
	Exports	5,490	5,208	-283	-5.2
	Imports	2,928	3,053	126	4.3
	Trade balance	2,563	2,154	-408	-15.9
AG062	Newsprint:				
	Exports	492	409	-83	-16.8
	Imports	3,789	3,597	-192	-5.1
	Trade balance	-3,297	-3,188	109	3.3
AG063	Printing and writing papers:				
	Exports	1,691	1,503	-187	-11.1
	Imports	5,206	4,983	-223	-4.3
	Trade balance	-3,516	-3,480	36	1.0
AG064	Certain specialty papers:				
	Exports	689	618	-71	-10.4
	Imports	1,138	1,067	-71	-6.2
	Trade balance	-449	-449	-1	-0.1

See footnote(s) at end of table.

Table 5-3--Continued

Forest products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
AG065	Miscellaneous paper products:				
	Exports	1,385	1,322	-63	-4.5
	Imports	1,385	1,295	-89	-6.4
	Trade balance	(³)	26	26	71,172.7
AG066	Printed matter:				
	Exports	4,306	4,353	46	1.1
	Imports	3,489	3,536	47	1.3
	Trade balance	817	817	(³)	(⁴)

¹Import values are 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.

⁴Less than 0.05 percent.

Note.—Calculations based on unrounded data.

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

Table 6-1

Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada	20,327	19,692	-635	-3.1
Mexico	13,105	12,266	-839	-6.4
Japan	6,267	6,105	-162	-2.6
Ireland	1,252	1,120	-132	-10.5
United Kingdom	4,355	5,806	1,451	33.3
Germany	2,977	3,059	82	2.8
France	2,852	3,032	180	6.3
China	2,430	2,315	-114	-4.7
Belgium	4,640	4,547	-93	-2.0
Netherlands	3,896	3,812	-83	-2.1
All other	30,334	29,520	-814	-2.7
Total	92,433	91,274	-1,159	-1.3
EU-15	23,166	24,711	1,545	6.7
OPEC	1,994	2,091	97	4.9
Latin America	22,175	21,664	-512	-2.3
CBERA	2,025	2,176	151	7.5
Asia	20,251	18,651	-1,600	-7.9
Sub-Saharan Africa	710	780	70	9.9
Central and Eastern Europe	287	304	17	5.8
U.S. imports for consumption:				
Canada	15,858	16,398	539	3.4
Mexico	3,473	3,388	-85	-2.4
Japan	9,563	8,601	-963	-10.1
Ireland	11,452	13,355	1,902	16.6
United Kingdom	7,223	7,466	243	3.4
Germany	7,377	7,662	285	3.9
France	4,070	4,883	813	20.0
China	4,942	5,333	391	7.9
Belgium	1,670	2,090	420	25.2
Netherlands	1,492	1,541	49	3.3
All other	28,174	27,847	-327	-1.2
Total	95,295	98,564	3,269	3.4
EU-15	39,410	42,784	3,374	8.6
OPEC	5,590	4,742	-848	-15.2
Latin America	8,326	7,778	-548	-6.6
CBERA	1,286	1,312	25	2.0
Asia	21,341	20,777	-564	-2.6
Sub-Saharan Africa	1,454	660	-794	-54.6
Central and Eastern Europe	791	1,167	375	47.4
U.S. merchandise trade balance:				
Canada	4,469	3,294	-1,175	-26.3
Mexico	9,632	8,878	-754	-7.8
Japan	-3,296	-2,496	800	24.3
Ireland	-10,201	-12,235	-2,034	-19.9
United Kingdom	-2,868	-1,660	1,208	42.1
Germany	-4,401	-4,603	-202	-4.6
France	-1,218	-1,851	-633	-52.0
China	-2,512	-3,017	-505	-20.1
Belgium	2,970	2,457	-513	-17.3
Netherlands	2,403	2,271	-132	-5.5
All other	2,159	1,672	-487	-22.5
Total	-2,862	-7,290	-4,428	-154.7
EU-15	-16,244	-18,073	-1,829	-11.3
OPEC	-3,596	-2,651	945	26.3
Latin America	13,849	13,886	37	0.3
CBERA	738	864	126	17.0
Asia	-1,090	-2,126	-1,036	-95.1
Sub-Saharan Africa	-744	120	864	(²)
Central and Eastern Europe	-504	-863	-359	-71.2

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 2001.

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

impacted U.S. producers of ethylene, which is a principal input for many plastics. One analyst observed, “in the United States, 70 percent of ethylene is derived from natural-gas liquids; in the rest of the world, 70 percent is derived from naphtha and gas oil, both of which are derived from oil.”⁵

A second important influence on the U.S. chemical trade balance is the performance of the U.S. and its major trading partner economies since so many chemical and related products (e.g., coatings, adhesives, plastics, and pigments) are used in the production of finished manufactured goods. During 2001, both the United States and its major trading partners were in economic slumps, and, according to the Federal Reserve Bank of Dallas, U.S. manufacturing experienced a major decline.⁶ One analyst noted, “business conditions were weak during the fourth quarter (of 2001), extending what has been the most prolonged downturn in the business of chemistry since the 1930s.”⁷

The third important influence on the chemical trade balance in 2001 was the appreciation of the U.S. dollar relative to the currencies of many partners.⁸ The current world economic downturn combined with the strong dollar affected both U.S. chemical imports and exports, as total U.S. chemical imports between 2000 and 2001 increased by only 3.4 percent, and chemical exports decreased by 1.3 percent. The U.S. export performance also showed a broad-based decline with a number of countries. U.S. exports to 7 out of 10 leading U.S. export markets showed declines between 2000 and 2001, with exports to 2 leading U.S. markets (Canada and Mexico) decreasing substantially.⁹

Leading trade changes in chemicals and related products are shown in table 6-2. Of the U.S. industry/commodity groups that increased exports, medicinal chemicals (pharmaceuticals) exhibited the strongest increase, although this industry also showed a larger gain in U.S. imports.¹⁰ The increase in exports of perfumes, cosmetics, and toiletries reflected the strong competitive nature of this segment of the U.S. chemical industry. U.S. polyvinyl chloride (PVC) resins are also viewed by one analyst as high-quality material as compared with that of many foreign producers. There was heavy demand for this lower priced product, particularly in Asia and Latin America. Despite surplus world capacity, more capacity came on stream in 2001 when Shintech, Inc., a Japanese firm, started up a new plant in the United States.¹¹ In general, however, the aggregate U.S. plastics industry was negatively affected by high natural-gas prices and lingering, sluggish economic conditions in major world economies, which resulted

⁵ However, as gas prices declined in the fourth quarter of 2001, the price of natural-gas feedstock approached parity with the price of petroleum feedstock. Kevin Swift and Martha Moore, “U.S. Chemical Industry Outlook: Trade and Domestic Demand,” *Chemical Market Reporter*, Jun. 18, 2001, p. 33.

⁶ Data supplied by the Federal Reserve Bank of Dallas show that manufacturing capacity utilization dropped from almost 82 percent in the middle of 2000 to less than 73 percent by December 2001, and that the manufacturing production index (1987=100, monthly seasonally adjusted (SA)) dropped from 153 to 141 during the same period. Found at <http://www.economagic.com>, retrieved Mar. 20, 2002.

⁷ Kevin Swift and Martha Moore, “The Business of Chemistry: Situation and Outlook 1st Quarter 2002,” American Chemistry Council, p. 5.

⁸ The annual real value of the dollar strengthened by more than 7 percent against other major currencies in 2001. App. F, “Background on Exchange Rate Shifts,” p. F-11.

⁹ More specifically, between 1999 and 2000, U.S. chemical exports to the 10 leading export markets increased, with exports to Canada and Mexico increasing by \$1.5 billion and \$2.4 billion, respectively; between 2000 and 2001, U.S. exports to Canada and Mexico declined by \$635 million and \$839 million, respectively.

¹⁰ The export growth in this product segment combined with the large increase in imports continues the trend exhibited during 1995-2000, and reflects the multinational nature of the major pharmaceutical companies as well as the introduction of several innovative products that command high market prices. See commodity analysis section that follows.

¹¹ Mihir Patel, Occidental Chemical, telephone interview by USITC staff, Mar. 22, 2002.

Table 6-2
Leading changes in U.S. exports and imports of chemicals and related products, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Medicinal chemicals (CH025)	15,772	18,169	2,396	15.2
Perfumes, cosmetics, and toiletries (CH027)	2,851	3,187	336	11.8
Polyvinyl chloride resins in primary forms (CH033)	716	1,004	288	40.1
Decreases:				
Miscellaneous plastic products (CH041)	13,904	13,034	-870	-6.3
Organic commodity chemicals (CH010)	2,146	1,494	-652	-30.4
Other plastics in primary forms (CH036)	7,305	6,766	-539	-7.4
All other	49,738	47,621	-2,118	-4.3
TOTAL	92,433	91,274	-1,159	-1.3
U.S. IMPORTS:				
Increases:				
Medicinal chemicals (CH025)	29,112	33,956	4,844	16.6
Organic specialty chemicals (CH011)	6,610	6,962	352	5.3
Fertilizers (CH016)	3,224	3,478	254	7.9
Decreases:				
Major primary olefins (CH007)	3,552	2,913	-639	-18.0
Pneumatic tires and tubes (new) (CH039)	4,700	4,146	-554	-11.8
Primary aromatics (CH009)	1,563	1,122	-441	-28.2
All other	46,534	45,987	-547	-1.2
TOTAL	95,295	98,564	3,269	3.4

Note.-Calculations based on unrounded data.

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

in limited foreign demand for U.S. resins and finished products, while lower foreign prices for certain plastic products caused U.S. imports to increase.¹²

Export increases were offset by export declines in miscellaneous plastic products and organic commodity chemicals, largely attributable to the high price of U.S. natural gas, which is the principal feedstock for many plastic and commodity chemicals. Many U.S. exports were also competing with gas-derived products from the Middle East and Asian countries, which increased their capacity in 2001.¹³

By far, the largest rise in imports was that of pharmaceutical products (see later section). The increased imports of organic specialty chemicals and fertilizers were modest by historical standards,¹⁴ and reflected the slowdown of the U.S. and world economies and the relatively strong dollar. In addition, the high cost of natural gas (the major input for certain feedstock for fertilizers) made the cost of domestic fertilizer less competitive with imported products.

¹² The significance of the natural gas price increase on the U.S. plastics industry was recently noted as follows, in a statement attributed to Gary Adams, president of CMAI, "Domestic exposure to high energy prices – especially natural gas and NGLs– has all but eliminated U.S. petrochemical (plastics) producers from participation in export markets and raises the threat of a loss of domestic market share to imported raw materials and finished goods." *Chemical Week*, Mar. 28, 2001, p. 30.

¹³ Pamela Sauer, "Mapping the Future of European Chemicals," *Chemical Marketing Report*, Mar. 26, 2001, p. 5.

¹⁴ For example, between 1999 and 2000, the second- and third- largest import increases were \$1.8 billion for major primary olefins and \$1.4 billion for miscellaneous plastic products.

Among the largest decreases in imported products were pneumatic tires and tubes (new), attributable by industry sources to sluggish sales of new large- and medium-sized commercial trucks, which in turn reduced the demand for new tires, thereby reducing the demand for imports.¹⁵ Trade statistics for all industry/commodity groups in the chemicals and related products sector are presented in table 6-3 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Ireland: U.S. deficit increased by \$2.0 billion (20 percent) to \$12.2 billion
United Kingdom: U.S. deficit decreased by \$1.2 billion (42 percent) to \$1.7 billion
Canada: U.S. surplus decreased by \$1.2 billion (26 percent) to \$3.3 billion

The U.S. bilateral trade deficit with Ireland has been increasing dramatically for the chemicals and related products sector since 1995.¹⁶ The deficit is based to a large extent on imports of medicinal products (largely pharmaceuticals), which accounted for 89 percent of total sector imports in 2000 and 2001. Approximately one-third of all U.S. medicinal chemical imports in 2001 originated in Ireland although only 3 percent of medicinal chemicals was exported to Ireland. Nevertheless, the largest category of U.S. chemical exports to Ireland was medicinal chemicals, which accounted for 47 percent of total chemical exports to Ireland in 2001 and for 40 percent in 2000. The Irish Government, through the offices of the Industrial Development Agency, has worked to attract foreign investment in high-technology, high value-added specialty industries. The technically skilled work force and a 10-percent corporate tax rate (working in conjunction with transfer pricing) have made Ireland an ideal location for multinational drug companies wanting to locate in Europe and to sell throughout the world.¹⁷

The significantly reduced U.S. bilateral trade deficit with the United Kingdom was influenced to a large extent by the almost \$1.5 billion increase in U.S. exports of medicinal chemicals to this market in 2001, more than double the combined increase in such imports from the United Kingdom during 2000-2001.¹⁸

The U.S. bilateral trade surplus with Canada (the primary U.S. trade partner in chemicals and related products), which had shown an increasing trend throughout 1999,¹⁹ registered a consecutive year decline in 2001. However, the same rise in the price of natural gas and the economic slowdown that

¹⁵ Rick Brennan, high-performance brand manager, Kumo Tires, telephone interview by USITC staff, Apr. 10, 2002.

¹⁶ Specifically, the U.S. bilateral trade deficit in medicinal chemicals with Ireland increased over nineteen-fold, from \$585 million in 1995 to \$11.4 billion in 2001.

¹⁷ Clay Boswell and Feliza Mirasol, "Sourcing Pharmaceuticals from Offshore Facilities," *Chemical Market Reporter*, Oct. 25, 1999, p. 28.

¹⁸ During 2000-01, U.S. imports of medicinal products from the United Kingdom increased by \$632 million; between 2000 and 2001, U.S. exports of these products increased by \$1,451 million (33 percent) and accounted for 54 percent of total U.S. sector exports to the United Kingdom, compared with 39 percent of the total in 2000. The strength of the pound relative to the Euro and that the world's second-largest pharmaceutical company, Smith Kline Beecham, is a U.S.-Anglo company may have influenced U.S. exports.

¹⁹ According to the Canadian Chemical Producers Association, Canada's increased demand for U.S. specialty and industrial chemicals was partly the result of the robust Canadian economy. Pablo Figueroa, "Canada Looks For a Lift," *Chemical Week*, Jan. 5, 1999, p. 35.

affected the United States in 2001, also affected the Canadian industry, with a resulting decline in U.S. exports to Canada and increase in U.S. imports from Canada.

Mexico, the second-largest U.S. trade partner (in terms of total trade), is an important market largely because of its abundant natural-gas reserves, large domestic market, and border manufacturing. Although U.S. exports to and U.S. imports from Mexico in the chemicals sector decreased in 2001 as both economies contracted,²⁰ the longer term growth in U.S.-Mexican sector trade can be attributed to the development of Mexico's downstream manufacturing industries that rely on U.S. chemicals and related products, as well as the strengthening of Mexican markets for finished products. A challenge facing the Mexican chemical industry is its reported limited capacity to process crude petroleum and natural gas into basic chemicals.²¹ Despite Mexico's large natural-gas reserves, industry sources point out that "Mexico's chemicals production stalled in recent years due in part to Pemex's policy of charging U.S. Gulf Coast prices for ethane,"²² and that such pricing policies have limited investment in the Mexican chemical industry: "For more than 10 years, political and economic problems have prevented the government and private industry from making the large investments needed to resuscitate the nation's petrochemicals sector. Mexico relies on imports for 48 percent of its domestic chemicals demand."²³ Industry observers indicate the effort to attract investment has been hampered because "previous efforts to expand production at Pemex Petroquimica plants failed in part because the Mexican Government was willing to yield only 49 percent to private investors, effectively retaining operating control."²⁴ This concern was underscored by the president of Mexico's chemical industry association who noted that chemicals accounted for 55 percent of Mexico's total trade deficit.²⁵

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COMMODITY ANALYSIS OF MEDICINAL CHEMICALS

U.S. trade deficit: Increased by \$2.4 billion (18 percent) to \$15.8 billion
U.S. exports: Increased by \$2.4 billion (15 percent) to \$18.2 billion
U.S. imports: Increased by \$4.8 billion (17 percent) to \$33.4 billion

The U.S. trade deficit in medicinal chemicals (hereafter pharmaceuticals) increased in 2001 despite a significant increase in U.S. exports and reflects an even larger increase in U.S. imports, particularly from Europe,²⁶ which has greater capacity for pharmaceutical manufacture.²⁷ Global trade in the pharmaceutical industry increased substantially since January 1, 1995,²⁸ following the elimination of

²⁰ The Mexican economy contracted by about 0.3 percent in 2001 as compared with expanding by approximately 6 percent during 2000.

²¹ Robert Westervelt and Kara Sissel, "Pemex to Invest \$1 billion in Petchems," *Chem Week*, Apr. 3, 2002, p. 9.

²² Kara Sissell, "Investors Want an Energy Overhaul," *Chemical Week*, Nov. 14, 2001, p. 28.

²³ Kara Sissell, "Domestic Demand Growth Keeps Accelerating," *Chemical Week*, Jun. 21, 2000, pp. 74-5.

²⁴ Robert Westervelt and Kara Sissel, "Pemex to Invest \$1 billion in Petchems," *Chem Week*, Apr. 3, 2002, p. 9.

²⁵ Kara Sissell, "Investors Want an Energy Overhaul," *Chemical Week*, Nov. 14, 2001, p. 28.

²⁶ Total U.S. imports from the EU increased by \$3.7 billion in 2001, while U.S. exports to the EU increased by \$1.9 billion in the same period.

²⁷ For added detail, see Elizabeth Howlett, "Outsourcing by the Pharmaceutical Industry Provides Opportunities For Fine Chemical Producers Worldwide," *Industry Trade and Technology Review*, publication 3253, Oct. 1999, pp. 1-14, available at the USITC's Internet site at <http://www.usitc.gov/publications>.

²⁸ Total U.S. exports and imports increased by 268 percent during this period.

duties on most medicinal chemical products under the Uruguay Round Agreement. Many countries with large pharmaceutical industries participated in this agreement, including the United States, United Kingdom, Germany, Ireland, and Japan. Because the world pharmaceutical industry is dominated by multinational corporations, there is substantial intracompany trade throughout the industry. Following the wave of mergers in the pharmaceutical industry during the late 1990s, it is not uncommon for a company in one industrialized country (e.g., Germany or the United Kingdom) to have a production facility in another industrialized country (e.g., the United States or France) that manufactures a complete pharmaceutical product line for world consumption.

In addition, there is a continuing trend in the pharmaceutical industry toward outsourcing the production of bulk active ingredients and chemical intermediates used in drug manufacture, and often produced in highly specialized processes that only a limited number of facilities are equipped to perform. Outsourcing benefits pharmaceutical companies that need a timely and flexible source of these chemicals, which is often the situation for firms looking to push their products through clinical trials and, after regulatory approval, benefit as long as possible from patent protection.²⁹ Because of the importance of getting new pharmaceutical products to the market as quickly as possible, companies are typically willing to use either domestic or foreign production facilities. However, the location of the outsourcing country is determined by a number of factors, including domestic taxes, work force, infrastructure, environmental regulation, and wage rates.³⁰ As in recent years, several new and innovative medicines were introduced into the U.S. market in 2001.³¹ Such products command high sales prices, which may also account for the increase in total trade by value in the pharmaceutical industry.

U.S. exports

The top three export markets for U.S. pharmaceutical exports in 2001 were the United Kingdom, Canada, and France, which together accounted for approximately 38 percent of total U.S. pharmaceutical exports. The EU-15, Switzerland, and Japan together accounted for 68 percent of total U.S. exports in this product group. Since the major pharmaceutical companies have a strong presence in these markets, these exports are, in part, intra-company transfers and likely include shipments by U.S. subsidiaries of foreign multinationals. Overall, the combination of higher drug prices, increasing demand by aging populations, and globalization of the industry led to the continued rise in U.S. exports. U.S. exports of medicinal products to the following countries increased the most in 2001: the United Kingdom increased by \$1.5 billion to \$3.2 billion; Netherlands by \$602 million to \$4.1 billion; and France by \$224 million to \$1.6 billion. In 2001, U.S. exports to Italy, Switzerland, and Canada decreased because of the economic slowdown in their respective countries, the higher U.S. exchange rate, and the increased investment in the European contract manufacturing facilities supporting the domestic pharmaceutical industry, which require imported medicinal intermediate products but fewer finished products.³²

U.S. imports

U.S. imports of pharmaceuticals, largely from Ireland, increased again in 2001 and sustained a 19-fold increase from \$634 million in 1995 to \$11.9 billion in 2001. Ireland, the United Kingdom, and Germany, the top three suppliers of pharmaceuticals to the United States in 2001 (as they have been since 1999), increased their shipments by 17 percent, 8 percent, and 16 percent, respectively. Their combined

²⁹ USITC, "Outsourcing," pp 1-14.

³⁰ Charles W. Thurston, "Branded Offshore Manufacturing Finds a Home in Ireland and Singapore," *Chemical Marketing Reporter*, Jun. 8, 1998, p. FR 12.

³¹ In 2001, there were 24 new drugs and 8 new biologicals approved by the U.S. Food and Drug Administration. These figures are compared to 27 new drugs approved in 2000, and 35 that were approved in 1999.

³² Sean Milmo, "Europe in Contract Mode," *Chemical Market Reporter*, Jan. 18, 1999, p. 11.

\$19.9 billion of exports to the United States accounted for 59 percent of total U.S. imports of these products.

Ireland's 10-percent corporate tax rate combined with advantageous transfer pricing applied to high, value-added products provides this country's advantage as a manufacturing base.³³ The most significant growth in manufacturing has been in high-technology areas, such as pharmaceuticals.³⁴ Reportedly, 17 of the 20 leading multinational drug companies worldwide have established manufacturing facilities in Ireland; and, in addition, "two of the most prestigious pharmaceutical products are now primarily manufactured in Ireland, i.e., Viagra and Lipitor."³⁵ According to the Industrial Development Agency of Ireland (IDA), "over 120 overseas companies employ 15,000 and export \$12 billion annually, making Ireland one of the world's largest exporters of pharmaceuticals and fine chemicals. IDA estimates total overseas investment in the pharmaceutical industry at \$5 billion, spread across intermediates, bulk additives, and finished drugs."³⁶ Because Ireland's production costs are relatively low, and there are no price controls on pharmaceuticals in the United States, foreign multinational companies can take advantage of transfer pricing and keep Ireland's pharmaceuticals highly price-competitive in the U.S. market. In 2001, 83 percent of U.S. pharmaceutical imports from Ireland were active ingredients.³⁷ As substantial as U.S. pharmaceutical imports from Ireland are, it has been noted that "most of the Republic's exports go to Europe rather than the United States."³⁸

Germany and the United Kingdom also continue to benefit from the trend toward outsourcing to selected locations throughout the world in the pharmaceutical industry. Because of the large number of prominent multinational pharmaceutical companies that are active in these countries (e.g., GlaxoSmithKline and Aventis) and their reputations for well-trained organic chemists, these countries are attractive sites for contract manufacturing.³⁹ An increasing amount of U.S. imports from Germany and the United Kingdom largely can be attributed to outsourced production by U.S. firms, in addition to intra-company trade. Finally, the merger of Britain's Glaxo Wellcome and the United States' Smith Kline Beecham in 2000 added to international pharmaceutical trade between the United States and the United Kingdom.

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³³ "Accordingly, intermediates transferred between production sites are assigned a market value, and their transfer is treated as a sale to be taxed. They are exported from regions of high taxation while their market value—the basis for taxation—is low. Value adding steps, which produce a unique or patented intermediate (or product) for which the market value is high, are then performed in regions of low taxation, so that the resulting high-value product is taxed at the lower rate. Value is therefore added where it is least penalized." Clay Boswell and Feliza Mirasol, "Sourcing Pharmaceutical Manufacturing from Offshore Facilities," *Chemical Marketing Reporter*, Oct. 25, 1999, p. 28.

³⁴ Patricia L. Layman, "Irish Firms Find Their Niche," *Chemical & Engineering News*, Feb. 22, 1999, p. 18.

³⁵ Found at <http://www.corporateinformation.com/iesector>, retrieved Mar. 20, 2002.

³⁶ Ibid.

³⁷ Based on official statistics of the U.S. Department of Commerce. Pharmaceutical products listed in chapter 29 of the HTS refer, for the most part, to active ingredients that have not been formulated into finished products.

³⁸ *Financial Times*, "Editorial Comment: Luck of the Irish," May 22, 2001, found at <http://www.ft.com>.

³⁹ Sean Milmo, "Europe in Contract Mode," *Chemical Market Reporter*, Jul. 19, 2000, p. FR11.

Table 6-3
Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
CH007	Major primary olefins:				
	Exports	299	120	-179	-59.9
	Imports	3,552	2,913	-639	-18.0
	Trade balance	-3,253	-2,793	460	14.1
CH008	Other olefins:				
	Exports	264	311	47	17.7
	Imports	156	143	-13	-8.2
	Trade balance	108	168	59	54.9
CH009	Primary aromatics:				
	Exports	105	122	17	16.1
	Imports	1,563	1,122	-441	-28.2
	Trade balance	-1,459	-1,000	458	31.4
CH010	Organic commodity chemicals:				
	Exports	2,146	1,494	-652	-30.4
	Imports	1,201	1,021	-180	-15.0
	Trade balance	946	474	-472	-49.9
CH011	Organic specialty chemicals:				
	Exports	5,980	5,678	-303	-5.1
	Imports	6,610	6,962	352	5.3
	Trade balance	-630	-1,285	-654	-103.9
CH012	Certain organic chemicals:				
	Exports	8,257	7,774	-483	-5.8
	Imports	5,049	5,148	98	1.9
	Trade balance	3,207	2,626	-581	-18.1
CH013	Miscellaneous inorganic chemicals:				
	Exports	5,225	4,944	-281	-5.4
	Imports	5,431	5,195	-236	-4.3
	Trade balance	-206	-251	-45	-21.9
CH014	Inorganic acids:				
	Exports	246	242	-4	-1.5
	Imports	251	252	(³)	0.2
	Trade balance	-5	-9	-4	-82.9
CH015	Chlor-alkali chemicals:				
	Exports	862	1,054	192	22.3
	Imports	162	219	57	35.5
	Trade balance	700	835	135	19.3
CH016	Fertilizers:				
	Exports	2,381	2,179	-202	-8.5
	Imports	3,224	3,478	254	7.9
	Trade balance	-843	-1,299	-457	-54.2
CH017	Paints, inks, and related items, and certain components thereof:				
	Exports	3,802	3,546	-256	-6.7
	Imports	2,119	2,090	-29	-1.4
	Trade balance	1,683	1,455	-227	-13.5
CH018	Synthetic organic pigments:				
	Exports	373	329	-44	-11.8
	Imports	358	301	-57	-15.9
	Trade balance	16	29	13	83.7
CH019	Synthetic dyes and azoic couplers:				
	Exports	436	361	-75	-17.1
	Imports	481	378	-104	-21.5
	Trade balance	-45	-16	29	64.2

See footnote(s) at end of table.

Table 6-3--Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
CH020	Synthetic tanning agents:				
	Exports	18	17	-1	-8.0
	Imports	7	5	-2	-28.8
	Trade balance	11	12	1	5.1
CH021	Natural tanning and dyeing materials:				
	Exports	24	26	2	9.1
	Imports	73	65	-7	-10.2
	Trade balance	-49	-40	10	19.5
CH022	Photographic chemicals and preparations:				
	Exports	507	413	-94	-18.6
	Imports	555	479	-76	-13.7
	Trade balance	-48	-66	-18	-37.7
CH023	Pesticide products and formulations:				
	Exports	2,052	2,180	128	6.2
	Imports	1,118	1,318	200	17.9
	Trade balance	935	862	-73	-7.8
CH024	Adhesives and glues:				
	Exports	602	565	-38	-6.2
	Imports	194	176	-18	-9.1
	Trade balance	408	388	-20	-4.9
CH025	Medicinal chemicals:				
	Exports	15,772	18,169	2,396	15.2
	Imports	29,112	33,956	4,844	16.6
	Trade balance	-13,340	-15,788	-2,448	-18.4
CH026	Essential oils and other flavoring materials:				
	Exports	1,034	1,109	75	7.3
	Imports	775	736	-40	-5.1
	Trade balance	258	373	115	44.4
CH027	Perfumes, cosmetics, and toiletries:				
	Exports	2,851	3,187	336	11.8
	Imports	2,192	2,443	251	11.5
	Trade balance	659	744	84	12.8
CH028	Soaps, detergents, and surface-active agents:				
	Exports	2,331	2,223	-108	-4.6
	Imports	1,050	1,115	65	6.2
	Trade balance	1,280	1,107	-173	-13.5
CH029	Miscellaneous chemicals and specialties:				
	Exports	2,742	2,848	107	3.9
	Imports	2,020	1,856	-164	-8.1
	Trade balance	721	992	270	37.5
CH030	Explosives, propellant powders, and related items:				
	Exports	314	254	-61	-19.3
	Imports	265	285	20	7.6
	Trade balance	49	-31	-81	(⁴)
CH031	Polyethylene resins in primary forms:				
	Exports	2,688	2,416	-272	-10.1
	Imports	1,650	1,735	85	5.1
	Trade balance	1,038	681	-357	-34.4
CH032	Polypropylene resins in primary forms:				
	Exports	1,131	1,100	-31	-2.8
	Imports	251	219	-32	-12.8
	Trade balance	880	881	1	0.1

See footnote(s) at end of table.

Table 6-3--Continued

Chemicals and related products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
CH033	Polyvinyl chloride resins in primary forms:				
	Exports	716	1,004	288	40.1
	Imports	331	332	(³)	0.1
	Trade balance	385	672	287	74.6
CH034	Styrene polymers in primary forms:				
	Exports	848	731	-117	-13.9
	Imports	572	579	7	1.3
	Trade balance	276	152	-125	-45.2
CH035	Saturated polyester resins:				
	Exports	629	798	169	26.9
	Imports	522	502	-20	-3.8
	Trade balance	107	296	189	176.7
CH036	Other plastics in primary forms:				
	Exports	7,305	6,766	-539	-7.4
	Imports	2,786	2,649	-137	-4.9
	Trade balance	4,519	4,117	-402	-8.9
CH037	Styrene-butadiene rubber in primary forms:				
	Exports	344	297	-47	-13.6
	Imports	232	258	26	11.3
	Trade balance	112	39	-73	-65.1
CH038	Other synthetic rubber:				
	Exports	1,317	1,328	11	0.8
	Imports	778	734	-43	-5.6
	Trade balance	539	594	54	10.0
CH039	Pneumatic tires and tubes (new):				
	Exports	2,414	2,282	-132	-5.5
	Imports	4,700	4,146	-554	-11.8
	Trade balance	-2,286	-1,864	422	18.5
CH040	Other tires:				
	Exports	89	96	7	8.3
	Imports	137	122	-15	-10.8
	Trade balance	-48	-26	22	46.2
CH041	Miscellaneous plastic products:				
	Exports	13,904	13,034	-870	-6.3
	Imports	12,356	12,419	63	0.5
	Trade balance	1,547	615	-933	-60.3
CH042	Miscellaneous rubber products:				
	Exports	2,319	2,171	-148	-6.4
	Imports	2,518	2,505	-12	-0.5
	Trade balance	-199	-334	-135	-68.1
CH043	Gelatin:				
	Exports	66	74	8	11.4
	Imports	103	94	-9	-9.0
	Trade balance	-37	-20	17	45.3
CH044	Natural rubber:				
	Exports	39	34	-5	-13.7
	Imports	842	613	-229	-27.2
	Trade balance	-803	-579	224	27.9

¹Import values are 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.

⁴Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

Table 7-1

Energy-related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	2,896	3,862	966	33.4
Mexico	4,342	3,296	-1,045	-24.1
Venezuela	149	111	-38	-25.7
Saudi Arabia	42	37	-5	-11.0
Nigeria	17	24	8	46.9
Iraq	0	0	0	0.0
United Kingdom	257	278	21	8.1
Norway	32	39	7	23.4
Colombia	49	43	-7	-13.3
Angola	1	1	(²)	29.0
All other	7,744	7,381	-363	-4.7
Total	15,529	15,073	-455	-2.9
EU-15	2,072	2,146	74	3.6
OPEC	309	273	-36	-11.7
Latin America	6,422	5,161	-1,261	-19.6
CBERA	1,178	1,026	-153	-13.0
Asia	3,083	2,793	-289	-9.4
Sub-Saharan Africa	158	149	-8	-5.3
Central and Eastern Europe	70	40	-30	-42.4
U.S. imports for consumption:				
Canada	31,860	34,598	2,737	8.6
Mexico	11,356	9,103	-2,253	-19.8
Venezuela	14,863	12,030	-2,833	-19.1
Saudi Arabia	12,478	10,625	-1,853	-14.8
Nigeria	8,706	8,627	-79	-0.9
Iraq	4,148	3,735	-413	-10.0
United Kingdom	3,919	3,298	-621	-15.8
Norway	3,578	3,147	-431	-12.0
Colombia	3,299	2,828	-470	-14.3
Angola	3,321	2,769	-553	-16.6
All other	25,122	23,466	-1,656	-6.6
Total	122,650	114,226	-8,423	-6.9
EU-15	8,338	7,614	-724	-8.7
OPEC	45,389	39,424	-5,964	-13.1
Latin America	35,997	29,945	-6,052	-16.8
CBERA	3,117	2,689	-428	-13.7
Asia	3,021	2,720	-301	-10.0
Sub-Saharan Africa	15,016	14,271	-745	-5.0
Central and Eastern Europe	5	131	126	2,612.7
U.S. merchandise trade balance:				
Canada	-28,964	-30,736	-1,771	-6.1
Mexico	-7,014	-5,807	1,207	17.2
Venezuela	-14,714	-11,919	2,795	19.0
Saudi Arabia	-12,436	-10,588	1,848	14.9
Nigeria	-8,690	-8,603	87	1.0
Iraq	-4,148	-3,735	413	10.0
United Kingdom	-3,662	-3,020	642	17.5
Norway	-3,546	-3,108	438	12.4
Colombia	-3,249	-2,785	464	14.3
Angola	-3,320	-2,767	553	16.7
All other	-17,378	-16,085	1,293	7.4
Total	-107,121	-99,153	7,968	7.4
EU-15	-6,266	-5,468	798	12.7
OPEC	-45,080	-39,152	5,928	13.2
Latin America	-29,575	-24,784	4,792	16.2
CBERA	-1,939	-1,664	275	14.2
Asia	62	73	11	18.2
Sub-Saharan Africa	-14,859	-14,122	737	5.0
Central and Eastern Europe	65	-91	-155	(³)

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

² Less than \$500,000.

³ Not 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 2001.

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

in 2001 were Canada, Venezuela, Saudi Arabia, Mexico, and Nigeria. Major trade partners and commodities are presented in tables 7-1 and 7-2.

In 2001, petroleum products accounted for 60 percent of the U.S. export value of energy-related products; coal, coke, and related products accounted for 15 percent; electricity, nuclear material, and natural gas each accounted for 8 percent; and crude petroleum accounted for less than 1 percent. The primary markets for U.S. exports of energy-related products were Canada and Mexico.

Overall shifts in trade (in terms of quantity) for the products in this sector in 2001 included slightly increased imports and decreased exports of crude petroleum. Also, imports of distillate and residual fuel oils (primarily bunker fuels used directly for industrial and residential heating) and natural gas (used directly for industrial and residential heating as well as for electricity generation) increased due to cold winter conditions in the Northeast and increased demand for imported natural gas in California. Trade statistics for all industry/commodity groups in the energy-related products sector are presented in table 7-3 at the end of this chapter.

Table 7-2
Leading changes in U.S. exports and imports of energy-related products, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Electrical energy (CH001)	398	1,258	861	216.5
Decreases:				
Petroleum products (CH005)	9,562	8,936	-627	-6.6
Coal, coke, and related chemical products (CH003)	2,718	2,354	-364	-13.4
All other	2,851	2,526	-325	-11.4
TOTAL	15,529	15,073	-455	-2.9
U.S. IMPORTS:				
Increases:				
Natural gas and components (CH006)	19,157	23,054	3,897	20.3
Decreases:				
Crude petroleum (CH004)	56,546	49,673	-6,873	-12.2
Petroleum products (CH005)	39,787	34,372	-5,415	-13.6
All other	7,160	7,128	-33	-0.5
TOTAL	122,650	114,226	-8,423	-6.9

Note.-Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

- Canada: U.S. deficit increased by \$1.8 billion (6 percent) to \$30.7 billion**
- Venezuela: U.S. deficit decreased by \$2.8 billion (19 percent) to \$11.9 billion**
- Saudi Arabia: U.S. deficit decreased by \$1.8 billion (15 percent) to \$10.6 billion**

Canada remained the leading U.S. trade partner for energy-related products in 2001. The United States and Canada share a sophisticated and intricate system of pipelines that carry natural gas, crude petroleum, and refined petroleum products between the two countries. Also, the United States and

Canada share interconnected grids to transmit electricity across the border. The U.S. trade deficit with Canada increased as a result of the higher annual average wellhead price of natural gas.⁴

The U.S. trade deficit with Venezuela and Saudi Arabia, both members of the Organization of Petroleum Exporting Countries (OPEC), decreased in 2001 because of the decreased price of crude petroleum. However, in terms of quantity, U.S. imports of energy-related products from Venezuela increased by 6 percent and from Saudi Arabia by 7 percent. Together, Venezuela and Saudi Arabia accounted for more than 60 percent of the quantity of U.S. imports of energy-related products from OPEC.

The U.S. energy-related products trade deficit with Latin America also decreased as a result of declining crude petroleum prices. The trade deficit with Mexico decreased by 17 percent in 2001; however, in terms of quantity, imports increased by 5 percent.

COMMODITY ANALYSIS

Crude Petroleum

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$6.6 billion (12 percent) to \$49.5 million

U.S. exports: Decreased by \$266 million (60 percent) to \$177 million

U.S. imports: Decreased by \$6.9 billion (12 percent) to \$49.7 billion

The U.S. trade deficit in crude petroleum decreased in 2001 as a result of the decrease in the average per-barrel price for crude petroleum on the world market, which declined from \$27 per barrel during 2000⁵ to \$22 per barrel during 2001. During September-December 2001, no crude-petroleum production disruptions materialized in connection with the September 11 terrorist attacks or ongoing military operations; in fact, world crude production remained essentially unchanged from the 2000 levels. In addition, world production capacity of crude petroleum reached its highest level since 1987. Although world production was stable in 2001, excess capacity coupled with little or no growth in annual demand (following a year with a per barrel price increase exceeding 70 percent) resulted in the 2001 price decline. U.S. exports of crude petroleum have been prohibited since 1973, except as approved by the U.S. Government.⁶ Canada has been the only significant 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 Energy.⁷ The quantity decrease in U.S. exports in 2001 is attributable to the partial shutdown of a world-scale Canadian refinery for routine maintenance.

U.S. imports

While the value of U.S. imports decreased by 12 percent, the quantity of imports remained relatively stable, increasing slightly by almost 2 percent. U.S. imports accounted for more than 60 percent of U.S. consumption of crude petroleum in both 2000 and 2001. The leading source of U.S.

⁴ Although the price declined throughout the year, the annual average price was higher in 2001 than in 2000.

⁵ U.S. Department of Energy revised figure.

⁶ In terms of quantity, U.S. exports of crude petroleum decreased from 50,000 b/d in 2000 to 25,000 b/d in 2001; in terms of value, U.S. exports of crude petroleum decreased from \$444 million in 2000 to \$177 million in 2001.

⁷ In 2001, Canada accounted for 99.9 percent of U.S. exports of crude petroleum.

crude petroleum imports continued to be Canada, followed by Mexico and the OPEC nations of Nigeria, Venezuela, and Saudi Arabia.

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Petroleum Products

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$4.8 billion (16 percent) to \$25.4 billion

U.S. exports: Decreased by \$627 million (7 percent) to \$8.9 billion

U.S. imports: Decreased by \$5.4 billion (14 percent) to \$34.4 billion

The U.S. trade deficit in petroleum products decreased in 2001 as a result of the decrease in the average per barrel price for crude petroleum on the world market. The United States is a major world consumer of petroleum products and imports to supplement domestic production. U.S. production and consumption of petroleum products remained relatively stable during 2001, decreasing by less than 1 percent from 2000 levels; U.S. imports of petroleum products accounted for about 11.8 percent of domestic consumption during 2001. In terms of quantity, U.S. exports of petroleum products are relatively small, accounting for less than 5 percent of total U.S. production and less than 6 percent of total world exports of petroleum products. The volume of U.S. exports of petroleum products, mainly to Mexico and Canada, increased only slightly, by 3.2 percent, in 2001.

U.S. imports

Although the value of U.S. imports of petroleum products in 2001 decreased by 14 percent from 2000 levels, the quantity of these imports increased slightly, by 3.6 percent. The primary sources of U.S. imports of petroleum products in 2001 remained Canada, Venezuela, and Saudi Arabia. The quantity of U.S. imports of gasoline increased by about 5 percent as demand remained strong as a result of declining U.S. retail prices, which averaged about 10 cents per gallon less during July-December 2001 compared with the same period in 2000. The quantity of U.S. imports of distillate and residual fuel oils, used primarily as heating and bunker fuels, increased by about 14 percent in 2001, as higher natural gas prices, coupled with a cold winter, encouraged fuel switching. During the same period, U.S. imports of jet fuels decreased by about 15 percent, primarily as a result of reduced commercial airline flights after the September 11 terrorist attacks.

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Natural Gas and Components

Change in 2001 from 2000:

U.S. trade deficit: Increased by \$4.1 billion (23 percent) to \$21.9 billion

U.S. exports: Decreased by \$177 million (14 percent) to \$1.1 billion

U.S. imports: Increased by \$3.9 billion (20 percent) to \$23.0 billion

The trade deficit for this commodity increased in 2001 primarily because of the much higher wellhead prices of pipeline natural gas in the first quarter. From 1995 to early 2000, the wellhead price of pipeline natural gas remained fairly steady and averaged about \$2.38 per thousand cubic feet.⁸ During the late summer and early fall of 2000, wellhead prices of natural gas began to increase, largely because of an unexpected increase in demand (primarily for industrial users) in California and an inadequate supply. By January 2001, the average monthly wellhead price had reached \$8.06 per thousand cubic feet. Although higher prices persisted in certain markets, particularly Southern California, where spot prices reached \$40-\$60 per thousand cubic feet during the California energy crisis,⁹ the average monthly price declined steadily in 2001 from its high in January. According to the Energy Information Administration, wellhead prices in 2001 averaged \$4.12 per thousand cubic feet, up nearly 12 percent compared with average prices in 2000.

U.S. imports

The value of imports of pipeline natural gas from Canada increased from \$10.4 billion in 2000 to \$15.4 billion in 2001 (48 percent) and accounted for about 67 percent of all imports within this commodity group, whereas the import volume increased by only 3 percent. The value of liquefied natural gas (LNG) imports also increased significantly, by 59 percent, from \$595 million in 2000 to \$948 million in 2001. But by volume, LNG imports (primarily from Trinidad and Algeria) only increased by 6 percent, from 226 billion cubic feet to 240 billion cubic feet. Overall, import penetration for natural gas was 17 percent (by volume), an increase from 16 percent in 2000, primarily due to stronger demand from California, which was totally satisfied by Canadian imports.

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⁸ U.S. Department of Energy, *Annual Energy Outlook*, Dec. 21, 2001.

⁹ "AGA Sees Adequate Supply, Lower Demand, Higher Prices," *Natural Gas Intelligence*, June 18, 2001.

Table 7-3

Energy-related products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
CH001	Electrical energy:				
	Exports	398	1,258	861	216.5
	Imports	2,711	2,681	-30	-1.1
	Trade balance	-2,313	-1,423	890	38.5
CH002	Nuclear materials:				
	Exports	1,121	1,239	118	10.5
	Imports	1,989	2,036	47	2.4
	Trade balance	-868	-797	71	8.2
CH003	Coal, coke, and related chemical products:				
	Exports	2,718	2,354	-364	-13.4
	Imports	2,460	2,411	-50	-2.0
	Trade balance	257	-57	-314	(³)
CH004	Crude petroleum:				
	Exports	444	177	-266	-60.1
	Imports	56,546	49,673	-6,873	-12.2
	Trade balance	-56,103	-49,496	6,606	11.8
CH005	Petroleum products:				
	Exports	9,562	8,936	-627	-6.6
	Imports	39,787	34,372	-5,415	-13.6
	Trade balance	-30,224	-25,436	4,788	15.8
CH006	Natural gas and components:				
	Exports	1,286	1,109	-177	-13.7
	Imports	19,157	23,054	3,897	20.3
	Trade balance	-17,870	-21,944	-4,074	-22.8

¹Import values are 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.

Table 8-1

Textiles and apparel: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Mexico	6,155	5,232	-923	-15.0
China	221	261	41	18.4
Canada	3,646	3,344	-302	-8.3
Hong Kong	332	313	-19	-5.6
Honduras	1,475	1,409	-66	-4.5
Dominican Rep	1,395	1,290	-105	-7.5
Korea	202	170	-33	-16.2
India	46	39	-7	-15.7
Taiwan	113	77	-36	-31.6
Indonesia	49	45	-4	-8.2
All other	6,721	5,939	-782	-11.6
Total	20,353	18,118	-2,235	-11.0
EU-15	1,924	1,698	-226	-11.7
OPEC	261	269	8	3.0
Latin America	12,003	10,536	-1,467	-12.2
CBERA	5,125	4,783	-342	-6.7
Asia	2,030	1,819	-210	-10.4
Sub-Saharan Africa	136	131	-6	-4.1
Central and Eastern Europe	43	46	3	6.7
U.S. imports for consumption:				
Mexico	10,580	9,941	-640	-6.0
China	10,710	11,124	414	3.9
Canada	3,945	3,791	-154	-3.9
Hong Kong	4,804	4,491	-313	-6.5
Honduras	2,423	2,443	20	0.8
Dominican Rep	2,478	2,337	-141	-5.7
Korea	3,479	3,316	-163	-4.7
India	3,161	3,038	-123	-3.9
Taiwan	2,992	2,700	-292	-9.8
Indonesia	2,446	2,580	134	5.5
All other	33,891	34,186	295	0.9
Total	80,909	79,946	-963	-1.2
EU-15	5,360	5,190	-171	-3.2
OPEC	3,153	3,251	98	3.1
Latin America	21,654	20,841	-813	-3.8
CBERA	9,817	9,728	-89	-0.9
Asia	43,544	43,218	-326	-0.7
Sub-Saharan Africa	789	998	209	26.5
Central and Eastern Europe	511	541	29	5.7
U.S. merchandise trade balance:				
Mexico	-4,426	-4,709	-283	-6.4
China	-10,489	-10,863	-373	-3.6
Canada	-299	-446	-147	-49.2
Hong Kong	-4,472	-4,178	294	6.6
Honduras	-948	-1,034	-86	-9.1
Dominican Rep	-1,082	-1,047	36	3.3
Korea	-3,276	-3,146	130	4.0
India	-3,115	-3,000	115	3.7
Taiwan	-2,879	-2,623	256	8.9
Indonesia	-2,397	-2,536	-138	-5.8
All other	-27,171	-28,247	-1,077	-4.0
Total	-60,555	-61,828	-1,272	-2.1
EU-15	-3,436	-3,491	-55	-1.6
OPEC	-2,892	-2,982	-90	-3.1
Latin America	-9,651	-10,305	-654	-6.8
CBERA	-4,692	-4,946	-253	-5.4
Asia	-41,515	-41,399	116	0.3
Sub-Saharan Africa	-653	-867	-214	-32.8
Central and Eastern Europe	-468	-495	-26	-5.7

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 2001.

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

the decline in total exports, or \$738 million, was accounted for by Canada, the EU, and Asia, whereas countries making large quantities of apparel for the U.S. market from U.S. inputs--Mexico and Caribbean Basin Economic Recovery Act (CBERA) beneficiary countries--accounted for slightly more than one-half of the decline. Since the production of apparel for export from factories in Mexico and CBERA countries is tied directly to U.S. consumer demand, shrinking demand for apparel in the U.S. market during 2001 triggered a cut in textiles and apparel production for export from Mexico and the CBERA countries. For leading trade changes of specific textile and apparel items, see table 8-2.⁶

Table 8-2
Leading changes in U.S. exports and imports of textiles and apparel, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Knit fabrics (CH046B)	787	918	131	16.6
Decreases:				
Apparel (CH049)	8,177	6,537	-1,640	-20.1
All other	11,389	10,664	-726	-6.4
TOTAL	20,353	18,118	-2,235	-11.0
U.S. IMPORTS:				
Increases:				
Sweaters (CH049F)	2,506	2,933	428	17.1
Decreases:				
Fabrics (CH046)	6,052	5,466	-586	-9.7
All other	72,351	71,546	-805	-1.1
TOTAL	80,909	79,946	-963	-1.2

Note.-Calculations based on unrounded data.

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

Change in 2001 from 2000 for footwear:

U.S. trade deficit: Increased by \$419 million (3 percent) to \$14.6 billion
U.S. exports: Decreased by \$25 million (4 percent) to \$ 638 million
U.S. imports: Increased by \$394 million (3 percent) to \$15.2 billion

The U.S. trade deficit in footwear widened in 2001 mainly because of a continued increase in imports (table 8-3). U.S. producers' shipments of footwear in 2001 are estimated to have fallen by \$140 million (4 percent) to \$3.6 billion. As a result, the share of the U.S. footwear market supplied by imports in 2001 rose slightly, to 84 percent by value.⁷ Footwear imports from China increased by \$561 million (6 percent) in 2001, enabling China to expand its share of U.S. footwear imports to 78 percent by quantity and 64 percent by value. China has penetrated virtually all segments of the world footwear market, and

⁶ See U.S. bilateral trade section for further information on significant changes in U.S. textile and apparel trade with leading trading partners.

⁷ The U.S. footwear industry has been contracting steadily over the past several decades because U.S. producers cannot compete with significantly lower-cost foreign suppliers in this labor-intensive industry. U.S. production has steadily declined in its share of total U.S. consumption of footwear.

Table 8-3

Footwear: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
China	43	46	3	6.5
Italy	4	5	(²)	11.6
Brazil	1	1	(²)	6.8
Indonesia	14	13	-1	-5.5
Mexico	114	123	9	7.6
Thailand	7	5	-3	-36.0
Spain	3	5	2	79.6
Dominican Rep	54	51	-3	-4.8
United Kingdom	17	16	(²)	-2.1
Vietnam	27	19	-8	-29.7
All other	379	354	-25	-6.7
Total	664	638	-25	-3.8
EU-15	65	67	2	3.0
OPEC	34	37	3	8.6
Latin America	234	246	12	4.9
CBERA	94	97	3	3.0
Asia	253	218	-36	-14.1
Sub-Saharan Africa	14	10	-4	-28.7
Central and Eastern Europe	1	3	2	107.7
U.S. imports for consumption:				
China	9,206	9,767	561	6.1
Italy	1,259	1,261	2	0.2
Brazil	1,149	1,162	13	1.1
Indonesia	731	725	-7	-0.9
Mexico	351	312	-40	-11.3
Thailand	329	315	-14	-4.2
Spain	325	273	-52	-15.9
Dominican Rep	181	193	12	6.6
United Kingdom	198	151	-47	-23.8
Vietnam	125	132	7	6.0
All other	1,001	958	-43	-4.3
Total	14,856	15,249	394	2.7
EU-15	2,044	1,951	-93	-4.6
OPEC	732	725	-7	-0.9
Latin America	1,709	1,693	-16	-1.0
CBERA	196	206	9	4.8
Asia	10,841	11,330	489	4.5
Sub-Saharan Africa	1	1	1	118.1
Central and Eastern Europe	135	145	10	7.1
U.S. merchandise trade balance:				
China	-9,163	-9,721	-558	-6.1
Italy	-1,255	-1,256	-2	-0.1
Brazil	-1,148	-1,160	-13	-1.1
Indonesia	-717	-712	6	0.8
Mexico	-237	-189	48	20.4
Thailand	-322	-311	11	3.5
Spain	-322	-268	54	16.8
Dominican Rep	-127	-142	-15	-11.4
United Kingdom	-181	-135	47	25.8
Vietnam	-97	-113	-16	-16.1
All other	-622	-605	17	2.8
Total	-14,192	-14,611	-419	-3.0
EU-15	-1,978	-1,883	95	4.8
OPEC	-698	-688	10	1.4
Latin America	-1,474	-1,447	28	1.9
CBERA	-102	-109	-7	-6.4
Asia	-10,588	-11,113	-525	-5.0
Sub-Saharan Africa	13	9	-5	-36.2
Central and Eastern Europe	-134	-142	-8	-6.0

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 2001.

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

industry sources reported that the synthetic footwear category appears to be the fastest growing.⁸ China's dominance in footwear continues to be attributed to its price competitiveness due to low wages and an established production infrastructure. Trade statistics for all industry/commodity groups in the textile, apparel, and footwear sector are presented in table 8-4 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000 for textiles and apparel⁹:

China: U.S. deficit increased by \$373 million (4 percent) to \$10.9 billion

Mexico: U.S. deficit increased by \$283 million (6 percent) to \$4.7 billion

Hong Kong: U.S. deficit decreased by \$294 million (7 percent) to \$4.2 billion

Countries that benefit from preferential access to the U.S. market--namely North American Free Trade Agreement (NAFTA) trade partners Mexico and Canada and the CBERA and sub-Saharan African countries--accounted for most of the increase in the U.S. trade deficit in textiles and apparel for 2001. The trade deficit with Mexico widened by a much smaller amount in 2001 than in 2000, reflecting declines in U.S. exports of \$923 million (15 percent), to \$5.2 billion, and U.S. imports of \$640 million (6 percent), to \$9.9 billion. A large portion of the exports to Mexico consisted of inputs (yarns, fabrics, and garment parts) for use in the production of apparel for export to the United States. U.S. imports from Mexico, which fell for the first time in more than a decade in 2001, consisted mostly of apparel (\$7.7 billion, or 80 percent of the total). The pattern of trade with Mexico has changed since January 1, 1999, when the United States completely eliminated tariffs on most Mexican garments under the NAFTA, which entered into force in 1994. Prior to 1999, in order for imports of most apparel articles made in Mexico to qualify for duty-free entry under NAFTA, the fabrics used in the production of the goods had to be made and cut into garment parts in the United States. Following elimination of most U.S. apparel tariffs for Mexico in 1999, uncut U.S. fabrics may now be shipped to Mexico for both cutting and assembly. As such, uncut fabrics have largely replaced cut garment parts in trade with Mexico.¹⁰

NAFTA trade preferences have been instrumental in encouraging U.S. apparel producers to begin or expand operations in Mexico, and by the late 1990s, in motivating U.S. producers of fabrics for apparel production and other textiles to establish facilities in Mexico, close to their customers. Various facilities had been established or planned in Mexico ranging from vertically integrated operations to produce different types of fabrics to contracts with Mexican cut-and-sew firms to produce apparel packages.¹¹ However, Mexico's dependence on the U.S. market for export sales made it especially vulnerable to the U.S. economic downturn in 2001. Also negatively affecting Mexico's textile and apparel industry was increased competition in the U.S. market from low-cost imports from Asian countries, including those whose currencies depreciated sharply in recent years.¹² During the past decade there had been a steady growth in the number of textile and apparel firms in Mexico; by October 2001, industry sources reported

⁸ "Shoemaking Goes from Strength to Strength: Country Survey-China," *World Footwear*, Nov./Dec. 2001, p. 41.

⁹ See previous section for a discussion of footwear bilateral trade.

¹⁰ ATMI, *Textile HiLights*, Dec. 2001, p. vi.

¹¹ Apparel packages refer to garment production services ranging from design through distribution of the finished product. For more information on the establishment of textile facilities in Mexico, see U.S. International Trade Commission, *Shifts in U.S. Merchandise Trade 2000*, July 2001, USITC publication 3436, p. 8-6.

¹² U.S. Department of Commerce, "Update on the Textile Market-Mexico," *International Market Insight*, found at <http://www.usatrade.gov>, retrieved Feb. 26, 2002.

that 120 Mexican textile companies had closed and 20,000 jobs had been cut.¹³ Other sources reported a record number of apparel maquila closures.¹⁴ By November 2001, the number of textiles and apparel maquilas declined to 997, from 1,113 in 2000.¹⁵

The U.S. textile and apparel trade deficit with Canada showed the greatest deterioration in percentage terms in 2001 (49 percent), as U.S. exports declined much more than U.S. imports. The decline in bilateral trade likely reflected the slowdown in U.S. economic activity. The principal imports from Canada in 2001 were synthetic filament yarn and certain knit or crocheted fabrics and men's and women's suits. Canada's textile and apparel industry is capital-intensive, modernized, and known for quality, fashion, and performance.¹⁶

The U.S. trade deficit with Hong Kong showed the greatest decrease in 2001 as U.S. imports of textiles and apparel from Hong Kong declined by \$294 million (7 percent) to \$4.5 billion compared with a decline of \$19 million in U.S. exports (6 percent) to \$313 million. The textile and apparel industry is the third-largest manufacturing industry in Hong Kong and is reputed to produce quality dyeing and printed fabrics with complex designs and textures. In recent years, however, Hong Kong's rising land, labor, and environmental costs have prompted many of its bleaching and dyeing factories and other textile-manufacturing facilities to relocate to mainland China where such costs are substantially lower. Hong Kong's textile and apparel industry reportedly has evolved into operating primarily as a marketing and purchasing center that provides logistics support for its manufacturing operations in China.¹⁷ These developments and increased competition resulting from the currency devaluations of neighboring East Asian countries have contributed to the decline in Hong Kong's exports of textiles and apparel to the United States.

The U.S. trade deficit with the CBERA countries in textiles and apparel in 2001 widened by \$253 million (5 percent) to \$4.9 billion, reflecting declines in U.S. imports of \$89 million (1 percent), to \$9.7 billion, and U.S. exports of \$342 million (7 percent), to \$4.8 billion. The two-way trade consists mostly of production-sharing activity, whereby U.S. firms ship cut garment parts to the region for assembly and re-import the finished garments under the production-sharing provisions of chapter 98 of the Harmonized Tariff Schedule of the United States.¹⁸ The pattern of trade has begun to change since implementation of the United States-Caribbean Basin Trade Partnership Act (CBTPA) in October 2000.¹⁹ Enacted as Title II of the Trade and Development Act of 2000, the CBTPA, among other things, grants duty-free and quota-free entry to imports of qualifying apparel articles assembled in CBERA countries from fabrics made in the United States of U.S. yarns, whether the fabrics were cut to shape in the United States or in CBERA

¹³ "Mexico's Government Prepares an Emergency Plan," Oct. 5, 2001, found at <http://www.emergingtextiles.com>, retrieved Feb. 12, 2002.

¹⁴ Sara Silver, "U.S. Sneezes, Mexico Catches Cold: Maquiladora Export-Processing Zones are Suffering," *Financial Times*, Feb. 11, 2002.

¹⁵ "Maquila Scoreboard," *Twin Plant News*, Apr. 2002, p. 55, and Apr. 2001, p. 55.

¹⁶ OTEXA, Export Advantage, "Country Information-Canada: Local Industry and Market," Oct. 3, 2001, found at <http://otexa.ita.doc.gov>, retrieved Apr. 12, 2002.

¹⁷ U.S. Department of Commerce, "Hong Kong: Local Industry and Market: Export Advantage," found at <http://web.ita.doc.gov/tacgi/overseas.nsf/09bd...>, retrieved Apr. 24, 2002.

¹⁸ The production-sharing provision ("9802"; formerly "807" and "807A") provides a duty exemption for U.S. components returned to the United States in the form of finished articles. In general, the duty is assessed only on the value-added abroad. For apparel, the fabric for making the garment parts can be of either U.S. or foreign origin as long as the fabric is cut to shape in the United States and exported ready for assembly.

¹⁹ The CBTPA provides for duty-free and quota-free treatment for imports of qualifying textile and apparel articles from CBERA beneficiary countries during a transition period beginning on October 1, 2000, and ending on the earlier of September 30, 2008, or on the date on which the Free Trade Area of the Americas or a comparable free-trade agreement between the United States and CBERA countries enters into force.

countries.²⁰ Similar to the shift in trade with Mexico, uncut U.S. fabrics are now being sent to the CBERA countries for cutting and assembly into qualifying garments, as evidenced by the fact that U.S. exports of apparel (mainly garment parts) to the CBERA countries fell by 26 percent in 2001, whereas U.S. fabric exports to the region rose by 105 percent.

The slowdown in the U.S. economy during 2001 tempered the expected benefits of the CBTPA. Rather than spurring new trade flows, the legislation, at least initially, appeared to primarily cause a shift in trade from the traditional production-sharing provisions to the new duty-free and quota-free preference categories, thereby generating significant duty savings for U.S. firms importing apparel from the region.²¹ Another factor that may have inhibited U.S. importers, retailers, and consumers from achieving the full benefits of the CBTPA are “unresolved implementation and technical issues” associated with the language of the legislation.²²

The U.S. trade deficit with Asia in textiles and apparel narrowed by \$116 million (0.3 percent) to \$41.4 billion in 2001, reflecting declines in U.S. imports of \$326 million (1 percent), to \$43.2 billion, and U.S. exports of \$210 million (10 percent), to \$1.8 billion. Asia accounted for 54 percent of U.S. textile and apparel imports but just 10 percent of U.S. exports in 2001. The decline in the U.S. trade deficit with Asia largely reflected a decline in imports from the traditional “Big Three” Asian suppliers (Hong Kong, Taiwan, and Korea) and India, which more than offset the increase in imports from China. The Big Three Asian suppliers have declined in relative importance in the U.S. textile and apparel market during the past decade largely due to limited quota growth, rising operating costs, labor shortages, major currency devaluations of competing East Asian countries, and the relocation of production facilities to lower-cost countries, particularly China.

The U.S. trade deficit in textiles and apparel with China widened by \$373 million in 2001, the single largest change in the trade balance of any trading partner. The increase in U.S. imports from China of \$414 million (4 percent) far exceeded the gain in U.S. exports to China of \$41 million (18 percent). Most of the increase in U.S. imports from China consisted of apparel, which rose by \$384 million (4 percent) to \$8.9 billion, while most of the increase in U.S. exports to China consisted of artificial filament tow (a raw material), which rose by \$25 million (34 percent) to \$96 million, and apparel of certain felt or nonwoven fabrics, which rose from \$312,000 to \$23 million. Although trade reports indicated that China’s export growth was constrained by rising raw material costs (particularly high domestic cotton prices)²³ and reduced selling prices for its fabrics, the growth in U.S. imports of Chinese textiles and apparel in 2001 reportedly reflected ongoing Chinese Government efforts and funding to modernize textile manufacturing and eliminate unprofitable operations.²⁴

²⁰ If the fabrics are cut to shape in CBERA countries, the garments must be sewn with U.S. thread.

²¹ The American Apparel and Footwear Association (AAFTA) cited a decline of \$100 million in duties paid on imports of apparel, headwear, and footwear during the first half of 2001, compared with the same period in 2000. Office of the United States Trade Representative, *Fourth Report to Congress on the Operation of the Caribbean Basin Economic Recovery Act*, Dec. 31, 2001, p. 58.

²² Ibid.

²³ Dai Yan, “Tough Times for Textile Sector,” *China Daily*, Aug. 30, 2001.

²⁴ Paul Leung, “Regional Notes: China-Fair Machine Market,” *Textile Asia*, July 2001, p. 27. China’s State Economic and Trade Commission also established five priorities for the textile and apparel industry in 2001, including accelerating the restructuring of the wool spinning sector, adjusting cotton prices, and improving the quality of outerwear fabrics. See “Regional Notes- China: Year of Stabilization,” *Textile Asia*, May 2001, p. 53.

Other Asian countries that expanded their textile and apparel exports to the United States in 2001 were Cambodia, Indonesia, and Pakistan, with export growth of \$141 million, \$135 million, and \$62 million, respectively. U.S. apparel imports from Cambodia totaled \$935 million in 2001, up from less than \$1 million in 1995, the year before Cambodia received most-favored-nation (now normal-trade-relations) status. The United States and Cambodia negotiated a bilateral textile agreement that provided for the establishment of quotas on Cambodia's shipments of apparel for the 3-year period beginning on January 1, 1999. This quota agreement on apparel, which accounted for almost all U.S. merchandise imports from Cambodia in 2001, was the first bilateral textile agreement in which the United States obtained a commitment from an exporting country to improve labor conditions in its textile and apparel sector. The agreement linked increases in U.S. quotas on Cambodian apparel to Cambodia's compliance with international labor standards. Because the United States determined that Cambodia had made progress on labor standards, on January 8, 2001, the United States announced that it would increase quotas for 2001 by 9 percent, in addition to the normal 6-percent annual increases in most quotas. The granting of most-favored-nation status to Cambodia and the increase in quota levels have been key factors in the exponential growth of U.S. imports from Cambodia since 1995. The 1999 agreement was extended for 3 additional years on December 31, 2001, when the United States and Cambodia signed a memorandum of understanding.

The increase in U.S. imports from Pakistan likely occurred because of the country's competitive wage rates, which still rank among the lowest of Asian suppliers. However, the economic slowdown in the United States and the aftermath of the terrorist attacks on the United States on September 11, 2001, constrained the growth of U.S.-Pakistan trade. Export demand for Pakistani textiles and apparel reportedly fell sharply as customers in the United States and elsewhere cancelled orders because of the heightened risk of doing business in Pakistan, leading to massive layoffs and increasing the risk of social unrest.²⁵ However, in recognition of the role that Pakistan has been playing in the war against terrorism, President Bush proposed an aid package for Pakistan, including incentives on U.S. apparel imports from that country, during the visit of Pakistani President Musharraf at the White House on February 13, 2002. In part, President Bush announced that the United States would provide increased market access for about \$142 million in apparel imports from Pakistan. Such benefits are expected to lead to rapid growth in U.S. imports of textiles and apparel from Pakistan in upcoming years.²⁶

²⁵ See, for example, "Textile Group Condemns White House Plan to Lower Duties on Pakistani Goods," *International Trade Daily*, Nov. 5, 2001, p. 3; and "Pakistan: Textile Exporters to Meet U.S. Ambassador," Oct. 1, 2001, found at <http://www.just-style.com>, retrieved Oct. 2, 2001.

²⁶ The White House, "Fact Sheet: Official Working Visit of President Musharraf of Pakistan," Feb. 13, 2002, found at www.whitehouse.gov/news/releases/2002/02. The United States therefore granted Pakistan a number of increases in its base quota levels for 2002 and special swing (a shift in quota from one category to another) for the years 2002-04 for 14 categories of cotton and manmade-fiber apparel. U.S. Department of Commerce, "Apparel Benefits for Pakistan," facsimile to Commission staff, Feb. 26, 2002.

Table 8-4

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
CH045	Fibers and yarns, except raw cotton and raw wool:				
	Exports	3,126	2,640	-486	-15.6
	Imports	2,771	2,545	-226	-8.2
	Trade balance	355	95	-260	-73.3
CH046	Fabrics:				
	Exports	6,067	6,162	95	1.6
	Imports	6,052	5,466	-586	-9.7
	Trade balance	15	696	681	4,500.9
CH046A	Broadwoven fabrics:				
	Exports	3,100	2,997	-103	-3.3
	Imports	3,622	3,058	-563	-15.6
	Trade balance	-521	-61	460	88.2
CH046B	Knit fabrics:				
	Exports	787	918	131	16.6
	Imports	1,004	1,014	10	1.0
	Trade balance	-217	-96	121	55.7
CH046C	Specialty fabrics:				
	Exports	481	465	-16	-3.3
	Imports	374	346	-28	-7.5
	Trade balance	107	119	12	11.3
CH046D	Coated and other fabrics:				
	Exports	912	1,003	90	9.9
	Imports	591	570	-21	-3.5
	Trade balance	322	433	111	34.5
CH046E	Glass fiber fabrics:				
	Exports	99	84	-15	-15.5
	Imports	100	104	4	4.2
	Trade balance	-1	-20	-20	-3,009.5
CH046F	Other fabrics:				
	Exports	688	696	8	1.1
	Imports	362	374	12	3.2
	Trade balance	326	322	-4	-1.2
CH047	Carpets and rugs:				
	Exports	791	711	-80	-10.1
	Imports	1,464	1,410	-54	-3.7
	Trade balance	-674	-699	-26	-3.8
CH048	Home furnishings:				
	Exports	418	403	-15	-3.6
	Imports	3,215	3,332	117	3.6
	Trade balance	-2,797	-2,929	-132	-4.7
CH048A	Blankets:				
	Exports	36	34	-2	-4.6
	Imports	214	230	16	7.4
	Trade balance	-178	-196	-18	-9.8
CH048B	Pillowcases and sheets:				
	Exports	94	90	-4	-4.1
	Imports	723	765	42	5.8
	Trade balance	-629	-675	-46	-7.3
CH048C	Table/kitchen linens and towels:				
	Exports	113	109	-4	-3.3
	Imports	1,039	1,080	41	4.0
	Trade balance	-926	-970	-45	-4.8
CH048D	Curtains:				
	Exports	40	35	-5	-12.6
	Imports	361	397	36	9.9
	Trade balance	-321	-362	-41	-12.7

See footnote(s) at end of table.

Table 8-4--Continued

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		<i>Million Dollars</i>			
CH048E	Bedspreads and other furnishing articles:				
	Exports	45	43	-2	-3.5
	Imports	547	515	-32	-5.8
	Trade balance	-502	-472	30	6.0
CH048F	Pillows, cushions, and sleeping bags:				
	Exports	90	91	1	1.0
	Imports	326	340	14	4.3
	Trade balance	-237	-250	-13	-5.5
CH048G	Tapestries and other wall hangings:				
	Exports	1	1	(³)	-3.3
	Imports	5	5	(³)	3.6
	Trade balance	-4	-4	(³)	-5.0
CH049	Apparel:				
	Exports	8,177	6,537	-1,640	-20.1
	Imports	64,402	63,995	-407	-0.6
	Trade balance	-56,225	-57,458	-1,233	-2.2
CH049A	Men's and boys' suits and sports coats:				
	Exports	82	66	-16	-19.9
	Imports	1,196	1,026	-170	-14.2
	Trade balance	-1,114	-960	154	13.8
CH049B	Men's and boys' coats and jackets:				
	Exports	114	99	-15	-12.8
	Imports	1,976	1,992	16	0.8
	Trade balance	-1,862	-1,893	-31	-1.6
CH049C	Men's and boys' trousers:				
	Exports	997	728	-269	-27.0
	Imports	7,321	6,980	-341	-4.7
	Trade balance	-6,324	-6,252	72	1.1
CH049D	Women's and girls' trousers:				
	Exports	587	454	-133	-22.6
	Imports	7,419	7,668	249	3.4
	Trade balance	-6,832	-7,214	-382	-5.6
CH049E	Shirts and blouses:				
	Exports	2,052	1,533	-519	-25.3
	Imports	20,159	19,676	-483	-2.4
	Trade balance	-18,107	-18,143	-36	-0.2
CH049F	Sweaters:				
	Exports	37	36	-1	-2.6
	Imports	2,506	2,933	428	17.1
	Trade balance	-2,469	-2,897	-429	-17.4
CH049G	Women's and girls' suits, skirts, and coats:				
	Exports	249	211	-38	-15.2
	Imports	4,304	4,417	113	2.6
	Trade balance	-4,055	-4,206	-151	-3.7
CH049H	Women's and girls' dresses:				
	Exports	106	81	-25	-23.7
	Imports	1,889	1,675	-214	-11.3
	Trade balance	-1,783	-1,594	189	10.6
CH049I	Robes, nightwear, and underwear:				
	Exports	1,028	906	-121	-11.8
	Imports	4,842	4,796	-46	-0.9
	Trade balance	-3,814	-3,889	-75	-2.0
CH049J	Hosiery:				
	Exports	423	362	-61	-14.4
	Imports	950	923	-27	-2.9
	Trade balance	-527	-560	-34	-6.4

See footnote(s) at end of table.

Table 8-4--Continued

Textiles, apparel, and footwear sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		<i>Million Dollars</i>			
CH049K	Body-supporting garments:				
	Exports	445	330	-115	-25.8
	Imports	1,439	1,434	-5	-0.3
	Trade balance	-993	-1,104	-110	-11.1
CH049L	Neckwear, handkerchiefs, and scarves:				
	Exports	40	28	-12	-30.1
	Imports	510	457	-53	-10.4
	Trade balance	-470	-429	41	8.7
CH049M	Gloves, including gloves for sports:				
	Exports	185	181	-4	-2.3
	Imports	2,076	2,119	43	2.0
	Trade balance	-1,891	-1,938	-47	-2.5
CH049N	Headwear:				
	Exports	107	116	10	8.9
	Imports	1,245	1,288	43	3.5
	Trade balance	-1,138	-1,172	-34	-3.0
CH049O	Leather apparel and accessories:				
	Exports	94	100	6	6.3
	Imports	2,028	2,121	93	4.6
	Trade balance	-1,934	-2,021	-87	-4.5
CH049P	Fur apparel and other fur articles:				
	Exports	48	34	-14	-28.4
	Imports	241	264	23	9.6
	Trade balance	-193	-230	-37	-19.0
CH049Q	Rubber, plastic, and coated-fabric apparel:				
	Exports	102	123	21	20.6
	Imports	390	381	-9	-2.2
	Trade balance	-288	-258	30	10.3
CH049R	Nonwoven apparel:				
	Exports	42	52	9	21.9
	Imports	373	411	39	10.4
	Trade balance	-330	-360	-29	-8.9
CH049S	Other wearing apparel:				
	Exports	1,437	1,095	-342	-23.8
	Imports	3,539	3,433	-106	-3.0
	Trade balance	-2,102	-2,338	-236	-11.2
CH050	Miscellaneous textile products:				
	Exports	1,774	1,666	-108	-6.1
	Imports	3,005	3,198	193	6.4
	Trade balance	-1,231	-1,532	-301	-24.5
CH051	Footwear:				
	Exports	664	638	-25	-3.8
	Imports	14,856	15,249	394	2.7
	Trade balance	-14,192	-14,611	-419	-3.0

¹Import values are 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.

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CHAPTER 9
Minerals and Metals¹

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Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$7.4 billion (15 percent) to \$40.3 billion
U.S. exports: Decreased by \$3.8 billion (8 percent) to \$43.5 billion
U.S. imports: Decreased by \$11.2 billion (12 percent) to \$83.8 billion

The decrease in the U.S. trade deficit in minerals and metals occurred as both U.S. imports and exports showed strong declines, reflecting lower consumption in the United States and foreign countries resulting from economic downturns in 2001 that were exacerbated during the September 11 aftermath, particularly in key end-use sectors such as the automotive, appliance, electronic, and certain construction industries. The decrease in consumption combined with increased inventories in 2001 compared with 2000 led to significant declines in metal prices, especially aluminum, copper, and precious metals, despite the closure of many metal-producing operations in the United States. The trade deficit during 2001 was the smallest since 1998 and followed large increases during 1999-2000. Canada and Mexico were the leading destinations for U.S. exports in 2001, and Canada, China, and Mexico were the leading sources of imports. Additional statistical detail on major import suppliers and export markets is provided in table 9-1.

In 2001, trade decreased in most industry/commodity groups; these decreases far outweighed the increases in trade in other groups (table 9-2). The same group of items tended to account for the major decreases in exports and imports. The decline in U.S. shipments of precious metals and non-numismatic coins was largely attributable to decreased prices resulting from lower consumption and high inventory. Natural and synthetic gemstone imports decreased because of the weakness of the U.S. economy, declining consumption, and excess U.S. inventories. The decline in U.S. exports of copper was pronounced as a consequence of low copper prices that forced many U.S. operations to shut down. The world price of copper fell by more than 12 percent during 2001, continuing a general downward price trend that began in 1996 as a result of rising inventories due to production increases worldwide that rose faster than consumption growth rates. This demand-supply imbalance was exacerbated by reduced world consumption in 2001, the first such reduction in a decade. U.S. exports of refined copper declined by 86 percent, primarily to China, Singapore, and Taiwan. U.S. imports of copper ores and concentrates from Chile, Indonesia, Peru, Canada, and Mexico rebounded from the near zero level of 2000, reflecting the shutdown of relatively high-cost U.S. mines and a resultant short-term copper smelting overcapacity.

¹ Because many steel mill products are the subject of a recently concluded Commission investigation under section 201 of the Trade Act of 1974 (19 U.S.C. 2251), the Commission has not included an analysis for the steel trade shift in this report. For more information, see U.S. International Trade Commission, *Steel* (investigation no. TA-201-73), USITC publication 3479, Dec. 2001; available at <http://www.usitc.gov/steel>.

Table 9-1

Minerals and metals: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	15,421	13,262	-2,159	-14.0
Mexico	8,210	6,956	-1,254	-15.3
China	1,333	1,497	163	12.3
Japan	2,344	1,919	-425	-18.1
Israel	573	732	159	27.8
United Kingdom	3,347	3,039	-308	-9.2
Germany	1,380	1,440	60	4.3
Switzerland	3,753	3,549	-204	-5.4
Belgium	979	1,151	171	17.5
Taiwan	702	594	-108	-15.3
All other	9,238	9,369	131	1.4
Total	47,280	43,507	-3,773	-8.0
EU-15	8,015	8,171	156	1.9
OPEC	751	805	54	7.2
Latin America	10,368	9,030	-1,338	-12.9
CBERA	770	777	7	0.9
Asia	7,596	7,177	-418	-5.5
Sub-Saharan Africa	219	250	31	14.2
Central and Eastern Europe	133	159	25	19.0
U.S. imports for consumption:				
Canada	19,215	16,916	-2,299	-12.0
Mexico	6,767	6,528	-238	-3.5
China	6,947	7,250	303	4.4
Japan	5,339	4,634	-704	-13.2
Israel	5,693	5,412	-282	-4.9
United Kingdom	3,086	2,946	-141	-4.6
Germany	3,998	3,724	-274	-6.9
Switzerland	1,013	937	-76	-7.5
Belgium	3,517	2,944	-573	-16.3
Taiwan	3,629	2,950	-679	-18.7
All other	35,811	29,606	-6,205	-17.3
Total	95,015	83,847	-11,168	-11.8
EU-15	18,827	17,101	-1,726	-9.2
OPEC	1,422	1,259	-163	-11.5
Latin America	13,361	12,111	-1,250	-9.4
CBERA	628	552	-76	-12.2
Asia	24,558	21,771	-2,787	-11.3
Sub-Saharan Africa	3,201	3,082	-119	-3.7
Central and Eastern Europe	878	676	-202	-23.0
U.S. merchandise trade balance:				
Canada	-3,795	-3,654	140	3.7
Mexico	1,443	428	-1,016	-70.4
China	-5,614	-5,754	-140	-2.5
Japan	-2,995	-2,716	279	9.3
Israel	-5,121	-4,680	441	8.6
United Kingdom	261	94	-167	-64.1
Germany	-2,618	-2,284	334	12.8
Switzerland	2,740	2,612	-128	-4.7
Belgium	-2,538	-1,794	744	29.3
Taiwan	-2,927	-2,355	572	19.5
All other	-26,573	-20,237	6,336	23.8
Total	-47,735	-40,341	7,395	15.5
EU-15	-10,812	-8,930	1,882	17.4
OPEC	-670	-453	217	32.4
Latin America	-2,993	-3,081	-88	-2.9
CBERA	142	225	83	58.8
Asia	-16,962	-14,594	2,368	14.0
Sub-Saharan Africa	-2,982	-2,832	150	5.0
Central and Eastern Europe	-744	-517	227	30.6

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 2001.

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

Table 9-2
Leading changes in U.S. exports and imports of minerals and metals, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Natural and synthetic gemstones (MM019)	1,466	1,840	374	25.5
Certain base metals and chemical elements (MM041)	1,503	1,702	200	13.3
Iron and steel waste and scrap (MM023)	1,030	1,151	120	11.7
Lead ores and concentrates (MM005A)	54	106	52	95.2
Decreases:				
Copper and related articles (MM036)	3,109	1,852	-1,257	-40.4
Precious metals and non-numismatic coins (MM020)	7,685	6,826	-859	-11.2
Miscellaneous products of base metal (MM031)	5,814	5,264	-550	-9.5
Aluminum mill products (MM038)	3,130	2,784	-346	-11.0
All other	23,489	21,982	-1,507	-6.4
TOTAL	47,280	43,507	-3,773	-8.0
U.S. IMPORTS:				
Increases:				
Fabricated structurals (MM027)	534	638	104	19.6
Metal construction components (MM028)	922	990	68	7.4
Copper ores and concentrates (MM004)	(¹)	58	58	557,058.9
Decreases:				
Steel mill products (MM025)	15,026	11,630	-3,396	-22.6
Precious metals and non-numismatic coins (MM020)	10,082	8,193	-1,889	-18.7
Natural and synthetic gemstones (MM019)	13,234	11,577	-1,657	-12.5
Copper and related articles (MM036)	4,881	4,296	-585	-12.0
All other	50,337	46,465	-3,872	-7.7
TOTAL	95,015	83,847	-11,168	-11.8

¹Less than \$500,000.

Note.-Calculations based on unrounded data.

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

Other notable shifts include reduced exports of primary aluminum products due to plant closures because of high U.S. west coast energy costs and decreased consumption, and a near doubling of lead ore and concentrate exports to many markets due to added concentrate production and the shutdown of two domestic smelting facilities. Increased imports occurred in steel pipe and tube, in fabricated structural steel, and metal construction components among other products. The commodity analyses that follow for precious metals and non-numismatic coins, and for natural and synthetic gemstones, provide more specific information on these trade shifts. Trade statistics for all industry/commodity groups in this sector are presented in table 9-5 at the end of the chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Mexico: U.S. surplus decreased by \$1.0 billion (70 percent) to \$428 million

Belgium: U.S. deficit decreased by \$744 million (29 percent) to \$1.8 billion

Taiwan: U.S. deficit decreased by \$572 million (20 percent) to \$2.4 billion

The declining sector trade surplus with Mexico in 2001 was principally due to a 15-percent decrease in U.S. exports of base metal products of iron, steel, aluminum, and copper. All reflect the slower growth rates in the U.S. and Mexican economies;² lower exports of aluminum and copper were also due to domestic plant closures and low market prices. U.S. imports from Mexico also decreased slightly, led by base metals and steel mill products but mediated largely by a rise in unrefined and refined copper from northern Mexico operations because of available U.S. processing capabilities.

The declining U.S. trade deficit in this sector with Belgium was largely attributable to decreased imports of diamonds, caused by market oversupply, aided by a smaller increase in diamond exports. Steel mill product imports accounted for 16 percent of the import decline from Belgium whereas precious metal imports declined marginally, almost entirely due to lower prices. Increased U.S. exports to Belgium occurred in unwrought and semifabricated forms of nickel alloys, titanium, and cobalt.

The declining U.S. sector trade deficit with Taiwan was primarily due to decreased domestic consumption of iron or steel industrial fastener screws (down 16 percent), miscellaneous base metal products such as portable cooking appliances (down 92 percent), and multiple steel mill products. Overall U.S. sector exports to Taiwan increased marginally, with the increase almost completely comprised of iron and steel waste and scrap (up 25 percent), reflecting sustained growth in exports of domestic recycling materials from the U.S. west coast to Asia. The only significant export decrease was in copper cathodes (down 100 percent), reflecting the decline in U.S. production.

During 2001, there were also significant decreases in overall trade with both Canada (exports and imports down 14 and 12 percent, respectively) and Japan (down 18 and 13 percent, respectively) that reflected weakened economies worldwide. Additional major shifts include the narrowing of the U.S. sectoral trade deficits with Israel, due to increased exports and decreased imports of gem diamonds, and Germany, where a 91-percent increase in flat glass exports occurred largely to complement increased exports of automobiles and parts, coupled with a decrease in imports led by steel mill products.

² See chapters 2 and 3 for an overview of U.S. and Mexico's economic trade conditions, respectively.

COMMODITY ANALYSIS

Precious Metals and Non-numismatic Coins³

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$1.0 billion (43 percent) to \$1.4 billion

U.S. exports: Decreased by \$859 million (11 percent) to \$6.8 billion

U.S. imports: Decreased by \$1.9 billion (19 percent) to \$8.2 billion⁴

Dampened worldwide industrial and consumer consumption⁵ compounded by expanded sales into the market from key sources drove down precious-metals prices significantly from the previous year levels.⁶ Prices were low enough in 2001 to reduce the value of both U.S. imports and exports of precious metals and non-numismatic coins, despite increased quantities traded for certain products. The trade deficit narrowed as the decline of imports overshadowed, by more than two-fold, the decline of exports. A lower value for exports was dominated by reduced amounts of unwrought gold shipped to the United Kingdom and Switzerland—countries that are major world-scale centers for precious-metals refining, fabricating, and trading.

U.S. imports

Although the United States is a major gold and silver producer, and also a major world-scale refining, fabricating, and trading center for all precious metals, these activities were less robust than in the previous year as domestic consumer and industrial demand for these products, with some notable exceptions (e.g., gold jewelry and investment items), were adversely impacted by the economic slowdown and the aftermath of the September 11 attacks. Likewise, the United States imported less gold, platinum-group metals, and silver compared to the previous year (table 9-3). The top four import sources for precious metals and non-numismatic coins continued to be Canada (\$1.7 billion, or 21 percent of U.S. imports), South Africa (\$1.5 billion, or 19 percent), Russia (\$1.5 billion, or 18 percent), and the United Kingdom (\$1.0 billion, or 13 percent); together, these sources accounted for just over 70 percent of the value of U.S. imports of these products.

³ This industry/commodity group includes gold, silver, and platinum-group metals (platinum, palladium, rhodium, iridium, ruthenium, and osmium) in unwrought or semimanufactured forms; precious-metals waste and scrap; and precious-metal non-numismatic coins. Monetary gold held as official reserves by central banks is excluded from this group.

⁴ Not adjusted for certain imports from Canada in 2000 that were reportedly misclassified as non legal tender precious-metal (other than gold) coins. Adjusted 2000 imports of precious metals and non-numismatic coins, and the corresponding change in 2001 imports from adjusted 2000 imports, in both absolute and percent terms, would be smaller than the values shown. For added explanation of the trade shifts, see “Canada” in ch. 3 and the sector overview of this chapter.

⁵ See ch. 2 for a general discussion about U.S. and international macroeconomic conditions that influenced U.S. merchandise trade performance in 2001.

⁶ Important factors that influenced price declines of individual precious metals will be discussed below for shifts of U.S. imports.

Table 9-3
Changes in U.S. imports of precious metals and non-numismatic coins, 2000 and 2001

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	Million dollars			
Waste and scrap	291	304	13	5
Silver	775	531	-244	-31
Platinum-group metals	5,688	5,229	-459	-8
Gold	2,588	2,022	-565	-22
Non-numismatic coins	¹ 741	106	¹ -635	¹ -86
Total	² 10,082	8,193	² -1,889	² -19

¹ Certain imports from Canada in 2000 were reportedly misclassified as non-numismatic coins. Hence, adjusted 2000 imports of non-numismatic coins and the corresponding change in 2001 imports from adjusted 2000 imports, in both absolute and percent terms, would be smaller in magnitude than the values shown.

² Adjusted 2000 imports of precious metals and non-numismatic coins, and the corresponding change in 2001 imports from adjusted 2000 imports in both absolute and percent terms would be smaller in magnitude than the values shown.

Note.—Calculations based on unrounded data.

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

Gold prices fell sufficiently⁷ to drive down the value of U.S. gold imports, despite greater domestic consumption of gold by 13.1 metric tons (3 percent) during 2001⁸ for jewelry and investment items, by far the predominant gold end-uses. In the United States, low interest rates and discounted jewelry prices encouraged price-conscious preferences for plain gold, contrary to weaker sales trends for other luxury items. Likewise, sales of gold coins, particularly as “safe haven” investments, continued to recover from the depressed post-Y2K-concern levels of 2000, and were boosted in the fourth quarter of 2001 in the aftermath of the September 11 attacks.⁹ For the world as a whole, weaker gold prices reflected augmented supplies from continued central bank sales but slightly lower estimated mine output,¹⁰ combined with weaker consumption which fell by 52.8 metric tons (2 percent).¹¹ Higher global investment demand was overshadowed by lower jewelry demand due to economic-slowdown concerns, declines in tourism-related purchases, and post-September 11 price volatility; along with significantly lower wedding-related purchases during the second-half of the year in India, the world’s largest gold-consuming market.¹²

⁷ The annual average of the London Final fix for gold declined to \$270.99 per troy ounce in 2001, compared with \$279.04 per troy ounce in 2000. Earle B. Amey and Henry E. Hilliard, “Precious Metals in December 2001,” *Mineral Industry Surveys*, U.S. Geological Survey (USGS), Mar. 2002.

⁸ U.S. gold consumption in the forms of both jewelry and investment items in 2001 was recorded at 409.5 metric tons compared to the 396.4 metric tons consumed in the previous year. Official statistics of the World Gold Council (WGC), London, U.K.

⁹ WGC, “The Americas,” *Gold Demand Trends*, issue No. 38, Feb. 2002, pp. 14-15.

¹⁰ In 2001, Switzerland and the United Kingdom sold off 1,300 metric tons and 415 metric tons, respectively, of central-bank-held gold. Mines worldwide produced 2,530 metric tons of gold compared to 2,550 metric tons in the previous year. Earle B. Amey, “Gold,” *Mineral Commodity Summaries*, USGS, Jan. 2002, pp. 72-73.

¹¹ Worldwide consumption of gold jewelry and investment items in 2001 was lower at 3,235.1 metric tons than the record 3,287.9 metric tons consumed in the previous year. Official statistics of the WGC, London, U.K.

¹² Jewelry is by far the predominate form of Indian gold demand. Given gold jewelry’s traditional prominence in bridal dowries and ceremonies, gold consumption in India is highly dependent on the number of auspicious Hindu wedding days. WGC, “Gold Demand in 2001,” *Gold Demand Trends*, issue No. 38, Feb. 2002, pp. 2-5.

Although the United States has only one producing platinum-group metals (PGMs) mine and must rely extensively on imports to meet domestic consumption needs,¹³ import levels turned down in 2001, largely attributable to significantly lower PGM prices. After being boosted for 3 straight years, lower PGM prices¹⁴ reflected weakened automotive-catalytic and electronics demand, continued draw-down of metal stockpiled during the previous year; and rapid selloff from speculative holdings as new supplies were approved for export from Russia, the world's largest producer of PGMs.¹⁵

U.S. silver imports also declined as prices weakened from the previous year level.¹⁶ Dampened global industrial consumption, particularly in the electronics sector; combined with plentiful supplies augmented by inventory overhang from the previous year;¹⁷ expanded worldwide mine output,¹⁸ and continued sales of surplus recovered-silver by China,¹⁹ exerted downward pressure on prices during 2001.

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Natural and Synthetic Gemstones

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$2.0 billion (17 percent) to \$9.7 billion

U.S. exports: Increased by \$374 million (26 percent) to \$1.8 billion

U.S. imports: Decreased by \$1.7 billion (13 percent) to \$11.6 billion

The decrease in the U.S. trade deficit for natural and synthetic gemstones is primarily the result of a significant reduction in U.S. demand for all imported product categories of gemstones, especially diamonds in terms of value (table 9-4). This is the first time the gemstone industry has recorded a

¹³ Imports as a share of apparent consumption in 2001 were estimated at 66 percent for platinum and 87 percent for palladium. Henry E. Hilliard, "Platinum-Group Metals," *Mineral Commodity Summaries*, USGS, Jan. 2002, pp. 123-124.

¹⁴ The Englehard Industries annual-average price for platinum decreased to \$533.31 per troy ounce in 2001 compared to \$549.31 per troy ounce in 2000, palladium fell to \$610.61 per troy ounce from \$691.84 per troy ounce, and rhodium declined to \$1,598.67 per troy ounce from \$1,988.57 per troy ounce. Amey and Hilliard, "Precious Metals in December 2001;" and Henry E. Hilliard, USGS, interview with USITC staff, Apr. 5, 2002.

¹⁵ Henry E. Hilliard, "Platinum-Group Metals" in "Precious Metals in (various months) 2001," *Mineral Industry Surveys*, USGS, various months, 2001-02.

¹⁶ The annual average of the London Final fix for silver declined slightly to \$4.37 per troy ounce in 2001 from \$4.95 per troy ounce during the previous year. Amey and Hilliard, "Precious Metals in December 2001."

¹⁷ "Weak Industrial Demand Hits Silver Prices," *American Metal Market*, Precious Metals News, Nov. 16, 2001, found at <http://www.amm.com/subscribe./2001/nov/inside3/1116pm01.htm>, retrieved Mar. 30, 2002.

¹⁸ Mines worldwide produced 18,300 metric tons of silver in 2001 compared to 17,700 metric tons in the previous year. Henry E. Hilliard, "Silver," *Mineral Commodity Summaries*, USGS, Jan. 2002, pp. 150-151.

¹⁹ Following government deregulation of the Chinese silver market and foreign direct investment in photographic film plants that source most silver from offshore, private firms are selling for export the surplus refined silver recovered from recycled scrap and also from mine output and imported silver-bearing base-metal concentrates. Jeffrey M. Christian, "First Half Marked by 'Disparate Conditions,'" *American Metal Market*, Special Report, Midyear Outlook, July 11, 2001, found at <http://www.amm.com/subscribe./2001/jul/special/0711-3.htm>, retrieved Mar. 30, 2002.

Table 9-4
Changes in U.S. imports of natural and synthetic gemstones, 2000 and 2001

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
----- Million dollars -----				
Diamonds	12,060	10,625	-1,435	-12
Natural color gemstones	711	572	-139	-20
Pearls	391	321	-70	-18
Synthetic and reconstructed gemstones	71	58	-13	-18
Total	13,234	11,577	-1,657	-13

Note.—Calculations based on unrounded data.

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

reduction in imports during the past 10 years. Also contributing to the improved trade balance is the fourth-straight year of increased exports in terms of value, particularly diamonds,²⁰ reflecting the relative strength of the European market for these products despite Europe’s reported concerns over potential economic problems due to the introduction of the euro and the September 11 terrorist acts on the United States.²¹

U.S. imports

The combination of a weaker U.S. economy in 2001 compared with the previous year, additional uncertainty in the United States following September 11, and an excess inventory of cut diamonds within the U.S. distribution pipeline resulted in the decreased import value of diamonds, which accounted for 92 percent of the import value for this product group.²² Most economic indicators affecting luxury items such as gemstones were slightly improved in 2001 compared with 2000 except the consumer confidence index, which dropped by 32 points to 106.6.²³ Although the value of imported diamonds dropped throughout 2001, the rate of decrease during September to December was much greater, nearly equaling that which occurred in the first 8 months of the year.²⁴ The combination of economic concerns with an excessive inventory of cut diamonds held by every segment of the distribution system, from cutters to dealers to retailers, made it untenable for the industry to sustain another consecutive year of import growth.

²⁰ The United States does not have major diamond-mining operations, but it is an internationally recognized diamond trading and cutting center. Most of the recorded diamond exports likely would have been drawn from inventory.

²¹ Marc Goldstein, “A Christmas Surprise,” *Rapaport News*, dated Jan. 31, 2002, found at <http://www.diamonds.net/news/newsitem.asp?num=6230&type=all&topic=all>.

²² Martin Rapaport, “Market Outlook 2002,” *Rapaport News*, dated Feb. 28, 2002, found at <http://www.diamonds.net/news/newsitem.asp?num=6313&type=all&topic=all>.

²³ The other factors used by the industry as market indicators for gemstones are real disposable personal income which was up by almost 4 percent to \$6.8 trillion in 2001 compared with 2000; real gross domestic product, up by 1 percent to \$9.3 trillion; and the average prime rate of interest, down by 2 percentage points to 6.91 percent. Despite lower interest rates, the diamond industry had too much invested in excess inventory and too little liquidity to afford continued growth in imported supplies.

²⁴ During Jan.-Aug. 2001, diamond imports decreased by \$736 million compared with a \$698-million decrease during Sep.-Dec.

As in previous years, Israel, Belgium, and India—major diamond cutting and trading centers—continued to account for the bulk of U.S. diamond imports. These three countries together represented \$9.1 billion (86 percent) of the value of imported diamonds in 2001, a decrease of \$1.3 billion (12 percent) from 2000. Thailand and India are the major sources of natural colored gemstones, together accounting for \$251 million (44 percent) of imports in 2001, down by nearly \$45 million (15 percent); Japan supplied \$108 million (34 percent) of pearl imports, down by \$53 million (33 percent); and lastly China, Germany, and Switzerland together supplied \$34 million (59 percent) of synthetic products, down by \$8 million (24 percent).

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Table 9-5
Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM001	Clays and related mineral products:				
	Exports	1,040	973	-67	-6.4
	Imports	195	179	-17	-8.5
	Trade balance	845	794	-50	-6.0
MM002	Fluorspar and miscellaneous mineral substances:				
	Exports	71	51	-20	-28.6
	Imports	145	159	14	9.3
	Trade balance	-74	-108	-34	-45.4
MM003	Iron ores and concentrates:				
	Exports	246	229	-17	-6.8
	Imports	420	293	-127	-30.3
	Trade balance	-174	-64	111	63.5
MM004	Copper ores and concentrates:				
	Exports	173	84	-89	-51.2
	Imports	(³)	58	58	557,058.9
	Trade balance	173	26	-147	-84.7
MM005	Lead ores, concentrates, and residues:				
	Exports	73	108	36	49.3
	Imports	8	1	-7	-93.0
	Trade balance	65	108	43	66.4
MM005A	Lead ores and concentrates:				
	Exports	54	106	52	95.2
	Imports	8	(³)	-7	-94.2
	Trade balance	46	105	59	127.0
MM006	Zinc ores, concentrates, and residues:				
	Exports	317	299	-18	-5.7
	Imports	38	38	1	2.1
	Trade balance	279	260	-19	-6.7
MM006A	Zinc ores and concentrates:				
	Exports	308	290	-18	-5.8
	Imports	27	32	5	17.6
	Trade balance	281	259	-23	-8.0
MM007	Certain ores, concentrates, ash, and residues:				
	Exports	232	248	16	6.9
	Imports	790	797	7	0.9
	Trade balance	-558	-549	9	1.6
MM007A	Molybdenum ores and concentrates:				
	Exports	104	110	7	6.3
	Imports	35	33	-2	-7.1
	Trade balance	68	77	9	13.2
MM008	Precious metal ores and concentrates:				
	Exports	34	85	51	148.3
	Imports	10	14	4	44.1
	Trade balance	25	71	46	189.4
MM008A	Gold ores and concentrates:				
	Exports	10	7	-3	-32.3
	Imports	1	1	1	97.8
	Trade balance	10	6	-4	-41.1
MM008B	Silver ores and concentrates:				
	Exports	21	72	51	240.9
	Imports	(³)	3	3	1,101.6
	Trade balance	21	69	48	231.5
MM009	Cement, stone, and related products:				
	Exports	1,307	1,322	14	1.1
	Imports	4,408	4,407	-1	(⁴)
	Trade balance	-3,101	-3,085	15	0.5

See footnote(s) at end of table.

Table 9-5--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
		<i>Million Dollars</i>			
MM009A	Cement:				
	Exports	64	56	-8	-12.8
	Imports	1,074	987	-87	-8.1
	Trade balance	-1,010	-931	79	7.8
MM010	Industrial ceramics:				
	Exports	748	711	-37	-5.0
	Imports	827	640	-187	-22.7
	Trade balance	-80	71	150	(⁵)
MM011	Ceramic bricks and similar articles:				
	Exports	23	23	(³)	-1.4
	Imports	35	31	-4	-11.4
	Trade balance	-11	-8	4	31.8
MM012	Ceramic floor and wall tiles:				
	Exports	26	27	1	2.7
	Imports	1,118	1,112	-6	-0.5
	Trade balance	-1,092	-1,086	6	0.6
MM013	Ceramic household articles:				
	Exports	115	96	-19	-16.3
	Imports	1,797	1,635	-162	-9.0
	Trade balance	-1,683	-1,539	144	8.5
MM014	Flat glass:				
	Exports	1,807	1,791	-16	-0.9
	Imports	1,473	1,500	28	1.9
	Trade balance	334	291	-44	-13.1
MM015	Glass containers:				
	Exports	174	211	37	21.4
	Imports	585	538	-47	-8.1
	Trade balance	-411	-327	85	20.6
MM016	Household glassware:				
	Exports	195	209	15	7.5
	Imports	930	835	-96	-10.3
	Trade balance	-735	-625	110	15.0
MM017	Miscellaneous glass products:				
	Exports	862	814	-47	-5.5
	Imports	856	769	-87	-10.2
	Trade balance	6	46	40	710.6
MM018	Fiberglass insulation products:				
	Exports	59	74	15	26.3
	Imports	137	124	-13	-9.7
	Trade balance	-78	-50	29	36.7
MM019	Natural and synthetic gemstones:				
	Exports	1,466	1,840	374	25.5
	Imports	13,234	11,577	-1,657	-12.5
	Trade balance	-11,768	-9,737	2,030	17.3
MM020	Precious metals and non-numismatic coins:				
	Exports	7,685	6,826	-859	-11.2
	Imports	10,082	8,193	-1,889	-18.7
	Trade balance	-2,397	-1,366	1,030	43.0
MM020A	Unrefined and refined gold:				
	Exports	5,099	4,186	-913	-17.9
	Imports	2,262	1,700	-563	-24.9
	Trade balance	2,836	2,486	-350	-12.3
MM021	Primary iron products:				
	Exports	13	7	-6	-44.3
	Imports	759	632	-127	-16.8
	Trade balance	-746	-624	121	16.3

See footnote(s) at end of table.

Table 9-5--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM022	Ferroalloys:				
	Exports	96	74	-22	-23.1
	Imports	1,104	660	-444	-40.2
	Trade balance	-1,008	-586	422	41.8
MM023	Iron and steel waste and scrap:				
	Exports	1,030	1,151	120	11.7
	Imports	393	284	-110	-27.9
	Trade balance	637	867	230	36.2
MM024	Abrasive and ferrous products:				
	Exports	565	476	-90	-15.9
	Imports	854	718	-136	-15.9
	Trade balance	-289	-242	46	16.0
MM024A	Abrasive products:				
	Exports	315	289	-26	-8.3
	Imports	552	473	-79	-14.3
	Trade balance	-237	-184	52	22.2
MM025	Steel mill products:				
	Exports	4,911	4,756	-156	-3.2
	Imports	15,026	11,630	-3,396	-22.6
	Trade balance	-10,114	-6,874	3,240	32.0
MM025A	Ingots, blooms, billets, and slabs of carbon and alloy steels:				
	Exports	82	70	-12	-14.3
	Imports	1,705	1,056	-649	-38.1
	Trade balance	-1,623	-986	637	39.3
MM025B	Plates, sheets, and strips of carbon and alloy steels:				
	Exports	2,084	1,922	-162	-7.8
	Imports	5,150	3,422	-1,729	-33.6
	Trade balance	-3,067	-1,500	1,567	51.1
MM025C	Bars, rods, and light shapes of carbon and alloy steels:				
	Exports	430	408	-23	-5.2
	Imports	2,077	1,886	-191	-9.2
	Trade balance	-1,646	-1,478	168	10.2
MM025D	Angles, shapes, and sections of carbon and alloy steels:				
	Exports	238	199	-38	-16.2
	Imports	777	421	-356	-45.8
	Trade balance	-540	-222	318	58.9
MM025E	Wire of carbon and alloy steels:				
	Exports	181	180	-1	-0.8
	Imports	496	449	-47	-9.5
	Trade balance	-315	-269	46	14.5
MM025F	Ingots, blooms, billets, and slabs of stainless steels:				
	Exports	38	37	-1	-3.1
	Imports	428	299	-128	-30.0
	Trade balance	-389	-262	127	32.7
MM025G	Plates, sheets, and strips of stainless steels:				
	Exports	441	403	-37	-8.5
	Imports	868	512	-357	-41.1
	Trade balance	-427	-108	319	74.7

See footnote(s) at end of table.

Table 9-5--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM025H	Bars, rods, and light shapes of stainless steels:				
	Exports	88	94	6	7.2
	Imports	437	351	-86	-19.7
	Trade balance	-350	-257	93	26.5
MM025I	Angles, shapes, and sections of stainless steels:				
	Exports	8	7	-1	-11.3
	Imports	24	14	-10	-42.4
	Trade balance	-16	-7	9	57.9
MM025J	Wire of stainless steels:				
	Exports	61	71	10	16.8
	Imports	108	98	-9	-8.8
	Trade balance	-47	-27	20	42.0
MM025K	Rails and accessories of carbon and alloy steels:				
	Exports	78	77	-1	-1.1
	Imports	190	154	-36	-18.8
	Trade balance	-112	-77	35	31.1
MM025L	Pipes and tubes of carbon and alloy steels:				
	Exports	932	1,015	83	8.9
	Imports	2,221	2,434	213	9.6
	Trade balance	-1,289	-1,419	-130	-10.1
MM025M	Pipes and tubes of stainless steels:				
	Exports	148	141	-7	-4.8
	Imports	319	338	19	6.0
	Trade balance	-171	-197	-26	-15.3
MM025N	Tool steels:				
	Exports	103	132	29	28.0
	Imports	225	196	-29	-12.8
	Trade balance	-122	-65	58	47.1
MM026	Steel pipe and tube fittings and certain cast products:				
	Exports	767	707	-60	-7.9
	Imports	706	697	-10	-1.4
	Trade balance	61	10	-50	-82.8
MM027	Fabricated structurals:				
	Exports	204	184	-20	-10.0
	Imports	534	638	104	19.6
	Trade balance	-329	-454	-125	-37.9
MM028	Metal construction components:				
	Exports	533	505	-29	-5.4
	Imports	922	990	68	7.4
	Trade balance	-388	-485	-97	-25.0
MM029	Metallic containers:				
	Exports	697	666	-31	-4.5
	Imports	549	570	21	3.8
	Trade balance	148	96	-52	-35.2
MM030	Wire products of base metal:				
	Exports	826	718	-109	-13.2
	Imports	1,419	1,355	-64	-4.5
	Trade balance	-593	-637	-45	-7.5
MM031	Miscellaneous products of base metal:				
	Exports	5,814	5,264	-550	-9.5
	Imports	7,324	7,107	-217	-3.0
	Trade balance	-1,510	-1,843	-333	-22.0

See footnote(s) at end of table.

Table 9-5--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM032	Industrial fasteners of base metal:				
	Exports	1,663	1,481	-182	-10.9
	Imports	2,325	2,006	-320	-13.7
	Trade balance	-663	-525	138	20.8
MM033	Cooking and kitchen ware:				
	Exports	271	260	-11	-4.1
	Imports	1,798	1,743	-55	-3.0
	Trade balance	-1,527	-1,483	44	2.9
MM034	Metal and ceramic sanitary ware:				
	Exports	141	124	-17	-11.9
	Imports	533	588	54	10.2
	Trade balance	-393	-464	-71	-18.1
MM035	Construction castings and other cast-iron articles:				
	Exports	32	24	-8	-25.4
	Imports	123	110	-13	-10.9
	Trade balance	-91	-86	5	5.7
MM036	Copper and related articles:				
	Exports	3,109	1,852	-1,257	-40.4
	Imports	4,881	4,296	-585	-12.0
	Trade balance	-1,772	-2,444	-672	-37.9
MM036A	Unrefined and refined copper:				
	Exports	202	69	-132	-65.6
	Imports	2,223	2,140	-83	-3.7
	Trade balance	-2,021	-2,070	-49	-2.4
MM036B	Copper alloy plate, sheet, and strip:				
	Exports	208	155	-53	-25.6
	Imports	182	145	-37	-20.2
	Trade balance	26	9	-16	-64.1
MM037	Unwrought aluminum:				
	Exports	1,130	923	-207	-18.3
	Imports	5,085	4,748	-338	-6.6
	Trade balance	-3,955	-3,825	131	3.3
MM037A	Primary and secondary aluminum:				
	Exports	636	466	-170	-26.7
	Imports	4,297	4,085	-212	-4.9
	Trade balance	-3,660	-3,619	41	1.1
MM038	Aluminum mill products:				
	Exports	3,130	2,784	-346	-11.0
	Imports	2,674	2,305	-369	-13.8
	Trade balance	456	479	23	5.1
MM038A	Aluminum bars, rods, and profiles:				
	Exports	252	245	-7	-2.8
	Imports	449	352	-96	-21.5
	Trade balance	-197	-108	89	45.3
MM038B	Aluminum wire:				
	Exports	122	84	-38	-31.2
	Imports	231	162	-68	-29.7
	Trade balance	-109	-78	30	28.0
MM038C	Aluminum plate, sheet, and strip:				
	Exports	2,129	1,872	-257	-12.1
	Imports	1,425	1,242	-183	-12.8
	Trade balance	703	629	-74	-10.5
MM038D	Aluminum foil:				
	Exports	331	328	-3	-1.0
	Imports	446	441	-5	-1.0
	Trade balance	-114	-113	1	1.1

See footnote(s) at end of table.

Table 9-5--Continued

Minerals and metals sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM038E	Aluminum tubes, pipes, and fittings:				
	Exports	248	215	-33	-13.2
	Imports	109	90	-19	-17.3
	Trade balance	139	125	-14	-10.0
MM039	Lead and related articles:				
	Exports	170	78	-92	-53.9
	Imports	215	167	-48	-22.3
	Trade balance	-45	-88	-44	-97.5
MM039A	Refined lead:				
	Exports	16	8	-9	-52.8
	Imports	117	90	-27	-22.9
	Trade balance	-101	-83	18	18.0
MM040	Zinc and related articles:				
	Exports	103	86	-17	-16.4
	Imports	1,298	968	-330	-25.4
	Trade balance	-1,195	-882	313	26.2
MM040A	Unwrought zinc:				
	Exports	3	1	-2	-61.7
	Imports	1,104	786	-318	-28.8
	Trade balance	-1,101	-785	316	28.7
MM041	Certain base metals and chemical elements:				
	Exports	1,503	1,702	200	13.3
	Imports	2,873	2,467	-406	-14.1
	Trade balance	-1,371	-765	606	44.2
MM041A	Titanium ingot:				
	Exports	12	22	10	81.2
	Imports	17	27	11	63.4
	Trade balance	-5	-6	-1	-19.1
MM042	Nonpowered handtools:				
	Exports	2,263	2,119	-143	-6.3
	Imports	3,163	2,996	-168	-5.3
	Trade balance	-901	-876	24	2.7
MM043	Certain cutlery, sewing implements, and related products:				
	Exports	546	556	10	1.8
	Imports	888	865	-23	-2.6
	Trade balance	-342	-309	33	9.7
MM044	Table flatware and related products:				
	Exports	25	28	3	10.7
	Imports	507	463	-43	-8.6
	Trade balance	-481	-435	46	9.6
MM045	Certain builders' hardware:				
	Exports	1,084	961	-123	-11.3
	Imports	1,973	1,948	-25	-1.3
	Trade balance	-889	-987	-98	-11.0

¹Import values are 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.

⁴Less than 0.05 percent.

⁵Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

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CHAPTER 10
Machinery

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Change in 2001 from 2000:

U.S. trade deficit: Increased by \$5.3 billion (52.5 percent) to \$15.5 billion
U.S. exports: Decreased by \$9.9 billion (12.5 percent) to \$ 69.2 billion
U.S. imports: Decreased by \$4.6 billion (5.1 percent) to \$84.7 billion

The 2001 trade deficit in machinery increased primarily because of a slumping worldwide economy and a large decrease in demand for semiconductors.¹ North American trade partners remained the primary markets for U.S. exports, whereas Japan and Mexico were the leading sources for imports of machinery (table 10-1). Considerable decreases of U.S. exports, particularly semiconductor manufacturing equipment (table 10-2), contributed substantially to the increased trade deficit in 2001.²

Despite the increase in the trade deficit, U.S. imports decreased significantly in 2001. The leading decline occurred in the electrical transformers, static converters, and inductors industry/commodity group (table 10-2). The specific product categories contributing to the shift were mainly items associated with low-voltage power conversion equipment (power supplies) for consumer electronics and telecommunications equipment—two industries heavily affected by the economic slowdown.³ Imports of metal-cutting machine tools and machine tool accessories dropped by 19.6 percent, mainly from Japan and Taiwan, which reflected a reduction in capital equipment investment that occurred in response to the downturn in the U.S. economy.⁴

The California energy crisis precipitated awareness of power generation issues, particularly concerns over anticipated power shortages throughout the United States. As a result, power suppliers began to construct new plants and to modernize older facilities, leading to an increase in domestic shipments and imports of power generation equipment. The most significant increase in imports occurred in electric motors, generators, and related equipment, owing largely to import growth for products such as electric generating sets. Another product category affected by the increased demand for power generation equipment was boilers, turbines and related machinery, particularly parts for steam- or other vapor-generating boilers and steam turbines. Increased consumption in the this product category reflected the need for replacement parts for nuclear power plants in the United States, and was supplied by Japan, Mexico, Canada, and Korea. One additional explanation for the large increase in imports of steam turbines and parts from Japan was that U.S. manufacturers had reached current production capacity

¹ See “Semiconductor Manufacturing Equipment” in ch. 3 for additional information.

² Ibid.

³ See “Electronic Products in ch. 12.

⁴ “Machine tool demand down 34 percent,” *Industrial Distribution*, Mar. 2002, vol. 91, no. 3, p. 17.

Table 10-1

Machinery: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Canada	17,150	15,928	-1,222	-7.1
Mexico	11,575	10,216	-1,359	-11.7
Japan	5,169	4,116	-1,053	-20.4
Germany	3,459	3,392	-67	-1.9
China	1,896	2,352	457	24.1
United Kingdom	3,437	3,271	-166	-4.8
Taiwan	6,005	2,949	-3,056	-50.9
Korea	3,675	2,448	-1,227	-33.4
Italy	1,176	953	-222	-18.9
France	2,542	1,910	-632	-24.9
All other	23,057	21,697	-1,359	-5.9
Total	79,140	69,234	-9,906	-12.5
EU-15	15,601	13,879	-1,722	-11.0
OPEC	2,456	2,713	257	10.5
Latin America	17,087	16,141	-946	-5.5
CBERA	1,638	1,568	-70	-4.3
Asia	23,392	17,150	-6,242	-26.7
Sub-Saharan Africa	555	666	111	20.0
Central and Eastern Europe	374	393	19	5.1
U.S. imports for consumption:				
Canada	10,414	9,863	-551	-5.3
Mexico	15,474	14,789	-686	-4.4
Japan	16,523	14,267	-2,255	-13.7
Germany	9,849	9,639	-209	-2.1
China	7,740	8,617	878	11.3
United Kingdom	3,600	3,413	-187	-5.2
Taiwan	3,332	2,868	-464	-13.9
Korea	2,294	2,285	-9	-0.4
Italy	3,658	3,466	-192	-5.2
France	2,096	2,025	-71	-3.4
All other	14,313	13,485	-828	-5.8
Total	89,293	84,719	-4,574	-5.1
EU-15	25,489	24,591	-899	-3.5
OPEC	248	233	-15	-6.0
Latin America	16,622	15,863	-758	-4.6
CBERA	279	220	-59	-21.1
Asia	32,732	30,634	-2,098	-6.4
Sub-Saharan Africa	178	263	85	47.5
Central and Eastern Europe	713	788	75	10.5
U.S. merchandise trade balance:				
Canada	6,736	6,065	-671	-10.0
Mexico	-3,899	-4,573	-673	-17.3
Japan	-11,354	-10,152	1,202	10.6
Germany	-6,389	-6,247	143	2.2
China	-5,844	-6,265	-421	-7.2
United Kingdom	-163	-142	21	13.1
Taiwan	2,673	81	-2,592	-97.0
Korea	1,380	162	-1,218	-88.2
Italy	-2,482	-2,513	-30	-1.2
France	446	-115	-562	(²)
All other	8,743	8,212	-531	-6.1
Total	-10,153	-15,485	-5,332	-52.5
EU-15	-9,889	-10,711	-823	-8.3
OPEC	2,208	2,480	272	12.3
Latin America	465	278	-187	-40.3
CBERA	1,359	1,348	-11	-0.8
Asia	-9,341	-13,484	-4,143	-44.4
Sub-Saharan Africa	376	402	26	6.9
Central and Eastern Europe	-340	-396	-56	-16.4

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 2001.

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

Table 10-2
Leading changes in U.S. exports and imports of machinery, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Electric motors, generators, and related equipment (MM091)	3,748	4,691	944	25.2
Centrifuges and filtering and purifying equipment (MM074)	3,031	3,208	177	5.9
Decreases:				
Semiconductor manufacturing equipment and robotics (MM087)	14,420	8,407	-6,013	-41.7
Nonautomotive insulated electrical wire and related products (MM097)	4,040	3,286	-754	-18.7
Metal cutting machine tools and machine tool accessories (MM084)	2,264	1,809	-454	-20.1
Non-metalworking machine tools (MM086)	1,112	831	-281	-25.2
All other	50,525	47,000	-3,525	-7.0
TOTAL	79,140	69,234	-9,906	-12.5
U.S. IMPORTS:				
Increases:				
Electric motors, generators, and related equipment (MM091)	6,494	7,646	1,152	17.7
Household appliances, including commercial applications (MM073)	7,689	8,356	667	8.7
Boilers, turbines, and related machinery (MM090)	833	1,204	370	44.5
Decreases:				
Electrical transformers, static converters, and inductors (MM092)	6,156	5,134	-1,023	-16.6
Metal cutting machine tools and machine tool accessories (MM084)	4,240	3,407	-833	-19.6
Molds and molding machinery (MM099)	3,613	2,803	-811	-22.4
All other	60,268	56,170	-4,098	-6.8
TOTAL	89,293	84,719	-4,574	-5.1

Note.-Calculations based on unrounded data.

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

and had become dependent on parts suppliers in Japan. Finally, a shift toward renewable sources of energy contributed to the growth in imports of wind-powered electric generating sets. The port of Wilmington (Delaware) received 40 sets of wind turbines in 2001, reflecting a growing interest in alternative energy sources along the east coast.⁵

A \$667-million increase in imports and a \$337-million decrease in exports led to a 47-percent increase in the trade deficit for household appliances (table 10-3). The increasing trade deficit is a trend in household appliances attributable in part to the rationalization and consolidation of production facilities in North America, and the elimination of cross-border duties on household appliances and parts under the North American Free Trade Agreement. The further integration of the North American household

⁵ EIU Viewswire, "Port of Wilmington gets turbine blade shipment," Aug. 13, 2001, found at http://www.viewswire.com/index.asp?layout=display_article&search_text=turbines&doc_id=156258, retrieved Apr. 2, 2002.

appliance industry in 2001 resulted in Mexico's emergence as a major supplier of low-cost, entry-level kitchen ranges, stoves, refrigerators, and washing machines in the U.S. market.⁶

Exports of both metal-cutting machine tools and machine tool accessories and non-metalworking machine tools also declined considerably in 2001, by 20 percent and 25 percent, respectively, as a result of the general global economic slowdown. Export declines occurred for nonautomotive insulated electrical wire and related products, particularly to Mexico, owing largely to declines in demand for telephone equipment, computers, and peripheral apparatus.

Export increases were most pronounced for electric motors, generators, and related equipment, owing largely to a \$470-million increase in exports to Brazil. These increases in exports were driven primarily by direct current (DC) generators (nearly an eighteenfold increase from \$6.6 million to \$116 million) and by alternating current (AC) alternators (a fivefold increase from \$3 million to \$15 million), likely encouraged by a power-rationing program of the Brazilian Government, which led to the suspension of import duties (formerly averaging 14 percent) for certain generator sets and for power barges.⁷ Trade statistics for all industry/commodity groups in the machinery sector are presented in table 10-3 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Taiwan: U.S. surplus decreased by \$2.6 billion (97 percent) to \$81 million

Korea: U.S. surplus decreased by \$1.2 billion (88 percent) to \$162 million

Japan: U.S. deficit decreased by \$1.2 billion (11 percent) to \$10.2 billion

The largest trade balance shifts in 2001 indicate the impact of the slowing global economy. Trade between the United States and Taiwan, Korea, and Japan declined considerably in 2001. Export declines were most pronounced in trade with Taiwan, which decreased by \$3.1 billion, or 51 percent, to \$3 billion. Taiwan's economic woes played a large role in its trade situation in 2001 as its economy was heavily affected by the downturn in the personal computer market, factories moving to China (causing a loss in jobs), a decrease in capital investment (down 18 percent), and high debt amounting to 6 percent of gross domestic product.⁸

In 2001, the decline in total U.S. machinery exports to Taiwan and Korea consisted principally of decreased exports of semiconductor manufacturing equipment and robotics (down \$2.4 billion and \$862 million, respectively).⁹ The key growth industries in U.S. exports of machinery in 2001 consisted

⁶ For additional explanation, "Manufacturing Strategies of the North American Major Household Appliance Industry," prepared by Ruben Mata, *Industry Trade and Technology Review*, U.S. International Trade Commission, USITC publication 3390, Jan. 2001.

⁷ A power barge is a barge-mounted power plant. Brazil Country Commercial Guide, Sept. 20, 2001, found at http://www.stat-usa.gov/mrd.nsf/vwCCG_Country/CC94BB02BC52BB4583256A7D00619F6E?OpenDocument&ssID=B09A04430192D41, retrieved Apr. 1, 2002.

⁸ Anthony Lawrence, State of the State, *Topics Magazine*, American Chamber of Commerce in Taipei, Feb. 1, 2002, found at <http://amcham.com.tw/topics.php?id=159>, retrieved Apr. 1, 2001.

⁹ Demand for semiconductor manufacturing equipment and robotics decreased because of the downturn in the industry owing to weakened demand for semiconductors and overcapacity in the semiconductor industry. See "Semiconductor Manufacturing Equipment" in ch. 3 for more details.

principally of centrifuges, filtering and purifying equipment to Korea, which doubled from 2000 to 2001, from \$83 million to \$167 million, owing to growth of water pollution control projects in Korea.

Import declines were most pronounced with respect to articles from Japan (down \$2.3 billion, or 14 percent, to \$14.3 billion), and centered on metal cutting, machine tools, and machine tool accessories (together down 23 percent to \$1.5 billion); miscellaneous machinery; and molds and molding machinery. Increased demand for power generation equipment in the United States provided the only significant growth of imports from Japan, which occurred primarily in certain large alternators (increasing from \$86 million to \$208 million) and electric generating sets (increasing from \$162 million to \$574 million, a growth of 256 percent).

Of the major U.S. trade partners, China is the only country with which trade in this sector increased in 2001. Machinery imports from China were up 11 percent to \$8.6 billion, while U.S. exports grew 24 percent to \$2.4 billion. China was the only major U.S. trade partner to which semiconductor manufacturing equipment and robotics exports increased in 2001 (18.8 percent growth), as China reportedly is seeking to rapidly build its semiconductor manufacturing capability, with estimates that 14 to 19 foundries for wafer fabrication will be built in the next 10 years.¹⁰ Industry sources anticipate that by 2010, China will become the world's second-largest market for semiconductors.

Other leading segments of trade between the United States and China were household appliances, including commercial applications and air-conditioning equipment and parts, and energy-related machinery. Increased demand for U.S. commercial appliances and air-conditioning equipment in China is largely attributable to increased investment in hotels and restaurants catering to Western travelers. Imports of household appliances from China consist primarily of small, transportable household products which China is producing in greater quantities because of low labor costs. Growth of 71 percent in boilers, turbines, and related machinery exports to China reflected the country's increased investment in power generation and continued work on the massive Three River Gorge hydroelectric project and other smaller projects around the country.

¹⁰ Stanley T. Myers, "U.S. trade with China benefits all," *Electronic News*, Apr. 23, 2001, vol. 47, no. 17, p. 8.

Table 10-3
Machinery sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM068	Wiring harnesses for motor vehicles:				
	Exports	938	866	-71	-7.6
	Imports	5,132	4,684	-448	-8.7
	Trade balance	-4,194	-3,818	376	9.0
MM069	Pumps for motor vehicles:				
	Exports	680	642	-39	-5.7
	Imports	863	788	-74	-8.6
	Trade balance	-183	-147	36	19.6
MM070	Pumps for liquids:				
	Exports	2,461	2,561	99	4.0
	Imports	1,809	1,801	-8	-0.5
	Trade balance	652	760	108	16.5
MM071	Air-conditioning equipment and parts:				
	Exports	5,884	5,694	-190	-3.2
	Imports	6,332	6,081	-251	-4.0
	Trade balance	-449	-387	61	13.6
MM072	Industrial thermal-processing equipment and furnaces:				
	Exports	2,631	2,496	-135	-5.1
	Imports	1,663	1,641	-22	-1.3
	Trade balance	968	855	-113	-11.7
MM073	Household appliances, including commercial applications:				
	Exports	5,563	5,226	-337	-6.1
	Imports	7,689	8,356	667	8.7
	Trade balance	-2,126	-3,130	-1,004	-47.2
MM073A	Major household appliances and parts:				
	Exports	1,717	1,708	-9	-0.5
	Imports	1,642	1,986	344	20.9
	Trade balance	75	-278	-353	(³)
MM074	Centrifuges and filtering and purifying equipment:				
	Exports	3,031	3,208	177	5.9
	Imports	2,010	2,275	265	13.2
	Trade balance	1,021	933	-87	-8.5
MM075	Wrapping, packaging, and can-sealing machinery:				
	Exports	804	711	-93	-11.6
	Imports	1,246	1,302	56	4.5
	Trade balance	-442	-591	-149	-33.7
MM076	Scales and weighing machinery:				
	Exports	163	175	12	7.2
	Imports	294	279	-15	-5.1
	Trade balance	-131	-104	27	20.6
MM077	Mineral processing machinery:				
	Exports	582	582	(⁴)	(⁵)
	Imports	723	576	-148	-20.5
	Trade balance	-142	6	148	(³)
MM078	Farm and garden machinery and equipment:				
	Exports	4,697	4,353	-344	-7.3
	Imports	3,627	3,454	-173	-4.8
	Trade balance	1,070	900	-171	-15.9
MM079	Industrial food-processing and related machinery:				
	Exports	627	576	-51	-8.1
	Imports	543	537	-7	-1.2
	Trade balance	83	40	-44	-52.5

See footnote(s) at end of table.

Table 10-3--Continued

Machinery sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		Million Dollars			
MM080	Pulp, paper, and paperboard machinery:				
	Exports	779	678	-102	-13.0
	Imports	1,127	1,091	-35	-3.1
	Trade balance	-348	-414	-66	-19.1
MM081	Printing and related machinery:				
	Exports	1,206	961	-245	-20.3
	Imports	1,923	1,744	-180	-9.3
	Trade balance	-717	-783	-65	-9.1
MM082	Textile machinery:				
	Exports	1,355	1,168	-187	-13.8
	Imports	2,106	1,597	-509	-24.2
	Trade balance	-751	-429	322	42.9
MM083	Metal rolling mills:				
	Exports	164	210	46	28.3
	Imports	261	180	-82	-31.2
	Trade balance	-97	30	128	(³)
MM084	Metal cutting machine tools and machine tool accessories:				
	Exports	2,264	1,809	-454	-20.1
	Imports	4,240	3,407	-833	-19.6
	Trade balance	-1,977	-1,598	379	19.2
MM085	Metal forming machine tools:				
	Exports	890	758	-132	-14.9
	Imports	1,474	1,331	-144	-9.7
	Trade balance	-584	-573	11	1.9
MM086	Non-metalworking machine tools:				
	Exports	1,112	831	-281	-25.2
	Imports	1,524	1,276	-248	-16.3
	Trade balance	-412	-444	-33	-7.9
MM087	Semiconductor manufacturing equipment and robotics:				
	Exports	14,420	8,407	-6,013	-41.7
	Imports	5,167	4,389	-778	-15.1
	Trade balance	9,253	4,019	-5,235	-56.6
MM087A	Semiconductor manufacturing machinery:				
	Exports	13,892	8,041	-5,851	-42.1
	Imports	4,892	4,180	-712	-14.6
	Trade balance	9,000	3,862	-5,139	-57.1
MM088	Taps, cocks, valves, and similar devices:				
	Exports	3,284	3,351	67	2.0
	Imports	5,021	4,809	-212	-4.2
	Trade balance	-1,737	-1,458	279	16.1
MM089	Mechanical power transmission equipment:				
	Exports	1,029	939	-90	-8.7
	Imports	2,134	2,004	-129	-6.1
	Trade balance	-1,105	-1,066	39	3.5
MM090	Boilers, turbines, and related machinery:				
	Exports	1,117	1,106	-11	-1.0
	Imports	833	1,204	370	44.5
	Trade balance	284	-98	-381	(³)
MM091	Electric motors, generators, and related equipment:				
	Exports	3,748	4,691	944	25.2
	Imports	6,494	7,646	1,152	17.7
	Trade balance	-2,746	-2,954	-209	-7.6

See footnote(s) at end of table.

Table 10-3--Continued

Machinery sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM092	Electrical transformers, static converters, and inductors:				
	Exports	2,752	2,436	-316	-11.5
	Imports	6,156	5,134	-1,023	-16.6
	Trade balance	-3,404	-2,698	706	20.7
MM093	Portable electric handtools:				
	Exports	359	291	-68	-18.9
	Imports	1,166	1,185	18	1.6
	Trade balance	-808	-894	-86	-10.7
MM094	Nonelectrically powered handtools and parts thereof:				
	Exports	563	563	(⁴)	(⁵)
	Imports	933	901	-32	-3.4
	Trade balance	-370	-338	32	8.6
MM095	Electric lamps (bulbs) and portable electric lights:				
	Exports	897	799	-98	-10.9
	Imports	1,579	1,785	206	13.1
	Trade balance	-682	-986	-304	-44.6
MM096	Welding and soldering equipment:				
	Exports	1,050	703	-347	-33.1
	Imports	803	803	(⁴)	0.1
	Trade balance	247	-101	-348	(³)
MM097	Nonautomotive insulated electrical wire and related products:				
	Exports	4,040	3,286	-754	-18.7
	Imports	3,566	3,203	-363	-10.2
	Trade balance	474	83	-392	-82.5
MM098	Miscellaneous machinery:				
	Exports	7,922	7,366	-556	-7.0
	Imports	7,241	6,455	-786	-10.9
	Trade balance	682	911	230	33.7
MM099	Molds and molding machinery:				
	Exports	2,129	1,791	-338	-15.9
	Imports	3,613	2,803	-811	-22.4
	Trade balance	-1,484	-1,012	472	31.8

¹Import values are 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.

⁵Less than 0.05 percent.

Note.—Calculations based on unrounded data.

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

Table 11-1

Transportation equipment: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
Canada	48,405	44,219	-4,186	-8.6
Japan	7,830	6,815	-1,015	-13.0
Mexico	15,311	14,997	-314	-2.1
Germany	6,956	7,467	511	7.3
United Kingdom	8,965	9,242	277	3.1
France	5,201	5,802	601	11.6
Korea	2,971	3,511	539	18.2
Brazil	2,648	3,869	1,221	46.1
Singapore	2,076	5,167	3,092	148.9
China	2,369	3,199	830	35.0
All other	40,909	40,248	-661	-1.6
Total	143,641	144,536	895	0.6
EU-15	34,253	33,932	-321	-0.9
OPEC	5,756	5,836	79	1.4
Latin America	23,525	23,933	409	1.7
CBERA	1,921	1,479	-442	-23.0
Asia	20,739	24,132	3,393	16.4
Sub-Saharan Africa	1,801	2,860	1,058	58.8
Central and Eastern Europe	455	527	73	16.0
U.S. imports for consumption:				
Canada	69,302	64,794	-4,508	-6.5
Japan	54,240	52,218	-2,022	-3.7
Mexico	31,386	31,079	-307	-1.0
Germany	22,982	23,925	943	4.1
United Kingdom	9,414	9,837	424	4.5
France	9,696	10,439	743	7.7
Korea	6,159	7,822	1,662	27.0
Brazil	2,729	3,466	737	27.0
Singapore	280	272	-8	-2.7
China	1,993	1,776	-217	-10.9
All other	15,175	16,428	1,252	8.3
Total	223,355	222,055	-1,300	-0.6
EU-15	51,558	54,465	2,908	5.6
OPEC	356	339	-16	-4.6
Latin America	34,479	34,857	378	1.1
CBERA	58	60	2	3.3
Asia	64,976	64,435	-540	-0.8
Sub-Saharan Africa	185	400	215	115.9
Central and Eastern Europe	609	800	191	31.4
U.S. merchandise trade balance:				
Canada	-20,896	-20,575	322	1.5
Japan	-46,410	-45,403	1,007	2.2
Mexico	-16,075	-16,082	-8	(²)
Germany	-16,026	-16,458	-432	-2.7
United Kingdom	-449	-595	-146	-32.6
France	-4,495	-4,637	-142	-3.2
Korea	-3,188	-4,311	-1,123	-35.2
Brazil	-80	403	483	(³)
Singapore	1,796	4,895	3,099	172.6
China	376	1,423	1,048	278.7
All other	25,733	23,820	-1,913	-7.4
Total	-79,714	-77,519	2,195	2.8
EU-15	-17,305	-20,533	-3,228	-18.7
OPEC	5,400	5,496	96	1.8
Latin America	-10,955	-10,923	31	0.3
CBERA	1,863	1,419	-444	-23.8
Asia	-44,236	-40,303	3,933	8.9
Sub-Saharan Africa	1,616	2,460	844	52.2
Central and Eastern Europe	-155	-273	-118	-76.6

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 2001.

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

Table 11-2
Leading changes in U.S. exports and imports of transportation equipment, 2000 and 2001

Industry/commodity groups	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Aircraft, spacecraft, and related equipment (ET013) ..	39,696	42,535	2,839	7.2
Aircraft engines and gas turbines (ET001)	15,011	16,524	1,513	10.1
Decreases:				
Certain motor-vehicle parts (ET010)	29,199	26,750	-2,450	-8.4
Internal combustion piston engines, other than for aircraft (ET002)	13,808	12,408	-1,400	-10.1
All other	45,927	46,319	393	0.9
TOTAL	143,641	144,536	895	0.6
U.S. IMPORTS:				
Increases:				
Aircraft, spacecraft, and related equipment (ET013) ..	18,019	21,027	3,008	16.7
Motorcycles, mopeds, and parts (ET011)	2,519	2,870	350	13.9
Decreases:				
Motor vehicles (ET009)	129,553	127,244	-2,310	-1.8
Internal combustion piston engines, other than for aircraft (ET002)	15,532	13,657	-1,875	-12.1
Certain motor-vehicle parts (ET010)	25,135	24,135	-1,000	-4.0
All other	32,596	33,123	526	1.6
TOTAL	223,355	222,055	-1,300	-0.6

Note.-Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Singapore: U.S. surplus increased by \$3.1 billion (173 percent) to \$4.9 billion

Korea: U.S. deficit increased by \$1.1 billion (35 percent) to \$4.3 billion

China: U.S. surplus increased by \$1.0 billion (279 percent) to \$1.4 billion

The transportation equipment trade deficits with leading trading partners Canada, Japan, and Mexico changed very little in 2001. The deficits with Canada and Japan decreased by approximately 2 percent each, whereas the deficit with Mexico decreased by less than 1 percent.

The increased surplus in trade with Singapore and China is largely attributable to aircraft, spacecraft, and related equipment. This surplus with Singapore increased by \$2.7 billion (346 percent) to \$3.4 billion in 2001. Singapore took delivery of 13 Boeing 777s in 2001, which increased U.S. exports of large civil aircraft to Singapore from \$162 million in 2000 to \$2.6 billion in 2001. The surplus with China increased by \$715 million (43 percent) to \$2.4 billion. Increased exports of large civil aircraft and cargo aircraft over 15,000 kg accounted for most of the increased trade surplus.

The increased U.S. trade deficit with Korea in transportation equipment is largely attributable to the motor-vehicle industry. Korea has become the fifth-largest source of U.S. motor-vehicle imports. In 2001, Korean automakers continued to increase their market share in the United States with a \$1.6-billion increase in imports of motor vehicles.

COMMODITY ANALYSIS

Motor Vehicles

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$2.1 billion (2 percent) to \$104.6 billion

U.S. exports: Decreased by \$202 million (1 percent) to \$22.6 billion

U.S. imports: Decreased by \$2.3 billion (2 percent) to \$127.2 billion

The decrease in the motor-vehicle trade deficit is largely attributable to the decrease in imports, which was only slightly offset by a more modest decrease in exports.³ As noted above, the decline in imports reflects decreased demand for certain Canadian-built models in the United States, as well as the continuing trend of localized production of Japanese models for the U.S. market. In terms of absolute dollar value, the most notable decreases in the motor-vehicle trade deficit in 2001 were with Canada, Japan, and the United Kingdom. The deficit with Canada declined by 9 percent to \$28.3 billion; the deficit with Japan declined by 4 percent to \$32.5 billion; and the deficit with the United Kingdom declined by 11 percent to \$2.2 billion.

U.S. imports

In 2001, U.S. imports of motor vehicles decreased for the first time since 1996. Imports from the first- and second-leading sources—Canada and Japan—declined significantly. Their combined decrease of \$6.0 billion easily outweighed increased imports from other leading sources—Mexico, Germany, and Korea. U.S. imports from Canada decreased by 10 percent to \$41.1 billion. Although new vehicle sales in Canada reached a record 1.57 million units in 2001,⁴ Canadian motor vehicle production decreased by 15 percent. General Motors, Ford, and DaimlerChrysler accounted for an overwhelming portion of this decrease.⁵ Most Canadian auto production is destined for the U.S. market and demand in the United States for certain Canadian-built models was down in 2001.

U.S. imports from Japan decreased by 4 percent to \$33.0 billion. Similarly, motor-vehicle production in Japan fell by 4 percent in 2001 because of weak domestic demand and fewer exports. In recent years Japanese automakers have increasingly replaced domestic exports with localized production to satisfy demand in the United States and other foreign markets.⁶ Indeed, increased competition from Japanese transplants in the United States drove down market share of the traditional U.S. Big Three automakers to 66 percent in 2001.⁷

³ The largest decrease in U.S. exports of motor vehicles was to Canada; these exports decreased by 11 percent to \$12.8 billion. Exports to Japan, the second-leading export market, decreased by 28 percent to \$559 million, whereas exports to the third-leading export market, Mexico, increased by 13 percent to \$3.6 billion.

⁴ Carlos Gomes, "Canadian Auto Report: Canadian Auto Industry - Outperforming in the Downturn," Scotiabank Group Global Economic Research, found at <http://www.scotiabank.com>, retrieved Mar. 5, 2002.

⁵ "Ward's North American Weekly Vehicle Production Summary," *Ward's Automotive Reports*, Feb. 4, 2002, p. 8.

⁶ Yuzo Yamaguchi, "Japan production falls below 10 million in '01," *Automotive News*, Feb. 4, 2002, p. 60.

⁷ Haig Stoddard, "Strong December Caps Off Second-Best U.S. Light Vehicle Sales Year," *Ward's Automotive Reports*, Vol. 77, No. 1, Jan. 7, 2002, p. 1.

Mexico, the third-leading import source, registered an increase of 1 percent to \$21.3 billion, and the fourth-leading source, Germany, registered a rise of 3 percent to \$15.9 billion. Korean automakers continued to increase their share of the U.S. market, with imports increasing by 33 percent to \$6.4 billion.

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Internal Combustion Piston Engines, Other Than for Aircraft

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$475 million (28 percent) to \$1.2 billion

U.S. exports: Decreased by \$1.4 billion (10 percent) to \$12.4 billion

U.S. imports: Decreased by \$1.9 billion (12 percent) to \$13.7 billion

The decline in U.S. imports of internal combustion piston engines, other than aircraft outpaced the decline in comparable U.S. exports, yielding a 28-percent reduction in the U.S. trade deficit to \$1.2 billion in 2001. Overall motor-vehicle production in North America dropped by nearly 11 percent in 2001 in the wake of the economic slowdown and terrorist activity, with a comparable effect on the level of U.S. imports and exports of motor-vehicle engines. Trade shifts in engines, part of the larger automotive industry, often reflect U.S. and foreign automotive firms' global production and sourcing strategies, intracompany shipments, and increased internationalization of the industry. The implementation of the North American Free Trade Agreement has created a highly integrated North American motor-vehicle industry, with NAFTA partners Canada and Mexico consistently ranking as leading U.S. trade partners. The decision of many Japanese transplant automakers to source engines from their Japanese facilities is a principal factor contributing to Japan's role as a leading import source of these products.

U.S. imports

Japan maintained its position as the largest U.S. import source in 2001, with 35 percent of total U.S. engine imports, despite registering a 10-percent decline in such imports to \$4.8 billion. Spark-ignition engines over 2000cc (up 8 percent to \$1.4 billion) led imports from Japan in 2001, as many U.S.-based vehicle manufacturers install Japanese engines of this size in certain motor-vehicle models. Imports of miscellaneous parts for spark-ignition engines, the second-leading import category, fell by nearly 11 percent to \$733 million in 2001.

NAFTA partners Canada and Mexico accounted for 42 percent (\$5.7 billion) of the value of total engine imports, in large part reflecting the integration of the North American automotive industry. Imports from Canada, the second-leading U.S. supplier, fell by \$788 million (19 percent) to \$3.3 billion, resulting in part from engine production cutbacks related to soft motor-vehicle demand⁸ and cross-border supply disruptions following the September 11 terrorist attacks.⁹ The leading import category was spark-ignition engines over 2000cc, which accounted for 63 percent of engine and parts imports from Canada in 2001. Imports of these engines declined by 23 percent to \$2.1 billion in 2001.

⁸ "Ford Canada lays off 250 indefinitely at Windsor plant," *Reuters*, Feb. 1, 2000, found at <http://www.auto.com>, retrieved Feb. 1, 2001.

⁹ See, for example, "Attacks strain auto parts trade," Susan Carney, Sept. 20, 2001, found at <http://www.detnews.com>, retrieved Sept. 21, 2001.

The value of imports of engines and related parts from Mexico also declined in 2001, as imports dropped by 12 percent (\$331 million) to \$2.4 billion. Imports of spark-ignition engines over 2000cc, the leading import category, decreased by 12 percent to \$1.0 billion and accounted for 43 percent of sector imports from Mexico.

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Certain Motor-Vehicle Parts¹⁰

Change in 2001 from 2000:

U.S. trade surplus: Decreased by \$1.5 billion (36 percent) to \$2.6 billion

U.S. exports: Decreased by \$2.5 billion (8 percent) to \$26.8 billion

U.S. imports: Decreased by \$1.0 billion (4 percent) to \$24.1 billion

The U.S. trade surplus in certain motor-vehicle parts continued its decline despite decreases in U.S. imports from leading trade partners— Canada, Mexico, and Japan— as U.S. exports to these markets declined at a greater rate. The 11-percent drop in total 2001 North American motor-vehicle production to 15.8 million units¹¹ as well as motor-vehicle production slumps in other major producing regions significantly affected the level of U.S. imports and exports of vehicle parts. The implementation of NAFTA accelerated the integration of the North American automotive industry and facilitated automotive parts trade between NAFTA partner countries. Producers in Canada and Mexico manufacture a wide variety of automotive components that not only incorporate significant U.S. content, but are often used in the assembly of U.S.-made vehicles, contributing to large bilateral trade flows with the United States. Japan remains a leading trade partner in automotive components in part because of the numerous Japanese automakers located in the United States that incorporate Japanese auto parts in their motor vehicles.

U.S. exports

NAFTA partners Canada and Mexico accounted for 76 percent of total U.S. exports of motor-vehicle parts, reflecting their critical role in the highly integrated North American automotive industry. Despite an 11-percent decline in auto parts exports attributable in part to cross-border supply disruptions following the September 11 terrorist attacks,¹² Canada remained the leading U.S. export market, accounting for 53 percent of such exports in 2001. Principal exports included miscellaneous parts and accessories of motor vehicles (\$3.7 billion), miscellaneous parts and accessories of motor vehicle bodies (\$3.5 billion), and gear boxes and parts thereof for passenger cars (\$1.6 billion). Exports to Mexico, which fell by 6 percent to \$6.3 billion and accounted for 23 percent of total U.S. exports, were led by miscellaneous parts and accessories of motor vehicle bodies (\$2.5 billion), miscellaneous motor vehicle parts and accessories (\$1.3 billion), and gear boxes and parts thereof (\$332 million).

¹⁰ This industry/commodity group includes body stampings, bumpers, brakes and parts, gear boxes, axles, wheels, shock absorbers, radiators, exhaust systems, clutches, steering wheels, and miscellaneous parts and accessories.

¹¹ “Ward’s North American Weekly Vehicle Production Summary,” *Ward’s Automotive Reports*, Feb. 4, 2002, p. 8.

¹² “Ford to close three Windsor plants next week for engine inventory tuneup,” *The Canadian Press*, Sept. 20, 2001, found at <http://itc.newsedge-web.com>, retrieved Sept. 21, 2001.

Japan's share of total U.S. exports fell to 4 percent (\$1.1 billion) in 2001, as exports declined by 17 percent (\$218 million). Despite U.S. Government encouragement of its Japanese counterpart to support increased purchases of U.S. automotive parts by Japanese auto makers and aftermarket parts outlets, as outlined in the U.S.-Japan Agreement on Autos and Auto Parts,¹³ the weak yen relative to the U.S. dollar contributed to the U.S. export decline.¹⁴ Leading export categories included miscellaneous motor vehicle parts and accessories (\$600 million), miscellaneous parts and accessories of motor vehicle bodies (\$168 million), and motor vehicle airbags (\$108 million).

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Aircraft Engines and Gas Turbines

Change in 2001 from 2000:

U.S. trade surplus: Decreased by \$1.1 billion (27 percent) to \$3.0 billion

U.S. exports: Increased by \$1.5 billion (10 percent) to \$16.5 billion

U.S. imports: Increased by \$2.6 billion (24 percent) to \$13.5 billion

The U.S. trade surplus for aircraft engines and gas turbines decreased for the second time in the preceding 5 years. Demand (as reflected in aircraft contract specifications) for foreign-built turbojet engines used primarily for large civil aircraft (LCA) by both domestic and foreign airlines rose, which necessitated their importation by Boeing, the sole U.S. LCA manufacturer. U.S. imports of nonaircraft gas turbines of a power exceeding 5,000kW have also risen; these imports meet the demand for stationary power for pumps and electrical generation. The backlog of orders for LCA has continued to fuel demand for high numbers of aircraft turbine engines.

U.S. exports

In 2001, total U.S. exports of aircraft engines, other gas turbines and parts thereof, increased by 10 percent to \$16.5 billion. Exports of turbine engines for regional jets and LCA rose from \$3.9 billion to \$4.5 billion (14 percent) in 2001, and parts for all turbojet or turbopropeller engines rose from \$6.2 billion to \$6.4 billion (3 percent). Exports of these products accounted for \$10.9 billion (66 percent) of total engine and parts exports. Exports of engines to France increased by \$305 million (32 percent) to \$1.3 billion. Airbus SAS, Boeing's sole competitor in the manufacture of LCA, manufactures most of its aircraft in France. Brazil was the second-largest market for these engines (\$585 million), principally because of its position as a manufacturer of regional jet aircraft. Canada was the third-largest market (\$561 million), again because of its regional jet aircraft production.

¹³ The Agreement expired at the end of 2000. After extensive bilateral discussions, the Governments of the United States and Japan agreed to annual automotive consultations, with more frequent meetings to be scheduled if developments warrant. "U.S., Japan Reach Auto Agreement After Months of Wrangling," Oct. 19, 2001, found at <http://www.insidetrade.com>, retrieved Nov. 2, 2001.

¹⁴ For more on shifts of the dollar-yen exchange rate during 2001, see "Background on Exchange Rate Shifts" in app. F.

Principal markets for U.S. exports of parts for civil aircraft turbine engines were France, the United Kingdom, and Germany. Overall, exports to these countries, which represented 39 percent of total U.S. exports of civil aircraft turbine engine parts, declined by \$287 million (8 percent) to \$3.1 billion in 2001.

U.S. imports

A \$1.1-billion (33 percent) increase in U.S. imports of civil aircraft turbojet engines and a \$660-million (13 percent) rise in parts for these engines contributed to a \$2.6-billion (24 percent) increase to \$13.5 billion in U.S. imports of aircraft engines and gas turbines. Taken together, these two product groups accounted for \$9.9 billion (74 percent) of total U.S. imports of aircraft engines and gas turbines. The market for these products consists of Boeing, which must use engines specified by its customers (predominantly airlines), airlines that need to replace worn-out engines and parts, and independent repair organizations.

Leading suppliers of civil aircraft turbojet engines were the United Kingdom, France, and Canada, while leading suppliers of finished parts were France, the United Kingdom, and Germany. These countries accounted for \$3.8 billion (91 percent) of total U.S. imports of civil aircraft turbojet engines, and \$3.7 billion (64 percent) of total U.S. imports of finished parts for civil aircraft turbojet engines. The United Kingdom and Germany invented the aircraft turbine engine; both of these highly industrialized nations have a long aviation history. Rolls-Royce in the United Kingdom has evolved into the major competitor of U.S. manufacturers. The SNECMA group, France's major supplier of such engines, has a long-standing joint venture, CFMI, with General Electric in the United States. CFMI is the sole engine supplier to Boeing's 737, the most widely used aircraft in history. As the installed base for foreign-built engines grows, so too does the need for spare parts. Additionally, there has been consolidation among the suppliers to the turbine engine manufacturers; thus, there may be only one or two companies in the world currently supplying needed parts.

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Table 11-3
Transportation equipment sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		<i>Million Dollars</i>			
ET001	Aircraft engines and gas turbines:				
	Exports	15,011	16,524	1,513	10.1
	Imports	10,939	13,548	2,609	23.8
	Trade balance	4,072	2,976	-1,096	-26.9
ET002	Internal combustion piston engines, other than for aircraft:				
	Exports	13,808	12,408	-1,400	-10.1
	Imports	15,532	13,657	-1,875	-12.1
	Trade balance	-1,724	-1,249	475	27.6
ET003	Forklift trucks and similar industrial vehicles:				
	Exports	1,332	1,341	10	0.7
	Imports	1,668	1,423	-245	-14.7
	Trade balance	-337	-82	255	75.7
ET004	Construction and mining equipment:				
	Exports	9,507	9,903	396	4.2
	Imports	5,643	5,260	-383	-6.8
	Trade balance	3,864	4,643	779	20.2
ET005	Ball and rollers bearings:				
	Exports	1,242	1,197	-45	-3.6
	Imports	1,804	1,579	-225	-12.5
	Trade balance	-562	-381	181	32.1
ET006	Primary cells and batteries and electric storage batteries:				
	Exports	2,655	2,270	-384	-14.5
	Imports	2,656	2,342	-314	-11.8
	Trade balance	-1	-72	-70	-4,875.4
ET007	Ignition, starting, lighting, and other electrical equipment:				
	Exports	1,986	1,824	-162	-8.1
	Imports	3,076	3,052	-24	-0.8
	Trade balance	-1,090	-1,228	-137	-12.6
ET008	Rail locomotive and rolling stock:				
	Exports	1,336	1,422	86	6.5
	Imports	1,828	1,357	-471	-25.8
	Trade balance	-492	65	557	(³)
ET009	Motor vehicles:				
	Exports	22,827	22,625	-202	-0.9
	Imports	129,553	127,244	-2,310	-1.8
	Trade balance	-106,727	-104,619	2,108	2.0
ET010	Certain motor-vehicle parts:				
	Exports	29,199	26,750	-2,450	-8.4
	Imports	25,135	24,135	-1,000	-4.0
	Trade balance	4,065	2,615	-1,450	-35.7
ET011	Motorcycles, mopeds, and parts:				
	Exports	563	742	179	31.7
	Imports	2,519	2,870	350	13.9
	Trade balance	-1,956	-2,128	-172	-8.8
ET012	Miscellaneous vehicles and transportation-related equipment:				
	Exports	2,944	2,666	-278	-9.4
	Imports	2,986	2,367	-619	-20.7
	Trade balance	-43	299	341	(³)
ET013	Aircraft, spacecraft, and related equipment:				
	Exports	39,696	42,535	2,839	7.2
	Imports	18,019	21,027	3,008	16.7
	Trade balance	21,677	21,508	-169	-0.8

See footnote(s) at end of table.

Table 11-3--Continued

Transportation equipment sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
ET014	Ships, tugs, pleasure boats, and similar vessels:				
	Exports	1,083	1,820	737	68.1
	Imports	1,223	1,411	187	15.3
	Trade balance	-140	410	550	(³)
ET015	Motors and engines, except internal combustion, aircraft, or electric:				
	Exports	453	508	55	12.2
	Imports	772	784	12	1.5
	Trade balance	-319	-276	43	13.5

¹Import values are 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.

Table 12-1

Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. exports of domestic merchandise:				
Mexico	24,647	20,802	-3,845	-15.6
Japan	17,811	15,406	-2,405	-13.5
Canada	25,019	20,117	-4,902	-19.6
China	3,927	4,894	967	24.6
Taiwan	7,214	5,666	-1,548	-21.5
Malaysia	6,852	5,156	-1,696	-24.8
Korea	10,568	6,482	-4,086	-38.7
Singapore	7,326	5,207	-2,120	-28.9
Germany	8,662	8,792	130	1.5
United Kingdom	11,995	9,761	-2,234	-18.6
All other	65,088	58,435	-6,653	-10.2
Total	189,109	160,717	-28,392	-15.0
EU-15	46,471	41,850	-4,621	-9.9
OPEC	2,207	2,462	254	11.5
Latin America	37,188	31,767	-5,421	-14.6
CBERA	2,406	2,508	103	4.3
Asia	69,267	56,864	-12,403	-17.9
Sub-Saharan Africa	703	700	-3	-0.4
Central and Eastern Europe	867	873	6	0.7
U.S. imports for consumption:				
Mexico	37,207	37,221	15	(²)
Japan	49,888	35,676	-14,212	-28.5
Canada	21,200	13,868	-7,333	-34.6
China	27,588	27,231	-357	-1.3
Taiwan	22,429	17,391	-5,038	-22.5
Malaysia	20,550	17,751	-2,799	-13.6
Korea	21,400	15,409	-5,991	-28.0
Singapore	15,362	11,462	-3,900	-25.4
Germany	7,399	7,242	-156	-2.1
United Kingdom	7,097	5,805	-1,292	-18.2
All other	47,734	40,515	-7,218	-15.1
Total	277,854	229,571	-48,282	-17.4
EU-15	28,630	26,545	-2,085	-7.3
OPEC	2,386	2,300	-86	-3.6
Latin America	40,277	40,186	-91	-0.2
CBERA	2,091	1,510	-581	-27.8
Asia	178,245	141,280	-36,965	-20.7
Sub-Saharan Africa	58	53	-6	-9.7
Central and Eastern Europe	1,816	1,327	-489	-26.9
U.S. merchandise trade balance:				
Mexico	-12,560	-16,420	-3,860	-30.7
Japan	-32,076	-20,269	11,807	36.8
Canada	3,818	6,249	2,431	63.7
China	-23,660	-22,337	1,323	5.6
Taiwan	-15,215	-11,725	3,491	22.9
Malaysia	-13,698	-12,595	1,103	8.1
Korea	-10,832	-8,927	1,905	17.6
Singapore	-8,036	-6,255	1,781	22.2
Germany	1,263	1,550	286	22.7
United Kingdom	4,897	3,956	-942	-19.2
All other	17,354	17,920	565	3.3
Total	-88,745	-68,855	19,890	22.4
EU-15	17,841	15,304	-2,536	-14.2
OPEC	-178	162	340	(³)
Latin America	-3,089	-8,419	-5,330	-172.6
CBERA	314	998	683	217.3
Asia	-108,978	-84,416	24,562	22.5
Sub-Saharan Africa	645	648	3	0.4
Central and Eastern Europe	-950	-455	495	52.1

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

² Less than 0.05 percent.

³ Not 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 2001.

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

Table 12-2
Leading changes in U.S. exports and imports of electronic products, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
	<i>Million dollars</i>			
U.S. EXPORTS:				
Increases:				
Medical goods (ET040)	13,411	14,987	1,577	11.8
Decreases:				
Semiconductors and integrated circuits (ET033)	44,828	33,455	-11,374	-25.4
Computers, peripherals, and parts (ET035)	45,346	38,092	-7,254	-16.0
Telephone and telegraph apparatus (ET017)	20,147	16,506	-3,641	-18.1
Electrical capacitors and resistors (ET025)	3,410	2,002	-1,408	-41.3
Measuring, testing, and controlling instruments (ET043)	16,749	15,712	-1,037	-6.2
All other	45,217	39,962	-5,255	-11.6
TOTAL	-189,108	-160,716	-28,392	-15.0
U.S. IMPORTS:				
Increases:				
Medical goods (ET040)	9,178	10,869	1,690	18.4
Decreases:				
Semiconductors and integrated circuits (ET033)	47,448	30,016	-17,432	-36.7
Computers, peripherals, and parts (ET035)	90,384	74,547	-15,836	-17.5
Telephone and telegraph apparatus (ET017)	32,130	27,174	-4,955	-15.4
Consumer electronics (except televisions) (ET018)	21,974	19,525	-2,449	-11.1
Electrical capacitors and resistors (ET025)	4,177	2,333	-1,845	-44.2
Photographic cameras and equipment (ET039)	5,299	3,560	-1,739	-32.8
All other	67,264	61,548	-5,716	-8.5
TOTAL	277,854	229,572	-48,282	-17.4

Note.-Calculations based on unrounded data.

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

equipment; and medical goods are presented later in this chapter. There is also a 10-year trend analysis on telephone and telegraph equipment in chapter 3. Trade statistics for all industry/commodity groups in this sector are presented in table 12-3 at the end of this chapter.

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

Japan: U.S. deficit decreased by \$11.8 billion (37 percent) to \$20.3 billion

Mexico: U.S. deficit increased by \$3.9 billion (31 percent) to \$16.4 billion

Taiwan: U.S. deficit decreased by \$3.5 billion (23 percent) to \$11.7 billion

Most of the shift in the trade deficit was a result of shifts in trade in computer equipment and semiconductors. These two groups accounted for \$14.6 billion of the shift in the trade deficit and were the groups principally responsible for the shifts in the deficits for Japan, Mexico, and Taiwan. The addition of telephone and telegraph apparatus, which had the third-largest shift, brings the figure up to \$16 billion.

The decline in the trade deficit with Japan resulted from a greater decline in imports than in exports. Of the product groups with declines in imports from Japan, electronic products accounted for six of the seven largest declines. These were computers, peripherals, and parts; semiconductors and

integrated circuits; consumer electronics (except televisions); telephone and telegraph apparatus; photographic cameras and equipment; and electrical capacitors and resistors. Similarly, electronic products (semiconductors, telecommunications equipment, and computer equipment) accounted for three of the five largest declines in exports to Japan. Much of the decline in both imports and exports can be attributed to the slowdowns in the U.S. and world economies, particularly in those groups such as computers and semiconductors which experienced notable downturns.

The increase in the deficit with Mexico is attributed to increased imports of computers, peripherals, and parts; medical goods; navigational instruments and remote control apparatus; and television receivers and video monitors. Of all items with increases in imports from Mexico, computer equipment experienced the largest growth. For U.S. exports to Mexico, semiconductors, and capacitors and resistors registered the two largest declines between 2000 and 2001.

The decrease in the deficit with Taiwan resulted from shifts in computer equipment and semiconductor trade, the groups with the two largest declines in imports from Taiwan. The ebbing of imports of these groups from Taiwan reflected the slowing of the U.S. economy and the corresponding drop in U.S. demand for electronic products.

COMMODITY ANALYSIS

Consumer Electronics (Except Televisions)³

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$2.3 billion (12 percent) to \$16.7 billion

U.S. exports: Decreased by \$177.9 million (6 percent) to \$2.8 billion

U.S. imports: Decreased by \$2.4 billion (11 percent) to \$19.5 billion

The decrease in the trade deficit for consumer electronics (except televisions) is attributable principally to the decline in imports, reflecting a decrease in discretionary purchases from a market supplied almost exclusively by imports. A decline in average prices of consumer electronics products also contributed to the decline in the value of imports.

U.S. imports

U.S. imports within this commodity group decreased primarily a result of falling demand for consumer electronics due to a slowdown in the U.S. economy during 2001, as reflected by declining prices for these products. In the case of durable products such as these, the penetration rate will also affect demand. For example, the purchase of a new VCR becomes even more discretionary when the household penetration rate is already 95 percent.⁴ While the average price of a VCR declined by 12 percent from 2000 to 2001, imports declined by 32 percent to \$1.3 billion. In contrast, if the downturn in the U.S. economy is not too severe, demand may be stable or grow for products with a relatively low household penetration rate for which sufficient value is perceived, such as DVD players. Imports of DVD players, with a household penetration rate of 25 percent, increased by 29 percent to \$2.5 billion in 2001, one of few consumer electronic products for which imports significantly increased.

³ This industry/commodity group includes broadcast radio receivers and radio combinations; audio and video recording and reproducing equipment including CD players, DVD players, VCRs, camcorders, and still-image digital cameras; and audio components.

⁴ Digital Disc Manufacturing, found at <http://www.digitaldisc.com/vhs.html>, Apr. 3, 2002.

The value of imports also declined because of extremely competitive pricing in the industry. The prices of products incorporating older technology were reduced to remain competitive with products recently introduced with newer technology. Also, production continued to move to countries with lower production costs and the resulting savings were passed on to the consumer.

Imports of radio receivers/tape player combinations for use in motor vehicles declined by 60 percent to \$478 million as the result of two factors: a shift in demand from tape player combinations to CD player combinations and a slowdown in the U.S. economy leading to fewer sales of motor vehicles. Demand for combinations incorporating CD players for use in motor vehicles remained stronger than that of radio/tape player combinations because of the higher-quality audio reproduction made available via CD technology versus magnetic tape. Imports of radio combinations incorporating CD players for use in motor vehicles increased by 21 percent to \$2.6 billion. The 23-percent decline in imports of standalone CD players to \$1.5 billion was occasioned more by the 20-percent decrease in the average cost of imported CD players than by the 11-percent decrease in units imported.

The top five import sources in 2000— China, Japan, Mexico, Malaysia, and Korea— remained the top five sources in 2001 (and in the same order), but their share of total imports decreased from 95 percent to 84 percent. This decrease in share was due primarily to imports from Japan, which fell by 29 percent to \$4.2 billion, resulting from decreased discretionary spending on high-end consumer electronic products in the United States and a shift to other suppliers for more moderately priced products by U.S. consumers.

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Electrical Capacitors and Resistors⁵

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$437 million (57 percent) to \$330 million

U.S. exports: Decreased by \$1.4 billion (41 percent) to \$2.0 billion

U.S. imports: Decreased by \$1.9 billion (44 percent) to \$2.3 billion

The year 2001 was uncharacteristically weak for the U.S. and global capacitor and resistor markets. A general decline in the economy in 2001 caused a downturn in production by electronic equipment manufacturers (the primary consumers of electrical capacitors and resistors) which in turn led to a sharp and unexpected decrease in demand for these passive components. The drop in demand was exacerbated by producers of passive components, who had increased their production capacity in response to the strong demand that existed in 2000.⁶ As a result, severe oversupply caused average selling prices of high-volume products, such as tantalum and ceramic capacitors, to fall throughout the

⁵ Capacitors and resistors are passive electrical and electronic components. They are integral elements in a wide variety of products such as electronic equipment (e.g., computer hardware, telecommunications equipment, and consumer electronics), industrial equipment, and automobiles.

⁶ Spencer Chin, "Passive Component Makers Slashing Capex Again," *Electronic Buyers' News*, found at http://www.ebnews.com/printableArticle?doc_id=OEG20020108S0070, retrieved Feb. 28, 2002.

year.⁷ However, the drop in imports exceeded the decrease in exports, so that the U.S. trade deficit for electrical capacitors and resistors declined in 2001.⁸

U.S. imports

U.S. imports of ceramic and tantalum capacitors dropped by 50 percent in 2001, accounting for more than one-half of the total decline in imports. These capacitor types are primarily consumed in electronic equipment, and the decrease in imports reflects the overall decline in U.S. production of such equipment. Japan remained the largest U.S. supplier of capacitors and resistors in 2001, but decreased U.S. demand caused imports from Japan to fall by nearly one-half, to \$761 million. U.S. imports from Mexico, an important production-sharing partner for the United States and the second-largest U.S. supplier, declined by roughly one-third to \$547 million. Imports from other leading suppliers such as Israel, Taiwan, and the Czech Republic also experienced significant declines of 59 percent, 54 percent, and 67 percent, respectively. Much of the imports from Mexico, Israel, and the Czech Republic was produced by subsidiaries of U.S.-headquartered manufacturers.

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Semiconductors and Integrated Circuits

Change in 2001 from 2000:

U.S. trade balance: Increased by \$6.1 billion to a \$3.4-billion surplus⁹
U.S. exports: Decreased by \$11.4 billion (25 percent) to \$33.5 billion
U.S. imports: Decreased by \$17.4 billion (37 percent) to \$30.0 billion

The global semiconductor industry faced a worldwide economic slowdown in 2001, which led to adversities in several key areas, including a large surplus in inventory, significant overcapacity, a substantial decline in sales of electronic systems,¹⁰ and the industry's sharpest sales decline ever. Global semiconductor sales in 2001 fell to \$139 billion, a 32-percent decline from the record sales of \$204 billion in 2000.¹¹ Although the downturn led to large decreases in both U.S. imports and exports of semiconductors, a more sizeable drop in imports from several key manufacturing nations in Asia accounted for the switch to a \$3.4-billion trade surplus. Many of these countries manufacture mostly commodity-type products, which suffered significant price erosion in addition to the drop in demand. As U.S. production is focused more heavily on highly differentiated semiconductors that are less price-

⁷ Spencer Chin, "Acquisitions May Be in the Offing As Prices, Profits Sink," *Electronic Buyers' News*, Oct. 2001, found at <http://www.ebnews.com>, retrieved May 20, 2002.

⁸ In 2001, exports to Canada and Mexico, the two largest markets for U.S. capacitors and resistors, decreased by a collective 46 percent, or \$980 million, principally as a result of lower demand by the two countries' respective electronics industries. Mexico alone accounted for 48 percent of U.S. exports in 2001, as compared to 53 percent in 2000.

⁹ The aggregate semiconductor trade balance changed from a \$2.6-billion trade deficit to a \$3.4-billion surplus.

¹⁰ Electronic systems referred to here include all finished products that require the use of a semiconductor, including computers, telecommunications equipment, and consumer electronics. See industry analyst Bill McLean, as referenced in Alex Romanelli, "2001: What Didn't Go Wrong?" *Electronic News*, Feb. 4, 2002.

¹¹ Semiconductor Industry Association, *Industry Facts & Figures*, found at http://www.semichips.org/pre_facts.cfm, retrieved Feb. 14, 2002.

sensitive, the value of U.S. exports fell less dramatically than the value of imports, creating a rare surplus. This was the first U.S. trade surplus in semiconductors in more than two decades.

International trade plays an important part in the semiconductor production process. Several cross-border production models require the shipment of goods from one geographic location to another, where different steps in the production process are carried out.¹² Unfinished semiconductors fabricated in the United States are often sent abroad, primarily to locations in Southeast Asia, for the lower value-added, more labor-intensive manufacturing steps of assembly and testing.¹³ Once finished, a large percentage of these goods will be shipped back to the United States to be consumed. In addition, many U.S. firms outsource the fabrication stage of the manufacturing process to offshore foundry producers in order to supplement their own capacity in times of higher than anticipated demand, or in order to concentrate their attention solely on design and marketing.¹⁴ The offshore foundries complete the fabrication process and either ship the product to assembly plants (often in a third country) or perform the assembly themselves. Many of these chips, which were fabricated abroad but originally designed in the United States by one of its many “fabless”¹⁵ companies, are also shipped back to the United States for ultimate consumption.

The need to ship unfinished and finished products between nations during the production process generates extraordinarily high levels of trade. However, when demand fell sharply in 2001, production also declined and global semiconductor trade dropped.

U.S. exports

In 2001, a marked worldwide decline in the demand for all semiconductor end-uses, particularly computers and telecommunications equipment, forced U.S. manufacturers to ship less product, resulting in a drop in all exports.

Exports of unmounted chips, dice, and wafers totaled \$17.8 billion in 2001, down from \$23.5 billion in 2000, still made up over one-half of total U.S. semiconductor exports.¹⁶ These products are unfinished goods shipped to assembly plants often in the Philippines, Malaysia, Taiwan, Korea, and Singapore. As these goods are frequently reexported back to the United States or a third-country market for consumption, the associated drop in exports reflects the severe decline in consumer demand for end-use equipment. Complicating the drop in demand for computers, cell phones, and other finished goods requiring semiconductors was a large buildup in chip inventories throughout the supply chain, caused by high levels of capital spending in 2000 aimed at increasing production capacities. As these inventories, which reached a peak of \$15 billion in December 2000,¹⁷ were liquidated throughout 2001, overcapacity ensued and prices declined. U.S. manufacturer and market leader Intel blamed price declines for its 21 percent drop in revenues in 2001.¹⁸ Likewise, revenues at other major U.S. producers Texas Instruments,

¹² Semiconductors are manufactured in three basic steps: design, fabrication, and assembly. During fabrication the circuit designs are transcribed in large volume onto silicon wafers in a capital-intensive, high-precision process. The final step of assembly takes the silicon wafer and cuts it into chips that are then attached to lead frames and encapsulated in plastic.

¹³ Standard & Poor’s, *Industry Surveys: Semiconductors*, Jan. 3, 2002, p. 29.

¹⁴ *Ibid.*, p. 19.

¹⁵ Design-only firms without fabrication capabilities are commonly referred to in the industry as “fabless.”

¹⁶ Official statistics of the U.S. Department of Commerce.

¹⁷ iSuppli Corp. report, as referenced in “Excess Chip Inventory Nearly Gone, Says New Report,” *Semiconductor Business News*, Mar. 18, 2002.

¹⁸ Intel Corp., *2001 Annual Report*, p. 13.

Micron Technology, and Advanced Micro Devices (AMD) decreased by 31 percent, 38 percent,¹⁹ and 16 percent, respectively.²⁰

U.S. exports to every country did not suffer this same sharp drop. Of particular note in 2001 was China, to which chip exports increased by 38 percent. This underscores the increasing importance of the electronics industry in China, which has become one of the largest consumers of semiconductors and an essential market for U.S. manufacturers.²¹ Exports to the Philippines also showed resilience, falling only by 8 percent and taking over the No. 1 spot for the first time. Since exports to the Philippines frequently take the form of unfinished U.S. chips to be assembled, the modest decline in exports is an indication of the increasingly prominent role of the Philippines as a production-sharing partner for the United States.²²

U.S. imports

U.S. imports of semiconductors in 2001 decreased for the first time since 1998, and reached their lowest levels since 1994. The same factors that affected U.S. semiconductor exports also caused a substantial decline in imports, namely a drop in the demand for electronic systems, an inventory surplus, and significant overcapacity. The effects of these circumstances were most pronounced for Asian producers, as decreases in imports from six suppliers— Japan, Korea, Malaysia, the Philippines, Singapore, and Taiwan— represented approximately five-sixths of the total decline in U.S. semiconductor imports. Imports from Japan decreased by 44 percent, driving the country out of the top spot of semiconductor suppliers to the United States, a position it had held since the early 1980s. Imports from Malaysia and the Philippines fell less drastically, and as imports from these two nations are largely composed of assembled and re-shipped U.S. exports, this small change served as a promising indicator of relative U.S. strength in the industry.²³

The downturn in semiconductor demand led to price-cutting for imports as well as exports. This phenomenon had the greatest effect on commodity-type products such as dynamic random access memory semiconductors (DRAMs),²⁴ which accounted for 9 percent of all U.S. semiconductor imports in 2001, or \$2.7 billion. In 2000, DRAM imports were \$6.5 billion, or 14 percent of total semiconductor imports, but these imports suffered a dramatic 58-percent decline to reach 2001 levels. Major producers fought for share of the limited market,²⁵ driving the average unit value for DRAM imports down by 54 percent, from \$7.20 in 2000 to \$3.29 in 2001.²⁶ The drop in DRAM prices played a large role in the 53-percent decline in total semiconductor imports from Korea, where production is heavily concentrated in the manufacture

¹⁹ Figures represent fiscal year ended Aug. 2001.

²⁰ Texas Instruments, *2001 Summary Annual Report*; Micron Technology, Inc., *2001 Year In Review*; and AMD, *2001 Annual Report*.

²¹ Sun, Lin, "China Watch: Opportunity Works Both Ways," *Electronic News Online*, Feb. 25, 2002, found at <http://www.e-insite.net/electronicnews/index.asp?layout=article&articleId=CA198114>, retrieved May 16, 2002; and Manoj Aravindakshan, "China's Semi Industry Bucks Global Trends," *EE Times*, May 16, 2001, found at <http://www.siliconstrategies.com/story/OEG20010516S0049>, retrieved May 16, 2002.

²² "Online News," *Electronic Business Asia*, Feb. 7, 2002, found at <http://www.ebasia.com/registrd/news/020207.htm>, retrieved May 16, 2002.

²³ Ibid.

²⁴ A DRAM is a type of semiconductor that allows data to be both read from and written to its storage locations. DRAMs are often considered commodity items as differentiation across products is limited, making competition within the industry fierce.

²⁵ Sumner Lemon and Martyn Williams, "Hard Times for DRAM Industry Means Good News for Users," *CNN.com*, Oct. 22, 2001, found at <http://edition.cnn.com/2001/TECH/ptech/10/22/dram.goodnews.idg/>, retrieved May 17, 2001.

²⁶ Official statistics of the U.S. Department of Commerce.

of DRAMs.²⁷ This scenario is representative of those encountered in several supplier nations,²⁸ and, coupled with U.S. concentration in less commodity-like products, helps explain the shift from semiconductor deficit to surplus.

Prices fell less sharply in the non-commodity industries; but the dropoff in total end-product demand still had a negative effect on imports in these areas. For example, imports of mixed-signal devices, frequently used in telecommunications devices, fell by over 50 percent during 2000-2001, due to the decline in U.S. production of cell phones and other telecommunications equipment. In addition, a drop in utilization rates²⁹ at semiconductor foundries resulted in fewer imports from foundry-rich sources, such as Singapore and Taiwan. Foundries were plagued by significant unused capacity, as vertically integrated firms were able to meet their demand needs and fabless firms decreased their orders for wafer production.³⁰

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Computers, Peripherals, and Parts

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$8.6 billion (19 percent) to \$36.5 billion

U.S. exports: Decreased by \$7.3 billion (16 percent) to \$38.1 billion

U.S. imports: Decreased by \$15.8 billion (18 percent) to \$74.5 billion

The decrease in the trade deficit for computers, peripherals, and parts is attributable by industry sources principally to the decrease in imports due to weak consumption resulting from the slowdown in the overall U.S. economy beginning in mid-2000 and running through 2001. The decrease in exports was attributable to concurrent weakness in economies around the world, including the major markets of the European Union and ASEAN countries.³¹

²⁷ Jack Robertson, "DRAM Price Crash Seen Hurting Export Markets in Korea, Japan," *EBN*, Aug. 6, 2001, found at <http://www.ebnews.com/story/OEG20010806S0042>, retrieved May 16, 2002.

²⁸ Faith Hung, "Taiwan's DRAM Makers Lose \$1.23 Billion This Year," *EBN*, Oct. 31, 2001, found at <http://www.ebnews.com/story/OEG20011031S0020>, retrieved May 16, 2002.

²⁹ Utilization rates for dedicated silicon foundries dropped from near 100-percent levels in 2000 to approximately 40 percent in 2001, and, as a result, the share of global semiconductor production accounted for by foundries declined from 14.7 percent to 11.4 percent. See Semiconductor International, found at <http://www.e-insite.net/semiconductor/index.asp>, retrieved Mar. 27, 2002.

³⁰ Frost & Sullivan, *A Fabless Future for the Semiconductor Industry*, Apr. 4, 2002, found at <http://www1.frost.com/prod/news.nsf/3fcc3449277e0b738025695d006cfe7f/1920a9c67694154886256b910069f170?OpenDocument>, retrieved May 17, 2002.

³¹ Standard & Poor's, "Industry Survey: Computers: Hardware," Dec. 13, 2001, p. 2.

U.S. exports

Exports of complete systems decreased by 16 percent to just over \$5.0 billion, while exports of parts and components of computers and peripherals decreased by almost 18 percent to \$33.1 billion. These declines were due in part to decreased demand occasioned by the economic slowdowns that affected most major export markets. In addition, some producers closed U.S. factories and moved production offshore to Mexico and Taiwan, among other locations.

Exports to virtually all major trading partners decreased in 2001. The EU continued as the largest U.S. export market, even as exports to that market declined by 18 percent to \$12.7 billion. Exports to Canada and Japan, both major markets for U.S. goods, fell by 15 percent. In contrast, exports to Mexico declined by a relatively small 4 percent. Although total exports to Mexico declined, exports of complete systems increased by almost 24 percent to \$404.7 million.

China was the only major trading partner to which exports increased in 2001. China represents tremendous opportunity, as the Chinese market is forecasted to grow at an annual rate of 23 percent per year for 2002-2006.³² Even so, U.S. exports to China increased by only 6 percent to \$1.2 billion in the overall down year of 2001. U.S. exports to China of complete systems increased by 9 percent and continued to represent about 22 to 23 percent of total industry/commodity group exports to that country for both 2000-2001.

U.S. imports

High inventory levels and decreased domestic consumption contributed to a drop in U.S. computer production in 2001. This decline led in turn to a decrease in demand for imports of components and subassemblies.³³ High inventory levels also led to declining prices and decreased imports of computer systems.³⁴ A decrease in capital expenditures on IT products by the business sector also contributed to the decline in imports of computers and peripherals for domestic consumption. The overall decline in imports for this industry/commodity group was offset somewhat by increased imports of certain complete systems, notably laptop computers, as U.S.-headquartered producers continued to rely on foreign outsourcing for these items.

Imports from all major trading partners except Mexico and China declined dramatically. In 2001, China and Mexico overtook Japan and Taiwan as the largest import sources, reflecting the rapid growth of the Chinese industry and the continued movement of assembly operations to Mexico by companies such as Compaq and Dell. These four top suppliers collectively accounted for over 50 percent of U.S. imports of computers and peripherals in 2001.

The decline in imports of components, peripherals, and incomplete systems was offset in part by increased imports of laptop computers and other complete computer systems, which rose by 5 percent to

³² CCIDNET, "2001-2002 Annual Research Report on China's Computer Market - Executive Summary," found at <http://www.ccidconsulting.com/text/2002-3-21-1.htm>, Apr. 8, 2002.

³³ FBN Online, "Electronic Manufacturing Orders Steady, but Shipments and Inventory Decline," Oct. 5, 2001, found at www.ebonline.com/economywatch/news/story/OEG20011005S0043, retrieved May 20, 2002.

³⁴ CFO Asia, "The Great Inventory Correction," found at <http://www.cfoasia.com/archives/200110-03.htm>, Apr. 8, 2002.

\$7.4 billion and by 36 percent to \$1.5 billion, respectively. Imports of laser printers also increased as the demand for faster printers continued.

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Photographic Cameras and Equipment³⁵

Change in 2001 from 2000:

U.S. trade deficit: Decreased by \$1.6 billion (47 percent) to \$1.9 billion

U.S. exports: Decreased by \$106 million (6 percent) to \$1.7 billion

U.S. imports: Decreased by \$1.7 billion (33 percent) to \$3.6 billion

The decrease in the trade deficit for photographic cameras and equipment resulted from a larger fall in imports than in exports. The fall in imports reflected both a weakening demand for consumer products as the U.S. economy slowed during 2001 and a change in technology as older items such as photocopiers and film cameras faced competition from new items such as the multifunction unit³⁶ (copier/fax/printer combined) and digital cameras that are not included in this product category. U.S. imports from Japan, China, and Switzerland has the greatest change. In 2001, film cameras accounted for 46 percent of product group imports and photocopying apparatus accounted for 34 percent.

U.S. imports

U.S. imports of photographic cameras and equipment declined in 2001, reflecting a continuing multi-year trend away from analog products and towards digital products. Imports from the three leading sources, Japan, China, and Mexico, all registered decreases in 2001. These three countries plus Switzerland, which had the third-largest decline in imports, accounted for 75 percent of the total decline in imports. There were declines in almost every product category within this group, but the largest decline was in imports of photocopying apparatus and parts. Photocopying apparatus and parts declined by \$771 million (39 percent in 2001) and accounted for 44 percent of the total decline of \$1.7 billion. The decline in photocopying apparatus and parts from Japan was \$470 million or 64 percent of that country's total import decline of \$738 million. Photocopying machines are moving from the older analog format to a digital format to be more compatible with other digital apparatus, such as personal computers and local area networks. Also, the digital transformation of office machines has created multifunction devices that function as printers, fax machines, and copiers in a single unit, reducing the demand for separate, single-function devices. The decline in imports of photocopying apparatus and parts reflects the longer-term trend toward digital office equipment. In addition, the slowing of the U.S. economy in 2001 likely accelerated the trend away from analog products such as photocopiers.

Imports of film cameras of all kinds declined by \$467 million, accounting for 27 percent of the decline in imports of all industry/commodity group products. China was the leading source of camera equipment and experienced the largest decline in imports. Imports of cameras from China fell by \$137 million; this decline accounted for 47 percent of the total decline for China for all group products and 29 percent of the decline in cameras. Camera imports from Japan and Mexico registered declines of \$94

³⁵ This industry/commodity group includes film cameras, cinematic cameras and projectors, photocopying apparatus and parts, and film processing equipment.

³⁶ Xerox Corp., Form 10-K, June 27, 2001, p. 2.

million and \$59 million accounting for 20 percent and 13 percent, respectively, of the decline in camera imports. According to the Photo Marketing Association (PMA), analog camera sales fell by 22 percent in 2001, whereas digital camera sales rose by 49 percent.³⁷ The cameras covered in this digest are only analog cameras. Digital camera sales may reflect the tentative signs of a rebound in consumer confidence, according to the PMA. Digital cameras are supplanting analog cameras in the marketplace as consumers find appealing the convenience of electronic transmission (and sharing) of pictures over the Internet.³⁸

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Medical Goods

Change in 2001 from 2000:

U.S. trade surplus: Decreased by \$114 million (3 percent) to \$4.1 billion

U.S. exports: Increased by \$1.6 billion (12 percent) to \$15.0 billion

U.S. imports: Increased by \$1.7 billion (18 percent) to \$10.9 billion

Despite significant growth in U.S. exports, the U.S. trade surplus in medical goods decreased slightly, due largely to increased production-sharing imports from Ireland and Costa Rica by major U.S. manufacturers of cardiac pacemakers and commodity medical supplies. Further, after several years of delaying purchases of expensive capital equipment, U.S. healthcare companies increased their procurement of advanced medical imaging and other electronic medical equipment from such European countries as France, the Netherlands, and Switzerland to replace aging equipment. Meanwhile, U.S. exports continued to expand at low double-digit rates as the United States remained, by far, the world's largest producer of medical goods.³⁹

U.S. exports

U.S. exports expanded by almost 12 percent in 2001, with the largest share of the increase going to the EU. U.S. shipments of parts and accessories of pacemakers and orthopedic and prosthetic goods to Ireland resulted in a doubling of U.S. exports to that country to \$708 million. For example, U.S. exports of pacemakers and pacemaker parts for final assembly almost quadrupled to \$322 million as pacemaker production became the dominant segment of Ireland's fast-growing medical device industry.⁴⁰ Other EU countries representing above-average growth as markets for U.S. exports included Germany, France, and the United Kingdom. U.S. exporters benefitted from increases in amounts allocated for healthcare expenditures in the national budgets of each of those countries.

Japan maintained its position as the largest single country-market for U.S. exports of medical goods, absorbing almost \$2.4 billion of a broad range of U.S.-made medical products. However, sluggish economic conditions in that country kept the growth of its imports of U.S. equipment to less than 7 percent in 2001, representing one-half of the average growth of the major European markets shown

³⁷ PMA Processing Survey, Highlights and Overview through December 2001, press release, Feb. 28, 2002.

³⁸ Ibid.

³⁹ "Industry Snapshot," *Medical Device & Diagnostic Industry*, Dec. 2001, pp. 42-64.

⁴⁰ "Medical Device Project to Bring 518 New Jobs to Clonmel," *Business Ireland*, Vol. 12, No. 3, Autumn 1998, p. 2; and "Debut of MEDTEC Ireland trade show to bring world's leading medical suppliers to Galway," *Canon Communications News Release*, Apr. 9, 2001, p. 1.

above. China, meanwhile, continued to be the fastest-growing Asian market for U.S. exports of medical goods, which increased by almost 40 percent to \$302 million. The U.S. exports included parts and subassemblies of X-ray and commodity medical equipment for final assembly in China as well as finished products for final consumption in that country as it continues to build up its healthcare infrastructure.⁴¹

U.S. imports

U.S. imports of medical goods rose significantly from 2000 to 2001. The EU continued to be the largest supplier of U.S. imports, with highest growth from Ireland. The Netherlands and France also significantly increased their exports to the United States, whereas Germany continued to be the largest individual country exporter of a broad range of medical equipment to the United States. Switzerland was another important European supplier of medical goods to the United States as U.S. imports from that country increased by almost one-third, with the fastest growth in pacemakers, high-quality medical instruments, and dental goods.

Over the past decade, the Irish Government has implemented a series of national economic programs designed among other things to increase labor force skills and to promote foreign investment.⁴² As a result of these efforts, Ireland has rapidly grown to become one of the most intensive areas of medical device manufacturing in Europe, employing more than 16,000 workers and exporting approximately \$3 billion per year.⁴³ Ireland accounted for about one-third of the rise in total U.S. imports as U.S.-headquartered firms in Ireland increased the manufacture and assembly of pacemakers, orthopedic and prosthetic goods, and oxygen therapy equipment, enabling Ireland to replace Japan as the third-leading supplier of medical goods imports to the United States. U.S. imports of cardiac pacemakers from Ireland more than doubled from the previous year to \$555 million in 2001 and accounted for over 40 percent of total U.S. imports of medical goods from that country. Indianapolis-based pacemaker manufacturer Guidant established assembly operations in Galway, Ireland, in 1999,⁴⁴ joining U.S.-based Medtronic as an important Irish producer and exporter of pacemakers to continental Europe and the United States.⁴⁵ The two U.S.-headquartered firms were able to take advantage of a skilled electronic manufacturing base and a liberal investment climate in Ireland to reduce their overall costs of production and increase their manufacturing efficiencies.

Costa Rica also substantially increased its exports of medical goods to the United States. With a 58-percent rise in 2001, Costa Rica has increased its exports to the United States by more than fivefold to just under \$300 million since 1997. That country has increased its attractiveness as a low-cost producer of commodity medical products and apparatus at the expense of Singapore and the Dominican Republic in the past several years.⁴⁶ Although those two countries remained important suppliers of U.S. imports, both exhibited increases of less than 3 percent in 2001. As Singapore has moved into the production of higher end medical products, U.S.-headquartered companies such as Baxter International have continued over the past several years to transfer production sharing of hospital commodity products, particularly catheters and blood administration sets, from that country to Costa Rica to reduce wage costs and to gain

⁴¹ U.S. industry representatives, telephone interviews by USITC staff, Mar. 5, 2002.

⁴² U.S. Central Intelligence Agency (CIA), "Ireland," *CIA World Factbook 2002*, found at <http://www.cia.gov>, retrieved Feb. 28, 2002.

⁴³ "Debut of MEDTEC Ireland trade show to bring world's leading medical suppliers to Galway," *Canon Communications News Release*, Apr. 9, 2001, p. 1, found at <http://www.devicelink.com>, retrieved Mar. 5, 2002.

⁴⁴ "Medical Device Project to Bring 518 New Jobs to Clonmel," *Business Ireland*, Vol. 12, No. 3, Autumn 1998, p. 2.

⁴⁵ SEC 10-K filings by Medtronic Inc. and Guidant Corp., 2000 and 2001.

⁴⁶ U.S. industry representatives, telephone interviews by USITC staff, Feb. 28, 2002.

from Costa Rica's closer proximity to the U.S. market.⁴⁷ Abbott Laboratories is another large U.S. firm that has established assembly operations for commodity hospital products in Costa Rica.⁴⁸ The Dominican Republic, the fastest growing supplier of commodity medical goods to the United States during the 1990s, meanwhile, has begun to face capacity constraints. China also continued to grow as a supplier of U.S. imports of medical devices in 2001, albeit at a slower rate than in previous years.

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⁴⁷ Representatives of Costa Rican subsidiary of Baxter International, interview by USITC staff, Cartago, Costa Rica, May 20, 1997; and U.S. industry representatives, telephone interviews by USITC staff, Feb. 28, 2002.

⁴⁸ Abbott Laboratories, 10-K filing, 2001.

Table 12-3

Electronic products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		<i>Million Dollars</i>			
ET016	Office machines:				
	Exports	1,080	1,094	14	1.3
	Imports	1,892	1,817	-75	-3.9
	Trade balance	-812	-723	89	10.9
ET017	Telephone and telegraph apparatus:				
	Exports	20,147	16,506	-3,641	-18.1
	Imports	32,130	27,174	-4,955	-15.4
	Trade balance	-11,982	-10,668	1,314	11.0
ET018	Consumer electronics (except televisions):				
	Exports	2,969	2,791	-178	-6.0
	Imports	21,974	19,525	-2,449	-11.1
	Trade balance	-19,005	-16,734	2,271	12.0
ET019	Blank media:				
	Exports	1,420	1,017	-404	-28.4
	Imports	2,415	2,423	8	0.3
	Trade balance	-995	-1,406	-411	-41.3
ET020	Prerecorded media:				
	Exports	3,636	3,195	-441	-12.1
	Imports	1,389	1,259	-130	-9.3
	Trade balance	2,247	1,935	-311	-13.9
ET021	Navigational instruments and remote control apparatus:				
	Exports	2,626	3,102	476	18.1
	Imports	1,702	1,796	94	5.5
	Trade balance	924	1,306	382	41.3
ET022	Television receivers and video monitors:				
	Exports	1,164	1,237	73	6.3
	Imports	7,713	8,615	902	11.7
	Trade balance	-6,549	-7,378	-829	-12.7
ET023	Radio and television broadcasting equipment:				
	Exports	2,602	2,321	-281	-10.8
	Imports	7,178	6,066	-1,112	-15.5
	Trade balance	-4,576	-3,745	831	18.2
ET024	Electric sound and visual signaling apparatus:				
	Exports	851	949	98	11.5
	Imports	2,334	1,968	-365	-15.7
	Trade balance	-1,483	-1,020	463	31.2
ET025	Electrical capacitors and resistors:				
	Exports	3,410	2,002	-1,408	-41.3
	Imports	4,177	2,333	-1,845	-44.2
	Trade balance	-767	-331	436	56.9
ET026	Printed circuits:				
	Exports	2,865	2,089	-776	-27.1
	Imports	2,988	2,141	-846	-28.3
	Trade balance	-123	-53	70	57.2
ET027	Circuit apparatus exceeding 1000V:				
	Exports	701	612	-89	-12.7
	Imports	386	357	-29	-7.5
	Trade balance	315	255	-60	-19.2
ET028	Circuit apparatus not exceeding 1000V:				
	Exports	6,101	5,098	-1,003	-16.4
	Imports	6,872	5,280	-1,592	-23.2
	Trade balance	-771	-182	589	76.4

See footnote(s) at end of table.

Table 12-3--Continued

Electronic products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
		<i>Million Dollars</i>			
ET029	Circuit apparatus assemblies:				
	Exports	1,340	1,179	-161	-12.0
	Imports	2,593	2,528	-65	-2.5
	Trade balance	-1,253	-1,350	-96	-7.7
ET030	Parts of circuit apparatus:				
	Exports	1,914	1,503	-410	-21.4
	Imports	1,202	1,108	-94	-7.8
	Trade balance	712	396	-316	-44.4
ET031	Cathode-ray tubes:				
	Exports	2,435	2,056	-379	-15.6
	Imports	634	612	-22	-3.4
	Trade balance	1,801	1,444	-357	-19.8
ET032	Electron tubes other than CRTs:				
	Exports	209	178	-31	-14.8
	Imports	213	271	58	27.2
	Trade balance	-4	-93	-89	-2,190.7
ET033	Semiconductors and integrated circuits:				
	Exports	44,828	33,455	-11,374	-25.4
	Imports	47,448	30,016	-17,432	-36.7
	Trade balance	-2,619	3,439	6,058	(³)
ET034	Miscellaneous electrical equipment:				
	Exports	2,153	1,805	-348	-16.2
	Imports	2,937	2,277	-659	-22.5
	Trade balance	-784	-473	311	39.7
ET035	Computers, peripherals, and parts:				
	Exports	45,346	38,092	-7,254	-16.0
	Imports	90,384	74,547	-15,836	-17.5
	Trade balance	-45,038	-36,455	8,583	19.1
ET036	Photographic film and paper:				
	Exports	2,755	1,953	-802	-29.1
	Imports	2,205	1,856	-348	-15.8
	Trade balance	550	96	-453	-82.5
ET037	Optical fibers, optical fiber bundles and cables:				
	Exports	1,888	1,689	-198	-10.5
	Imports	1,399	1,244	-156	-11.1
	Trade balance	488	446	-43	-8.7
ET038	Optical goods, including ophthalmic goods:				
	Exports	3,995	3,727	-267	-6.7
	Imports	5,881	4,957	-924	-15.7
	Trade balance	-1,887	-1,230	657	34.8
ET039	Photographic cameras and equipment:				
	Exports	1,800	1,694	-106	-5.9
	Imports	5,299	3,560	-1,739	-32.8
	Trade balance	-3,499	-1,866	1,633	46.7
ET040	Medical goods:				
	Exports	13,411	14,987	1,577	11.8
	Imports	9,178	10,869	1,690	18.4
	Trade balance	4,232	4,119	-114	-2.7
ET041	Watches and clocks:				
	Exports	348	279	-70	-20.0
	Imports	3,354	2,957	-397	-11.8
	Trade balance	-3,006	-2,678	328	10.9

See footnote(s) at end of table.

Table 12-3--Continued

Electronic products sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
ET042	Drawing, drafting, and calculating instruments:				
	Exports	366	395	29	8.0
	Imports	234	207	-27	-11.4
	Trade balance	132	188	56	42.5
ET043	Measuring, testing, and controlling instruments:				
	Exports	16,749	15,712	-1,037	-6.2
	Imports	11,743	11,806	63	0.5
	Trade balance	5,006	3,906	-1,100	-22.0

¹Import values are 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.

Table 13-1

Miscellaneous manufactures: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000 and 2001¹

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. exports of domestic merchandise:				
China	132	136	4	3.2
Canada	4,174	3,759	-415	-9.9
Mexico	1,977	1,729	-247	-12.5
Japan	2,057	2,007	-49	-2.4
Italy	165	250	85	51.7
France	418	505	87	20.8
United Kingdom	1,506	1,516	10	0.7
Taiwan	349	404	56	15.9
Germany	590	667	77	13.0
Thailand	76	67	-10	-12.5
All other	5,429	5,387	-42	-0.8
Total	16,872	16,428	-444	-2.6
EU-15	3,987	4,119	132	3.3
OPEC	401	461	60	14.9
Latin America	3,244	2,970	-274	-8.4
CBERA	674	688	14	2.1
Asia	3,662	3,629	-33	-0.9
Sub-Saharan Africa	73	99	26	35.4
Central and Eastern Europe	39	39	(²)	-0.9
U.S. imports for consumption:				
China	25,365	25,690	325	1.3
Canada	6,452	5,931	-521	-8.1
Mexico	5,160	5,295	135	2.6
Japan	3,946	4,732	785	19.9
Italy	3,971	3,818	-153	-3.8
France	2,989	2,914	-75	-2.5
United Kingdom	1,923	1,730	-193	-10.0
Taiwan	3,052	2,427	-626	-20.5
Germany	1,164	1,107	-56	-4.9
Thailand	1,665	1,693	29	1.7
All other	11,636	11,238	-398	-3.4
Total	67,322	66,575	-748	-1.1
EU-15	11,745	11,403	-342	-2.9
OPEC	1,119	1,126	6	0.6
Latin America	6,393	6,582	189	3.0
CBERA	408	419	11	2.7
Asia	40,365	40,296	-69	-0.2
Sub-Saharan Africa	97	109	11	11.4
Central and Eastern Europe	468	589	121	25.9
U.S. merchandise trade balance:				
China	-25,233	-25,554	-321	-1.3
Canada	-2,278	-2,172	106	4.7
Mexico	-3,184	-3,566	-382	-12.0
Japan	-1,890	-2,724	-835	-44.2
Italy	-3,806	-3,568	238	6.3
France	-2,571	-2,409	162	6.3
United Kingdom	-417	-214	203	48.7
Taiwan	-2,704	-2,022	681	25.2
Germany	-573	-440	133	23.2
Thailand	-1,588	-1,627	-38	-2.4
All other	-6,207	-5,851	355	5.7
Total	-50,450	-50,147	304	0.6
EU-15	-7,759	-7,284	474	6.1
OPEC	-718	-665	53	7.4
Latin America	-3,149	-3,612	-463	-14.7
CBERA	266	269	3	1.2
Asia	-36,703	-36,667	36	0.1
Sub-Saharan Africa	-24	-9	15	61.3
Central and Eastern Europe	-429	-550	-122	-28.4

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 2001.

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

Table 13-2
Leading changes in U.S. exports and imports of miscellaneous manufactures, 2000 and 2001

Industry/commodity group	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
U.S. EXPORTS:				
Increases:				
Precious jewelry and related articles (MM051)	1,272	1,659	387	30.4
Decreases:				
Furniture (MM054)	3,026	2,689	-337	-11.1
Games (MM060)	944	788	-156	-16.5
All other	11,629	11,292	-337	-2.9
TOTAL	16,872	16,428	-444	-2.6
U.S. IMPORTS:				
Increases:				
Games (MM060)	3,879	5,537	1,657	42.7
Decreases:				
Toys (MM059)	8,462	7,905	-557	-6.6
Lamps and lighting fittings (MM056)	4,496	4,148	-348	-7.7
Works of art and miscellaneous manufactured goods (MM064)	9,641	9,312	-329	-3.4
Bicycles and certain parts (MM053)	1,348	1,025	-324	-24.0
Furniture (MM054)	15,159	14,839	-320	-2.1
All other	24,337	23,809	-528	-2.2
TOTAL	67,322	66,575	-748	-1.1

Note.-Calculations based on unrounded data.

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

U.S. BILATERAL TRADE

Largest trade balance shifts in 2001 from 2000:

- Japan: U.S. deficit increased by \$835 million (44 percent) to \$2.7 billion**
- Taiwan: U.S. deficit decreased by \$681 million (25 percent) to \$2.0 billion**
- Mexico: U.S. deficit increased by \$382 million (12 percent) to \$3.6 billion**

Five factors characterized U.S. bilateral trade in the miscellaneous manufactures sector: predominance of labor-intensive articles imported from China; sharply higher imports of video games from Japan;³ rationalized production and intercompany trade between the United States and Canada; the presence of two-way trade in high-end manufactured goods and works of art between the United States and the European Union; and a continued reliance on assembly plants in Mexico by U.S. and foreign manufacturers.

Although U.S. imports from China and Mexico did not experience a decline in 2001, the rate of growth in these imports was significantly less when compared with 2000. U.S. imports of miscellaneous manufactures from China in 2000 rose by 17 percent, whereas those from Mexico increased by 10 percent, compared with 1 percent and 3 percent, respectively, in 2001. Japan was the only source of U.S. imports that experienced a significant increase in 2001 as interactive games supplied by Japan rose by \$785 million (20 percent) to \$4.7 billion.

³ Japan is the world's leading producer of video games.

COMMODITY ANALYSIS OF GAMES⁴

Change in 2001 from 2000:

U.S. trade deficit: Increased by \$1.8 billion (62 percent) to \$4.7 billion

U.S. exports: Decreased by \$156 million (17 percent) to \$788 million

U.S. imports: Increased by \$1.7 billion (43 percent) to \$5.5 billion

The U.S. trade deficit in games expanded sharply in 2001, reflecting a steep increase in imports of the new generation of home video games, which are not manufactured in the United States. The decrease in U.S. exports also contributed to the larger deficit; however, exports accounted for only 12 percent of total U.S. trade (exports plus imports) in games in 2001.

U.S. imports

A sharp \$1.3-billion rise in imports of home video games accounted for 81 percent of the total growth in U.S. imports of games in 2001 (table 13-3). Other non-arcade game machines (chiefly handheld video games and other electronic games) accounted for the rest of the increase. Japan and China accounted for 59 percent and 27 percent, respectively, of U.S. imports of games in 2001 (table 13-4).

The introduction of the latest generation of video games by Sony, Nintendo, and Microsoft, the world's only producers of home video game consoles, led to an abrupt increase in imports of games in 2001,⁵ reflecting the immense popularity of these games because of improved graphics.⁶ Game consoles for Nintendo (Game Cube) and Sony (Playstation II) are manufactured in Japan, whereas Microsoft's X-Box is made in Mexico and Hungary.⁷ U.S. imports of home video games from Japan rose by \$1.0 billion (62 percent) in 2001, whereas imports of these games from Hungary and Mexico jumped by \$146 million (from zero in 2000) and \$123 million (from \$38 million), respectively. Home video games accounted for 80 percent of total U.S. game imports from Japan in 2001, 98 percent from Hungary, and 83 percent from Mexico.

China is the leading source of packaged software and injection-molded plastic accessories (such as joy sticks and other controllers) for home video games. Imports of such articles from China grew by \$62 million (19 percent) in 2001. China accounted for 12 percent of total U.S. imports of home video

⁴ This industry/commodity group includes home video games, arcade games, pinball machines, handheld electronic games, and board games. Game consoles, which must be attached to a television for viewing, retail at \$200 to \$300, whereas each software unit for the consoles retails at \$30 to \$50. According to *Money Magazine*, interactive entertainment is a \$20-billion business, larger than movie box office receipts.

⁵ Sony introduced its latest generation of home video games in October 2000 while Nintendo and Microsoft each introduced versions in November 2001. Sony's Play Station I launched in September 1995 in North America. According to Sony representatives and *FORTUNE Magazine*, Sony's Play Station I & II account for 63 percent of all video games sold worldwide and have been the source of most of the company's bottom-line profits in the past 8 years.

⁶ Improved graphics were made possible by the development of more powerful memory processors. Features of the new generation of home video games include enhanced CD-ROM's, DVD-ROM's, and built-in DVD-Video playback features (eliminating the need for a memory card). The X-Box has been described by industry as a "PC in a box," one of the most sophisticated consoles to date.

⁷ Microsoft demonstrated that it has the potential to become an important player in the video game industry as its initial entry, the X-Box, gained a 12-percent market share, tying with Nintendo's Game Cube in terms of global sales in the fourth quarter of 2001.

Table 13-3
Changes in U.S. imports of games, by types, 2000 and 2001

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
Home video games, parts, and accessories	2,072	3,417	1,345	65
Arcade games (coin-operated video games & pinball) . . .	312	308	-4	-1
Other game machines (including hand held video games)	985	1,315	330	34
Board games	244	233	-11	-5
Other games (including bowling equipment)	266	264	-2	-1
Total	3,879	5,537	1,658	43

Note.—Calculations based on unrounded data.

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

Table 13-4
Changes in U.S. imports of games, by leading suppliers, 2000 and 2001

Item	2000	2001	Change, 2001 from 2000	
			Absolute	Percent
<i>Million dollars</i>				
Japan	2,179	3,264	1,085	50
China	1,211	1,518	307	25
Mexico	74	194	120	162
Hungary	7	149	142	2,029
All other	408	412	4	1
Total	3,879	5,537	1,658	43

Note.—Calculations based on unrounded data.

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

games, parts, and accessories in 2001, compared with Japan’s 75-percent share, Mexico’s 5-percent, and Hungary’s 4-percent.

Nintendo’s Gameboy, a handheld video game, dominates the world market for other electronic games. Although Nintendo continues to manufacture handheld video games in Japan, it has shifted some of its assembly to China, which is the leading supplier of electronic games not protected by copyrights.⁸ In addition, Sony Corp. is currently moving some manufacturing to Taiwan.⁹ China and Japan accounted for 96 percent of U.S. imports of game machines other than arcade games or home video games in 2001, with imports from China increased by \$198 million (36 percent) in 2001 and imports from Japan, up by \$137 million (36 percent).

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⁸ Nintendo representative, telephone interview by USITC staff, Apr. 10, 2002.

⁹ “Video-Game Rivals Turn to Outside Producers,” *Wall Street Journal*, Apr. 1, 2002. Sony representatives also confirmed plans to shift manufacturing to China in the future.

Table 13-5
Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM046	Luggage, handbags, and flat goods:				
	Exports	351	308	-43	-12.4
	Imports	4,381	4,309	-71	-1.6
	Trade balance	-4,029	-4,001	28	0.7
MM046A	Luggage:				
	Exports	253	223	-30	-11.9
	Imports	2,741	2,667	-74	-2.7
	Trade balance	-2,489	-2,444	44	1.8
MM046B	Handbags:				
	Exports	63	58	-5	-7.9
	Imports	1,179	1,203	25	2.1
	Trade balance	-1,116	-1,146	-30	-2.7
MM046C	Flat goods:				
	Exports	30	22	-9	-29.2
	Imports	435	417	-17	-4.0
	Trade balance	-404	-396	9	2.1
MM047	Certain other leather goods:				
	Exports	173	100	-73	-42.0
	Imports	242	256	14	6.0
	Trade balance	-69	-156	-87	-126.7
MM048	Musical instruments and accessories:				
	Exports	371	398	27	7.1
	Imports	1,413	1,300	-113	-8.0
	Trade balance	-1,042	-902	139	13.4
MM049	Umbrellas, whips, riding crops, and canes:				
	Exports	11	11	(³)	3.0
	Imports	284	293	9	3.3
	Trade balance	-273	-281	-9	-3.3
MM050	Silverware and related articles of precious metal:				
	Exports	165	180	15	9.0
	Imports	68	57	-11	-16.2
	Trade balance	98	124	26	26.5
MM051	Precious jewelry and related articles:				
	Exports	1,272	1,659	387	30.4
	Imports	5,737	5,533	-204	-3.6
	Trade balance	-4,464	-3,874	590	13.2
MM052	Costume jewelry and related articles:				
	Exports	127	113	-14	-10.7
	Imports	619	655	37	5.9
	Trade balance	-492	-542	-50	-10.2
MM053	Bicycles and certain parts:				
	Exports	235	226	-9	-3.9
	Imports	1,348	1,025	-324	-24.0
	Trade balance	-1,113	-799	315	28.3
MM054	Furniture:				
	Exports	3,026	2,689	-337	-11.1
	Imports	15,159	14,839	-320	-2.1
	Trade balance	-12,132	-12,150	-18	-0.1
MM055	Writing instruments and related articles:				
	Exports	288	263	-26	-8.9
	Imports	1,146	1,027	-119	-10.4
	Trade balance	-857	-764	93	10.9
MM056	Lamps and lighting fittings:				
	Exports	678	648	-30	-4.4
	Imports	4,496	4,148	-348	-7.7
	Trade balance	-3,818	-3,500	318	8.3

See footnote(s) at end of table.

Table 13-5--Continued

Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM057	Prefabricated buildings:				
	Exports	331	291	-40	-12.1
	Imports	281	308	27	9.7
	Trade balance	50	-17	-67	(⁴)
MM058	Dolls:				
	Exports	30	33	3	9.7
	Imports	1,475	1,218	-256	-17.4
	Trade balance	-1,445	-1,186	259	17.9
MM059	Toys:				
	Exports	532	489	-43	-8.2
	Imports	8,462	7,905	-557	-6.6
	Trade balance	-7,930	-7,416	513	6.5
MM060	Games:				
	Exports	944	788	-156	-16.5
	Imports	3,879	5,537	1,657	42.7
	Trade balance	-2,935	-4,748	-1,813	-61.8
MM061	Sporting goods:				
	Exports	1,679	1,672	-6	-0.4
	Imports	3,565	3,632	68	1.9
	Trade balance	-1,886	-1,960	-74	-3.9
MM062	Smokers' articles:				
	Exports	77	77	(³)	-0.6
	Imports	140	163	23	16.2
	Trade balance	-63	-86	-23	-36.9
MM063	Brooms, brushes, and hair grooming articles:				
	Exports	243	213	-30	-12.4
	Imports	859	894	36	4.2
	Trade balance	-616	-682	-66	-10.7
MM063A	Brooms and brushes:				
	Exports	214	187	-27	-12.6
	Imports	625	697	73	11.6
	Trade balance	-410	-510	-100	-24.3
MM063B	Hair grooming articles, non-electric (except brushes):				
	Exports	28	25	-3	-10.7
	Imports	234	197	-37	-15.8
	Trade balance	-205	-172	34	16.5
MM064	Works of art and miscellaneous manufactured goods:				
	Exports	2,142	2,177	34	1.6
	Imports	9,641	9,312	-329	-3.4
	Trade balance	-7,499	-7,136	363	4.8
MM065	Apparel fasteners:				
	Exports	183	154	-29	-15.8
	Imports	85	73	-12	-13.9
	Trade balance	98	81	-17	-17.4
MM066	Arms and ammunition:				
	Exports	2,151	2,130	-20	-0.9
	Imports	836	850	14	1.7
	Trade balance	1,314	1,280	-34	-2.6
MM066A	Small arms and ammunition:				
	Exports	535	558	24	4.4
	Imports	637	679	42	6.5
	Trade balance	-102	-120	-18	-17.5

See footnote(s) at end of table.

Table 13-5--Continued

Miscellaneous manufactures sector: U.S. trade for selected industry/commodity groups, 2000 and 2001¹

USITC code ²	Industry/commodity group	2000	2001	Change, 2001 from 2000	
				Absolute	Percent
<i>Million Dollars</i>					
MM067	Seats for motor vehicles and aircraft:				
	Exports	1,861	1,808	-53	-2.8
	Imports	3,209	3,239	30	0.9
	Trade balance	-1,348	-1,431	-83	-6.2

¹Import values are 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.

⁴Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

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APPENDIX A

Industry/Commodity Groups and Subgroups in This Report

Industry/commodity groups have product subgroups within the present industry/commodity structure. These subgroups show trade data for narrower product groups that serve analytical purposes, and provide for more meaningful profile data. Subgroups are designated by alphabetical suffix to the USITC industry/commodity group.

Agricultural products sector¹
(HTS chapters² 1-24, 35, 41, 43, 51, 52)

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 frozen fish
AG007 Canned fish
AG008 Cured and other fish
AG009 Shellfish
AG010 Dairy produce
AG011 Eggs
AG012 Sugar and other sweeteners
 AG012A Sugar
 AG012B High fructose corn sweetener
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 Pasta, cereals, and other bakery goods
AG035 Sauces, condiments, and soups
AG036 Infant formulas, malt extracts, and other edible preparations
AG037 Cocoa, chocolate, and confectionery
AG038 Fruit and vegetable juices
AG039 Nonalcoholic beverages, excluding fruit and vegetable juices
AG040 Malt beverages
AG041 Wine and certain other fermented beverages

AG042 Distilled spirits
AG043 Unmanufactured tobacco
AG044 Cigars and certain other manufactured tobacco
AG045 Cigarettes
AG046 Hides, skins, and leather
AG047 Furskins
AG048 Wool and other animal hair
AG049 Cotton, not carded or combed
AG050 Ethyl alcohol for nonbeverage purposes

Forest products sector
(HTS chapters 14, 44-49)

AG051 Logs and rough wood products
AG052 Lumber
AG053 Moldings, millwork, and joinery
AG054 Wood veneer and wood panels
AG055 Wooden containers
AG056 Tools and tool handles of wood
AG057 Miscellaneous articles of wood
AG058 Cork and rattan
AG059 Wood pulp and wastepaper
AG060 Paper boxes and bags
AG061 Industrial papers and paperboards
AG062 Newsprint
AG063 Printing and writing papers
AG064 Certain specialty papers
AG065 Miscellaneous paper products
AG066 Printed matter

Chemicals and related products sector
(HTS chapters 13-15, 22, 25, 27-40)

CH007 Major primary olefins
CH008 Other olefins
CH009 Primary aromatics
CH010 Organic commodity chemicals
CH011 Organic specialty chemicals
CH012 Certain organic chemicals
CH013 Miscellaneous inorganic chemicals
CH014 Inorganic acids
CH015 Chlor-alkali chemicals
CH016 Fertilizers
CH017 Paints, inks, and related items, and certain components thereof

**Chemicals and related products
sector--Continued**

CH018 Synthetic organic pigments
CH019 Synthetic dyes and azoic couplers
CH020 Synthetic tanning agents
CH021 Natural tanning and dyeing materials
CH022 Photographic chemicals and
preparations
CH023 Pesticide products and formulations
CH024 Adhesives and glues
CH025 Medicinal chemicals
CH026 Essential oils and other flavoring
materials
CH027 Perfumes, cosmetics, and toiletries
CH028 Soaps, detergents, and surface-active
agents
CH029 Miscellaneous chemicals and
specialties
CH030 Explosives, propellant powders, and
related items
CH031 Polyethylene resins in primary forms
CH032 Polypropylene resins in primary forms
CH033 Polyvinyl chloride resins in primary
forms
CH034 Styrene polymers in primary forms
CH035 Saturated polyester resins
CH036 Other plastics in primary forms
CH037 Styrene-butadiene rubber in primary
forms
CH038 Other synthetic rubber
CH039 Pneumatic tires and tubes (new)
CH040 Other tires
CH041 Miscellaneous plastic products
CH042 Miscellaneous rubber products
CH043 Gelatin
CH044 Natural rubber

**Energy-related products sector
(HTS chapters 27-29, 34, 36, 38)**

CH001 Electrical energy
CH002 Nuclear materials
CH003 Coal, coke, and related chemical
products
CH004 Crude petroleum
CH005 Petroleum products
CH006 Natural gas and components

**Textiles, apparel, and footwear sector
(HTS chapters 39, 40, 42, 43, 50-65)**

CH045 Fibers and yarns, except raw cotton and
raw wool
CH046 Fabrics
CH046A Broadwoven fabrics
CH046B Knit fabrics
CH046C Specialty fabrics
CH046D Coated and other fabrics
CH046E Glass fiber fabrics
CH046F Other fabrics
CH047 Carpets and rugs
CH048 Home furnishings
CH048A Blankets
CH048B Pillowcases and sheets
CH048C Table/kitchen linens and towels
CH048D Curtains
CH048E Bedspreads and other furnishing
articles
CH048F Pillows, cushions, and sleeping
bags
CH048G Tapestries and other wall hangings
CH049 Apparel
CH049A Men's and boys' suits and sports
coats
CH049B Men's and boys' coats and jackets
CH049C Men's and boys' trousers
CH049D Women's and girls' trousers
CH049E Shirts and blouses
CH049F Sweaters
CH049G Women's and girls' suits, skirts, and
coats
CH049H Women's and girls' dresses
CH049I Robes, nightwear, and underwear
CH049J Hosiery
CH049K Body-supporting garments
CH049L Neckwear, handkerchiefs, and
scarves
CH049M Gloves, including gloves for sports
CH049N Headwear
CH049O Leather apparel and accessories
CH049P Fur apparel and other fur articles
CH049Q Rubber, plastic, and coated-fabric
apparel
CH049R Nonwoven apparel
CH049S Other wearing apparel
CH050 Miscellaneous textile products
CH051 Footwear

Minerals and metals sector

(HTS chapters 25, 26, 68-76, 78-84)

- MM001 Clays and related mineral products
- MM002 Fluorspar and miscellaneous mineral substances
- MM003 Iron ores and concentrates
- MM004 Copper ores and concentrates
- MM005 Lead ores, concentrates, and residues
 - MM005A Lead ores and concentrates
- MM006 Zinc ores, concentrates, and residues
 - MM006A Zinc ores and concentrates
- MM007 Certain ores, concentrates, ash, and residues
 - MM007A Molybdenum ores and concentrates
- MM008 Precious metal ores and concentrates
 - MM008A Gold ores and concentrates
 - MM008B Silver ores and concentrates
- MM009 Cement, stone, and related products
 - MM009A Cement
- MM010 Industrial ceramics
- MM011 Ceramic bricks and similar articles
- MM012 Ceramic floor and wall tiles
- MM013 Ceramic household articles
- MM014 Flat glass
- MM015 Glass containers
- MM016 Household glassware
- MM017 Miscellaneous glass products
- MM018 Fiberglass insulation products
- MM019 Natural and synthetic gemstones
- MM020 Precious metals and non-numismatic coins
 - MM020A Unrefined and refined gold
- MM021 Primary iron products
- MM022 Ferroalloys
- MM023 Iron and steel waste and scrap
- MM024 Abrasive and ferrous products
 - MM024A Abrasive products
- MM025 Steel mill products
 - MM025A Ingots, blooms, billets, and slabs of carbon and alloy steels
 - MM025B Plates, sheets, and strips of carbon and alloy steels
 - MM025C Bars, rods, and light shapes of carbon and alloy steels
 - MM025D Angles, shapes, and sections of carbon and alloy steels
 - MM025E Wire of carbon and alloy steels
 - MM025F Ingots, blooms, billets, and slabs of stainless steels
 - MM025G Plates, sheets, and strips of stainless steels
 - MM025H Bars, rods, and light shapes of stainless steels
 - MM025I Angles, shapes, and sections of stainless steels
 - MM025J Wire of stainless steels
 - MM025K Rails and accessories of carbon and alloy steels
 - MM025L Pipes and tubes of carbon and alloy steels
 - MM025M Pipes and tubes of stainless steels
 - MM025N Tool steels
- MM026 Steel pipe and tube fittings and certain cast products
- MM027 Fabricated structurals
- MM028 Metal construction components
- MM029 Metallic containers
- MM030 Wire products of base metal
- MM031 Miscellaneous products of base metal
- MM032 Industrial fasteners of base metal
- MM033 Cooking and kitchen ware
- MM034 Metal and ceramic sanitary ware
- MM035 Construction castings and other cast-iron articles
- MM036 Copper and related articles
 - MM036A Unrefined and refined copper
 - MM036B Copper alloy plate, sheet, and strip
- MM037 Unwrought aluminum
 - MM037A Primary and secondary aluminum
- MM038 Aluminum mill products
 - MM038A Aluminum bars, rods, and profiles
 - MM038B Aluminum wire
 - MM038C Aluminum plate, sheet, and strip
 - MM038D Aluminum foil
 - MM038E Aluminum tubes, pipes, and fittings
- MM039 Lead and related articles
 - MM039A Refined lead
- MM040 Zinc and related articles
 - MM040A Unwrought zinc
- MM041 Certain base metals and chemical elements
 - MM041A Titanium ingot
- MM042 Nonpowered handtools
- MM043 Certain cutlery, sewing implements, and related products

Minerals and metals sector--Continued

MM044 Table flatware and related products
MM045 Certain builders' hardware

Machinery sector

(HTS chapters 84, 85, 87)

MM068 Wiring harnesses for motor vehicles
MM069 Pumps for motor vehicles
MM070 Pumps for liquids
MM071 Air-conditioning equipment and parts
MM072 Industrial thermal-processing equipment and furnaces
MM073 Household appliances, including commercial applications
 MM073A Major household appliances and parts
MM074 Centrifuges and filtering and purifying equipment
MM075 Wrapping, packaging, and can-sealing machinery
MM076 Scales and weighing machinery
MM077 Mineral processing machinery
MM078 Farm and garden machinery and equipment
MM079 Industrial food-processing and related machinery
MM080 Pulp, paper, and paperboard machinery
MM081 Printing and related machinery
MM082 Textile machinery
MM083 Metal rolling mills
MM084 Metal cutting machine tools and machine tool accessories
MM085 Metal forming machine tools
MM086 Non-metalworking machine tools
MM087 Semiconductor manufacturing equipment and robotics
 MM087A Semiconductor manufacturing machinery
MM088 Taps, cocks, valves, and similar devices
MM089 Mechanical power transmission equipment
MM090 Boilers, turbines, and related machinery
MM091 Electric motors, generators, and related equipment

MM092 Electrical transformers, static converters, and inductors
MM093 Portable electric handtools

MM094 Nonelectrically powered handtools and parts thereof
MM095 Electric lamps (bulbs) and portable electric lights
MM096 Welding and soldering equipment
MM097 Nonautomotive insulated electrical wire and related products
MM098 Miscellaneous machinery
MM099 Molds and molding machinery

Transportation equipment sector

(HTS chapters 84-89)

ET001 Aircraft engines and gas turbines
ET002 Internal combustion piston engines, other than for aircraft
ET003 Forklift trucks and similar industrial vehicles
ET004 Construction and mining equipment
ET005 Ball and rollers bearings
ET006 Primary cells and batteries and electric storage batteries
ET007 Ignition, starting, lighting, and other electrical equipment
ET008 Rail locomotive and rolling stock
ET009 Motor vehicles
ET010 Certain motor-vehicle parts
ET011 Motorcycles, mopeds, and parts
ET012 Miscellaneous vehicles and transportation-related equipment
ET013 Aircraft, spacecraft, and related equipment
ET014 Ships, tugs, pleasure boats, and similar vessels
ET015 Motors and engines, except internal combustion, aircraft, or electric

Electronic products sector

(HTS chapters 37, 84, 85, 88, 90, 91)

ET016 Office machines
ET017 Telephone and telegraph apparatus
ET018 Consumer electronics (except televisions)
ET019 Blank media
ET020 Prerecorded media
ET021 Navigational instruments and remote control apparatus
ET022 Television receivers and video monitors

Electronic products sector--Continued

ET023 Radio and television broadcasting equipment
ET024 Electric sound and visual signaling apparatus
ET025 Electrical capacitors and resistors
ET026 Printed circuits
ET027 Circuit apparatus exceeding 1000V
ET028 Circuit apparatus not exceeding 1000V
ET029 Circuit apparatus assemblies
ET030 Parts of circuit apparatus
ET031 Cathode-ray tubes
ET032 Electron tubes other than CRTs
ET033 Semiconductors and integrated circuits
ET034 Miscellaneous electrical equipment
ET035 Computers, peripherals, and parts
ET036 Photographic film and paper
ET037 Optical fibers, optical fiber bundles and cables
ET038 Optical goods, including ophthalmic goods
ET039 Photographic cameras and equipment
ET040 Medical goods
ET041 Watches and clocks
ET042 Drawing, drafting, and calculating instruments
ET043 Measuring, testing, and controlling instruments

Miscellaneous manufactures sector

(HTS chapters 14, 44-49)

MM046 Luggage, handbags, and flat goods
 MM046A Luggage
 MM046B Handbags
 MM046C Flat goods
MM047 Certain other leather goods
MM048 Musical instruments and accessories
MM049 Umbrellas, whips, riding crops, and canes
MM050 Silverware and related articles of precious metal
MM051 Precious jewelry and related articles
MM052 Costume jewelry and related articles
MM053 Bicycles and certain parts
MM054 Furniture
MM055 Writing instruments and related articles
MM056 Lamps and lighting fittings
MM057 Prefabricated buildings
MM058 Dolls
MM059 Toys
MM060 Games
MM061 Sporting goods
MM062 Smokers' articles
MM063 Brooms, brushes, and hair grooming articles
 MM063A Brooms and brushes
 MM063B Hair grooming articles, non-electric (except brushes)
MM064 Works of art and miscellaneous manufactured goods
MM065 Apparel fasteners
MM066 Arms and ammunition
 MM066A Small arms and ammunition
MM067 Seats for motor vehicles and aircraft

¹ This coding system (e.g., AG0012, AG012A) is used by the USITC to identify major groupings and subgroupings of U.S. Harmonized Tariff Schedule headings/subheadings and corresponding export categories for trade monitoring purposes. See app. C for industry and trade data for certain groupings and subgroupings.

² Products in some HTS chapters are divided between industry/commodity groups monitored by the Commission; however, no products are in more than one sector. Chapter 77 of the HTS is not used and is reserved for possible future use. Chapters 98-99 of the HTS are for special classification provisions.

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APPENDIX B

**HTS 8-Digit Subheading Ranges
Included in Industry/Commodity Groups
and Subgroups, by Sector**

Table B-1

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
Agricultural products sector:		
AG001	Certain miscellaneous animals and meats	0101.11.00 - 0102.10.00 0103.10.00 - 0103.10.00 0104.20.00 - 0104.20.00 0106.00.10 - 0106.00.50 0204.50.00 - 0206.90.00 0208.10.00 - 0208.90.40 0210.11.00 - 0210.90.40 0410.00.00 - 0511.10.00 0511.99.20 - 0511.99.40 1601.00.20 - 1602.10.00 1602.41.10 - 1603.00.90 3502.90.00 - 3502.90.00
AG002	Cattle and beef	0102.90.20 - 0102.90.40 0201.10.05 - 0202.30.80
AG003	Swine and pork	0103.91.00 - 0103.92.00 0203.11.00 - 0203.29.40
AG004	Sheep and meat of sheep	0104.10.00 - 0104.10.00 0204.10.00 - 0204.43.40
AG005	Poultry	0105.11.00 - 0105.99.00 0207.11.00 - 0207.36.00 1602.20.20 - 1602.39.00
AG006	Fresh or frozen fish	0302.11.00 - 0304.90.90
AG007	Canned fish	1604.11.20 - 1604.19.80
AG008	Cured and other fish	0301.10.00 - 0301.99.00 0305.10.20 - 0305.69.60 0511.91.00 - 0511.91.00 1604.20.05 - 1604.30.40
AG009	Shellfish	0306.11.00 - 0307.99.00 1605.10.05 - 1605.90.60
AG010	Dairy produce	0401.10.00 - 0406.90.99 2105.00.05 - 2105.00.50 3501.10.10 - 3501.10.50 3501.90.60 - 3501.90.60 3502.20.00 - 3502.20.00
AG011	Eggs	0407.00.00 - 0408.99.00 3502.11.00 - 3502.19.00
AG012	Sugar and other sweeteners	0409.00.00 - 0409.00.00 1212.91.00 - 1212.92.00 1701.11.05 - 1703.90.50
AG012A	Sugar	1701.11.05 - 1701.99.50 1702.90.05 - 1702.90.90
AG012B	High fructose corn sweetener	1702.40.22 - 1702.40.40 1702.60.22 - 1702.60.40
AG013	Animal feeds	1208.10.00 - 1208.90.00 1213.00.00 - 1214.90.00 2301.10.00 - 2309.90.95
AG014	Live plants	0601.10.15 - 0602.90.40 0602.90.60 - 0602.90.90
AG015	Seeds	0602.90.50 - 0602.90.50 0713.10.10 - 0713.10.10 0713.20.10 - 0713.20.10 0713.31.10 - 0713.31.10 0713.32.10 - 0713.32.10

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		0713.33.10 - 0713.33.10
		0713.39.10 - 0713.39.10
		0713.40.10 - 0713.40.10
		0713.50.10 - 0713.50.10
		0713.90.10 - 0713.90.10
		1001.10.00 - 1001.10.00
		1001.90.10 - 1001.90.10
		1002.00.00 - 1002.00.00
		1003.00.40 - 1003.00.40
		1004.00.00 - 1004.00.00
		1005.10.00 - 1005.10.00
		1007.00.00 - 1007.00.00
		1008.20.00 - 1008.20.00
		1201.00.00 - 1201.00.00
		1204.00.00 - 1204.00.00
		1205.00.00 - 1205.00.00
		1206.00.00 - 1206.00.00
		1207.20.00 - 1207.20.00
		1209.11.00 - 1209.99.40
AG016	Cut flowers	0603.10.30 - 0603.90.00
AG017	Miscellaneous vegetable substances	0604.10.00 - 0604.99.60
		1108.20.00 - 1108.20.00
		1210.10.00 - 1212.30.00
		1212.99.00 - 1212.99.00
		1301.10.00 - 1301.90.90
		1302.12.00 - 1302.39.00
		1402.10.00 - 1403.90.40
		1404.90.00 - 1404.90.00
AG018	Fresh, chilled, or frozen vegetables	0701.10.00 - 0710.90.90
AG019	Prepared or preserved vegetables, mushrooms, and olives	0711.10.00 - 0712.90.80
		0713.10.20 - 0713.10.40
		0713.20.20 - 0713.20.20
		0713.31.20 - 0713.31.40
		0713.32.20 - 0713.32.20
		0713.33.20 - 0713.33.40
		0713.39.15 - 0713.39.40
		0713.40.20 - 0713.40.20
		0713.50.20 - 0713.50.20
		0713.90.50 - 0714.90.60
		1105.10.00 - 1106.20.00
		2001.10.00 - 2005.90.97
		2008.91.00 - 2008.91.00
		2008.99.61 - 2008.99.61
		2008.99.65 - 2008.99.65
AG020	Edible nuts	0801.11.00 - 0802.90.98
		0813.50.00 - 0813.50.00
		1202.10.05 - 1202.20.80
		2008.11.02 - 2008.19.90
AG021	Tropical fruit	0803.00.20 - 0804.50.80
		0807.20.00 - 0807.20.00
		0810.90.25 - 0810.90.25
		0813.40.10 - 0813.40.10
		0813.40.80 - 0813.40.80

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
AG022	Citrus fruit	0805.10.00 - 0805.90.00 0812.90.20 - 0812.90.20 0814.00.10 - 0814.00.80 2008.30.10 - 2008.30.95
AG023	Deciduous fruit	0808.10.00 - 0809.40.40
AG024	Other fresh fruit	0806.10.20 - 0806.10.60 0807.11.30 - 0807.19.80 0810.10.20 - 0810.90.20 0810.90.25 - 0810.90.40
AG025	Dried fruit other than tropical	0806.20.10 - 0806.20.90 0813.10.00 - 0813.30.00 0813.40.15 - 0813.40.40 0813.40.90 - 0813.40.90 0813.50.00 - 0813.50.00
AG026	Frozen fruit	0811.10.00 - 0811.90.80
AG027	Prepared or preserved fruit	0812.10.00 - 0812.90.10 0812.90.30 - 0812.90.90 1106.30.20 - 1106.30.40 2006.00.20 - 2007.99.75 2008.20.00 - 2008.20.00 2008.40.00 - 2008.80.00 2008.92.10 - 2008.99.60 2008.99.63 - 2008.99.63 2008.99.80 - 2008.99.90
AG028	Coffee and tea	0901.11.00 - 0903.00.00 2101.11.21 - 2101.30.00
AG029	Spices	0904.11.00 - 0910.99.60 1207.50.00 - 1207.50.00 2103.30.20 - 2103.30.40
AG030	Cereals	1001.10.00 - 1001.10.00 1001.90.20 - 1001.90.20 1002.00.00 - 1003.00.20 1003.00.40 - 1003.00.40 1004.00.00 - 1004.00.00 1005.90.20 - 1006.40.00 1007.00.00 - 1008.10.00 1008.30.00 - 1008.90.00
AG031	Milled grains, malts, and starches	1101.00.00 - 1104.30.00 1107.10.00 - 1108.19.00 1109.00.10 - 1109.00.90 1903.00.20 - 1903.00.40
AG032	Oilseeds	1201.00.00 - 1201.00.00 1203.00.00 - 1203.00.00 1204.00.00 - 1204.00.00 1205.00.00 - 1205.00.00 1206.00.00 - 1207.10.00 1207.20.00 - 1207.40.00 1207.60.00 - 1207.99.00
AG033	Animal or vegetable fats and oils	0209.00.00 - 0209.00.00 1501.00.00 - 1518.00.40 1522.00.00 - 1522.00.00
AG034	Pasta, cereals, and other bakery goods	1901.20.02 - 1901.20.80 1902.11.20 - 1902.40.00 1904.10.00 - 1905.90.90 2102.10.00 - 2102.30.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
AG035	Sauces, condiments, and soups	2103.10.00 - 2103.20.40 2103.90.20 - 2104.20.00 2209.00.00 - 2209.00.00
AG036	Infant formulas, malt extracts, and other edible preparations	1901.10.05 - 1901.10.95 1901.90.10 - 1901.90.90 2106.10.00 - 2106.90.09 2106.90.22 - 2106.90.46 2106.90.58 - 2106.90.99 3504.00.10 - 3504.00.50
AG037	Cocoa, chocolate, and confectionery	1704.10.00 - 1806.90.90
AG038	Fruit and vegetable juices	2009.11.00 - 2009.90.40 2106.90.48 - 2106.90.54
AG039	Nonalcoholic beverages, excluding fruit and vegetable juices	2201.10.00 - 2202.90.90
AG040	Malt beverages	2203.00.00 - 2203.00.00
AG041	Wine and certain other fermented beverages	2204.10.00 - 2206.00.90
AG042	Distilled spirits	2106.90.12 - 2106.90.18 2207.10.30 - 2207.10.30 2208.20.10 - 2208.90.80
AG043	Unmanufactured tobacco	2401.10.21 - 2401.30.70
AG044	Cigars and certain other manufactured tobacco	2402.10.30 - 2402.10.80 2402.90.00 - 2403.99.90
AG045	Cigarettes	2402.20.10 - 2402.20.90
AG046	Hides, skins, and leather	4101.10.00 - 4111.00.00
AG047	Furskins	4301.10.00 - 4302.30.00
AG048	Wool and other animal hair	5101.11.10 - 5102.20.00
AG049	Cotton, not carded or combed	5201.00.05 - 5201.00.80
AG050	Ethyl alcohol for nonbeverage purposes	2207.10.60 - 2207.20.00
Forest products sector:		
AG051	Logs and rough wood products	4401.10.00 - 4405.00.00 4418.50.00 - 4418.50.00
AG052	Lumber	4406.10.00 - 4407.99.00
AG053	Moldings, millwork, and joinery	4409.10.10 - 4409.20.90 4414.00.00 - 4414.00.00 4418.10.00 - 4418.30.00 4418.90.20 - 4418.90.40
AG054	Wood veneer and wood panels	4408.10.00 - 4408.90.00 4410.11.00 - 4412.99.95
AG055	Wooden containers	4415.10.30 - 4416.00.90 4420.90.20 - 4420.90.80
AG056	Tools and tool handles of wood	4417.00.20 - 4417.00.80 4419.00.40 - 4419.00.80
AG057	Miscellaneous articles of wood	4413.00.00 - 4413.00.00 4418.40.00 - 4418.40.00 4420.10.00 - 4420.10.00 4421.10.00 - 4421.90.98
AG058	Cork and rattan	1401.10.00 - 1401.90.40 4501.10.00 - 4602.90.00
AG059	Wood pulp and wastepaper	1404.20.00 - 1404.20.00 4701.00.00 - 4707.90.00
AG060	Paper boxes and bags	4819.10.00 - 4819.60.00
AG061	Industrial papers and paperboards	4803.00.20 - 4808.90.60 4810.31.00 - 4811.10.00 4811.31.20 - 4811.31.40 4811.40.00 - 4812.00.00 4818.10.00 - 4818.90.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		4823.20.10 - 4823.20.90
AG062	Newsprint	4801.00.00 - 4801.00.00
AG063	Printing and writing papers	4802.30.20 - 4802.30.40
		4802.51.10 - 4802.60.90
		4810.11.20 - 4810.29.00
		4811.39.20 - 4811.39.40
AG064	Certain specialty papers	4802.10.00 - 4802.20.00
		4802.40.00 - 4802.40.00
		4809.10.20 - 4809.90.80
		4813.10.00 - 4814.90.00
		4816.10.00 - 4816.20.00
		4816.90.00 - 4817.30.00
		4823.51.00 - 4823.59.40
AG065	Miscellaneous paper products	4811.21.00 - 4811.29.00
		4815.00.00 - 4815.00.00
		4816.30.00 - 4816.30.00
		4820.10.20 - 4823.19.00
		4823.30.00 - 4823.40.00
		4823.60.00 - 4823.90.85
AG066	Printed matter	4901.10.00 - 4911.99.80
Chemicals and related products sector:		
CH007	Major primary olefins	2711.14.00 - 2711.14.00
		2901.21.00 - 2901.24.10
CH008	Other olefins	2901.24.20 - 2901.29.50
CH009	Primary aromatics	2902.20.00 - 2902.30.00
		2902.44.00 - 2902.44.00
CH010	Organic commodity chemicals	2902.11.00 - 2902.19.00
		2902.41.00 - 2902.43.00
		2902.50.00 - 2902.90.90
		2906.12.00 - 2906.12.00
		2907.11.00 - 2907.11.00
		2917.35.00 - 2917.37.00
		2921.41.10 - 2921.41.20
		2933.71.00 - 2933.71.00
CH011	Organic specialty chemicals	2903.51.00 - 2903.59.05
		2903.59.15 - 2903.69.27
		2903.69.70 - 2904.20.20
		2904.20.35 - 2904.90.50
		2905.22.20 - 2905.29.90
		2906.19.10 - 2906.21.00
		2906.29.30 - 2906.29.60
		2907.12.00 - 2907.21.00
		2907.22.50 - 2908.10.10
		2908.10.25 - 2908.90.50
		2909.20.00 - 2909.30.09
		2909.30.40 - 2909.30.60
		2909.49.10 - 2909.49.60
		2909.50.45 - 2909.60.50
		2910.90.20 - 2910.90.20
		2912.21.00 - 2912.30.10
		2912.50.10 - 2913.00.50
		2914.22.10 - 2914.22.20
		2914.29.10 - 2914.61.00
		2914.69.60 - 2914.70.90
		2915.13.10 - 2915.13.10

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		2915.39.30 - 2915.39.35
		2916.20.50 - 2916.31.15
		2916.31.30 - 2916.32.20
		2916.34.25 - 2916.34.55
		2916.35.25 - 2916.39.12
		2916.39.17 - 2916.39.17
		2916.39.45 - 2916.39.75
		2917.12.10 - 2917.12.50
		2917.14.10 - 2917.14.50
		2917.19.15 - 2917.34.00
		2917.39.04 - 2917.39.70
		2918.19.10 - 2918.19.90
		2918.21.50 - 2918.21.50
		2918.22.50 - 2918.22.50
		2918.23.30 - 2918.90.05
		2918.90.43 - 2919.00.50
		2920.10.30 - 2920.10.50
		2920.90.20 - 2921.19.60
		2921.30.05 - 2921.30.50
		2921.42.10 - 2921.42.36
		2921.42.65 - 2921.49.15
		2921.49.45 - 2921.51.10
		2921.51.30 - 2921.59.80
		2922.19.20 - 2922.29.20
		2922.29.60 - 2922.30.50
		2922.43.10 - 2922.49.10
		2922.49.30 - 2922.49.37
		2922.50.07 - 2922.50.11
		2922.50.35 - 2922.50.50
		2924.21.18 - 2924.29.05
		2924.29.20 - 2924.29.36
		2924.29.65 - 2924.29.90
		2925.19.10 - 2925.19.90
		2925.20.18 - 2925.20.18
		2925.20.60 - 2925.20.90
		2926.90.01 - 2926.90.19
		2926.90.44 - 2927.00.18
		2927.00.40 - 2927.00.50
		2928.00.15 - 2928.00.25
		2929.10.10 - 2929.90.50
		2930.20.20 - 2930.20.70
		2930.90.24 - 2930.90.29
		2931.00.05 - 2931.00.15
		2931.00.27 - 2932.19.50
		2932.29.25 - 2932.29.50
		2932.99.32 - 2932.99.90
		2933.19.04 - 2933.19.18
		2933.19.37 - 2933.19.43
		2933.19.70 - 2933.19.90
		2933.29.05 - 2933.29.10
		2933.29.35 - 2933.29.43
		2933.29.60 - 2933.39.20
		2933.39.61 - 2933.40.17
		2933.40.60 - 2933.40.70
		2933.59.70 - 2933.59.95
		2933.79.04 - 2933.90.13

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		2933.90.79 - 2933.90.89
		2933.90.97 - 2934.20.30
		2934.20.40 - 2934.30.18
		2934.30.43 - 2934.30.50
		2934.90.05 - 2934.90.06
		2934.90.08 - 2934.90.08
		2934.90.39 - 2934.90.44
		2934.90.70 - 2935.00.15
		2935.00.75 - 2935.00.95
		2942.00.03 - 2942.00.03
		2942.00.10 - 2942.00.50
CH012	Certain organic chemicals	2903.11.00 - 2903.49.90
		2905.11.10 - 2905.19.60
		2905.31.00 - 2905.50.60
		2909.11.00 - 2909.19.60
		2909.41.00 - 2909.44.00
		2910.10.00 - 2910.90.10
		2910.90.50 - 2912.13.00
		2912.19.40 - 2912.19.50
		2914.11.10 - 2914.19.00
		2915.11.00 - 2915.12.00
		2915.13.50 - 2915.35.00
		2915.39.47 - 2915.60.50
		2915.90.20 - 2916.14.20
		2916.19.10 - 2916.19.50
		2917.11.00 - 2917.11.00
		2917.13.00 - 2917.13.00
		2918.11.10 - 2918.16.50
		2921.21.00 - 2921.29.00
		2922.11.00 - 2922.13.00
		2922.41.00 - 2922.41.00
		2922.42.50 - 2922.42.50
		2922.49.40 - 2922.49.80
		2924.10.10 - 2924.10.80
		2926.10.00 - 2926.20.00
		2928.00.10 - 2928.00.10
		2928.00.50 - 2928.00.50
		2930.10.00 - 2930.10.00
		2930.30.30 - 2930.30.60
		2933.61.00 - 2933.69.60
		3507.10.00 - 3507.90.70
		3812.10.10 - 3812.30.90
		3814.00.10 - 3814.00.50
		3817.10.10 - 3817.20.00
		3824.10.00 - 3824.20.00
		3824.40.10 - 3824.40.10
		3824.40.21 - 3824.40.50
		3824.71.00 - 3824.79.00
		3824.90.21 - 3824.90.22
		3824.90.26 - 3824.90.28
		3824.90.45 - 3824.90.90
CH013	Miscellaneous inorganic chemicals	2501.00.00 - 2502.00.00
		2509.00.10 - 2509.00.20
		2511.10.10 - 2511.20.00
		2528.10.00 - 2528.90.00
		2801.20.00 - 2801.30.20

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		2804.50.00 - 2804.69.50
		2804.80.00 - 2805.40.00
		2811.22.10 - 2813.90.50
		2815.30.00 - 2816.30.00
		2818.10.10 - 2820.90.00
		2822.00.00 - 2822.00.00
		2825.10.00 - 2830.10.00
		2830.20.20 - 2834.10.50
		2834.22.00 - 2834.22.00
		2834.29.20 - 2836.10.00
		2836.50.00 - 2836.60.00
		2836.91.00 - 2843.90.00
		2846.10.00 - 2851.00.00
		3813.00.10 - 3813.00.50
		3815.11.00 - 3816.00.00
		3818.00.00 - 3818.00.00
		3824.30.00 - 3824.30.00
		3824.40.20 - 3824.40.20
		3824.50.00 - 3824.50.00
		3824.90.11 - 3824.90.19
		3824.90.31 - 3824.90.39
CH014	Inorganic acids	2806.10.00 - 2811.19.60
CH015	Chlor-alkali chemicals	2801.10.00 - 2801.10.00
		2815.11.00 - 2815.20.00
		2836.20.00 - 2836.40.20
CH016	Fertilizers	2503.00.00 - 2503.00.00
		2510.10.00 - 2510.20.00
		2802.00.00 - 2802.00.00
		2804.70.00 - 2804.70.00
		2814.10.00 - 2814.20.00
		2834.21.00 - 2834.21.00
		2834.29.10 - 2834.29.10
		3100.00.00 - 3105.90.00
CH017	Paints, inks, and related items, and certain components thereof	2803.00.00 - 2803.00.00
		2817.00.00 - 2817.00.00
		2821.10.00 - 2821.20.00
		2823.00.00 - 2824.90.50
		2830.20.10 - 2830.20.10
		2836.70.00 - 2836.70.00
		3206.11.00 - 3215.90.50
CH018	Synthetic organic pigments	3204.17.04 - 3204.17.90
		3205.00.05 - 3205.00.50
CH019	Synthetic dyes and azoic couplers	2921.42.55 - 2921.42.55
		2921.49.32 - 2921.49.32
		2922.29.26 - 2922.29.26
		2924.29.52 - 2924.29.52
		2927.00.30 - 2927.00.30
		2935.00.20 - 2935.00.20
		3204.11.10 - 3204.16.50
		3204.19.06 - 3204.90.00
		3809.10.00 - 3809.10.00
CH020	Synthetic tanning agents	3202.10.10 - 3202.90.50
CH021	Natural tanning and dyeing materials	1404.10.00 - 1404.10.00
		3201.10.00 - 3201.90.50
		3203.00.10 - 3203.00.80
CH022	Photographic chemicals and preparations	2907.22.10 - 2907.22.10

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		2914.69.10 - 2914.69.10
		2921.51.20 - 2921.51.20
		2922.29.29 - 2922.29.29
		2927.00.25 - 2927.00.25
		2933.19.24 - 2933.19.30
		2933.90.24 - 2933.90.24
		2934.90.20 - 2934.90.20
		3707.90.31 - 3707.90.60
CH023	Pesticide products and formulations	2903.59.10 - 2903.59.10
		2903.69.30 - 2903.69.30
		2908.10.15 - 2908.10.20
		2909.30.30 - 2909.30.30
		2916.20.10 - 2916.20.10
		2918.90.06 - 2918.90.20
		2920.10.10 - 2920.10.10
		2920.90.10 - 2920.90.10
		2924.21.04 - 2924.21.16
		2924.29.41 - 2924.29.47
		2926.90.21 - 2926.90.30
		2930.20.10 - 2930.20.10
		2930.20.90 - 2930.20.90
		2930.90.10 - 2930.90.10
		2930.90.30 - 2930.90.44
		2931.00.25 - 2931.00.25
		2932.29.10 - 2932.29.10
		2932.99.04 - 2932.99.20
		2933.19.23 - 2933.19.23
		2933.39.21 - 2933.39.27
		2933.40.30 - 2933.40.30
		2933.59.10 - 2933.59.18
		2933.90.14 - 2933.90.22
		2934.20.35 - 2934.20.35
		2934.90.01 - 2934.90.03
		2934.90.07 - 2934.90.07
		2934.90.09 - 2934.90.18
		3808.10.10 - 3808.90.95
		3810.90.10 - 3810.90.10
CH024	Adhesives and glues	3501.90.20 - 3501.90.20
		3503.00.10 - 3503.00.40
		3505.20.00 - 3506.99.00
CH025	Medicinal chemicals	1302.11.00 - 1302.11.00
		2906.13.10 - 2906.13.50
		2909.49.05 - 2909.49.05
		2909.50.10 - 2909.50.20
		2912.19.30 - 2912.19.30
		2914.69.20 - 2914.69.20
		2916.39.15 - 2916.39.16
		2917.19.10 - 2917.19.10
		2918.17.10 - 2918.17.50
		2918.21.10 - 2918.21.10
		2918.22.10 - 2918.22.10
		2918.23.10 - 2918.23.10
		2918.90.30 - 2918.90.30
		2921.49.37 - 2921.49.43
		2922.19.12 - 2922.19.18
		2922.29.27 - 2922.29.27

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		2922.49.27 - 2922.49.27
		2922.50.13 - 2922.50.25
		2923.10.00 - 2923.10.00
		2924.29.57 - 2924.29.62
		2925.20.10 - 2925.20.10
		2925.20.20 - 2925.20.20
		2928.00.30 - 2928.00.30
		2930.40.00 - 2930.40.00
		2931.00.22 - 2931.00.22
		2932.29.20 - 2932.29.20
		2933.11.00 - 2933.11.00
		2933.19.35 - 2933.19.35
		2933.19.45 - 2933.19.45
		2933.21.00 - 2933.21.00
		2933.29.20 - 2933.29.20
		2933.29.45 - 2933.29.45
		2933.39.30 - 2933.39.41
		2933.40.20 - 2933.40.26
		2933.51.10 - 2933.51.90
		2933.59.21 - 2933.59.59
		2933.90.26 - 2933.90.75
		2933.90.90 - 2933.90.90
		2934.30.23 - 2934.30.27
		2934.90.30 - 2934.90.30
		2934.90.47 - 2934.90.47
		2935.00.29 - 2935.00.60
		2936.10.00 - 2939.90.50
		2941.10.10 - 2941.90.50
		2942.00.05 - 2942.00.05
		3001.10.00 - 3004.90.90
		3006.20.00 - 3006.30.50
		3006.60.00 - 3006.60.00
		3822.00.10 - 3822.00.50
CH026	Essential oils and other flavoring materials	2904.20.30 - 2904.20.30
		2905.22.10 - 2905.22.10
		2906.11.00 - 2906.11.00
		2906.14.00 - 2906.14.00
		2906.29.10 - 2906.29.20
		2909.30.10 - 2909.30.20
		2909.50.40 - 2909.50.40
		2912.19.10 - 2912.19.20
		2912.30.20 - 2912.49.50
		2914.23.00 - 2914.23.00
		2915.39.10 - 2915.39.20
		2915.39.40 - 2915.39.45
		2916.31.20 - 2916.31.20
		2916.34.10 - 2916.34.15
		2916.35.15 - 2916.35.15
		2916.39.20 - 2916.39.20
		2918.23.20 - 2918.23.20
		2918.90.35 - 2918.90.35
		2922.42.10 - 2922.42.10
		2924.29.10 - 2924.29.10
		2925.11.00 - 2925.11.00
		2932.21.00 - 2932.21.00
		2932.91.00 - 2932.94.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		3301.11.00 - 3302.90.20
CH027	Perfumes, cosmetics, and toiletries	3303.00.10 - 3307.90.00
CH028	Soaps, detergents, and surface-active agents	2923.20.10 - 2923.90.00
		3401.11.10 - 3403.11.50
		3403.91.10 - 3403.99.00
		3804.00.10 - 3804.00.10
		3809.91.00 - 3809.93.50
		3912.31.00 - 3912.31.00
CH029	Miscellaneous chemicals and specialties	1519.11.00 - 1521.90.40
		2712.90.10 - 2712.90.20
		2804.10.00 - 2804.40.00
		2811.21.00 - 2811.21.00
		2914.21.10 - 2914.21.20
		2915.70.00 - 2915.90.18
		2916.15.10 - 2916.15.50
		2930.90.45 - 2930.90.90
		2940.00.20 - 2940.00.60
		3005.10.10 - 3006.10.00
		3006.40.00 - 3006.50.00
		3404.10.00 - 3407.00.40
		3505.10.00 - 3505.10.00
		3801.10.10 - 3803.00.00
		3804.00.50 - 3807.00.00
		3810.10.00 - 3810.10.00
		3810.90.20 - 3810.90.50
		3820.00.00 - 3821.00.00
		3823.11.00 - 3823.70.60
		3824.60.00 - 3824.60.00
		3824.90.25 - 3824.90.25
		3824.90.40 - 3824.90.40
CH030	Explosives, propellant powders, and related items	3601.00.00 - 3605.00.00
		3606.90.30 - 3606.90.80
CH031	Polyethylene resins in primary forms	3901.10.00 - 3901.90.90
CH032	Polypropylene resins in primary forms	3902.10.00 - 3902.10.00
		3902.30.00 - 3902.30.00
CH033	Polyvinyl chloride resins in primary forms	3904.10.00 - 3904.40.00
CH034	Styrene polymers in primary forms	3903.11.00 - 3903.90.50
CH035	Saturated polyester resins	3907.60.00 - 3907.60.00
		3907.99.00 - 3907.99.00
CH036	Other plastics in primary forms	3902.20.10 - 3902.20.50
		3902.90.00 - 3902.90.00
		3904.50.00 - 3907.50.00
		3907.91.20 - 3907.91.50
		3908.10.00 - 3911.90.10
		3911.90.35 - 3912.20.00
		3912.39.00 - 3914.00.60
CH037	Styrene-butadiene rubber in primary forms	4002.11.00 - 4002.19.00
CH038	Other synthetic rubber	4002.20.00 - 4002.99.00
		4005.10.00 - 4006.90.50
CH039	Pneumatic tires and tubes (new)	3911.90.15 - 3911.90.25
		4011.10.10 - 4011.99.80
		4013.10.00 - 4013.90.50
CH040	Other tires	4012.10.10 - 4012.90.90
CH041	Miscellaneous plastic products	3915.10.00 - 3926.10.00
		3926.30.10 - 3926.90.98
		4009.10.00 - 4009.10.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
CH042	Miscellaneous rubber products	4003.00.00 - 4004.00.00 4007.00.00 - 4008.29.40 4009.20.00 - 4010.29.90 4014.10.00 - 4014.90.50 4016.10.00 - 4017.00.00
CH043	Gelatin	3503.00.55 - 3503.00.55
CH044	Natural rubber	4001.10.00 - 4001.30.00
Energy-related products sector:		
CH001	Electrical energy	2716.00.00 - 2716.00.00
CH002	Nuclear materials	2844.10.10 - 2845.90.00
CH003	Coal, coke, and related chemical products	2701.11.00 - 2708.20.00
CH004	Crude petroleum	2709.00.10 - 2709.00.20
CH005	Petroleum products	2710.00.05 - 2710.00.60 2712.10.00 - 2712.20.00 2713.11.00 - 2715.00.00 3403.19.10 - 3403.19.50 3606.10.00 - 3606.10.00 3811.11.10 - 3811.90.00 3819.00.00 - 3819.00.00
CH006	Natural gas and components	2711.11.00 - 2711.13.00 2711.19.00 - 2711.29.00 2901.10.10 - 2901.10.50
Textiles, apparel, and footwear sector:		
CH045	Fibers and yarns, except raw cotton and raw wool	5001.00.00 - 5006.00.90 5103.10.00 - 5110.00.00 5202.10.00 - 5207.90.00 5301.10.00 - 5308.90.00 5401.10.00 - 5406.20.00 5501.10.00 - 5511.30.00 5604.10.00 - 5606.00.00 7019.11.00 - 7019.19.90 7019.90.50 - 7019.90.50
CH046	Fabrics	5007.10.30 - 5007.90.60 5111.11.20 - 5113.00.00 5208.11.20 - 5212.25.60 5309.11.00 - 5311.00.60 5407.10.00 - 5408.34.90 5512.11.00 - 5516.94.00 5603.11.00 - 5603.94.90 5801.10.00 - 5804.30.00 5806.10.10 - 5806.39.30 5809.00.00 - 5809.00.00 5901.10.10 - 5903.90.30 5905.00.10 - 5907.00.80 5911.10.10 - 5911.20.30 6001.10.20 - 6002.99.90 7019.40.05 - 7019.90.10
CH046A	Broadwoven fabrics	5007.10.30 - 5007.90.60 5111.11.20 - 5113.00.00 5208.11.20 - 5212.25.60 5309.11.00 - 5311.00.60 5407.10.00 - 5408.34.90 5512.11.00 - 5516.94.00
CH046B	Knit fabrics	6001.10.20 - 6002.99.90

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
CH046C	Specialty fabrics	5801.10.00 - 5804.30.00 5806.10.10 - 5806.39.30 5809.00.00 - 5809.00.00
CH046D	Coated and other fabrics	5901.10.10 - 5903.90.30 5905.00.10 - 5907.00.80 5911.10.10 - 5911.20.30
CH046E	Glass fiber fabrics	7019.40.05 - 7019.90.10
CH046F	Other fabrics	5603.11.00 - 5603.94.90
CH047	Carpets and rugs	5701.10.13 - 5705.00.20
CH048	Home furnishings	5805.00.10 - 5805.00.40 6301.10.00 - 6304.99.60 9404.90.10 - 9404.90.95
CH048A	Blankets	6301.10.00 - 6301.90.00
CH048B	Pillowcases and sheets	6302.10.00 - 6302.39.00
CH048C	Table/kitchen linens and towels	6302.40.10 - 6302.99.20
CH048D	Curtains	6303.11.00 - 6303.99.00
CH048E	Bedspreads and other furnishing articles	6304.11.10 - 6304.99.60 9404.90.85 - 9404.90.95
CH048F	Pillows, cushions, and sleeping bags	9404.90.10 - 9404.90.80
CH048G	Tapestries and other wall hangings	5805.00.10 - 5805.00.40
CH049	Apparel	3926.20.10 - 3926.20.90 4015.11.00 - 4015.90.00 4203.10.20 - 4203.40.60 4303.10.00 - 4303.90.00 6101.10.00 - 6217.90.90 6501.00.30 - 6507.00.00
CH049A	Men's and boys' suits and sports coats	6103.11.00 - 6103.39.80 6203.11.10 - 6203.21.90 6203.22.30 - 6203.39.90
CH049B	Men's and boys' coats and jackets	6101.10.00 - 6101.90.90 6103.21.00 - 6103.29.20 6112.11.00 - 6112.20.10 6113.00.90 - 6113.00.90 6201.11.00 - 6201.99.90 6203.21.00 - 6203.21.90 6203.22.30 - 6203.29.30 6210.20.50 - 6210.20.50 6210.20.90 - 6210.20.90 6210.40.50 - 6210.40.50 6210.40.90 - 6210.40.90 6211.20.04 - 6211.20.04 6211.20.15 - 6211.20.28 6211.31.00 - 6211.39.90 6211.49.10 - 6211.49.10
CH049C	Men's and boys' trousers	6103.21.00 - 6103.29.20 6103.41.10 - 6103.49.80 6112.11.00 - 6112.20.10 6113.00.90 - 6113.00.90 6203.21.00 - 6203.21.90 6203.22.30 - 6203.29.30 6203.41.05 - 6203.49.80 6210.40.50 - 6210.40.50 6210.40.90 - 6210.40.90 6211.20.08 - 6211.20.15 6211.20.34 - 6211.20.48 6211.32.00 - 6211.39.90

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
CH049D	Women's and girls' trousers	6211.49.10 - 6211.49.10
		6104.21.00 - 6104.29.20
		6104.61.00 - 6104.69.80
		6112.11.00 - 6112.20.10
		6113.00.90 - 6113.00.90
		6204.21.00 - 6204.21.00
		6204.22.30 - 6204.29.40
		6204.61.10 - 6204.69.90
		6210.50.50 - 6210.50.50
		6210.50.90 - 6210.50.90
		6211.20.08 - 6211.20.15
		6211.20.64 - 6211.31.00
		6211.41.00 - 6211.43.00
		6211.49.90 - 6211.49.90
CH049E	Shirts and blouses	6103.21.00 - 6103.29.20
		6104.21.00 - 6104.29.20
		6105.10.00 - 6106.90.30
		6109.10.00 - 6110.90.90
		6112.11.00 - 6112.19.80
		6114.10.00 - 6114.30.10
		6114.30.30 - 6114.90.90
		6203.21.00 - 6203.21.00
		6203.21.90 - 6203.21.90
		6203.22.30 - 6203.29.30
		6204.21.00 - 6204.21.00
		6204.22.30 - 6204.29.40
		6205.10.10 - 6206.90.00
		6211.31.00 - 6211.49.90
6217.90.90 - 6217.90.90		
CH049F	Sweaters	6103.21.00 - 6103.29.20
		6104.21.00 - 6104.29.20
		6110.10.10 - 6110.90.90
CH049G	Women's and girls' suits, skirts, and coats	6102.10.00 - 6102.90.90
		6104.11.00 - 6104.29.10
		6104.31.00 - 6104.39.20
		6104.51.00 - 6104.59.80
		6112.11.00 - 6112.20.10
		6113.00.90 - 6114.20.00
		6114.90.10 - 6114.90.90
		6202.11.00 - 6202.99.90
		6204.11.00 - 6204.21.00
		6204.22.30 - 6204.29.20
		6204.31.10 - 6204.39.80
		6204.51.00 - 6204.59.40
		6210.30.50 - 6210.30.50
		6210.30.90 - 6210.30.90
6210.50.50 - 6210.50.50		
6210.50.90 - 6210.50.90		
6211.20.04 - 6211.20.04		
6211.20.15 - 6211.20.15		
6211.20.54 - 6211.20.58		
6211.41.00 - 6211.43.00		
6211.49.90 - 6211.49.90		
CH049H	Women's and girls' dresses	6104.41.00 - 6104.49.90
		6204.41.10 - 6204.49.50

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
CH049I	Robes, nightwear, and underwear	6107.11.00 - 6109.10.00 6109.90.15 - 6109.90.15 6207.11.00 - 6208.99.80
CH049J	Hosiery	6115.11.00 - 6115.99.80
CH049K	Body-supporting garments	6212.10.30 - 6212.90.00
CH049L	Neckwear, handkerchiefs, and scarves	6117.10.10 - 6117.20.90 6117.90.90 - 6117.90.90 6213.10.10 - 6215.90.00
CH049M	Gloves, including gloves for sports	3926.20.10 - 3926.20.40 4015.11.00 - 4015.19.50 4203.21.20 - 4203.29.50 6116.10.05 - 6116.99.95 6216.00.05 - 6216.00.90
CH049N	Headwear	6501.00.30 - 6507.00.00
CH049O	Leather apparel and accessories	4203.10.20 - 4203.10.40 4203.30.00 - 4203.40.60
CH049P	Fur apparel and other fur articles	4303.10.00 - 4303.90.00
CH049Q	Rubber, plastic, and coated-fabric apparel	3926.20.60 - 3926.20.90 4015.90.00 - 4015.90.00 6113.00.10 - 6113.00.10 6210.20.30 - 6210.20.30 6210.20.70 - 6210.20.70 6210.30.30 - 6210.30.30 6210.30.70 - 6210.30.70 6210.40.30 - 6210.40.30 6210.40.70 - 6210.40.70 6210.50.30 - 6210.50.30 6210.50.70 - 6210.50.70
CH049R	Nonwoven apparel	6210.10.20 - 6210.10.90
CH049S	Other wearing apparel	6103.21.00 - 6103.29.20 6104.21.00 - 6104.29.20 6104.69.40 - 6104.69.80 6110.10.10 - 6110.90.10 6111.10.00 - 6111.90.90 6112.20.20 - 6112.49.00 6113.00.90 - 6114.20.00 6114.30.20 - 6114.90.90 6117.80.10 - 6117.90.90 6203.21.00 - 6203.21.00 6203.21.90 - 6203.29.30 6204.21.00 - 6204.29.40 6204.62.40 - 6204.62.40 6209.10.00 - 6209.90.90 6210.10.90 - 6210.10.90 6210.40.50 - 6210.40.50 6210.40.90 - 6210.40.90 6210.50.50 - 6210.50.50 6210.50.90 - 6211.12.80 6211.20.15 - 6211.20.15 6211.31.00 - 6211.49.90 6217.10.10 - 6217.90.90
CH050	Miscellaneous textile products	4304.00.00 - 4304.00.00 5601.10.10 - 5602.90.90 5607.10.00 - 5609.00.40 5806.40.00 - 5808.90.00 5810.10.00 - 5811.00.40

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		5904.10.00 - 5904.92.00
		5908.00.00 - 5910.00.90
		5911.31.00 - 5911.90.00
		6305.10.00 - 6310.90.20
		7019.31.00 - 7019.32.00
		7019.39.50 - 7019.39.50
		7019.90.50 - 7019.90.50
		9404.30.40 - 9404.30.80
CH051	Footwear	6401.10.00 - 6406.99.90
Minerals and metals sector:		
MM001	Clays and related mineral products	2507.00.00 - 2508.70.00 2517.20.00 - 2517.20.00 2530.10.00 - 2530.10.00 2618.00.00 - 2618.00.00 6806.20.00 - 6807.10.00
MM002	Fluorspar and miscellaneous mineral substances	2529.21.00 - 2529.22.00 2530.20.10 - 2530.90.00
MM003	Iron ores and concentrates	2601.11.00 - 2601.12.00
MM004	Copper ores and concentrates	2603.00.00 - 2603.00.00
MM005	Lead ores, concentrates, and residues	2607.00.00 - 2607.00.00 2620.20.00 - 2620.20.00
MM005A	Lead ores and concentrates	2607.00.00 - 2607.00.00
MM006	Zinc ores, concentrates, and residues	2608.00.00 - 2608.00.00 2620.11.00 - 2620.19.60
MM006A	Zinc ores and concentrates	2608.00.00 - 2608.00.00
MM007	Certain ores, concentrates, ash, and residues	2602.00.00 - 2602.00.00 2604.00.00 - 2605.00.00 2609.00.00 - 2615.90.60 2617.10.00 - 2617.90.00 2620.50.00 - 2621.00.00
MM007A	Molybdenum ores and concentrates	2613.10.00 - 2613.90.00
MM008	Precious metal ores and concentrates	2616.10.00 - 2616.90.00
MM008A	Gold ores and concentrates	2616.90.00 - 2616.90.00
MM008B	Silver ores and concentrates	2616.10.00 - 2616.10.00
MM009	Cement, stone, and related products	2504.10.10 - 2506.29.00 2512.00.00 - 2512.00.00 2514.00.00 - 2517.10.00 2517.30.00 - 2527.00.00 2529.10.00 - 2529.10.00 2529.30.00 - 2529.30.00 6801.00.00 - 6803.00.50 6806.10.00 - 6806.10.00 6807.90.00 - 6815.99.40
MM009A	Cement	2523.10.00 - 2523.90.00
MM010	Industrial ceramics	6901.00.00 - 6903.90.00 6909.11.20 - 6909.90.00 6914.10.40 - 6914.90.80 8113.00.00 - 8113.00.00
MM011	Ceramic bricks and similar articles	6904.10.00 - 6906.00.00
MM012	Ceramic floor and wall tiles	6907.10.00 - 6908.90.00
MM013	Ceramic household articles	6911.10.10 - 6913.90.50
MM014	Flat glass	7003.12.00 - 7009.92.50
MM015	Glass containers	7010.10.00 - 7010.94.50
MM016	Household glassware	7013.10.10 - 7013.99.90
MM017	Miscellaneous glass products	7001.00.10 - 7002.39.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		7011.10.10 - 7012.00.00
		7014.00.10 - 7018.90.50
		7020.00.30 - 7020.00.60
MM018	Fiberglass insulation products	7019.39.10 - 7019.39.10
MM019	Natural and synthetic gemstones	7101.10.30 - 7102.10.00
		7102.31.00 - 7104.90.50
MM020	Precious metals and non-numismatic coins	7106.10.00 - 7112.90.00
		7118.10.00 - 7118.90.00
MM020A	Unrefined and refined gold	7108.12.10 - 7108.12.50
MM021	Primary iron products	2601.20.00 - 2601.20.00
		7201.10.00 - 7201.50.60
		7203.10.00 - 7203.90.00
MM022	Ferroalloys	7202.11.10 - 7202.99.50
MM023	Iron and steel waste and scrap	2619.00.30 - 2619.00.90
		7204.10.00 - 7204.50.00
MM024	Abrasive and ferrous products	2513.11.00 - 2513.29.00
		6804.10.00 - 6805.30.50
		7102.21.10 - 7102.29.00
		7105.10.00 - 7105.90.00
		7205.10.00 - 7205.29.00
MM024A	Abrasive products	6804.10.00 - 6805.30.50
MM025	Steel mill products	7206.10.00 - 7301.10.00
		7302.10.10 - 7302.90.00
		7304.10.10 - 7306.90.50
MM025A	Ingots, blooms, billets, and slabs of carbon and alloy steels	7206.10.00 - 7207.20.00
		7224.10.00 - 7224.90.00
MM025B	Plates, sheets, and strips of carbon and alloy steels	7208.10.15 - 7212.60.00
		7225.11.00 - 7225.19.00
		7225.30.30 - 7225.30.30
		7225.30.70 - 7225.30.70
		7225.40.30 - 7225.40.30
		7225.40.70 - 7225.40.70
		7225.50.60 - 7226.19.90
		7226.91.50 - 7226.91.80
		7226.92.50 - 7226.99.00
MM025C	Bars, rods, and light shapes of carbon and alloy steels	7213.10.00 - 7216.22.00
		7227.20.00 - 7227.20.00
		7227.90.60 - 7227.90.60
		7228.20.10 - 7228.20.50
		7228.30.80 - 7228.40.00
		7228.50.50 - 7228.50.50
		7228.60.60 - 7228.70.30
		7228.80.00 - 7228.80.00
MM025D	Angles, shapes, and sections of carbon and alloy steels	7216.31.00 - 7216.99.00
		7228.70.30 - 7228.70.60
		7301.10.00 - 7301.10.00
MM025E	Wire of carbon and alloy steels	7217.10.10 - 7217.90.50
		7229.20.00 - 7229.90.90
MM025F	Ingots, blooms, billets, and slabs of stainless steels	7218.10.00 - 7218.99.00
MM025G	Plates, sheets, and strips of stainless steels	7219.11.00 - 7220.90.00
MM025H	Bars, rods, and light shapes of stainless steels	7221.00.00 - 7222.40.30
MM025I	Angles, shapes, and sections of stainless steels	7222.40.30 - 7222.40.60
MM025J	Wire of stainless steels	7223.00.10 - 7223.00.90
MM025K	Rails and accessories of carbon and alloy steels	7302.10.10 - 7302.90.00
MM025L	Pipes and tubes of carbon and alloy steels	7304.10.10 - 7304.39.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		7304.51.10 - 7306.30.50
		7306.50.10 - 7306.90.50
MM025M	Pipes and tubes of stainless steels	7304.41.30 - 7304.49.00
		7306.40.10 - 7306.40.50
		7306.60.70 - 7306.60.70
MM025N	Tool steels	7224.10.00 - 7224.90.00
		7225.20.00 - 7225.30.10
		7225.30.50 - 7225.30.50
		7225.40.10 - 7225.40.10
		7225.40.50 - 7225.40.50
		7225.50.10 - 7225.50.10
		7226.20.00 - 7226.91.25
		7226.92.10 - 7226.92.30
		7227.10.00 - 7227.10.00
		7227.90.10 - 7227.90.20
		7228.10.00 - 7228.10.00
		7228.30.20 - 7228.30.60
		7228.50.10 - 7228.50.10
		7228.60.10 - 7228.60.10
		7229.10.00 - 7229.10.00
MM026	Steel pipe and tube fittings and certain cast products	7303.00.00 - 7303.00.00
		7307.11.00 - 7307.99.50
MM027	Fabricated structurals	7301.20.10 - 7301.20.50
		7308.10.00 - 7308.20.00
		7308.40.00 - 7308.90.60
MM028	Metal construction components	7308.30.10 - 7308.30.50
		7308.90.70 - 7308.90.95
		7610.10.00 - 7610.90.00
MM029	Metallic containers	7309.00.00 - 7311.00.00
		7611.00.00 - 7613.00.00
MM030	Wire products of base metal	7312.10.05 - 7314.49.60
		7317.00.10 - 7317.00.75
		7320.20.50 - 7320.90.50
		7413.00.10 - 7415.10.00
		7416.00.00 - 7416.00.00
		7508.10.00 - 7508.90.50
		7614.10.10 - 7614.90.50
		7616.10.10 - 7616.10.10
		7616.91.00 - 7616.91.00
MM031	Miscellaneous products of base metal	7314.50.00 - 7316.00.00
		7320.10.30 - 7320.20.10
		7321.11.10 - 7323.10.00
		7325.91.00 - 7326.90.85
		7417.00.00 - 7417.00.00
		7419.10.00 - 7419.10.00
		7616.99.10 - 7616.99.50
		8301.20.00 - 8301.20.00
		8301.40.30 - 8301.40.30
		8302.10.30 - 8302.10.30
		8302.20.00 - 8302.30.60
		8302.49.20 - 8302.49.80
		8303.00.00 - 8311.90.00
MM032	Industrial fasteners of base metal	7318.11.00 - 7318.29.00
		7415.21.00 - 7415.39.00
		7616.10.30 - 7616.10.90
MM033	Cooking and kitchen ware	7323.91.10 - 7323.99.90

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		7418.11.20 - 7418.19.50
		7615.11.00 - 7615.19.90
		7907.00.10 - 7907.00.10
		8007.00.10 - 8007.00.10
		8007.00.50 - 8007.00.50
MM034	Metal and ceramic sanitary ware	6910.10.00 - 6910.90.00
		7324.10.00 - 7324.90.00
		7418.20.10 - 7418.20.50
		7615.20.00 - 7615.20.00
		8007.00.10 - 8007.00.10
MM035	Construction castings and other cast-iron articles	7325.10.00 - 7325.10.00
MM036	Copper and related articles	2620.30.00 - 2620.30.00
		7401.10.00 - 7412.20.00
		7419.91.00 - 7419.99.50
MM036A	Unrefined and refined copper	7402.00.00 - 7403.11.00
MM036B	Copper alloy plate, sheet, and strip	7409.21.00 - 7409.90.90
MM037	Unwrought aluminum	2606.00.00 - 2606.00.00
		2620.40.00 - 2620.40.00
		7601.10.30 - 7602.00.00
MM037A	Primary and secondary aluminum	7601.10.30 - 7601.20.90
MM038	Aluminum mill products	7603.10.00 - 7609.00.00
MM038A	Aluminum bars, rods, and profiles	7604.10.10 - 7604.29.50
MM038B	Aluminum wire	7605.11.00 - 7605.29.00
MM038C	Aluminum plate, sheet, and strip	7606.11.30 - 7606.92.60
MM038D	Aluminum foil	7607.11.30 - 7607.20.50
MM038E	Aluminum tubes, pipes, and fittings	7608.10.00 - 7609.00.00
MM039	Lead and related articles	7801.10.00 - 7806.00.00
MM039A	Refined lead	7801.10.00 - 7801.10.00
MM040	Zinc and related articles	7901.11.00 - 7906.00.00
		7907.00.60 - 7907.00.60
MM040A	Unwrought zinc	7901.11.00 - 7901.12.50
MM041	Certain base metals and chemical elements	7501.10.00 - 7507.20.00
		8001.10.00 - 8006.00.00
		8101.10.00 - 8112.99.00
MM041A	Titanium ingot	8108.10.50 - 8108.10.50
MM042	Nonpowered handtools	8201.10.00 - 8207.90.75
		8209.00.00 - 8209.00.00
MM043	Certain cutlery, sewing implements, and related products	7319.10.00 - 7319.90.00
		8208.10.00 - 8208.90.60
		8210.00.00 - 8210.00.00
		8211.92.20 - 8214.90.90
MM044	Table flatware and related products	8211.10.00 - 8211.91.80
		8215.10.00 - 8215.99.50
MM045	Certain builders' hardware	8301.10.20 - 8301.10.90
		8301.30.00 - 8301.30.00
		8301.40.60 - 8301.70.00
		8302.10.60 - 8302.10.90
		8302.41.30 - 8302.42.60
		8302.50.00 - 8302.60.90
Machinery sector:		
MM068	Wiring harnesses for motor vehicles	8544.30.00 - 8544.30.00
MM069	Pumps for motor vehicles	8413.30.10 - 8413.30.90
		8413.91.10 - 8413.91.10
MM070	Pumps for liquids	8413.11.00 - 8413.20.00
		8413.40.00 - 8413.82.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		8413.91.20 - 8413.92.00
MM071	Air-conditioning equipment and parts	8414.10.00 - 8415.90.80
MM072	Industrial thermal-processing equipment and furnaces	8416.10.00 - 8417.10.00
		8417.80.00 - 8417.90.00
		8419.11.00 - 8419.20.00
		8419.39.00 - 8419.60.50
		8419.89.60 - 8419.90.10
		8419.90.30 - 8419.90.80
		8514.10.00 - 8514.20.00
		8514.30.80 - 8514.90.00
		8545.11.00 - 8545.11.00
MM073	Household appliances, including commercial applications	8418.10.00 - 8418.99.80
		8419.81.10 - 8419.81.90
		8419.90.80 - 8419.90.80
		8421.12.00 - 8421.12.00
		8421.91.20 - 8421.91.40
		8422.11.00 - 8422.19.00
		8422.90.02 - 8422.90.06
		8450.11.00 - 8451.30.00
		8451.90.30 - 8451.90.90
		8476.21.00 - 8476.90.00
		8479.89.10 - 8479.89.70
		8479.90.40 - 8479.90.85
		8509.10.00 - 8510.90.55
		8516.10.00 - 8516.90.90
MM073A	Major household appliances and parts	8418.10.00 - 8418.40.00
		8418.99.40 - 8418.99.80
		8422.11.00 - 8422.11.00
		8422.90.04 - 8422.90.06
		8450.11.00 - 8450.20.00
		8450.90.60 - 8450.90.60
		8516.60.40 - 8516.60.40
		8516.90.55 - 8516.90.80
MM074	Centrifuges and filtering and purifying equipment	8421.19.00 - 8421.19.00
		8421.19.90 - 8421.22.00
		8421.29.00 - 8421.29.00
		8421.39.40 - 8421.39.80
		8421.91.60 - 8421.99.00
MM075	Wrapping, packaging, and can-sealing machinery	8422.20.00 - 8422.40.90
		8422.90.10 - 8422.90.90
MM076	Scales and weighing machinery	8423.10.00 - 8423.90.00
MM077	Mineral processing machinery	8474.10.00 - 8474.90.00
MM078	Farm and garden machinery and equipment	8419.31.00 - 8419.31.00
		8424.81.10 - 8424.81.90
		8432.10.00 - 8434.90.00
		8436.10.00 - 8436.99.00
		8701.10.00 - 8701.10.00
		8701.30.10 - 8701.90.50
		8706.00.30 - 8706.00.50
		8707.90.10 - 8707.90.10
		8707.90.50 - 8707.90.50
		8708.31.10 - 8708.31.10
		8708.39.10 - 8708.39.10
		8708.40.30 - 8708.40.30
		8708.50.10 - 8708.50.10
		8708.60.10 - 8708.60.10

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		8708.70.05 - 8708.70.15
		8708.80.15 - 8708.80.25
		8708.91.10 - 8708.91.10
		8708.92.10 - 8708.92.10
		8708.93.15 - 8708.93.30
		8708.94.10 - 8708.94.10
		8708.99.03 - 8708.99.24
		8716.80.10 - 8716.80.10
		8716.90.10 - 8716.90.10
MM079	Industrial food-processing and related machinery	8417.20.00 - 8417.20.00
		8421.11.00 - 8421.11.00
		8435.10.00 - 8435.90.00
		8437.10.00 - 8438.90.90
MM080	Pulp, paper, and paperboard machinery	8419.32.10 - 8419.32.50
		8419.89.10 - 8419.89.10
		8419.90.20 - 8419.90.20
		8420.10.20 - 8420.10.20
		8420.91.20 - 8420.91.20
		8420.99.20 - 8420.99.20
		8439.10.00 - 8439.99.50
		8441.10.00 - 8441.90.00
MM081	Printing and related machinery	8440.10.00 - 8440.90.00
		8442.10.00 - 8443.40.00
		8443.60.00 - 8443.60.00
		8443.90.50 - 8443.90.50
MM082	Textile machinery	8420.10.10 - 8420.10.10
		8420.91.10 - 8420.91.10
		8420.99.10 - 8420.99.10
		8443.50.10 - 8443.59.50
		8443.90.10 - 8443.90.10
		8444.00.00 - 8449.00.50
		8451.40.00 - 8451.80.00
		8451.90.90 - 8452.90.00
MM083	Metal rolling mills	8455.10.00 - 8455.90.80
MM084	Metal cutting machine tools and machine tool accessories	8456.10.10 - 8456.10.10
		8456.20.10 - 8456.20.10
		8456.30.10 - 8456.30.10
		8456.99.30 - 8456.99.30
		8457.10.00 - 8461.90.80
		8466.10.80 - 8466.20.10
		8466.20.80 - 8466.30.10
		8466.30.60 - 8466.30.80
		8466.93.15 - 8466.93.45
		8466.93.53 - 8466.93.75
		8466.93.90 - 8466.93.95
MM085	Metal forming machine tools	8462.10.00 - 8462.21.00
		8462.21.80 - 8462.29.00
		8462.29.80 - 8463.90.00
		8466.94.20 - 8466.94.40
		8466.94.60 - 8466.94.65
		8466.94.80 - 8466.94.85
MM086	Non-metalworking machine tools	8456.10.50 - 8456.10.50
		8456.10.80 - 8456.10.80
		8456.20.50 - 8456.20.50
		8456.30.50 - 8456.30.50
		8456.99.50 - 8456.99.50

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		8456.99.90 - 8456.99.90
		8464.10.00 - 8464.10.00
		8464.20.50 - 8464.20.50
		8464.90.90 - 8465.96.00
		8465.99.80 - 8465.99.80
		8466.91.10 - 8466.92.50
MM087	Semiconductor manufacturing equipment and robotics	8421.19.30 - 8421.19.30
		8424.89.30 - 8424.89.50
		8428.90.00 - 8428.90.00
		8456.10.60 - 8456.10.60
		8456.91.00 - 8456.99.10
		8456.99.70 - 8456.99.70
		8462.21.40 - 8462.21.40
		8462.29.40 - 8462.29.40
		8464.20.10 - 8464.20.10
		8464.90.10 - 8464.90.60
		8465.99.40 - 8465.99.40
		8466.10.40 - 8466.10.40
		8466.20.40 - 8466.20.40
		8466.30.45 - 8466.30.45
		8466.93.47 - 8466.93.47
		8466.93.85 - 8466.93.85
		8466.94.55 - 8466.94.55
		8466.94.75 - 8466.94.75
		8477.10.70 - 8477.10.70
		8477.40.40 - 8477.40.40
		8477.59.40 - 8477.59.40
		8477.90.15 - 8477.90.15
		8477.90.35 - 8477.90.35
		8477.90.55 - 8477.90.55
		8477.90.75 - 8477.90.75
		8479.50.00 - 8479.50.00
		8479.89.85 - 8479.89.87
		8479.90.95 - 8479.90.95
		8480.71.40 - 8480.71.40
		8514.30.20 - 8514.30.60
		8515.90.10 - 8515.90.10
		8543.11.00 - 8543.11.00
		9010.41.00 - 9010.49.00
		9010.90.70 - 9010.90.70
		9030.82.00 - 9030.82.00
		9030.90.64 - 9030.90.64
		9030.90.84 - 9030.90.84
		9031.41.00 - 9031.41.00
		9031.49.70 - 9031.49.70
		9031.80.40 - 9031.80.40
		9031.90.54 - 9031.90.54
		9031.90.70 - 9031.90.70
MM087A	Semiconductor manufacturing machinery	8421.19.30 - 8421.19.30
		8424.89.30 - 8424.89.50
		8456.10.60 - 8456.10.60
		8456.91.00 - 8456.99.10
		8456.99.70 - 8456.99.70
		8462.21.40 - 8462.21.40
		8462.29.40 - 8462.29.40
		8464.20.10 - 8464.20.10

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		8464.90.10 - 8464.90.60
		8465.99.40 - 8465.99.40
		8466.10.40 - 8466.10.40
		8466.20.40 - 8466.20.40
		8466.30.45 - 8466.30.45
		8466.93.47 - 8466.93.47
		8466.93.85 - 8466.93.85
		8466.94.55 - 8466.94.55
		8466.94.75 - 8466.94.75
		8477.10.70 - 8477.10.70
		8477.40.40 - 8477.40.40
		8477.59.40 - 8477.59.40
		8477.90.15 - 8477.90.15
		8477.90.35 - 8477.90.35
		8477.90.55 - 8477.90.55
		8477.90.75 - 8477.90.75
		8479.50.00 - 8479.50.00
		8479.89.85 - 8479.89.87
		8480.71.40 - 8480.71.40
		8514.30.20 - 8514.30.60
		8515.90.10 - 8515.90.10
		8543.11.00 - 8543.11.00
		9010.41.00 - 9010.49.00
		9010.90.70 - 9010.90.70
		9030.82.00 - 9030.82.00
		9030.90.64 - 9030.90.64
		9030.90.84 - 9030.90.84
		9031.41.00 - 9031.41.00
		9031.49.70 - 9031.49.70
		9031.80.40 - 9031.80.40
		9031.90.54 - 9031.90.54
		9031.90.70 - 9031.90.70
MM088	Taps, cocks, valves, and similar devices	8481.10.00 - 8481.90.90
MM089	Mechanical power transmission equipment	8483.40.10 - 8483.90.80
MM090	Boilers, turbines, and related machinery	8401.10.00 - 8401.10.00
		8401.30.00 - 8404.90.00
		8406.10.10 - 8406.90.75
		8410.11.00 - 8410.90.00
MM091	Electric motors, generators, and related equipment	8501.10.20 - 8503.00.95
		8505.11.00 - 8505.90.80
		8545.19.20 - 8545.20.00
		8545.90.40 - 8545.90.40
		8546.90.00 - 8546.90.00
MM092	Electrical transformers, static converters, and inductors	8504.10.00 - 8504.40.40
		8504.40.85 - 8504.40.95
		8504.50.80 - 8504.50.80
		8504.90.65 - 8504.90.95
		8543.40.00 - 8543.40.00
MM093	Portable electric handtools	8508.10.00 - 8508.90.80
MM094	Nonelectrically powered handtools and parts thereof	8467.11.10 - 8467.99.00
MM095	Electric lamps (bulbs) and portable electric lights	8513.10.20 - 8513.90.40
		8539.10.00 - 8539.90.00
		8545.90.20 - 8545.90.20
MM096	Welding and soldering equipment	8468.10.00 - 8468.90.50
		8515.11.00 - 8515.80.00
		8515.90.20 - 8515.90.40

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
MM097	Nonautomotive insulated electrical wire and related products	8544.11.00 - 8544.20.00
		8544.41.40 - 8544.60.60
		8546.10.00 - 8546.20.00
		8547.20.00 - 8547.90.00
MM098	Miscellaneous machinery	8401.20.00 - 8401.20.00
		8405.10.00 - 8405.90.00
		8420.10.90 - 8420.10.90
		8420.91.90 - 8420.91.90
		8420.99.90 - 8420.99.90
		8424.10.00 - 8424.30.90
		8424.89.70 - 8425.49.00
		8428.10.00 - 8428.60.00
		8428.90.00 - 8428.90.00
		8431.10.00 - 8431.10.00
		8431.31.00 - 8431.39.00
		8453.10.00 - 8453.90.50
		8475.10.00 - 8475.90.90
		8478.10.00 - 8478.90.00
		8479.20.00 - 8479.40.00
8479.60.00 - 8479.82.00		
8479.89.95 - 8479.89.97		
8479.90.95 - 8479.90.95		
8484.10.00 - 8484.90.00		
8485.90.00 - 8485.90.00		
MM099	Molds and molding machinery	8454.10.00 - 8454.90.00
		8477.10.30 - 8477.10.40
		8477.10.90 - 8477.30.00
		8477.40.80 - 8477.51.00
		8477.59.80 - 8477.80.00
		8477.90.25 - 8477.90.25
		8477.90.45 - 8477.90.45
		8477.90.65 - 8477.90.65
		8477.90.85 - 8477.90.85
		8480.10.00 - 8480.71.10
8480.71.80 - 8480.79.90		
Transportation equipment sector:		
ET001	Aircraft engines and gas turbines	8407.10.00 - 8407.10.00
		8409.10.00 - 8409.10.00
		8411.11.40 - 8412.10.00
		8412.90.90 - 8412.90.90
ET002	Internal combustion piston engines, other than for aircraft	8407.21.00 - 8408.90.90
		8409.91.10 - 8409.99.99
		8421.23.00 - 8421.23.00
		8421.31.00 - 8421.31.00
ET003	Forklift trucks and similar industrial vehicles	8483.10.10 - 8483.10.50
		8427.10.40 - 8427.90.00
ET004	Construction and mining equipment	8431.20.00 - 8431.20.00
		8709.11.00 - 8709.90.00
		8426.11.00 - 8426.99.00
		8429.11.00 - 8430.69.00
ET005	Ball and rollers bearings	8431.41.00 - 8431.49.90
		8479.10.00 - 8479.10.00
		8479.90.95 - 8479.90.95
		8704.10.10 - 8704.10.50
8482.10.10 - 8482.99.65		

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
		8483.20.40 - 8483.30.80
ET006	Primary cells and batteries and electric storage batteries	8506.10.00 - 8507.90.80
		8548.10.05 - 8548.90.00
ET007	Ignition, starting, lighting, and other electrical equipment	8511.10.00 - 8512.90.90
		8547.10.40 - 8547.10.80
ET008	Rail locomotive and rolling stock	8601.10.00 - 8609.00.00
ET009	Motor vehicles	8701.20.00 - 8701.20.00
		8702.10.30 - 8702.90.60
		8703.22.00 - 8703.90.00
		8704.21.00 - 8704.90.00
		8706.00.03 - 8706.00.15
		8707.10.00 - 8707.10.00
		8707.90.50 - 8707.90.50
ET010	Certain motor-vehicle parts	8708.10.30 - 8708.29.50
		8708.31.50 - 8708.31.50
		8708.39.50 - 8708.40.20
		8708.40.50 - 8708.40.50
		8708.50.30 - 8708.50.80
		8708.60.30 - 8708.60.80
		8708.70.25 - 8708.70.60
		8708.80.30 - 8708.80.45
		8708.91.50 - 8708.91.50
		8708.92.50 - 8708.92.50
		8708.93.60 - 8708.93.75
		8708.94.50 - 8708.94.50
		8708.99.27 - 8708.99.80
ET011	Motorcycles, mopeds, and parts	8711.10.00 - 8711.90.00
		8714.11.00 - 8714.19.00
ET012	Miscellaneous vehicles and transportation-related equipment	8703.10.10 - 8703.21.00
		8705.10.00 - 8705.90.00
		8706.00.25 - 8706.00.25
		8707.90.50 - 8707.90.50
		8710.00.00 - 8710.00.00
		8713.10.00 - 8713.90.00
		8714.20.00 - 8714.20.00
		8716.10.00 - 8716.40.00
		8716.80.50 - 8716.80.50
		8716.90.30 - 8716.90.50
ET013	Aircraft, spacecraft, and related equipment	8801.10.00 - 8802.40.00
		8802.60.90 - 8803.30.00
		8803.90.90 - 8805.20.00
ET014	Ships, tugs, pleasure boats, and similar vessels	8485.10.00 - 8485.10.00
		8901.10.00 - 8908.00.00
ET015	Motors and engines, except internal combustion, aircraft, or electric	8412.21.00 - 8412.90.10
		8412.90.90 - 8412.90.90
Electronic products sector:		
ET016	Office machines	8469.11.00 - 8470.40.00
		8470.90.00 - 8470.90.00
		8472.10.00 - 8472.30.00
		8472.90.20 - 8472.90.20
		8472.90.40 - 8472.90.60
		8472.90.90 - 8473.29.00
		8473.40.20 - 8473.40.20
		8473.40.90 - 8473.40.95
		8520.10.00 - 8520.10.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
ET017	Telephone and telegraph apparatus	8517.11.00 - 8518.10.40
		8518.29.40 - 8518.29.40
		8518.30.10 - 8518.30.10
		8518.40.10 - 8518.40.10
		8518.90.20 - 8518.90.60
		8520.20.00 - 8520.20.00
		8522.90.45 - 8522.90.55
		8525.10.90 - 8525.20.90
		8527.31.05 - 8527.31.05
		8527.90.40 - 8527.90.40
		8527.90.85 - 8527.90.95
		8529.10.70 - 8529.10.70
		8529.90.23 - 8529.90.23
		8529.90.76 - 8529.90.76
		8529.90.99 - 8529.90.99
		8531.80.40 - 8531.80.70
		8531.90.10 - 8531.90.10
8531.90.70 - 8531.90.70		
8543.89.60 - 8543.89.60		
8802.60.30 - 8802.60.30		
8803.90.30 - 8803.90.30		
ET018	Consumer electronics (except televisions)	8518.10.80 - 8518.22.00
		8518.29.80 - 8518.29.80
		8518.30.20 - 8518.30.20
		8518.40.20 - 8518.50.00
		8518.90.80 - 8519.99.00
		8520.32.00 - 8522.90.35
		8522.90.65 - 8522.90.75
		8525.40.40 - 8525.40.80
		8527.12.00 - 8527.29.80
		8527.31.40 - 8527.39.00
8527.90.50 - 8527.90.50		
ET019	Blank media	8523.11.00 - 8523.90.00
ET020	Prerecorded media	8524.10.00 - 8524.99.40
ET021	Navigational instruments and remote control apparatus	8526.10.00 - 8526.92.00
		8529.10.40 - 8529.10.40
		8529.90.16 - 8529.90.19
		8529.90.26 - 8529.90.26
		8529.90.73 - 8529.90.73
8529.90.95 - 8529.90.97		
9014.10.10 - 9014.90.60		
ET022	Television receivers and video monitors	8528.12.04 - 8528.30.90
		8529.90.01 - 8529.90.06
		8529.90.29 - 8529.90.53
8529.90.88 - 8529.90.93		
ET023	Radio and television broadcasting equipment	8525.10.10 - 8525.10.70
		8525.30.30 - 8525.30.90
		8529.10.20 - 8529.10.20
		8529.10.90 - 8529.10.90
		8529.90.09 - 8529.90.13
8529.90.63 - 8529.90.69		
8529.90.78 - 8529.90.85		
ET024	Electric sound and visual signaling apparatus	8530.10.00 - 8531.20.00
		8531.80.90 - 8531.80.90
		8531.90.30 - 8531.90.40
		8531.90.80 - 8531.90.90

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
ET025	Electrical capacitors and resistors	8532.10.00 - 8533.90.80 8543.89.96 - 8543.89.96
ET026	Printed circuits	8534.00.00 - 8534.00.00
ET027	Circuit apparatus exceeding 1000V	8535.10.00 - 8535.90.80
ET028	Circuit apparatus not exceeding 1000V	8536.10.00 - 8536.90.80
ET029	Circuit apparatus assemblies	8537.10.30 - 8537.20.00
ET030	Parts of circuit apparatus	8538.10.00 - 8538.90.80
ET031	Cathode-ray tubes	8540.11.10 - 8540.20.20 8540.40.00 - 8540.60.00 8540.91.15 - 8540.91.50
ET032	Electron tubes other than CRTs	8540.20.40 - 8540.20.40 8540.71.20 - 8540.89.00 8540.99.40 - 8540.99.80
ET033	Semiconductors and integrated circuits	8541.10.00 - 8541.50.00 8541.90.00 - 8542.90.00
ET034	Miscellaneous electrical equipment	8541.60.00 - 8541.60.00 8543.19.00 - 8543.30.00 8543.81.00 - 8543.89.40 8543.89.70 - 8543.89.92 8543.89.96 - 8543.90.88
ET035	Computers, peripherals, and parts	8470.50.00 - 8470.50.00 8471.10.00 - 8471.90.00 8472.90.10 - 8472.90.10 8472.90.20 - 8472.90.20 8473.30.10 - 8473.40.10 8473.50.30 - 8473.50.90 8504.40.60 - 8504.40.70 8504.50.40 - 8504.50.40 8504.90.20 - 8504.90.40
ET036	Photographic film and paper	3701.10.00 - 3707.10.00
ET037	Optical fibers, optical fiber bundles and cables	8544.70.00 - 8544.70.00 9001.10.00 - 9001.10.00
ET038	Optical goods, including ophthalmic goods	9001.20.00 - 9005.90.80 9011.10.40 - 9013.90.90
ET039	Photographic cameras and equipment	8472.90.70 - 8472.90.70 8473.40.60 - 8473.40.60 9006.10.00 - 9010.10.00 9010.50.10 - 9010.90.40 9010.90.80 - 9010.90.90 9027.40.00 - 9027.40.00 9027.90.54 - 9027.90.54
ET040	Medical goods	9018.11.30 - 9022.90.95
ET041	Watches and clocks	9101.11.40 - 9114.90.50
ET042	Drawing, drafting, and calculating instruments	9017.10.00 - 9017.90.36
ET043	Measuring, testing, and controlling instruments	9015.10.40 - 9016.00.60 9023.00.00 - 9027.30.80 9027.50.40 - 9027.90.45 9027.90.54 - 9030.40.00 9030.83.00 - 9030.90.45 9030.90.65 - 9030.90.68 9030.90.85 - 9031.30.00 9031.49.40 - 9031.49.40 9031.49.80 - 9031.49.90 9031.80.80 - 9031.90.45 9031.90.55 - 9031.90.60 9031.90.90 - 9033.00.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
Miscellaneous manufactures sector:		
MM046	Luggage, handbags, and flat goods	4202.11.00 - 4202.99.90 9605.00.00 - 9605.00.00
MM046A	Luggage	4202.11.00 - 4202.19.00 4202.91.00 - 4202.99.90
MM046B	Handbags	4202.21.30 - 4202.29.90
MM046C	Flat goods	4202.31.30 - 4202.39.90
MM047	Certain other leather goods	4201.00.30 - 4201.00.60 4204.00.30 - 4205.00.80
MM048	Musical instruments and accessories	9201.10.00 - 9209.99.80
MM049	Umbrellas, whips, riding crops, and canes	6601.10.00 - 6603.90.80
MM050	Silverware and related articles of precious metal	7114.11.10 - 7115.90.05
MM051	Precious jewelry and related articles	7113.11.10 - 7113.20.50 7115.90.30 - 7116.20.50
MM052	Costume jewelry and related articles	7117.11.00 - 7117.90.90
MM053	Bicycles and certain parts	8712.00.15 - 8712.00.50 8714.91.20 - 8714.99.80
MM054	Furniture	9401.30.40 - 9401.80.60 9401.90.15 - 9403.40.40 9403.40.90 - 9403.50.40 9403.50.90 - 9403.80.60 9403.90.25 - 9404.29.90
MM055	Writing instruments and related articles	9608.10.00 - 9610.00.00
MM056	Lamps and lighting fittings	9405.10.40 - 9405.99.40
MM057	Prefabricated buildings	9406.00.40 - 9406.00.80
MM058	Dolls	9502.10.00 - 9502.99.00
MM059	Toys	9501.00.20 - 9501.00.60 9503.10.00 - 9503.10.00 9503.30.00 - 9503.90.00 9505.90.20 - 9505.90.60
MM060	Games	9504.10.00 - 9504.90.90
MM061	Sporting goods	9506.11.20 - 9507.90.80
MM062	Smokers' articles	9613.10.00 - 9614.90.80
MM063	Brooms, brushes, and hair grooming articles	9603.10.05 - 9603.90.80 9615.11.10 - 9615.90.60
MM063A	Brooms and brushes	9603.10.05 - 9603.90.80
MM063B	Hair grooming articles, non-electric (except brushes)	9615.11.10 - 9615.90.60
MM064	Works of art and miscellaneous manufactured goods	4206.10.30 - 4206.90.00 6701.00.30 - 6704.90.00 8715.00.00 - 8715.00.00 9503.20.00 - 9503.20.00 9505.10.10 - 9505.10.50 9508.00.00 - 9602.00.50 9604.00.00 - 9604.00.00 9611.00.00 - 9612.20.00 9616.10.00 - 9706.00.00
MM065	Apparel fasteners	9606.10.40 - 9607.20.00
MM066	Arms and ammunition	9301.00.30 - 9307.00.00
MM066A	Small arms and ammunition	9301.00.30 - 9306.30.80 9307.00.00 - 9307.00.00

See note at end of table.

Table B-1--Continued

HTS 8-digit subheading ranges included in industry/commodity groups and subgroups, by sector

USITC code	Industry/commodity group or subgroup title	HTS subheading range
MM067	Seats for motor vehicles and aircraft	9401.10.40 - 9401.20.00 9401.90.10 - 9401.90.10 9403.40.60 - 9403.40.60 9403.50.60 - 9403.50.60 9403.90.10 - 9403.90.10

Note.—A duplicate listing for an individual 8-digit HTS subheading indicates that the 10-digit categories within that 8-digit subheading are in more than one industry/commodity group or subgroup.

The above table shows the range of HTS 8-digit items assigned to industry/commodity groups and subgroups, and should be considered a guideline only because actual industry/commodity group and subgroup assignments are made on a HTS 10-digit basis. Therefore, any data generated on the basis of the information contained in this table may not accurately represent trade for these groups. For accurate trade data based on information contained here, see tables in the commodity chapters or appendix C (Profile of U.S. Industry and Market, by Industry/Commodity Groups and Subgroups, 1997-2001). In addition, this information represents only a snapshot of the HTS subheading composition of these groups and subgroups at a point in time. The USITC's industry/commodity groupings and subgroupings are subject to frequent revision as dictated by modifications to the HTS and other factors.

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APPENDIX C
Profile of U.S. Industry and Market, by
Industry/Commodity Groups and
Subgroups, 1997-2001

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. Moreover, significant changes in coverage have been made as compared to previous years' reports: certain industry/commodity groups that encompass a wide variety of products are no longer profiled; and certain subgroups that represent a more meaningful selection of products are profiled.

Table C-1

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG002	Cattle and beef:					
	Number of establishments	1,177,877	1,149,184	1,097,636	1,078,612	1,051,943
	Employees (thousands)	1,250	1,219	1,168	1,149	1,121
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	40,157	39,454	45,278	48,632	50,152
	U.S. exports (million dollars)	2,573	2,382	2,753	3,287	2,795
	U.S. imports (million dollars)	2,534	2,752	2,905	3,357	3,970
	Apparent U.S. consumption (million dollars)	40,118	39,824	45,430	48,702	51,326
	Trade balance (million dollars)	39	-370	-152	-70	-1,174
	Ratio of imports to consumption (percent)	6.3	6.9	6.4	6.9	7.7
	Ratio of exports to production (percent)	6.4	6.0	6.1	6.8	5.6
AG003	Swine and pork:					
	Number of establishments	122,930	114,587	99,338	87,081	81,829
	Employees (thousands)	211	218	217	203	195
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	21,227	18,468	19,066	21,673	22,545
	U.S. exports (million dollars)	943	934	932	1,174	1,256
	U.S. imports (million dollars)	792	714	717	986	1,115
	Apparent U.S. consumption (million dollars)	21,075	18,248	18,851	21,485	22,404
	Trade balance (million dollars)	152	220	215	188	141
	Ratio of imports to consumption (percent)	3.8	3.9	3.8	4.6	5.0
	Ratio of exports to production (percent)	4.4	5.1	4.9	5.4	5.6
AG004	Sheep and meat of sheep:					
	Number of establishments	74,710	70,020	67,940	67,820	65,658
	Employees (thousands)	76	70	68	68	66
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	462	373	423	420	341
	U.S. exports (million dollars)	65	35	25	23	25
	U.S. imports (million dollars)	144	166	179	206	238
	Apparent U.S. consumption (million dollars)	540	504	578	603	554
	Trade balance (million dollars)	-78	-131	-155	-183	-213
	Ratio of imports to consumption (percent)	26.6	32.9	31.1	34.2	42.9
	Ratio of exports to shipments (percent)	14.2	9.4	5.9	5.6	7.2
AG005	Poultry:					
	Number of establishments	450	440	430	420	417
	Employees (thousands)	190	185	180	175	170
	Capacity utilization (percent)	(²)				
	U.S. production (million dollars)	17,105	17,200	17,300	17,400	17,600
	U.S. exports (million dollars)	2,515	2,255	1,878	2,055	2,376
	U.S. imports (million dollars)	43	46	57	71	97
	Apparent U.S. consumption (million dollars)	14,633	14,990	15,479	15,416	15,321
	Trade balance (million dollars)	2,472	2,210	1,821	1,984	2,279
	Ratio of imports to consumption (percent)	0.3	0.3	0.4	0.5	0.6
	Ratio of exports to production (percent)	14.7	13.1	10.9	11.8	13.5
AG006	Fresh or frozen fish:					
	Number of establishments	1,421	1,400	1,400	1,450	1,380
	Employees (thousands)	40	39	40	41	39
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	5,517	5,224	5,051	5,550	5,200
	U.S. exports (million dollars)	1,609	1,289	1,634	1,705	2,016
	U.S. imports (million dollars)	2,471	2,641	2,945	3,103	2,958
	Apparent U.S. consumption (million dollars)	6,379	6,577	6,361	6,948	6,143
	Trade balance (million dollars)	-862	-1,353	-1,310	-1,398	-943
	Ratio of imports to consumption (percent)	38.7	40.2	46.3	44.7	48.2
	Ratio of exports to shipments (percent)	29.2	24.7	32.4	30.7	38.8

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG007	Canned fish:					
	Number of establishments	38	36	36	34	30
	Employees (thousands)	7	7	7	6	5
	Capacity utilization (percent)	65	60	65	75	75
	U.S. shipments (million dollars)	1,361	1,416	1,527	1,550	1,600
	U.S. exports (million dollars)	167	170	222	170	202
	U.S. imports (million dollars)	486	530	611	538	568
	Apparent U.S. consumption (million dollars)	1,680	1,776	1,916	1,919	1,967
	Trade balance (million dollars)	-319	-360	-389	-369	-367
	Ratio of imports to consumption (percent)	28.9	29.9	31.9	28.1	28.9
	Ratio of exports to shipments (percent)	12.3	12.0	14.5	10.9	12.6
AG008	Cured and other fish:					
	Number of establishments	114	114	114	120	120
	Employees (thousands)	9	9	9	10	10
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	275	300	300	300	320
	U.S. exports (million dollars)	159	146	166	168	193
	U.S. imports (million dollars)	249	252	277	294	298
	Apparent U.S. consumption (million dollars)	365	406	411	426	424
	Trade balance (million dollars)	-90	-106	-111	-126	-104
	Ratio of imports to consumption (percent)	68.2	62.1	67.4	69.0	70.2
	Ratio of exports to shipments (percent)	57.8	48.8	55.4	56.0	60.4
AG009	Shellfish:					
	Number of establishments	750	725	700	700	715
	Employees (thousands)	59	60	60	59	60
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	1,900	2,000	2,200	2,400	2,650
	U.S. exports (million dollars)	720	589	752	799	708
	U.S. imports (million dollars)	4,473	4,654	5,072	6,007	5,908
	Apparent U.S. consumption (million dollars)	5,653	6,065	6,519	7,608	7,850
	Trade balance (million dollars)	-3,753	-4,065	-4,319	-5,208	-5,200
	Ratio of imports to consumption (percent)	79.1	76.7	77.8	79.0	75.3
	Ratio of exports to production (percent)	37.9	29.5	34.2	33.3	26.7
AG010	Dairy produce:					
	Number of establishments	130,000	140,000	130,000	125,000	124,000
	Employees (thousands)	640	630	620	610	600
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	60,500	62,000	63,000	64,000	66,000
	U.S. exports (million dollars)	618	592	591	664	723
	U.S. imports (million dollars)	1,109	1,325	1,387	1,474	1,574
	Apparent U.S. consumption (million dollars)	60,992	62,733	63,796	64,810	66,851
	Trade balance (million dollars)	-492	-733	-796	-810	-851
	Ratio of imports to consumption (percent)	1.8	2.1	2.2	2.3	2.4
	Ratio of exports to shipments (percent)	1.0	1.0	0.9	1.0	1.1
AG011	Eggs:					
	Number of establishments	68	67	65	64	64
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	(²)				
	U.S. production (million dollars)	6,473	6,659	6,700	6,800	6,850
	U.S. exports (million dollars)	207	207	155	159	162
	U.S. imports (million dollars)	19	14	20	18	20
	Apparent U.S. consumption (million dollars)	6,285	6,466	6,566	6,659	6,708
	Trade balance (million dollars)	188	193	134	141	142
	Ratio of imports to consumption (percent)	0.3	0.2	0.3	0.3	0.3
	Ratio of exports to production (percent)	3.2	3.1	2.3	2.3	2.4

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG012A	Sugar:					
	Number of establishments	71	70	70	70	70
	Employees (thousands)	17	17	17	17	17
	Capacity utilization (percent)	93	89	90	92	92
	U.S. production (million dollars)	3,170	3,543	3,696	3,328	3,583
	U.S. exports (million dollars)	73	73	70	64	90
	U.S. imports (million dollars)	1,012	809	639	551	547
	Apparent U.S. consumption (million dollars)	4,109	4,279	4,265	3,816	4,040
	Trade balance (million dollars)	-939	-736	-569	-488	-457
	Ratio of imports to consumption (percent)	24.6	18.9	15.0	14.4	13.6
	Ratio of exports to production (percent)	2.3	2.0	1.9	1.9	2.5
AG012B	High fructose corn sweetener:					
	Number of establishments	20	20	23	22	22
	Employees (thousands)	12	11	11	11	11
	Capacity utilization (percent)	76	80	81	81	80
	U.S. production (million dollars)	3,084	2,269	2,558	2,743	3,055
	U.S. exports (million dollars)	102	123	103	101	83
	U.S. imports (million dollars)	32	33	34	32	39
	Apparent U.S. consumption (million dollars)	3,014	2,179	2,489	2,673	3,011
	Trade balance (million dollars)	70	90	69	70	44
	Ratio of imports to consumption (percent)	1.1	1.5	1.4	1.2	1.3
	Ratio of exports to production (percent)	3.3	5.4	4.0	3.7	2.7
AG013	Animal feeds:					
	Number of establishments	1,825	1,800	1,800	1,800	1,800
	Employees (thousands)	53	53	56	56	56
	Capacity utilization (percent)	72	72	79	79	79
	U.S. shipments (million dollars)	36,899	37,486	36,500	37,000	37,370
	U.S. exports (million dollars)	4,831	4,307	3,621	4,061	4,508
	U.S. imports (million dollars)	717	661	604	641	626
	Apparent U.S. consumption (million dollars)	32,785	33,840	33,483	33,581	33,489
	Trade balance (million dollars)	4,114	3,646	3,017	3,419	3,881
	Ratio of imports to consumption (percent)	2.2	2.0	1.8	1.9	1.9
	Ratio of exports to shipments (percent)	13.1	11.5	9.9	11.0	12.1
AG014	Live plants:					
	Number of establishments	26,000	28,000	30,000	30,000	30,000
	Employees (thousands)	120	130	139	140	140
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	10,572	11,744	12,175	12,800	13,440
	U.S. exports (million dollars)	117	142	144	132	116
	U.S. imports (million dollars)	336	387	428	460	495
	Apparent U.S. consumption (million dollars)	10,791	11,989	12,460	13,129	13,819
	Trade balance (million dollars)	-219	-245	-285	-329	-379
	Ratio of imports to consumption (percent)	3.1	3.2	3.4	3.5	3.6
	Ratio of exports to shipments (percent)	1.1	1.2	1.2	1.0	0.9
AG015	Seeds:					
	Number of establishments	12,398	12,479	12,561	12,500	12,500
	Employees (thousands)	(²)				
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	(²)				
	U.S. exports (million dollars)	854	821	779	766	747
	U.S. imports (million dollars)	379	423	455	471	421
	Apparent U.S. consumption (million dollars)	(²)				
	Trade balance (million dollars)	475	398	324	295	327
	Ratio of imports to consumption (percent)	(²)				
	Ratio of exports to production (percent)	(²)				

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG016	Cut flowers:					
	Number of establishments	2,400	2,400	2,200	2,000	1,800
	Employees (thousands)	34	34	32	30	26
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	462	437	451	460	455
	U.S. exports (million dollars)	49	45	41	40	39
	U.S. imports (million dollars)	595	614	592	611	565
	Apparent U.S. consumption (million dollars)	1,008	1,007	1,001	1,032	981
	Trade balance (million dollars)	-546	-570	-550	-572	-526
	Ratio of imports to consumption (percent)	59.0	61.0	59.1	59.2	57.6
	Ratio of exports to shipments (percent)	10.6	10.2	9.2	8.6	8.7
AG017	Miscellaneous vegetable substances:					
	Number of establishments	9,500	9,000	9,000	9,000	9,000
	Employees (thousands)	(²)				
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	1,000	900	900	900	900
	U.S. exports (million dollars)	468	459	453	485	505
	U.S. imports (million dollars)	813	956	839	790	794
	Apparent U.S. consumption (million dollars)	1,345	1,397	1,286	1,205	1,188
	Trade balance (million dollars)	-345	-497	-386	-305	-288
	Ratio of imports to consumption (percent)	60.5	68.4	65.3	65.5	66.8
	Ratio of exports to production (percent)	46.8	51.0	50.4	53.9	56.1
AG018	Fresh, chilled, or frozen vegetables:					
	Number of establishments	35,500	33,500	31,000	30,000	30,100
	Employees (thousands)	44	43	40	39	40
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	4,100	4,200	4,300	4,450	4,500
	U.S. exports (million dollars)	1,178	1,199	1,201	1,351	1,311
	U.S. imports (million dollars)	1,857	2,313	2,236	2,350	2,643
	Apparent U.S. consumption (million dollars)	4,778	5,314	5,335	5,449	5,833
	Trade balance (million dollars)	-678	-1,114	-1,035	-999	-1,333
	Ratio of imports to consumption (percent)	38.9	43.5	41.9	43.1	45.3
	Ratio of exports to production (percent)	28.7	28.6	27.9	30.4	29.1
AG019	Prepared or preserved vegetables, mushrooms, and olives:					
	Number of establishments	1,680	1,620	1,600	1,550	1,500
	Employees (thousands)	4	4	4	4	4
	Capacity utilization (percent)	85	87	89	88	87
	U.S. production (million dollars)	8,200	8,350	8,400	8,450	8,200
	U.S. exports (million dollars)	1,489	1,617	1,565	1,464	1,401
	U.S. imports (million dollars)	1,075	1,218	1,384	1,408	1,493
	Apparent U.S. consumption (million dollars)	7,786	7,951	8,220	8,394	8,292
	Trade balance (million dollars)	414	399	180	56	-92
	Ratio of imports to consumption (percent)	13.8	15.3	16.8	16.8	18.0
	Ratio of exports to production (percent)	18.2	19.4	18.6	17.3	17.1
AG020	Edible nuts:					
	Number of establishments	37,000	37,000	37,000	37,000	37,000
	Employees (thousands)	380	380	380	380	380
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	3,027	2,477	2,404	2,326	2,606
	U.S. exports (million dollars)	1,491	1,392	1,212	1,361	1,309
	U.S. imports (million dollars)	630	660	794	808	670
	Apparent U.S. consumption (million dollars)	2,166	1,745	1,986	1,773	1,967
	Trade balance (million dollars)	861	732	418	553	639
	Ratio of imports to consumption (percent)	29.1	37.8	40.0	45.6	34.1
	Ratio of exports to shipments (percent)	49.2	56.2	50.4	58.5	50.2

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG021	Tropical fruit:					
	Number of establishments	9,000	9,000	8,500	8,500	8,500
	Employees (thousands)	25	25	20	20	20
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	376	387	498	545	496
	U.S. exports (million dollars)	70	60	64	57	49
	U.S. imports (million dollars)	1,466	1,495	1,574	1,548	1,616
	Apparent U.S. consumption (million dollars)	1,772	1,821	2,008	2,035	2,063
	Trade balance (million dollars)	-1,396	-1,434	-1,510	-1,490	-1,567
	Ratio of imports to consumption (percent)	82.7	82.1	78.4	76.0	78.3
	Ratio of exports to shipments (percent)	18.7	15.6	12.8	10.5	9.8
AG022	Citrus fruit:					
	Number of establishments	17,650	17,562	17,450	17,450	17,300
	Employees (thousands)	93	92	91	91	90
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	2,574	2,600	2,500	2,640	2,262
	U.S. exports (million dollars)	735	672	498	635	613
	U.S. imports (million dollars)	201	211	331	311	308
	Apparent U.S. consumption (million dollars)	2,039	2,139	2,333	2,316	1,957
	Trade balance (million dollars)	535	461	167	324	305
	Ratio of imports to consumption (percent)	9.8	9.9	14.2	13.4	15.8
	Ratio of exports to production (percent)	28.6	25.9	19.9	24.1	27.1
AG023	Deciduous fruit:					
	Number of establishments	82,000	82,000	81,000	81,000	81,000
	Employees (thousands)	160	160	155	155	155
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,215	1,886	2,058	2,101	2,134
	U.S. exports (million dollars)	780	665	743	797	832
	U.S. imports (million dollars)	187	177	268	247	270
	Apparent U.S. consumption (million dollars)	1,623	1,398	1,583	1,550	1,572
	Trade balance (million dollars)	592	488	475	551	562
	Ratio of imports to consumption (percent)	11.6	12.7	16.9	15.9	17.2
	Ratio of exports to shipments (percent)	35.2	35.3	36.1	38.0	39.0
AG024	Other fresh fruit:					
	Number of establishments	60,000	60,000	55,000	55,000	55,000
	Employees (thousands)	120	120	115	115	115
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,309	2,222	2,383	2,199	2,521
	U.S. exports (million dollars)	557	484	562	638	674
	U.S. imports (million dollars)	717	890	1,031	1,024	1,065
	Apparent U.S. consumption (million dollars)	2,469	2,628	2,852	2,585	2,913
	Trade balance (million dollars)	-160	-406	-469	-386	-392
	Ratio of imports to consumption (percent)	29.0	33.9	36.1	39.6	36.6
	Ratio of exports to shipments (percent)	24.1	21.8	23.6	29.0	26.7
AG025	Dried fruit other than tropical:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	1,680	826	1,149	1,166	799
	U.S. exports (million dollars)	386	385	379	342	349
	U.S. imports (million dollars)	61	60	78	63	63
	Apparent U.S. consumption (million dollars)	1,355	501	848	887	514
	Trade balance (million dollars)	325	325	301	279	285
	Ratio of imports to consumption (percent)	4.5	12.0	9.2	7.1	12.3
	Ratio of exports to shipments (percent)	22.9	46.6	33.0	29.4	43.6

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG026	Frozen fruit:					
	Number of establishments	40	40	40	40	40
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	568	664	701	669	692
	U.S. exports (million dollars)	79	92	89	86	80
	U.S. imports (million dollars)	88	89	125	122	117
	Apparent U.S. consumption (million dollars) . .	577	661	738	705	729
	Trade balance (million dollars)	-9	3	-37	-36	-37
	Ratio of imports to consumption (percent)	15.3	13.4	17.0	17.3	16.0
	Ratio of exports to shipments (percent)	14.0	13.8	12.7	12.8	11.6
AG027	Prepared or preserved fruit:					
	Number of establishments	200	200	200	200	200
	Employees (thousands)	20	20	20	20	20
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	4,262	4,411	4,499	4,724	4,960
	U.S. exports (million dollars)	182	185	180	190	195
	U.S. imports (million dollars)	545	484	576	547	559
	Apparent U.S. consumption (million dollars) . .	4,625	4,710	4,895	5,080	5,324
	Trade balance (million dollars)	-363	-299	-396	-356	-364
	Ratio of imports to consumption (percent)	11.8	10.3	11.8	10.8	10.5
	Ratio of exports to shipments (percent)	4.3	4.2	4.0	4.0	3.9
AG028	Coffee and tea:					
	Number of establishments	247	247	247	247	247
	Employees (thousands)	8	8	8	7	7
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	7,287	7,153	7,281	7,427	7,229
	U.S. exports (million dollars)	254	263	284	298	314
	U.S. imports (million dollars)	4,071	3,656	3,114	2,921	1,915
	Apparent U.S. consumption (million dollars) . .	11,103	10,546	10,111	10,050	8,830
	Trade balance (million dollars)	-3,816	-3,393	-2,830	-2,623	-1,601
	Ratio of imports to consumption (percent)	36.7	34.7	30.8	29.1	21.7
	Ratio of exports to shipments (percent)	3.5	3.7	3.9	4.0	4.3
AG029	Spices:					
	Number of establishments	274	274	274	274	274
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	(²)				
	U.S. shipments (million dollars)	1,714	1,636	1,765	1,800	1,836
	U.S. exports (million dollars)	60	70	72	80	76
	U.S. imports (million dollars)	458	493	530	552	517
	Apparent U.S. consumption (million dollars) . .	2,113	2,059	2,223	2,272	2,277
	Trade balance (million dollars)	-399	-423	-458	-472	-441
	Ratio of imports to consumption (percent)	21.7	23.9	23.8	24.3	22.7
	Ratio of exports to shipments (percent)	3.5	4.2	4.1	4.4	4.1
AG030	Cereals:					
	Number of establishments	322,000	298,000	282,000	265,000	250,000
	Employees (thousands)	(²)				
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	39,900	35,600	28,770	25,760	26,900
	U.S. exports (million dollars)	11,105	9,989	10,128	9,467	9,397
	U.S. imports (million dollars)	983	771	730	660	761
	Apparent U.S. consumption (million dollars) . .	29,777	26,382	19,371	16,952	18,264
	Trade balance (million dollars)	10,123	9,218	9,399	8,808	8,636
	Ratio of imports to consumption (percent)	3.3	2.9	3.8	3.9	4.2
	Ratio of exports to production (percent)	27.8	28.1	35.2	36.8	34.9

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG031	Milled grains, malts, and starches:					
	Number of establishments	505	510	515	515	500
	Employees (thousands)	21	21	21	21	20
	Capacity utilization (percent)	86	83	77	78	85
	U.S. shipments (million dollars)	12,522	12,532	12,753	12,500	12,125
	U.S. exports (million dollars)	435	417	439	402	446
	U.S. imports (million dollars)	233	258	261	304	305
	Apparent U.S. consumption (million dollars)	12,320	12,373	12,575	12,402	11,983
	Trade balance (million dollars)	202	159	178	98	142
	Ratio of imports to consumption (percent)	1.9	2.1	2.1	2.5	2.5
	Ratio of exports to shipments (percent)	3.5	3.3	3.4	3.2	3.7
AG032	Oilseeds:					
	Number of establishments	322,000	298,000	282,000	265,000	250,000
	Employees (thousands)	(²)				
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	19,100	18,900	14,900	13,300	13,600
	U.S. exports (million dollars)	7,567	5,053	4,694	5,419	5,642
	U.S. imports (million dollars)	318	294	238	231	203
	Apparent U.S. consumption (million dollars)	11,851	14,140	10,443	8,112	8,161
	Trade balance (million dollars)	7,249	4,760	4,457	5,188	5,439
	Ratio of imports to consumption (percent)	2.7	2.1	2.3	2.8	2.5
	Ratio of exports to production (percent)	39.6	26.7	31.5	40.7	41.5
AG033	Animal or vegetable fats and oils:					
	Number of establishments	519	515	510	506	502
	Employees (thousands)	33	32	29	28	31
	Capacity utilization (percent)	90	84	84	87	90
	U.S. shipments (million dollars)	9,000	9,350	8,430	7,400	7,000
	U.S. exports (million dollars)	2,173	2,763	1,947	1,450	1,405
	U.S. imports (million dollars)	1,517	1,475	1,348	1,311	1,128
	Apparent U.S. consumption (million dollars)	8,344	8,061	7,831	7,261	6,723
	Trade balance (million dollars)	656	1,289	599	139	277
	Ratio of imports to consumption (percent)	18.2	18.3	17.2	18.1	16.8
	Ratio of exports to shipments (percent)	24.1	29.6	23.1	19.6	20.1
AG034	Pasta, cereals, and other bakery goods:					
	Number of establishments	4,400	4,450	4,450	4,450	4,450
	Employees (thousands)	288	290	297	303	310
	Capacity utilization (percent)	77	71	72	70	73
	U.S. shipments (million dollars)	57,521	59,910	62,731	64,751	66,837
	U.S. exports (million dollars)	992	1,051	1,044	1,092	1,153
	U.S. imports (million dollars)	1,322	1,461	1,637	1,755	1,902
	Apparent U.S. consumption (million dollars)	57,850	60,320	63,324	65,413	67,585
	Trade balance (million dollars)	-329	-410	-593	-662	-748
	Ratio of imports to consumption (percent)	2.3	2.4	2.6	2.7	2.8
	Ratio of exports to shipments (percent)	1.7	1.8	1.7	1.7	1.7
AG035	Sauces, condiments, and soups:					
	Number of establishments	250	250	255	255	255
	Employees (thousands)	30	30	30	30	30
	Capacity utilization (percent)	68	68	68	60	65
	U.S. shipments (million dollars)	15,210	15,514	15,828	16,065	16,390
	U.S. exports (million dollars)	530	529	587	641	737
	U.S. imports (million dollars)	353	396	457	502	576
	Apparent U.S. consumption (million dollars)	15,033	15,381	15,698	15,926	16,229
	Trade balance (million dollars)	177	133	130	139	161
	Ratio of imports to consumption (percent)	2.3	2.6	2.9	3.2	3.5
	Ratio of exports to shipments (percent)	3.5	3.4	3.7	4.0	4.5

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC						
code	Industry/commodity group	1997	1998	1999	2000	2001
AG036	Infant formulas, malt extracts, and other edible preparations:					
	Number of establishments	1,375	1,400	1,400	1,400	1,400
	Employees (thousands)	105	105	105	105	105
	Capacity utilization (percent)	65	72	72	70	75
	U.S. shipments (million dollars)	31,585	32,613	33,675	34,685	36,419
	U.S. exports (million dollars)	2,441	2,044	2,412	2,401	2,729
	U.S. imports (million dollars)	368	459	556	556	659
	Apparent U.S. consumption (million dollars) . .	29,512	31,028	31,819	32,840	34,349
	Trade balance (million dollars)	2,073	1,585	1,856	1,845	2,070
	Ratio of imports to consumption (percent)	1.2	1.5	1.7	1.7	1.9
	Ratio of exports to shipments (percent)	7.7	6.3	7.2	6.9	7.5
AG037	Cocoa, chocolate, and confectionery:					
	Number of establishments	1,000	1,010	1,200	1,300	1,300
	Employees (thousands)	73	74	80	90	90
	Capacity utilization (percent)	68	72	85	87	87
	U.S. shipments (million dollars)	12,700	12,800	14,000	16,000	16,000
	U.S. exports (million dollars)	728	655	697	851	997
	U.S. imports (million dollars)	2,006	2,284	2,238	2,178	2,301
	Apparent U.S. consumption (million dollars) . .	13,978	14,429	15,540	17,328	17,304
	Trade balance (million dollars)	-1,278	-1,629	-1,540	-1,328	-1,304
	Ratio of imports to consumption (percent)	14.3	15.8	14.4	12.6	13.3
	Ratio of exports to shipments (percent)	5.7	5.1	5.0	5.3	6.2
AG038	Fruit and vegetable juices:					
	Number of establishments	98	97	95	94	92
	Employees (thousands)	148	147	145	144	140
	Capacity utilization (percent)	83	83	83	83	83
	U.S. shipments (million dollars)	2,700	2,750	2,900	3,100	3,000
	U.S. exports (million dollars)	677	668	748	713	665
	U.S. imports (million dollars)	856	677	796	767	661
	Apparent U.S. consumption (million dollars) . .	2,878	2,759	2,948	3,153	2,995
	Trade balance (million dollars)	-178	-9	-48	-53	5
	Ratio of imports to consumption (percent)	29.7	24.5	27.0	24.3	22.1
	Ratio of exports to shipments (percent)	25.1	24.3	25.8	23.0	22.2
AG039	Nonalcoholic beverages, excluding fruit and vegetable juices:					
	Number of establishments	3,200	3,200	3,200	3,200	3,200
	Employees (thousands)	110	110	110	110	110
	Capacity utilization (percent)	67	67	67	67	67
	U.S. shipments (million dollars)	59,853	61,000	62,000	63,000	65,000
	U.S. exports (million dollars)	299	302	328	312	312
	U.S. imports (million dollars)	524	568	625	683	745
	Apparent U.S. consumption (million dollars) . .	60,079	61,266	62,298	63,371	65,434
	Trade balance (million dollars)	-226	-266	-298	-371	-434
	Ratio of imports to consumption (percent)	0.9	0.9	1.0	1.1	1.1
	Ratio of exports to shipments (percent)	0.5	0.5	0.5	0.5	0.5

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG040	Malt beverages:					
	Number of establishments	529	529	529	529	529
	Employees (thousands)	35	32	30	31	30
	Capacity utilization (percent)	75	82	80	79	80
	U.S. shipments (million dollars)	18,162	18,020	17,052	17,226	16,511
	U.S. exports (million dollars)	319	254	201	169	191
	U.S. imports (million dollars)	1,480	1,699	1,881	2,166	2,333
	Apparent U.S. consumption (million dollars)	19,324	19,465	18,732	19,222	18,653
	Trade balance (million dollars)	-1,162	-1,445	-1,680	-1,996	-2,142
	Ratio of imports to consumption (percent)	7.7	8.7	10.0	11.3	12.5
	Ratio of exports to shipments (percent)	1.8	1.4	1.2	1.0	1.2
AG041	Wine and certain other fermented beverages:					
	Number of establishments	1,994	1,994	2,000	2,646	2,646
	Employees (thousands)	18	20	21	22	23
	Capacity utilization (percent)	80	79	79	80	82
	U.S. shipments (million dollars)	6,194	6,830	6,811	7,400	7,455
	U.S. exports (million dollars)	415	532	541	551	531
	U.S. imports (million dollars)	1,716	1,881	2,210	2,259	2,316
	Apparent U.S. consumption (million dollars)	7,495	8,179	8,480	9,108	9,240
	Trade balance (million dollars)	-1,301	-1,349	-1,669	-1,708	-1,785
	Ratio of imports to consumption (percent)	22.9	23.0	26.1	24.8	25.1
	Ratio of exports to shipments (percent)	6.7	7.8	7.9	7.4	7.1
AG042	Distilled spirits:					
	Number of establishments	60	57	57	57	57
	Employees (thousands)	6	6	6	6	8
	Capacity utilization (percent)	65	60	63	63	68
	U.S. shipments (million dollars)	3,910	3,899	3,749	4,335	4,335
	U.S. exports (million dollars)	580	506	480	483	534
	U.S. imports (million dollars)	1,968	2,086	2,383	2,727	2,848
	Apparent U.S. consumption (million dollars)	5,298	5,479	5,651	6,579	6,648
	Trade balance (million dollars)	-1,388	-1,580	-1,902	-2,244	-2,313
	Ratio of imports to consumption (percent)	37.2	38.1	42.2	41.5	42.8
	Ratio of exports to shipments (percent)	14.8	13.0	12.8	11.1	12.3
AG043	Unmanufactured tobacco:					
	Number of establishments	21	21	21	21	20
	Employees (thousands)	5	6	4	4	3
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	3,263	3,567	2,507	2,418	2,418
	U.S. exports (million dollars)	1,553	1,459	1,294	1,222	1,268
	U.S. imports (million dollars)	1,089	771	711	628	680
	Apparent U.S. consumption (million dollars)	2,799	2,879	1,924	1,824	1,830
	Trade balance (million dollars)	464	688	583	594	588
	Ratio of imports to consumption (percent)	38.9	26.8	37.0	34.4	37.2
	Ratio of exports to production (percent)	47.6	40.9	51.6	50.5	52.5
AG044	Cigars and certain other manufactured tobacco:					
	Number of establishments	57	57	57	57	57
	Employees (thousands)	5	3	3	3	3
	Capacity utilization (percent)	86	75	75	74	73
	U.S. shipments (million dollars)	1,307	1,316	1,235	1,193	1,100
	U.S. exports (million dollars)	547	661	651	709	616
	U.S. imports (million dollars)	419	377	301	290	285
	Apparent U.S. consumption (million dollars)	1,179	1,032	885	774	769
	Trade balance (million dollars)	128	284	350	419	331
	Ratio of imports to consumption (percent)	35.5	36.6	34.0	37.5	37.1
	Ratio of exports to shipments (percent)	41.8	50.2	52.7	59.4	56.0

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG045	Cigarettes:					
	Number of establishments	11	11	10	10	10
	Employees (thousands)	21	21	18	17	18
	Capacity utilization (percent)	72	71	71	70	71
	U.S. shipments (million dollars)	29,253	32,800	39,686	39,686	42,787
	U.S. exports (million dollars)	4,409	4,166	3,232	3,308	2,118
	U.S. imports (million dollars)	44	59	112	212	189
	Apparent U.S. consumption (million dollars)	24,888	28,694	36,566	36,590	40,857
	Trade balance (million dollars)	4,365	4,106	3,120	3,096	1,930
	Ratio of imports to consumption (percent)	0.2	0.2	0.3	0.6	0.5
	Ratio of exports to shipments (percent)	15.1	12.7	8.1	8.3	5.0
AG046	Hides, skins, and leather:					
	Number of establishments	1,220	1,220	1,220	1,220	1,220
	Employees (thousands)	18	18	18	17	18
	Capacity utilization (percent)	(²)	(²)	(²)	(²)	(²)
	U.S. shipments (million dollars)	5,187	5,041	5,228	5,253	5,425
	U.S. exports (million dollars)	2,310	1,934	1,850	2,330	2,650
	U.S. imports (million dollars)	1,133	1,124	1,052	1,167	1,032
	Apparent U.S. consumption (million dollars)	4,010	4,232	4,430	4,090	3,808
	Trade balance (million dollars)	1,177	809	798	1,163	1,617
	Ratio of imports to consumption (percent)	28.2	26.6	23.7	28.5	27.1
	Ratio of exports to shipments (percent)	44.5	38.4	35.4	44.4	48.8
AG047	Furskins:					
	Number of establishments	452	438	398	351	345
	Employees (thousands)	3	3	2	2	2
	Capacity utilization (percent)	(¹)	(¹)	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	237	205	157	151	168
	U.S. exports (million dollars)	222	196	141	158	173
	U.S. imports (million dollars)	115	86	73	87	96
	Apparent U.S. consumption (million dollars)	130	96	90	81	91
	Trade balance (million dollars)	107	109	67	70	77
	Ratio of imports to consumption (percent)	88.2	90.2	81.6	³ 108.1	³ 105.4
	Ratio of exports to shipments (percent)	93.5	95.4	89.5	³ 104.4	³ 102.9
AG048	Wool and other animal hair:					
	Number of establishments	74,710	70,020	67,940	67,800	65,658
	Employees (thousands)	(²)	(²)	(²)	(²)	(²)
	Capacity utilization (percent)	(¹)	(¹)	(¹)	(¹)	(¹)
	U.S. production (million dollars)	60	42	28	26	20
	U.S. exports (million dollars)	17	13	22	19	11
	U.S. imports (million dollars)	179	141	70	74	57
	Apparent U.S. consumption (million dollars)	223	170	76	81	66
	Trade balance (million dollars)	-163	-128	-48	-55	-46
	Ratio of imports to consumption (percent)	80.5	82.7	92.5	90.9	86.3
	Ratio of exports to production (percent)	27.6	30.0	79.8	71.8	54.7
AG049	Cotton, not carded or combed:					
	Number of establishments	31,456	30,785	30,114	30,000	30,000
	Employees (thousands)	173	170	166	160	160
	Capacity utilization (percent)	(¹)	(¹)	(¹)	(¹)	(¹)
	U.S. production (million dollars)	5,981	4,141	3,810	4,260	3,384
	U.S. exports (million dollars)	2,682	2,545	968	1,883	2,164
	U.S. imports (million dollars)	3	14	136	21	4
	Apparent U.S. consumption (million dollars)	3,302	1,609	2,978	2,398	1,224
	Trade balance (million dollars)	2,679	2,532	832	1,862	2,160
	Ratio of imports to consumption (percent)	0.1	0.8	4.6	0.9	0.3
	Ratio of exports to production (percent)	44.8	61.5	25.4	44.2	64.0

See footnote(s) at end of table.

Table C-1--Continued

Agricultural products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG050	Ethyl alcohol for nonbeverage purposes:					
	Number of establishments	45	47	57	62	61
	Employees (thousands)	7	7	7	8	8
	Capacity utilization (percent)	80	80	78	87	75
	U.S. production (million dollars)	1,550	1,600	2,000	2,000	1,742
	U.S. exports (million dollars)	123	58	58	91	125
	U.S. imports (million dollars)	119	124	130	162	178
	Apparent U.S. consumption (million dollars)	1,546	1,666	2,073	2,070	1,795
	Trade balance (million dollars)	4	-66	-73	-70	-53
	Ratio of imports to consumption (percent)	7.7	7.4	6.3	7.8	9.9
	Ratio of exports to production (percent)	7.9	3.6	2.9	4.6	7.2

¹Capacity utilization could not be meaningfully calculated for this industry.

²Not available.

³Inventory changes, for which data are not available, likely account for ratios that exceed 100 percent.

Note.—Calculations based on unrounded data.

Table C-2
Forest products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups,
1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG051	Logs and rough wood products:					
	Number of establishments	13,500	13,500	13,800	13,500	13,500
	Employees (thousands)	85	85	85	83	84
	Capacity utilization (percent)	92	92	92	95	93
	U.S. shipments (million dollars)	13,800	15,000	15,500	16,000	16,500
	U.S. exports (million dollars)	2,399	1,927	1,885	1,941	1,622
	U.S. imports (million dollars)	420	423	495	576	582
	Apparent U.S. consumption (million dollars)	11,820	13,497	14,110	14,635	15,461
	Trade balance (million dollars)	1,980	1,503	1,390	1,365	1,039
	Ratio of imports to consumption (percent)	3.6	3.1	3.5	3.9	3.8
	Ratio of exports to shipments (percent)	17.4	12.8	12.2	12.1	9.8
AG052	Lumber:					
	Number of establishments	5,400	5,400	5,300	5,200	5,000
	Employees (thousands)	159	160	155	152	150
	Capacity utilization (percent)	90	90	92	92	89
	U.S. shipments (million dollars)	30,700	32,000	33,000	35,000	35,000
	U.S. exports (million dollars)	2,553	2,002	2,184	2,210	1,781
	U.S. imports (million dollars)	7,368	6,743	7,820	7,071	6,854
	Apparent U.S. consumption (million dollars)	35,515	36,741	38,636	39,860	40,073
	Trade balance (million dollars)	-4,815	-4,741	-5,636	-4,860	-5,073
	Ratio of imports to consumption (percent)	20.7	18.4	20.2	17.7	17.1
	Ratio of exports to shipments (percent)	8.3	6.3	6.6	6.3	5.1
AG053	Moldings, millwork, and joinery:					
	Number of establishments	5,200	5,300	5,300	5,200	5,200
	Employees (thousands)	160	170	170	165	160
	Capacity utilization (percent)	85	87	87	90	90
	U.S. shipments (million dollars)	22,900	25,000	26,000	28,000	29,000
	U.S. exports (million dollars)	642	548	545	553	467
	U.S. imports (million dollars)	1,594	1,924	2,521	2,518	2,521
	Apparent U.S. consumption (million dollars)	23,852	26,376	27,976	29,966	31,054
	Trade balance (million dollars)	-952	-1,376	-1,976	-1,966	-2,054
	Ratio of imports to consumption (percent)	6.7	7.3	9.0	8.4	8.1
	Ratio of exports to shipments (percent)	2.8	2.2	2.1	2.0	1.6
AG054	Wood veneer and wood panels:					
	Number of establishments	800	810	810	800	780
	Employees (thousands)	73	74	75	73	70
	Capacity utilization (percent)	80	82	82	83	85
	U.S. production (million dollars)	13,900	14,400	14,500	14,800	15,000
	U.S. exports (million dollars)	1,166	929	958	1,029	889
	U.S. imports (million dollars)	2,249	2,767	3,574	3,471	3,280
	Apparent U.S. consumption (million dollars)	14,983	16,238	17,115	17,243	17,391
	Trade balance (million dollars)	-1,083	-1,838	-2,615	-2,443	-2,391
	Ratio of imports to consumption (percent)	15.0	17.0	20.9	20.1	18.9
	Ratio of exports to production (percent)	8.4	6.5	6.6	6.9	5.9
AG055	Wooden containers:					
	Number of establishments	2,875	2,900	2,800	2,800	2,800
	Employees (thousands)	51	55	55	52	52
	Capacity utilization (percent)	80	82	82	85	85
	U.S. production (million dollars)	4,500	4,500	4,700	5,000	5,200
	U.S. exports (million dollars)	112	138	172	197	150
	U.S. imports (million dollars)	348	419	471	565	555
	Apparent U.S. consumption (million dollars)	4,736	4,781	4,999	5,369	5,605
	Trade balance (million dollars)	-236	-281	-299	-369	-405
	Ratio of imports to consumption (percent)	7.4	8.8	9.4	10.5	9.9
	Ratio of exports to production (percent)	2.5	3.1	3.7	3.9	2.9

See footnote(s) at end of table.

Table C-2--Continued

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG056	Tools and tool handles of wood:					
	Number of establishments	125	125	125	120	110
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	75	78	78	75	75
	U.S. production (million dollars)	115	120	120	125	130
	U.S. exports (million dollars)	37	36	44	53	37
	U.S. imports (million dollars)	117	117	120	136	130
	Apparent U.S. consumption (million dollars)	195	201	195	207	223
	Trade balance (million dollars)	-80	-81	-75	-82	-93
	Ratio of imports to consumption (percent)	59.9	58.4	61.2	65.4	58.2
	Ratio of exports to production (percent)	32.0	30.4	36.8	42.6	28.4
AG058	Cork and rattan:					
	Number of establishments	30	30	30	30	30
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	80	80	80	80	80
	U.S. production (million dollars)	112	110	110	115	120
	U.S. exports (million dollars)	76	85	90	86	53
	U.S. imports (million dollars)	407	447	450	485	522
	Apparent U.S. consumption (million dollars)	444	472	469	514	589
	Trade balance (million dollars)	-332	-362	-359	-399	-469
	Ratio of imports to consumption (percent)	91.9	94.6	95.8	94.3	88.7
	Ratio of exports to production (percent)	67.8	77.0	82.0	74.5	44.4
AG059	Wood pulp and wastepaper:					
	Number of establishments	72	70	68	68	67
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	93	91	86	89	93
	U.S. production (million dollars)	7,400	7,300	7,900	9,300	8,100
	U.S. exports (million dollars)	3,893	3,452	3,540	4,619	3,711
	U.S. imports (million dollars)	2,656	2,447	2,604	3,388	2,650
	Apparent U.S. consumption (million dollars)	6,163	6,295	6,964	8,069	7,039
	Trade balance (million dollars)	1,237	1,005	936	1,231	1,061
	Ratio of imports to consumption (percent)	43.1	38.9	37.4	42.0	37.6
	Ratio of exports to production (percent)	52.6	47.3	44.8	49.7	45.8
AG060	Paper boxes and bags:					
	Number of establishments	2,982	2,997	3,013	3,029	3,045
	Employees (thousands)	225	227	228	230	232
	Capacity utilization (percent)	(²)				
	U.S. production (million dollars)	42,993	44,730	46,549	48,454	50,451
	U.S. exports (million dollars)	1,296	1,345	1,416	1,500	1,445
	U.S. imports (million dollars)	674	745	802	940	1,011
	Apparent U.S. consumption (million dollars)	42,371	44,130	45,934	47,893	50,016
	Trade balance (million dollars)	622	600	615	561	435
	Ratio of imports to consumption (percent)	1.6	1.7	1.7	2.0	2.0
	Ratio of exports to production (percent)	3.0	3.0	3.0	3.1	2.9
AG061	Industrial papers and paperboards:					
	Number of establishments	378	379	367	367	359
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	95	92	96	92	91
	U.S. production (million dollars)	37,800	38,800	41,600	41,900	41,000
	U.S. exports (million dollars)	5,407	5,185	5,018	5,490	5,208
	U.S. imports (million dollars)	2,044	2,267	2,596	2,928	3,053
	Apparent U.S. consumption (million dollars)	34,437	35,882	39,179	39,337	38,846
	Trade balance (million dollars)	3,363	2,918	2,421	2,563	2,154
	Ratio of imports to consumption (percent)	5.9	6.3	6.6	7.4	7.9
	Ratio of exports to production (percent)	14.3	13.4	12.1	13.1	12.7

See footnote(s) at end of table.

Table C-2--Continued

Forest products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
AG062	Newsprint:					
	Number of establishments	25	25	24	24	24
	Employees (thousands)	9	9	9	9	8
	Capacity utilization (percent)	99	97	97	99	99
	U.S. shipments (million dollars)	3,712	4,147	3,316	3,495	3,443
	U.S. exports (million dollars)	522	460	423	492	409
	U.S. imports (million dollars)	3,590	3,766	3,517	3,789	3,597
	Apparent U.S. consumption (million dollars) . .	6,780	7,452	6,410	6,792	6,631
	Trade balance (million dollars)	-3,068	-3,305	-3,094	-3,297	-3,188
	Ratio of imports to consumption (percent)	53.0	50.5	54.9	55.8	54.2
	Ratio of exports to shipments (percent)	14.1	11.1	12.8	14.1	11.9
AG063	Printing and writing papers:					
	Number of establishments	120	120	120	115	115
	Employees (thousands)	71	(¹)	(¹)	(¹)	(¹)
	Capacity utilization (percent)	94	92	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	23,413	23,723	23,379	24,275	22,000
	U.S. exports (million dollars)	1,431	1,350	1,490	1,691	1,503
	U.S. imports (million dollars)	3,773	4,289	4,538	5,206	4,983
	Apparent U.S. consumption (million dollars) . .	25,754	26,662	26,427	27,791	25,480
	Trade balance (million dollars)	-2,341	-2,939	-3,048	-3,516	-3,480
	Ratio of imports to consumption (percent)	14.6	16.1	17.2	18.7	19.6
	Ratio of exports to shipments (percent)	6.1	5.7	6.4	7.0	6.8
AG064	Certain specialty papers:					
	Number of establishments	(¹)				
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	4,900	5,091	5,300	5,564	5,600
	U.S. exports (million dollars)	760	701	641	689	618
	U.S. imports (million dollars)	808	845	971	1,138	1,067
	Apparent U.S. consumption (million dollars) . .	4,948	5,235	5,630	6,013	6,049
	Trade balance (million dollars)	-48	-144	-330	-449	-449
	Ratio of imports to consumption (percent)	16.3	16.1	17.2	18.9	17.6
	Ratio of exports to shipments (percent)	15.5	13.8	12.1	12.4	11.0
AG066	Printed matter:					
	Number of establishments	60,000	70,000	62,000	62,000	62,000
	Employees (thousands)	1,500	1,500	1,500	1,500	1,500
	Capacity utilization (percent)	77	78	76	75	(¹)
	U.S. shipments (million dollars)	206,000	217,000	229,000	240,000	243,000
	U.S. exports (million dollars)	4,287	4,308	4,195	4,306	4,353
	U.S. imports (million dollars)	2,719	2,923	3,161	3,489	3,536
	Apparent U.S. consumption (million dollars) . .	204,431	215,615	227,966	239,183	242,183
	Trade balance (million dollars)	1,569	1,385	1,034	817	817
	Ratio of imports to consumption (percent)	1.3	1.4	1.4	1.5	1.5
	Ratio of exports to shipments (percent)	2.1	2.0	1.8	1.8	1.8

¹Not available.

²Capacity utilization could not be meaningfully calculated for this industry.

Note.—Calculations based on unrounded data.

Table C-3

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH007	Major primary olefins:					
	Number of establishments	37	37	37	37	37
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	95	97	98	97	92
	U.S. shipments (million dollars)	14,700	15,500	17,000	18,500	17,500
	U.S. exports (million dollars)	306	169	181	299	120
	U.S. imports (million dollars)	1,520	1,360	1,798	3,552	2,913
	Apparent U.S. consumption (million dollars)	15,914	16,691	18,617	21,753	20,293
	Trade balance (million dollars)	-1,214	-1,191	-1,617	-3,253	-2,793
	Ratio of imports to consumption (percent)	9.5	8.1	9.7	16.3	14.4
	Ratio of exports to shipments (percent)	2.1	1.1	1.1	1.6	0.7
CH008	Other olefins:					
	Number of establishments	23	23	23	23	23
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	95	97	98	97	95
	U.S. shipments (million dollars)	1,150	1,220	1,350	1,500	1,500
	U.S. exports (million dollars)	175	211	208	264	311
	U.S. imports (million dollars)	62	82	91	156	143
	Apparent U.S. consumption (million dollars)	1,037	1,091	1,233	1,392	1,332
	Trade balance (million dollars)	113	129	117	108	168
	Ratio of imports to consumption (percent)	6.0	7.5	7.4	11.2	10.7
	Ratio of exports to shipments (percent)	15.2	17.3	15.4	17.6	20.7
CH009	Primary aromatics:					
	Number of establishments	31	31	31	31	31
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	80	80	80	85	85
	U.S. shipments (million dollars)	4,400	4,000	4,250	5,300	4,900
	U.S. exports (million dollars)	255	56	91	105	122
	U.S. imports (million dollars)	856	704	815	1,563	1,122
	Apparent U.S. consumption (million dollars)	5,001	4,647	4,974	6,759	5,900
	Trade balance (million dollars)	-601	-647	-724	-1,459	-1,000
	Ratio of imports to consumption (percent)	17.1	15.1	16.4	23.1	19.0
	Ratio of exports to shipments (percent)	5.8	1.4	2.1	2.0	2.5
CH014	Inorganic acids:					
	Number of establishments	143	143	143	140	140
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	80	82	80	84	81
	U.S. shipments (million dollars)	2,765	2,820	2,876	2,991	2,858
	U.S. exports (million dollars)	192	186	204	246	242
	U.S. imports (million dollars)	262	282	238	251	252
	Apparent U.S. consumption (million dollars)	2,835	2,915	2,910	2,996	2,867
	Trade balance (million dollars)	-70	-95	-34	-5	-9
	Ratio of imports to consumption (percent)	9.2	9.7	8.2	8.4	8.8
	Ratio of exports to shipments (percent)	7.0	6.6	7.1	8.2	8.5
CH015	Chlor-alkali chemicals:					
	Number of establishments	60	65	65	68	68
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	95	95	88	91	85
	U.S. shipments (million dollars)	4,639	4,577	4,962	5,480	5,604
	U.S. exports (million dollars)	824	834	781	862	1,054
	U.S. imports (million dollars)	184	191	126	162	219
	Apparent U.S. consumption (million dollars)	3,998	3,935	4,307	4,780	4,769
	Trade balance (million dollars)	641	642	655	700	835
	Ratio of imports to consumption (percent)	4.6	4.9	2.9	3.4	4.6
	Ratio of exports to shipments (percent)	17.8	18.2	15.7	15.7	18.8

See footnote(s) at end of table.

Table C-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH016	Fertilizers:					
	Number of establishments	350	350	350	350	350
	Employees (thousands)	23	23	23	22	22
	Capacity utilization (percent)	93	92	90	78	76
	U.S. shipments (million dollars)	9,600	9,400	8,000	7,500	7,500
	U.S. exports (million dollars)	3,138	3,339	3,032	2,381	2,179
	U.S. imports (million dollars)	2,492	2,472	2,486	3,224	3,478
	Apparent U.S. consumption (million dollars) . .	8,954	8,533	7,454	8,343	8,799
	Trade balance (million dollars)	646	867	546	-843	-1,299
	Ratio of imports to consumption (percent)	27.8	29.0	33.4	38.6	39.5
	Ratio of exports to shipments (percent)	32.7	35.5	37.9	31.7	29.1
CH017	Paints, inks, and related items, and certain components thereof:					
	Number of establishments	1,500	1,500	1,490	1,475	1,470
	Employees (thousands)	15	15	15	16	16
	Capacity utilization (percent)	85	85	85	88	85
	U.S. shipments (million dollars)	21,500	22,800	24,000	25,000	25,600
	U.S. exports (million dollars)	2,934	3,112	3,327	3,802	3,546
	U.S. imports (million dollars)	1,726	1,755	1,959	2,119	2,090
	Apparent U.S. consumption (million dollars) . .	20,292	21,443	22,632	23,317	24,145
	Trade balance (million dollars)	1,208	1,357	1,368	1,683	1,455
	Ratio of imports to consumption (percent)	8.5	8.2	8.7	9.1	8.7
	Ratio of exports to shipments (percent)	13.6	13.6	13.9	15.2	13.9
CH018	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	80
	U.S. shipments (million dollars)	920	959	1,050	1,100	1,100
	U.S. exports (million dollars)	337	349	360	373	329
	U.S. imports (million dollars)	401	402	404	358	301
	Apparent U.S. consumption (million dollars) . .	983	1,012	1,093	1,084	1,071
	Trade balance (million dollars)	-63	-53	-43	16	29
	Ratio of imports to consumption (percent)	40.8	39.7	36.9	33.0	28.1
	Ratio of exports to shipments (percent)	36.7	36.4	34.3	33.9	29.9
CH019	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	80
	U.S. shipments (million dollars)	1,100	1,122	1,230	1,320	1,320
	U.S. exports (million dollars)	489	453	404	436	361
	U.S. imports (million dollars)	628	555	527	481	378
	Apparent U.S. consumption (million dollars) . .	1,239	1,224	1,353	1,365	1,336
	Trade balance (million dollars)	-139	-102	-123	-45	-16
	Ratio of imports to consumption (percent)	50.7	45.3	38.9	35.3	28.3
	Ratio of exports to shipments (percent)	44.4	40.3	32.8	33.0	27.4
CH020	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	80
	U.S. shipments (million dollars)	20	20	22	24	24
	U.S. exports (million dollars)	17	19	13	18	17
	U.S. imports (million dollars)	8	6	7	7	5
	Apparent U.S. consumption (million dollars) . .	11	7	16	13	12
	Trade balance (million dollars)	9	13	6	11	12
	Ratio of imports to consumption (percent)	71.6	81.6	45.3	55.5	41.4
	Ratio of exports to shipments (percent)	84.6	93.1	60.4	76.3	70.2

See footnote(s) at end of table.

Table C-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH021	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	80
	U.S. shipments (million dollars)	30	30	30	30	30
	U.S. exports (million dollars)	21	21	21	24	26
	U.S. imports (million dollars)	62	66	71	73	65
	Apparent U.S. consumption (million dollars)	72	75	80	79	70
	Trade balance (million dollars)	-42	-45	-50	-49	-40
	Ratio of imports to consumption (percent)	87.1	87.8	88.6	91.9	93.9
	Ratio of exports to shipments (percent)	69.2	69.6	69.7	78.6	85.8
CH022	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	80
	U.S. shipments (million dollars)	(¹)				
	U.S. exports (million dollars)	501	449	433	507	413
	U.S. imports (million dollars)	733	633	564	555	479
	Apparent U.S. consumption (million dollars)	(¹)				
	Trade balance (million dollars)	-231	-184	-131	-48	-66
	Ratio of imports to consumption (percent)	(¹)				
	Ratio of exports to shipments (percent)	(¹)				
CH023	Pesticide products and formulations:					
	Number of establishments	55	55	55	55	55
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	85	88	85	85	85
	U.S. shipments (million dollars)	11,420	11,420	10,260	9,790	9,350
	U.S. exports (million dollars)	2,316	2,415	2,228	2,052	2,180
	U.S. imports (million dollars)	1,240	1,335	1,217	1,118	1,318
	Apparent U.S. consumption (million dollars)	10,344	10,341	9,248	8,855	8,488
	Trade balance (million dollars)	1,076	1,079	1,012	935	862
	Ratio of imports to consumption (percent)	12.0	12.9	13.2	12.6	15.5
	Ratio of exports to shipments (percent)	20.3	21.1	21.7	21.0	23.3
CH024	Adhesives and glues:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	10	10	10	10	10
	Capacity utilization (percent)	86	85	85	85	85
	U.S. shipments (million dollars)	4,800	4,888	5,000	5,100	5,200
	U.S. exports (million dollars)	457	477	502	602	565
	U.S. imports (million dollars)	150	159	181	194	176
	Apparent U.S. consumption (million dollars)	4,493	4,570	4,679	4,692	4,812
	Trade balance (million dollars)	307	318	321	408	388
	Ratio of imports to consumption (percent)	3.3	3.5	3.9	4.1	3.7
	Ratio of exports to shipments (percent)	9.5	9.7	10.0	11.8	10.9
CH025	Medicinal chemicals:					
	Number of establishments	720	718	718	718	718
	Employees (thousands)	205	208	208	208	208
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	71,800	81,300	91,800	105,600	107,000
	U.S. exports (million dollars)	10,363	11,975	13,701	15,772	18,169
	U.S. imports (million dollars)	14,193	17,953	23,782	29,112	33,956
	Apparent U.S. consumption (million dollars)	75,630	87,278	101,881	118,940	122,788
	Trade balance (million dollars)	-3,830	-5,978	-10,081	-13,340	-15,788
	Ratio of imports to consumption (percent)	18.8	20.6	23.3	24.5	27.7
	Ratio of exports to shipments (percent)	14.4	14.7	14.9	14.9	17.0

See footnote(s) at end of table.

Table C-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH026	Essential oils and other flavoring materials:					
	Number of establishments	53	53	53	53	53
	Employees (thousands)	50	50	51	50	50
	Capacity utilization (percent)	80	80	82	82	82
	U.S. shipments (million dollars)	3,100	3,200	3,400	3,500	3,500
	U.S. exports (million dollars)	1,018	916	948	1,034	1,109
	U.S. imports (million dollars)	812	836	754	775	736
	Apparent U.S. consumption (million dollars)	2,894	3,120	3,206	3,242	3,127
	Trade balance (million dollars)	206	80	194	258	373
	Ratio of imports to consumption (percent)	28.0	26.8	23.5	23.9	23.5
	Ratio of exports to shipments (percent)	32.8	28.6	27.9	29.5	31.7
CH027	Perfumes, cosmetics, and toiletries:					
	Number of establishments	650	650	650	650	650
	Employees (thousands)	57	58	59	60	59
	Capacity utilization (percent)	85	87	88	87	87
	U.S. shipments (million dollars)	19,350	20,000	21,500	23,000	23,300
	U.S. exports (million dollars)	2,607	2,572	2,578	2,851	3,187
	U.S. imports (million dollars)	1,428	1,629	1,864	2,192	2,443
	Apparent U.S. consumption (million dollars)	18,171	19,057	20,786	22,341	22,556
	Trade balance (million dollars)	1,179	943	714	659	744
	Ratio of imports to consumption (percent)	7.9	8.6	9.0	9.8	10.8
	Ratio of exports to shipments (percent)	13.5	12.9	12.0	12.4	13.7
CH028	Soaps, detergents, and surface-active agents:					
	Number of establishments	950	950	950	950	960
	Employees (thousands)	50	50	52	52	52
	Capacity utilization (percent)	87	87	88	87	87
	U.S. shipments (million dollars)	16,600	17,000	17,700	18,500	19,500
	U.S. exports (million dollars)	2,028	1,961	2,138	2,331	2,223
	U.S. imports (million dollars)	847	875	948	1,050	1,115
	Apparent U.S. consumption (million dollars)	15,419	15,914	16,510	17,220	18,393
	Trade balance (million dollars)	1,181	1,086	1,190	1,280	1,107
	Ratio of imports to consumption (percent)	5.5	5.5	5.7	6.1	6.1
	Ratio of exports to shipments (percent)	12.2	11.5	12.1	12.6	11.4
CH030	Explosives, propellant powders, and related items:					
	Number of establishments	130	127	125	122	120
	Employees (thousands)	13	13	13	13	13
	Capacity utilization (percent)	90	88	87	85	84
	U.S. shipments (million dollars)	1,850	1,930	2,000	2,080	2,110
	U.S. exports (million dollars)	291	292	264	314	254
	U.S. imports (million dollars)	237	248	267	265	285
	Apparent U.S. consumption (million dollars)	1,796	1,886	2,003	2,031	2,141
	Trade balance (million dollars)	54	44	-3	49	-31
	Ratio of imports to consumption (percent)	13.2	13.2	13.3	13.0	13.3
	Ratio of exports to shipments (percent)	15.7	15.2	13.2	15.1	12.0
CH031	Polyethylene resins in primary forms:					
	Number of establishments	43	44	45	46	46
	Employees (thousands)	20	21	22	22	22
	Capacity utilization (percent)	90	88	89	88	80
	U.S. shipments (million dollars)	8,600	8,800	9,400	10,500	9,100
	U.S. exports (million dollars)	2,455	2,134	2,249	2,688	2,416
	U.S. imports (million dollars)	1,261	1,150	1,329	1,650	1,735
	Apparent U.S. consumption (million dollars)	7,406	7,816	8,480	9,462	8,419
	Trade balance (million dollars)	1,194	984	920	1,038	681
	Ratio of imports to consumption (percent)	17.0	14.7	15.7	17.4	20.6
	Ratio of exports to shipments (percent)	28.5	24.3	23.9	25.6	26.6

See footnote(s) at end of table.

Table C-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH032	Polypropylene resins in primary forms:					
	Number of establishments	25	26	26	27	27
	Employees (thousands)	5	6	6	6	6
	Capacity utilization (percent)	94	90	91	88	88
	U.S. shipments (million dollars)	4,400	3,800	4,400	4,500	4,000
	U.S. exports (million dollars)	844	760	863	1,131	1,100
	U.S. imports (million dollars)	212	220	232	251	219
	Apparent U.S. consumption (million dollars)	3,768	3,260	3,770	3,620	3,119
	Trade balance (million dollars)	632	540	630	880	881
	Ratio of imports to consumption (percent)	5.6	6.8	6.2	6.9	7.0
	Ratio of exports to shipments (percent)	19.2	20.0	19.6	25.1	27.5
CH033	Polyvinyl chloride resins in primary forms:					
	Number of establishments	28	28	28	28	28
	Employees (thousands)	7	8	8	8	8
	Capacity utilization (percent)	93	90	95	84	83
	U.S. shipments (million dollars)	3,800	3,700	3,700	4,200	3,500
	U.S. exports (million dollars)	858	767	626	716	1,004
	U.S. imports (million dollars)	271	247	235	331	332
	Apparent U.S. consumption (million dollars)	3,213	3,180	3,309	3,815	2,828
	Trade balance (million dollars)	587	520	391	385	672
	Ratio of imports to consumption (percent)	8.4	7.8	7.1	8.7	11.7
	Ratio of exports to shipments (percent)	22.6	20.7	16.9	17.1	28.7
CH034	Styrene polymers in primary forms:					
	Number of establishments	69	69	69	69	69
	Employees (thousands)	11	11	11	11	11
	Capacity utilization (percent)	93	85	89	89	89
	U.S. shipments (million dollars)	5,600	5,300	5,500	5,900	5,200
	U.S. exports (million dollars)	824	779	753	848	731
	U.S. imports (million dollars)	353	418	427	572	579
	Apparent U.S. consumption (million dollars)	5,129	4,939	5,174	5,624	5,048
	Trade balance (million dollars)	471	361	326	276	152
	Ratio of imports to consumption (percent)	6.9	8.5	8.2	10.2	11.5
	Ratio of exports to shipments (percent)	14.7	14.7	13.7	14.4	14.0
CH035	Saturated polyester resins:					
	Number of establishments	50	52	52	52	52
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	90	85	82	82	85
	U.S. shipments (million dollars)	4,500	4,600	4,800	5,000	5,500
	U.S. exports (million dollars)	696	626	566	629	798
	U.S. imports (million dollars)	355	451	448	522	502
	Apparent U.S. consumption (million dollars)	4,159	4,425	4,682	4,893	5,204
	Trade balance (million dollars)	341	175	118	107	296
	Ratio of imports to consumption (percent)	8.5	10.2	9.6	10.7	9.7
	Ratio of exports to shipments (percent)	15.5	13.6	11.8	12.6	14.5
CH037	Styrene-butadiene rubber in primary forms:					
	Number of establishments	11	11	11	11	11
	Employees (thousands)	12	11	11	11	11
	Capacity utilization (percent)	90	90	88	88	90
	U.S. shipments (million dollars)	6,150	5,340	5,570	5,980	6,400
	U.S. exports (million dollars)	348	322	309	344	297
	U.S. imports (million dollars)	163	175	173	232	258
	Apparent U.S. consumption (million dollars)	5,966	5,194	5,433	5,868	6,361
	Trade balance (million dollars)	184	146	137	112	39
	Ratio of imports to consumption (percent)	2.7	3.4	3.2	4.0	4.1
	Ratio of exports to shipments (percent)	5.7	6.0	5.6	5.8	4.6

See footnote(s) at end of table.

Table C-3--Continued

Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH038	Other synthetic rubber:					
	Number of establishments	34	34	34	34	34
	Employees (thousands)	11	11	11	11	11
	Capacity utilization (percent)	83	82	82	83	83
	U.S. shipments (million dollars)	3,700	3,600	3,400	3,600	3,700
	U.S. exports (million dollars)	1,111	1,064	1,079	1,317	1,328
	U.S. imports (million dollars)	614	669	697	778	734
	Apparent U.S. consumption (million dollars) . .	3,204	3,205	3,018	3,061	3,106
	Trade balance (million dollars)	496	395	382	539	594
	Ratio of imports to consumption (percent)	19.2	20.9	23.1	25.4	23.6
	Ratio of exports to shipments (percent)	30.0	29.6	31.7	36.6	35.9
CH039	Pneumatic tires and tubes (new):					
	Number of establishments	42	42	42	42	42
	Employees (thousands)	64	65	64	66	66
	Capacity utilization (percent)	92	95	92	93	96
	U.S. shipments (million dollars)	14,730	14,320	13,950	14,600	15,330
	U.S. exports (million dollars)	2,403	2,532	2,366	2,414	2,282
	U.S. imports (million dollars)	3,343	4,011	4,559	4,700	4,146
	Apparent U.S. consumption (million dollars) . .	15,669	15,799	16,143	16,886	17,194
	Trade balance (million dollars)	-939	-1,479	-2,193	-2,286	-1,864
	Ratio of imports to consumption (percent)	21.3	25.4	28.2	27.8	24.1
	Ratio of exports to shipments (percent)	16.3	17.7	17.0	16.5	14.9
CH040	Other tires:					
	Number of establishments	1,400	1,400	1,400	1,400	1,400
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	970	1,000	990	1,020	1,050
	U.S. exports (million dollars)	86	93	111	89	96
	U.S. imports (million dollars)	132	143	129	137	122
	Apparent U.S. consumption (million dollars) . .	1,016	1,050	1,008	1,068	1,076
	Trade balance (million dollars)	-46	-50	-18	-48	-26
	Ratio of imports to consumption (percent)	13.0	13.6	12.8	12.8	11.3
	Ratio of exports to shipments (percent)	8.9	9.3	11.2	8.7	9.2
CH044	Natural rubber:					
	Number of establishments	(¹)				
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	(¹)				
	U.S. exports (million dollars)	41	36	41	39	34
	U.S. imports (million dollars)	1,229	977	704	842	613
	Apparent U.S. consumption (million dollars) . .	(¹)				
	Trade balance (million dollars)	-1,189	-941	-664	-803	-579
	Ratio of imports to consumption (percent)	(¹)				
	Ratio of exports to shipments (percent)	(¹)				

¹Not available.

Note.—Calculations based on unrounded data.

Table C-4
Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH001	Electrical energy:					
	Number of establishments	3,225	3,225	3,225	3,225	3,225
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	100	100	100	100	100
	U.S. shipments (million dollars)	214,322	199,510	219,460	218,610	220,824
	U.S. exports (million dollars)	124	185	206	398	1,258
	U.S. imports (million dollars)	978	1,039	1,334	2,711	2,681
	Apparent U.S. consumption (million dollars) . .	215,176	200,364	220,587	220,923	222,247
	Trade balance (million dollars)	-854	-854	-1,127	-2,313	-1,423
	Ratio of imports to consumption (percent)	0.5	0.5	0.6	1.2	1.2
	Ratio of exports to shipments (percent)	0.1	0.1	0.1	0.2	0.6
CH003	Coal, coke, and related chemical products:					
	Number of establishments	520	520	520	520	520
	Employees (thousands)	150	150	150	150	150
	Capacity utilization (percent)	85	85	90	90	90
	U.S. shipments (million dollars)	32,658	29,965	32,965	32,606	34,320
	U.S. exports (million dollars)	4,276	3,635	2,671	2,718	2,354
	U.S. imports (million dollars)	1,688	1,570	1,741	2,460	2,411
	Apparent U.S. consumption (million dollars) . .	30,070	27,900	32,035	32,349	34,377
	Trade balance (million dollars)	2,588	2,065	930	257	-57
	Ratio of imports to consumption (percent)	5.6	5.6	5.4	7.6	7.0
	Ratio of exports to shipments (percent)	13.1	12.1	8.1	8.3	6.9
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)	40,342	28,344	34,602	57,499	46,960
	U.S. exports (million dollars)	780	670	772	444	177
	U.S. imports (million dollars)	38,394	25,467	31,642	56,546	49,673
	Apparent U.S. consumption (million dollars) . .	77,957	53,141	65,472	113,602	96,456
	Trade balance (million dollars)	-37,615	-24,797	-30,870	-56,103	-49,496
	Ratio of imports to consumption (percent)	49.3	47.9	48.3	49.8	51.5
	Ratio of exports to shipments (percent)	1.9	2.4	2.2	0.8	0.4
CH005	Petroleum products:					
	Number of establishments	190	190	190	190	190
	Employees (thousands)	75	75	75	75	75
	Capacity utilization (percent)	90	90	90	90	90
	U.S. shipments (million dollars)	129,409	85,580	113,231	213,475	140,162
	U.S. exports (million dollars)	7,728	6,233	6,599	9,562	8,936
	U.S. imports (million dollars)	21,523	17,584	22,079	39,787	34,372
	Apparent U.S. consumption (million dollars) . .	143,203	96,931	128,711	243,699	165,598
	Trade balance (million dollars)	-13,794	-11,351	-15,480	-30,224	-25,436
	Ratio of imports to consumption (percent)	15.0	18.1	17.2	16.3	20.8
	Ratio of exports to shipments (percent)	6.0	7.3	5.8	4.5	6.4

See footnote(s) at end of table.

Table C-4--Continued

Energy-related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH006	Natural gas and components:					
	Number of establishments	(¹)				
	Employees (thousands)	200	200	200	200	200
	Capacity utilization (percent)	80	80	80	80	80
	U.S. shipments (million dollars)	79,000	65,000	69,000	120,000	150,000
	U.S. exports (million dollars)	814	581	759	1,286	1,109
	U.S. imports (million dollars)	10,215	9,212	11,042	19,157	23,054
	Apparent U.S. consumption (million dollars) . .	88,401	73,630	79,282	137,870	171,944
	Trade balance (million dollars)	-9,401	-8,630	-10,282	-17,870	-21,944
	Ratio of imports to consumption (percent)	11.6	12.5	13.9	13.9	13.4
	Ratio of exports to shipments (percent)	1.0	0.9	1.1	1.1	0.7

¹Not available.

Note.—Calculations based on unrounded data.

Table C-5

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH045	Fibers and yarns, except raw cotton and raw wool:					
	Number of establishments	846	844	871	904	900
	Employees (thousands)	171	171	166	162	150
	Capacity utilization (percent)	87	79	84	79	77
	U.S. shipments (million dollars)	25,909	25,308	23,540	22,630	21,675
	U.S. exports (million dollars)	3,115	2,969	2,830	3,126	2,640
	U.S. imports (million dollars)	2,415	2,498	2,547	2,771	2,545
	Apparent U.S. consumption (million dollars) . .	25,210	24,837	23,258	22,275	21,580
	Trade balance (million dollars)	699	471	282	355	95
	Ratio of imports to consumption (percent)	9.6	10.1	11.0	12.4	11.8
	Ratio of exports to shipments (percent)	12.0	11.7	12.0	13.8	12.2
CH046	Fabrics:					
	Number of establishments	3,774	3,735	3,695	3,658	3,300
	Employees (thousands)	265	257	237	222	195
	Capacity utilization (percent)	82	73	79	76	71
	U.S. shipments (million dollars)	39,981	38,763	36,175	34,190	29,061
	U.S. exports (million dollars)	4,835	4,886	5,170	6,067	6,162
	U.S. imports (million dollars)	5,547	5,662	5,563	6,052	5,466
	Apparent U.S. consumption (million dollars) . .	40,694	39,539	36,568	34,175	28,365
	Trade balance (million dollars)	-713	-776	-393	15	696
	Ratio of imports to consumption (percent)	13.6	14.3	15.2	17.7	19.3
	Ratio of exports to shipments (percent)	12.1	12.6	14.3	17.7	21.2
CH047	Carpets and rugs:					
	Number of establishments	474	483	478	(¹)	(¹)
	Employees (thousands)	63	64	65	66	63
	Capacity utilization (percent)	80	76	83	79	(¹)
	U.S. shipments (million dollars)	10,977	11,634	11,218	12,269	(¹)
	U.S. exports (million dollars)	858	826	772	791	711
	U.S. imports (million dollars)	961	1,109	1,248	1,464	1,410
	Apparent U.S. consumption (million dollars) . .	11,080	11,917	11,693	12,943	(¹)
	Trade balance (million dollars)	-103	-283	-475	-674	-699
	Ratio of imports to consumption (percent)	8.7	9.3	10.7	11.3	(¹)
	Ratio of exports to shipments (percent)	7.8	7.1	6.9	6.4	(¹)
CH048	Home furnishings:					
	Number of establishments	2,849	2,733	2,627	2,522	(¹)
	Employees (thousands)	75	74	75	73	64
	Capacity utilization (percent)	80	84	82	79	(¹)
	U.S. shipments (million dollars)	8,803	8,588	8,705	8,863	(¹)
	U.S. exports (million dollars)	415	442	398	418	403
	U.S. imports (million dollars)	1,802	2,271	2,652	3,215	3,332
	Apparent U.S. consumption (million dollars) . .	10,189	10,417	10,959	11,660	(¹)
	Trade balance (million dollars)	-1,386	-1,829	-2,254	-2,797	-2,929
	Ratio of imports to consumption (percent)	17.7	21.8	24.2	27.6	(¹)
	Ratio of exports to shipments (percent)	4.7	5.1	4.6	4.7	(¹)
CH049	Apparel:					
	Number of establishments	(¹)	17,432	16,721	15,485	14,200
	Employees (thousands)	824	766	692	633	565
	Capacity utilization (percent)	77	69	77	75	74
	U.S. shipments (million dollars)	54,990	58,069	58,419	55,498	55,000
	U.S. exports (million dollars)	8,394	8,514	7,964	8,177	6,537
	U.S. imports (million dollars)	48,492	53,874	56,565	64,402	63,995
	Apparent U.S. consumption (million dollars) . .	95,088	103,430	107,020	111,723	112,458
	Trade balance (million dollars)	-40,098	-45,361	-48,601	-56,225	-57,458
	Ratio of imports to consumption (percent)	51.0	52.1	52.9	57.6	56.9
	Ratio of exports to shipments (percent)	15.3	14.7	13.6	14.7	11.9

See footnote(s) at end of table.

Table C-5--Continued

Textiles, apparel, and footwear sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
CH051	Footwear:					
	Number of establishments	487	417	400	369	340
	Employees (thousands)	50	44	39	34	29
	Capacity utilization (percent)	75	70	67	64	62
	U.S. shipments (million dollars)	4,211	3,764	3,797	3,765	3,627
	U.S. exports (million dollars)	802	720	693	664	638
	U.S. imports (million dollars)	13,951	13,879	14,074	14,856	15,249
	Apparent U.S. consumption (million dollars) . .	17,360	16,923	17,177	17,957	18,238
	Trade balance (million dollars)	-13,149	-13,159	-13,380	-14,192	-14,611
	Ratio of imports to consumption (percent)	80.4	82.0	81.9	82.7	83.6
	Ratio of exports to shipments (percent)	19.1	19.1	18.3	17.6	17.6
Not available.						

Note.—Calculations based on unrounded data.

Table C-6

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM001	Clays and related mineral products:					
	Number of establishments	240	238	233	230	230
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	1,670	1,670	1,570	1,520	1,500
	U.S. exports (million dollars)	1,036	993	952	1,040	973
	U.S. imports (million dollars)	141	190	168	195	179
	Apparent U.S. consumption (million dollars)	775	867	787	675	706
	Trade balance (million dollars)	895	803	783	845	794
	Ratio of imports to consumption (percent)	18.2	21.9	21.4	28.9	25.3
	Ratio of exports to shipments (percent)	62.0	59.4	60.6	68.4	64.9
MM003	Iron ores and concentrates:					
	Number of establishments	14	12	13	13	12
	Employees (thousands)	8	7	7	7	6
	Capacity utilization (percent)	98	98	89	97	80
	U.S. shipments (million dollars)	2,300	2,600	2,300	2,500	1,900
	U.S. exports (million dollars)	235	244	243	246	229
	U.S. imports (million dollars)	551	527	399	420	293
	Apparent U.S. consumption (million dollars)	2,616	2,883	2,456	2,674	1,964
	Trade balance (million dollars)	-316	-283	-156	-174	-64
	Ratio of imports to consumption (percent)	21.1	18.3	16.2	15.7	14.9
	Ratio of exports to shipments (percent)	10.2	9.4	10.6	9.8	12.1
MM004	Copper ores and concentrates:					
	Number of establishments	35	35	35	30	25
	Employees (thousands)	13	13	12	10	8
	Capacity utilization (percent)	93	90	80	83	80
	U.S. shipments (million dollars)	3,606	2,566	2,134	2,238	1,738
	U.S. exports (million dollars)	211	63	81	173	84
	U.S. imports (million dollars)	68	228	82	(²)	58
	Apparent U.S. consumption (million dollars)	3,463	2,731	2,136	2,065	1,712
	Trade balance (million dollars)	143	-165	-2	173	26
	Ratio of imports to consumption (percent)	2.0	8.3	3.8	(³)	3.4
	Ratio of exports to shipments (percent)	5.8	2.5	3.8	7.7	4.9
MM005A	Lead ores and concentrates:					
	Number of establishments	16	17	19	19	19
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	85	89	95	87	76
	U.S. shipments (million dollars)	151	158	160	149	145
	U.S. exports (million dollars)	28	58	41	54	106
	U.S. imports (million dollars)	6	8	3	8	(²)
	Apparent U.S. consumption (million dollars)	129	108	122	103	40
	Trade balance (million dollars)	22	50	38	46	105
	Ratio of imports to consumption (percent)	4.3	7.3	2.8	7.6	1.1
	Ratio of exports to shipments (percent)	18.5	36.9	25.8	36.4	73.0
MM006A	Zinc ores and concentrates:					
	Number of establishments	21	19	17	19	19
	Employees (thousands)	3	2	3	3	2
	Capacity utilization (percent)	67	79	89	87	87
	U.S. shipments (million dollars)	477	453	527	563	333
	U.S. exports (million dollars)	371	296	346	308	290
	U.S. imports (million dollars)	31	24	40	27	32
	Apparent U.S. consumption (million dollars)	138	181	221	282	74
	Trade balance (million dollars)	339	272	306	281	259
	Ratio of imports to consumption (percent)	22.8	13.1	18.3	9.5	42.5
	Ratio of exports to shipments (percent)	77.7	65.3	65.7	54.7	87.1

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM007A	Molybdenum ores and concentrates:					
	Number of establishments	12	11	8	8	7
	Employees (thousands)	1.2	1.2	1.2	0.9	0.8
	Capacity utilization (percent)	80	73	59	57	56
	U.S. shipments (million dollars)	568	314	250	232	199
	U.S. exports (million dollars)	293	211	129	104	110
	U.S. imports (million dollars)	57	47	35	35	33
	Apparent U.S. consumption (million dollars)	332	150	156	164	122
	Trade balance (million dollars)	236	164	94	68	77
	Ratio of imports to consumption (percent)	17.2	31.4	22.7	21.5	26.9
	Ratio of exports to shipments (percent)	51.6	67.2	51.7	44.6	55.3
MM008A	Gold ores and concentrates:					
	Number of establishments	301	304	296	289	283
	Employees (thousands)	18	14	11	11	11
	Capacity utilization (percent)	90	88	85	90	91
	U.S. shipments (million dollars)	3,095	2,779	2,445	2,534	2,440
	U.S. exports (million dollars)	5	6	2	10	7
	U.S. imports (million dollars)	16	11	1	1	1
	Apparent U.S. consumption (million dollars)	3,106	2,784	2,445	2,524	2,434
	Trade balance (million dollars)	-11	-5	(²)	10	6
	Ratio of imports to consumption (percent)	0.5	0.4	(³)	(³)	0.1
	Ratio of exports to shipments (percent)	0.2	0.2	0.1	0.4	0.3
MM008B	Silver ores and concentrates:					
	Number of establishments	16	16	16	15	14
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	90	88	85	90	91
	U.S. shipments (million dollars)	240	257	229	207	177
	U.S. exports (million dollars)	10	4	37	21	72
	U.S. imports (million dollars)	22	35	2	(²)	3
	Apparent U.S. consumption (million dollars)	252	288	194	186	108
	Trade balance (million dollars)	-12	-31	35	21	69
	Ratio of imports to consumption (percent)	8.8	12.0	1.1	0.1	2.6
	Ratio of exports to shipments (percent)	4.1	1.4	16.1	10.2	40.7
MM009A	Cement:					
	Number of establishments	118	116	116	117	116
	Employees (thousands)	18	18	18	18	18
	Capacity utilization (percent)	(¹)				
	U.S. production (million dollars)	6,000	6,500	7,400	7,200	7,100
	U.S. exports (million dollars)	60	57	55	64	56
	U.S. imports (million dollars)	752	963	1,145	1,074	987
	Apparent U.S. consumption (million dollars)	6,692	7,406	8,489	8,210	8,031
	Trade balance (million dollars)	-692	-906	-1,089	-1,010	-931
	Ratio of imports to consumption (percent)	11.2	13.0	13.5	13.1	12.3
	Ratio of exports to production (percent)	1.0	0.9	0.7	0.9	0.8
MM010	Industrial ceramics:					
	Number of establishments	220	205	200	200	200
	Employees (thousands)	12	12	12	12	12
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,830	2,950	3,040	3,000	2,950
	U.S. exports (million dollars)	723	668	663	748	711
	U.S. imports (million dollars)	550	545	648	827	640
	Apparent U.S. consumption (million dollars)	2,656	2,827	3,026	3,080	2,879
	Trade balance (million dollars)	174	123	14	-80	71
	Ratio of imports to consumption (percent)	20.7	19.3	21.4	26.9	22.2
	Ratio of exports to shipments (percent)	25.6	22.6	21.8	24.9	24.1

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM011	Ceramic bricks and similar articles:					
	Number of establishments	225	225	225	225	225
	Employees (thousands)	14	14	14	14	14
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	1,345	1,525	1,700	1,775	1,775
	U.S. exports (million dollars)	25	26	20	23	23
	U.S. imports (million dollars)	17	20	24	35	31
	Apparent U.S. consumption (million dollars) . .	1,338	1,518	1,705	1,786	1,783
	Trade balance (million dollars)	7	7	-5	-11	-8
	Ratio of imports to consumption (percent)	1.3	1.3	1.4	1.9	1.7
	Ratio of exports to shipments (percent)	1.8	1.7	1.2	1.3	1.3
MM012	Ceramic floor and wall tiles:					
	Number of establishments	122	122	122	122	122
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	830	837	843	857	857
	U.S. exports (million dollars)	29	27	24	26	27
	U.S. imports (million dollars)	716	860	1,019	1,118	1,112
	Apparent U.S. consumption (million dollars) . .	1,517	1,671	1,838	1,949	1,943
	Trade balance (million dollars)	-687	-834	-995	-1,092	-1,086
	Ratio of imports to consumption (percent)	47.2	51.5	55.4	57.4	57.3
	Ratio of exports to shipments (percent)	3.5	3.2	2.8	3.0	3.1
MM013	Ceramic household articles:					
	Number of establishments	64	63	63	63	60
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	419	421	396	344	340
	U.S. exports (million dollars)	101	103	109	115	96
	U.S. imports (million dollars)	1,675	1,716	1,671	1,797	1,635
	Apparent U.S. consumption (million dollars) . .	1,994	2,034	1,959	2,027	1,879
	Trade balance (million dollars)	-1,575	-1,613	-1,563	-1,683	-1,539
	Ratio of imports to consumption (percent)	84.0	84.4	85.3	88.7	87.0
	Ratio of exports to shipments (percent)	24.0	24.5	27.5	33.3	28.2
MM014	Flat glass:					
	Number of establishments	900	900	900	900	900
	Employees (thousands)	44	44	45	45	44
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	7,800	7,800	8,400	8,200	8,000
	U.S. exports (million dollars)	1,488	1,416	1,506	1,807	1,791
	U.S. imports (million dollars)	1,063	1,120	1,268	1,473	1,500
	Apparent U.S. consumption (million dollars) . .	7,375	7,504	8,162	7,866	7,709
	Trade balance (million dollars)	425	296	238	334	291
	Ratio of imports to consumption (percent)	14.4	14.9	15.5	18.7	19.5
	Ratio of exports to shipments (percent)	19.1	18.2	17.9	22.0	22.4
MM015	Glass containers:					
	Number of establishments	61	61	61	61	61
	Employees (thousands)	21	20	19	17	16
	Capacity utilization (percent)	94	95	91	92	(¹)
	U.S. shipments (million dollars)	4,183	4,189	4,190	4,106	4,100
	U.S. exports (million dollars)	157	173	173	174	211
	U.S. imports (million dollars)	428	452	526	585	538
	Apparent U.S. consumption (million dollars) . .	4,454	4,468	4,543	4,517	4,427
	Trade balance (million dollars)	-271	-279	-353	-411	-327
	Ratio of imports to consumption (percent)	9.6	10.1	11.6	13.0	12.2
	Ratio of exports to shipments (percent)	3.8	4.1	4.1	4.2	5.2

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM016	Household glassware:					
	Number of establishments	240	240	240	240	240
	Employees (thousands)	12	13	13	14	14
	Capacity utilization (percent)	(¹)	(¹)	(¹)	(¹)	(¹)
	U.S. shipments (million dollars)	1,700	1,900	1,900	2,000	2,000
	U.S. exports (million dollars)	250	179	183	195	209
	U.S. imports (million dollars)	818	864	937	930	835
	Apparent U.S. consumption (million dollars)	2,268	2,585	2,654	2,735	2,625
	Trade balance (million dollars)	-568	-685	-754	-735	-625
	Ratio of imports to consumption (percent)	36.1	33.4	35.3	34.0	31.8
	Ratio of exports to shipments (percent)	14.7	9.4	9.6	9.7	10.5
MM018	Fiberglass insulation products:					
	Number of establishments	298	298	298	298	298
	Employees (thousands)	18	19	18	17	17
	Capacity utilization (percent)	87	93	88	83	(¹)
	U.S. shipments (million dollars)	3,600	3,600	3,800	3,700	3,700
	U.S. exports (million dollars)	57	74	71	59	74
	U.S. imports (million dollars)	78	71	139	137	124
	Apparent U.S. consumption (million dollars)	3,621	3,597	3,869	3,778	3,750
	Trade balance (million dollars)	-21	3	-69	-78	-50
	Ratio of imports to consumption (percent)	2.1	2.0	3.6	3.6	3.3
	Ratio of exports to shipments (percent)	1.6	2.1	1.9	1.6	2.0
MM019	Natural and synthetic gemstones:					
	Number of establishments	235	235	235	235	235
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	(¹)	(¹)	(¹)	(¹)	(¹)
	U.S. production (million dollars)	550	475	620	540	345
	U.S. exports (million dollars)	231	217	447	1,466	1,840
	U.S. imports (million dollars)	8,564	9,449	11,021	13,234	11,577
	Apparent U.S. consumption (million dollars)	8,883	9,708	11,195	12,308	10,082
	Trade balance (million dollars)	-8,333	-9,233	-10,575	-11,768	-9,737
	Ratio of imports to consumption (percent)	96.4	97.3	98.5	⁴ 107.5	⁴ 114.8
	Ratio of exports to production (percent)	42.0	45.6	72.0	⁴ 271.5	⁴ 533.2
MM020A	Unrefined and refined gold:					
	Number of establishments	24	24	24	24	24
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	81	69	73	77	69
	U.S. shipments (million dollars)	6,465	7,964	6,157	7,096	6,177
	U.S. exports (million dollars)	5,067	4,912	4,795	5,099	4,186
	U.S. imports (million dollars)	2,741	2,913	2,519	2,262	1,700
	Apparent U.S. consumption (million dollars)	4,139	5,965	3,881	4,260	3,691
	Trade balance (million dollars)	2,326	1,999	2,276	2,836	2,486
	Ratio of imports to consumption (percent)	66.2	48.8	64.9	53.1	46.1
	Ratio of exports to shipments (percent)	78.4	61.7	77.9	71.9	67.8
MM021	Primary iron products:					
	Number of establishments	21	23	23	23	21
	Employees (thousands)	21	22	22	22	20
	Capacity utilization (percent)	92	88	85	88	79
	U.S. shipments (million dollars)	8,300	8,400	7,300	7,300	6,300
	U.S. exports (million dollars)	19	17	14	13	7
	U.S. imports (million dollars)	608	856	643	759	632
	Apparent U.S. consumption (million dollars)	8,890	9,238	7,929	8,046	6,924
	Trade balance (million dollars)	-590	-838	-629	-746	-624
	Ratio of imports to consumption (percent)	6.8	9.3	8.1	9.4	9.1
	Ratio of exports to shipments (percent)	0.2	0.2	0.2	0.2	0.1

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM022	Ferroalloys:					
	Number of establishments	24	23	23	23	23
	Employees (thousands)	4	4	3	3	3
	Capacity utilization (percent)	(⁵)	(⁵)	(⁵)	(⁵)	(¹)
	U.S. shipments (million dollars)	1,388	1,433	941	968	820
	U.S. exports (million dollars)	153	103	80	96	74
	U.S. imports (million dollars)	1,044	1,018	960	1,104	660
	Apparent U.S. consumption (million dollars)	2,279	2,347	1,821	1,976	1,406
	Trade balance (million dollars)	-891	-914	-880	-1,008	-586
	Ratio of imports to consumption (percent)	45.8	43.3	52.7	55.9	46.9
	Ratio of exports to shipments (percent)	11.0	7.2	8.5	9.9	9.0
MM023	Iron and steel waste and scrap:					
	Number of establishments	5,000	5,000	5,000	5,000	5,000
	Employees (thousands)	28	28	28	28	28
	Capacity utilization (percent)	90	85	80	75	75
	U.S. shipments (million dollars)	7,200	5,800	4,800	5,200	4,100
	U.S. exports (million dollars)	1,356	817	750	1,030	1,151
	U.S. imports (million dollars)	400	418	390	393	284
	Apparent U.S. consumption (million dollars)	6,244	5,401	4,440	4,563	3,233
	Trade balance (million dollars)	956	399	360	637	867
	Ratio of imports to consumption (percent)	6.4	7.7	8.8	8.6	8.8
	Ratio of exports to shipments (percent)	18.8	14.1	15.6	19.8	28.1
MM024A	Abrasive products:					
	Number of establishments	50	50	50	50	50
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	4,108	4,038	3,835	3,781	3,700
	U.S. exports (million dollars)	275	292	298	315	289
	U.S. imports (million dollars)	445	453	480	552	473
	Apparent U.S. consumption (million dollars)	4,278	4,200	4,017	4,018	3,884
	Trade balance (million dollars)	-170	-162	-182	-237	-184
	Ratio of imports to consumption (percent)	10.4	10.8	12.0	13.7	12.2
	Ratio of exports to shipments (percent)	6.7	7.2	7.8	8.3	7.8
MM025	Steel mill products:					
	Number of establishments	850	850	850	820	820
	Employees (thousands)	205	205	195	193	193
	Capacity utilization (percent)	89	87	84	86	79
	U.S. shipments (million dollars)	68,700	65,500	59,200	60,300	51,074
	U.S. exports (million dollars)	4,866	4,636	4,291	4,911	4,756
	U.S. imports (million dollars)	13,617	16,434	12,749	15,026	11,630
	Apparent U.S. consumption (million dollars)	77,451	77,298	67,658	70,414	57,948
	Trade balance (million dollars)	-8,751	-11,798	-8,458	-10,114	-6,874
	Ratio of imports to consumption (percent)	17.6	21.3	18.8	21.3	20.1
	Ratio of exports to shipments (percent)	7.1	7.1	7.2	8.1	9.3
MM026	Steel pipe and tube fittings and certain cast products:					
	Number of establishments	62	62	62	62	62
	Employees (thousands)	12	12	11.5	11.5	11.5
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,100	2,000	2,100	2,100	2,100
	U.S. exports (million dollars)	726	809	662	767	707
	U.S. imports (million dollars)	540	591	584	706	697
	Apparent U.S. consumption (million dollars)	1,913	1,781	2,022	2,039	2,090
	Trade balance (million dollars)	187	219	78	61	10
	Ratio of imports to consumption (percent)	28.2	33.2	28.9	34.6	33.3
	Ratio of exports to shipments (percent)	34.6	40.5	31.5	36.5	33.7

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM027	Fabricated structurals:					
	Number of establishments	3,040	2,777	2,791	2,803	2,817
	Employees (thousands)	92	96	102	99	95
	Capacity utilization (percent)	80	75	75	73	65
	U.S. shipments (million dollars)	14,364	15,224	15,596	15,510	16,450
	U.S. exports (million dollars)	189	151	186	204	184
	U.S. imports (million dollars)	205	328	432	534	638
	Apparent U.S. consumption (million dollars) . .	14,379	15,401	15,841	15,839	16,904
	Trade balance (million dollars)	-15	-177	-245	-329	-454
	Ratio of imports to consumption (percent)	1.4	2.1	2.7	3.4	3.8
	Ratio of exports to shipments (percent)	1.3	1.0	1.2	1.3	1.1
MM028	Metal construction components:					
	Number of establishments	2,867	2,795	2,711	2,650	2,530
	Employees (thousands)	139	141	151	157	150
	Capacity utilization (percent)	74	67	65	70	67
	U.S. shipments (million dollars)	16,821	17,809	18,888	19,666	18,800
	U.S. exports (million dollars)	689	611	579	533	505
	U.S. imports (million dollars)	435	562	693	922	990
	Apparent U.S. consumption (million dollars) . .	16,567	17,760	19,003	20,054	19,285
	Trade balance (million dollars)	254	49	-115	-388	-485
	Ratio of imports to consumption (percent)	2.6	3.2	3.6	4.6	5.1
	Ratio of exports to shipments (percent)	4.1	3.4	3.1	2.7	2.7
MM029	Metallic containers:					
	Number of establishments	520	520	520	520	520
	Employees (thousands)	60	58	58	58	58
	Capacity utilization (percent)	86	82	82	82	82
	U.S. shipments (million dollars)	18,340	18,340	18,285	18,486	17,414
	U.S. exports (million dollars)	901	819	690	697	666
	U.S. imports (million dollars)	458	463	527	549	570
	Apparent U.S. consumption (million dollars) . .	17,897	17,984	18,123	18,338	17,318
	Trade balance (million dollars)	443	356	162	148	96
	Ratio of imports to consumption (percent)	2.6	2.6	2.9	3.0	3.3
	Ratio of exports to shipments (percent)	4.9	4.5	3.8	3.8	3.8
MM030	Wire products of base metal:					
	Number of establishments	1,500	1,500	1,500	1,500	1,430
	Employees (thousands)	92	96	96	96	92
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	16,663	17,363	16,700	17,300	16,500
	U.S. exports (million dollars)	781	756	674	826	718
	U.S. imports (million dollars)	1,217	1,231	1,354	1,419	1,355
	Apparent U.S. consumption (million dollars) . .	17,099	17,838	17,381	17,893	17,137
	Trade balance (million dollars)	-436	-475	-681	-593	-637
	Ratio of imports to consumption (percent)	7.1	6.9	7.8	7.9	7.9
	Ratio of exports to shipments (percent)	4.7	4.4	4.0	4.8	4.3
MM032	Industrial fasteners of base metal:					
	Number of establishments	920	923	925	920	880
	Employees (thousands)	45	47	47	47	45
	Capacity utilization (percent)	78	78	73	74	71
	U.S. shipments (million dollars)	6,723	7,180	6,940	7,009	6,700
	U.S. exports (million dollars)	1,333	1,470	1,535	1,663	1,481
	U.S. imports (million dollars)	1,907	2,020	2,019	2,325	2,006
	Apparent U.S. consumption (million dollars) . .	7,297	7,730	7,424	7,672	7,225
	Trade balance (million dollars)	-574	-550	-484	-663	-525
	Ratio of imports to consumption (percent)	26.1	26.1	27.2	30.3	27.8
	Ratio of exports to shipments (percent)	19.8	20.5	22.1	23.7	22.1

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM033	Cooking and kitchen ware:					
	Number of establishments	85	85	85	85	85
	Employees (thousands)	8	8	7	7	7
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	1,500	1,400	1,500	1,500	1,500
	U.S. exports (million dollars)	242	244	214	271	260
	U.S. imports (million dollars)	1,303	1,393	1,585	1,798	1,743
	Apparent U.S. consumption (million dollars)	2,561	2,549	2,871	3,027	2,983
	Trade balance (million dollars)	-1,061	-1,149	-1,371	-1,527	-1,483
	Ratio of imports to consumption (percent)	50.9	54.7	55.2	59.4	58.4
	Ratio of exports to shipments (percent)	16.1	17.5	14.3	18.1	17.3
MM034	Metal and ceramic sanitary ware:					
	Number of establishments	67	71	72	72	72
	Employees (thousands)	18	16	16	16	16
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,500	2,200	2,300	2,300	2,350
	U.S. exports (million dollars)	159	147	132	141	124
	U.S. imports (million dollars)	332	403	473	533	588
	Apparent U.S. consumption (million dollars)	2,673	2,457	2,641	2,693	2,814
	Trade balance (million dollars)	-173	-257	-341	-393	-464
	Ratio of imports to consumption (percent)	12.4	16.4	17.9	19.8	20.9
	Ratio of exports to shipments (percent)	6.4	6.7	5.7	6.1	5.3
MM035	Construction castings and other cast-iron articles:					
	Number of establishments	50	50	50	50	50
	Employees (thousands)	6	7	7	7	7
	Capacity utilization (percent)	85	85	85	85	85
	U.S. shipments (million dollars)	900	1,100	1,000	1,000	1,100
	U.S. exports (million dollars)	46	37	27	32	24
	U.S. imports (million dollars)	99	110	120	123	110
	Apparent U.S. consumption (million dollars)	953	1,173	1,092	1,091	1,186
	Trade balance (million dollars)	-53	-73	-92	-91	-86
	Ratio of imports to consumption (percent)	10.4	9.4	11.0	11.3	9.3
	Ratio of exports to shipments (percent)	5.1	3.3	2.7	3.2	2.2
MM036A	Unrefined and refined copper:					
	Number of establishments	39	38	32	28	26
	Employees (thousands)	8	7	5	4	4
	Capacity utilization (percent)	92	92	81	68	69
	U.S. shipments (million dollars)	5,889	4,358	3,602	3,540	3,011
	U.S. exports (million dollars)	270	174	89	202	69
	U.S. imports (million dollars)	1,676	1,454	1,667	2,223	2,140
	Apparent U.S. consumption (million dollars)	7,295	5,638	5,180	5,561	5,081
	Trade balance (million dollars)	-1,406	-1,280	-1,578	-2,021	-2,070
	Ratio of imports to consumption (percent)	23.0	25.8	32.2	40.0	42.1
	Ratio of exports to shipments (percent)	4.6	4.0	2.5	5.7	2.3
MM036B	Copper alloy plate, sheet, and strip:					
	Number of establishments	20	20	20	20	20
	Employees (thousands)	5.3	5.6	5.7	5.3	5.5
	Capacity utilization (percent)	91	88	90	86	83
	U.S. shipments (million dollars)	1,239	1,009	1,047	1,175	1,027
	U.S. exports (million dollars)	165	218	156	208	155
	U.S. imports (million dollars)	98	101	116	182	145
	Apparent U.S. consumption (million dollars)	1,172	892	1,007	1,149	1,018
	Trade balance (million dollars)	67	117	40	26	9
	Ratio of imports to consumption (percent)	8.4	11.4	11.5	15.9	14.3
	Ratio of exports to shipments (percent)	13.3	21.6	14.9	17.7	15.1

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM037A	Primary and secondary aluminum:					
	Number of establishments	98	103	106	108	109
	Employees (thousands)	25	25	25	25	23
	Capacity utilization (percent)	87	88	86	77	69
	U.S. shipments (million dollars)	8,721	7,535	7,750	8,286	5,924
	U.S. exports (million dollars)	628	553	613	636	466
	U.S. imports (million dollars)	3,554	3,775	3,969	4,297	4,085
	Apparent U.S. consumption (million dollars)	11,647	10,757	11,106	11,946	9,543
	Trade balance (million dollars)	-2,926	-3,222	-3,356	-3,660	-3,619
	Ratio of imports to consumption (percent)	30.5	35.1	35.7	36.0	42.8
	Ratio of exports to shipments (percent)	7.2	7.3	7.9	7.7	7.9
MM038	Aluminum mill products:					
	Number of establishments	264	266	268	269	263
	Employees (thousands)	59	59	57	57	53
	Capacity utilization (percent)	87	83	86	80	79
	U.S. shipments (million dollars)	21,511	20,811	20,212	20,713	19,975
	U.S. exports (million dollars)	3,133	3,046	2,943	3,130	2,784
	U.S. imports (million dollars)	2,009	2,181	2,283	2,674	2,305
	Apparent U.S. consumption (million dollars)	20,387	19,945	19,552	20,257	19,496
	Trade balance (million dollars)	1,124	866	660	456	479
	Ratio of imports to consumption (percent)	9.9	10.9	11.7	13.2	11.8
	Ratio of exports to shipments (percent)	14.6	14.6	14.6	15.1	13.9
MM039A	Refined lead:					
	Number of establishments	33	32	31	30	29
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	87	88	88	89	85
	U.S. shipments (million dollars)	1,418	1,395	1,358	1,366	1,290
	U.S. exports (million dollars)	27	15	11	16	8
	U.S. imports (million dollars)	139	122	113	117	90
	Apparent U.S. consumption (million dollars)	1,530	1,502	1,460	1,467	1,373
	Trade balance (million dollars)	-112	-107	-102	-101	-83
	Ratio of imports to consumption (percent)	9.1	8.1	7.7	8.0	6.6
	Ratio of exports to shipments (percent)	1.9	1.0	0.8	1.2	0.6
MM040A	Unwrought zinc:					
	Number of establishments	8	11	11	15	15
	Employees (thousands)	2	2	2	2	1
	Capacity utilization (percent)	82	82	83	83	81
	U.S. shipments (million dollars)	521	417	439	455	360
	U.S. exports (million dollars)	5	3	2	3	1
	U.S. imports (million dollars)	1,186	961	1,066	1,104	786
	Apparent U.S. consumption (million dollars)	1,702	1,375	1,502	1,556	1,145
	Trade balance (million dollars)	-1,181	-958	-1,063	-1,101	-785
	Ratio of imports to consumption (percent)	69.7	69.9	70.9	71.0	68.7
	Ratio of exports to shipments (percent)	0.9	0.7	0.5	0.7	0.4
MM041A	Titanium ingot:					
	Number of establishments	11	12	9	9	9
	Employees (thousands)	0.3	0.3	0.3	0.3	0.3
	Capacity utilization (percent)	75	57	44	43	50
	U.S. shipments (million dollars)	986	926	718	870	750
	U.S. exports (million dollars)	11	9	13	12	22
	U.S. imports (million dollars)	87	37	14	17	27
	Apparent U.S. consumption (million dollars)	1,062	954	720	875	756
	Trade balance (million dollars)	-76	-28	-2	-5	-6
	Ratio of imports to consumption (percent)	8.2	3.9	2.0	1.9	3.6
	Ratio of exports to shipments (percent)	1.1	1.0	1.8	1.4	2.9

See footnote(s) at end of table.

Table C-6--Continued

Minerals and metals sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM042	Nonpowered handtools:					
	Number of establishments	1,200	1,150	1,100	1,000	950
	Employees (thousands)	123	122	121	120	115
	Capacity utilization (percent)	80	75	70	71	70
	U.S. shipments (million dollars)	13,609	13,984	13,931	14,403	13,682
	U.S. exports (million dollars)	2,188	2,060	2,031	2,263	2,119
	U.S. imports (million dollars)	2,725	2,885	2,917	3,163	2,996
	Apparent U.S. consumption (million dollars) . .	14,146	14,809	14,818	15,304	14,558
	Trade balance (million dollars)	-537	-825	-887	-901	-876
	Ratio of imports to consumption (percent)	19.3	19.5	19.7	20.7	20.6
	Ratio of exports to shipments (percent)	16.1	14.7	14.6	15.7	15.5
MM043	Certain cutlery, sewing implements, and related products:					
	Number of establishments	162	147	149	151	152
	Employees (thousands)	11	11	10	10	10
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,160	2,130	2,210	2,300	2,390
	U.S. exports (million dollars)	475	511	583	546	556
	U.S. imports (million dollars)	719	781	856	888	865
	Apparent U.S. consumption (million dollars) . .	2,404	2,401	2,483	2,642	2,699
	Trade balance (million dollars)	-244	-271	-273	-342	-309
	Ratio of imports to consumption (percent)	29.9	32.5	34.5	33.6	32.0
	Ratio of exports to shipments (percent)	22.0	24.0	26.4	23.8	23.3
MM044	Table flatware and related products:					
	Number of establishments	5	5	5	5	5
	Employees (thousands)	5	5	5	5	5
	Capacity utilization (percent)	93	95	95	90	90
	U.S. shipments (million dollars)	205	215	226	217	210
	U.S. exports (million dollars)	36	24	26	25	28
	U.S. imports (million dollars)	325	327	425	507	463
	Apparent U.S. consumption (million dollars) . .	494	518	625	698	645
	Trade balance (million dollars)	-289	-303	-399	-481	-435
	Ratio of imports to consumption (percent)	65.8	63.2	68.0	72.5	71.8
	Ratio of exports to shipments (percent)	17.6	11.4	11.6	11.6	13.2
MM045	Certain builders' hardware:					
	Number of establishments	298	300	302	304	304
	Employees (thousands)	43	42	40	40	39
	Capacity utilization (percent)	74	71	76	75	68
	U.S. shipments (million dollars)	5,884	6,095	5,843	5,898	5,561
	U.S. exports (million dollars)	759	807	823	1,084	961
	U.S. imports (million dollars)	1,333	1,531	1,696	1,973	1,948
	Apparent U.S. consumption (million dollars) . .	6,458	6,818	6,716	6,787	6,548
	Trade balance (million dollars)	-574	-723	-873	-889	-987
	Ratio of imports to consumption (percent)	20.6	22.4	25.3	29.1	29.8
	Ratio of exports to shipments (percent)	12.9	13.2	14.1	18.4	17.3

¹Not available.

²Less than 500,000.

³Less than 0.05 percent.

⁴Inventory changes, for which data are not available, likely account for ratios that exceed 100 percent.

⁵Capacity utilization could not be meaningfully calculated for this industry.

Note.—Calculations based on unrounded data.

Table C-7

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM068	Wiring harnesses for motor vehicles:					
	Number of establishments	(¹)				
	Employees (thousands)	(¹)				
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	5,110	5,460	6,150	6,240	5,740
	U.S. exports (million dollars)	1,453	1,315	993	938	866
	U.S. imports (million dollars)	4,280	4,408	4,868	5,132	4,684
	Apparent U.S. consumption (million dollars)	7,937	8,552	10,025	10,434	9,558
	Trade balance (million dollars)	-2,827	-3,092	-3,875	-4,194	-3,818
	Ratio of imports to consumption (percent)	53.9	51.5	48.6	49.2	49.0
	Ratio of exports to shipments (percent)	28.4	24.1	16.1	15.0	15.1
MM069	Pumps for motor vehicles:					
	Number of establishments	183	192	202	195	215
	Employees (thousands)	26	27	27	25	28
	Capacity utilization (percent)	71	72	72	72	76
	U.S. shipments (million dollars)	2,705	2,840	2,982	3,012	3,223
	U.S. exports (million dollars)	432	556	546	680	642
	U.S. imports (million dollars)	767	780	776	863	788
	Apparent U.S. consumption (million dollars)	3,040	3,063	3,212	3,195	3,370
	Trade balance (million dollars)	-335	-223	-230	-183	-147
	Ratio of imports to consumption (percent)	25.2	25.5	24.2	27.0	23.4
	Ratio of exports to shipments (percent)	16.0	19.6	18.3	22.6	19.9
MM070	Pumps for liquids:					
	Number of establishments	407	425	450	460	485
	Employees (thousands)	31	32	36	37	37
	Capacity utilization (percent)	73	68	69	70	70
	U.S. shipments (million dollars)	5,892	6,289	6,603	6,800	6,936
	U.S. exports (million dollars)	2,546	2,340	2,325	2,461	2,561
	U.S. imports (million dollars)	1,436	1,587	1,643	1,809	1,801
	Apparent U.S. consumption (million dollars)	4,782	5,536	5,920	6,148	6,176
	Trade balance (million dollars)	1,110	753	683	652	760
	Ratio of imports to consumption (percent)	30.0	28.7	27.7	29.4	29.2
	Ratio of exports to shipments (percent)	43.2	37.2	35.2	36.2	36.9
MM071	Air-conditioning equipment and parts:					
	Number of establishments	1,222	1,205	1,225	1,262	1,295
	Employees (thousands)	146	140	148	151	155
	Capacity utilization (percent)	77	75	73	75	76
	U.S. shipments (million dollars)	26,595	25,528	26,500	27,030	28,111
	U.S. exports (million dollars)	5,726	5,471	5,641	5,884	5,694
	U.S. imports (million dollars)	4,433	4,945	5,604	6,332	6,081
	Apparent U.S. consumption (million dollars)	25,301	25,002	26,463	27,479	28,498
	Trade balance (million dollars)	1,294	526	37	-449	-387
	Ratio of imports to consumption (percent)	17.5	19.8	21.2	23.0	21.3
	Ratio of exports to shipments (percent)	21.5	21.4	21.3	21.8	20.3
MM072	Industrial thermal-processing equipment and furnaces:					
	Number of establishments	300	290	329	331	(¹)
	Employees (thousands)	34	32	33	34	(¹)
	Capacity utilization (percent)	67	68	67	68	66
	U.S. shipments (million dollars)	3,539	3,610	3,715	3,752	3,564
	U.S. exports (million dollars)	2,457	2,352	2,292	2,631	2,496
	U.S. imports (million dollars)	1,307	1,351	1,483	1,663	1,641
	Apparent U.S. consumption (million dollars)	2,389	2,609	2,906	2,784	2,709
	Trade balance (million dollars)	1,150	1,001	809	968	855
	Ratio of imports to consumption (percent)	54.7	51.8	51.0	59.7	60.6
	Ratio of exports to shipments (percent)	69.4	65.2	61.7	70.1	70.0

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM073	Household appliances, including commercial applications:					
	Number of establishments	98	96	100	87	98
	Employees (thousands)	55	54	57	50	55
	Capacity utilization (percent)	70	69	71	67	70
	U.S. shipments (million dollars)	15,650	15,569	15,867	15,111	15,741
	U.S. exports (million dollars)	5,720	5,571	5,216	5,563	5,226
	U.S. imports (million dollars)	5,277	5,961	6,718	7,689	8,356
	Apparent U.S. consumption (million dollars)	15,207	15,959	17,370	17,237	18,871
	Trade balance (million dollars)	443	-390	-1,503	-2,126	-3,130
	Ratio of imports to consumption (percent)	34.7	37.4	38.7	44.6	44.3
	Ratio of exports to shipments (percent)	36.5	35.8	32.9	36.8	33.2
MM073A	Major household appliances and parts:					
	Number of establishments	185	225	197	238	251
	Employees (thousands)	62	72	66	73	75
	Capacity utilization (percent)	67	69	67	69	70
	U.S. shipments (million dollars)	12,315	13,742	13,171	13,981	14,259
	U.S. exports (million dollars)	1,770	1,844	1,652	1,717	1,708
	U.S. imports (million dollars)	1,215	1,208	1,477	1,642	1,986
	Apparent U.S. consumption (million dollars)	11,760	13,105	12,995	13,906	14,537
	Trade balance (million dollars)	555	637	176	75	-278
	Ratio of imports to consumption (percent)	10.3	9.2	11.4	11.8	13.7
	Ratio of exports to shipments (percent)	14.4	13.4	12.5	12.3	12.0
MM075	Wrapping, packaging, and can-sealing machinery:					
	Number of establishments	688	727	756	784	813
	Employees (thousands)	32	32	31	29	28
	Capacity utilization (percent)	75	71	67	62	59
	U.S. shipments (million dollars)	4,900	4,928	4,689	4,614	4,402
	U.S. exports (million dollars)	871	791	766	804	711
	U.S. imports (million dollars)	1,104	1,072	1,117	1,246	1,302
	Apparent U.S. consumption (million dollars)	5,133	5,209	5,040	5,056	4,993
	Trade balance (million dollars)	-233	-281	-351	-442	-591
	Ratio of imports to consumption (percent)	21.5	20.6	22.2	24.6	26.1
	Ratio of exports to shipments (percent)	17.8	16.1	16.3	17.4	16.2
MM076	Scales and weighing machinery:					
	Number of establishments	121	119	119	118	118
	Employees (thousands)	4.9	4.8	4.9	4.5	4.3
	Capacity utilization (percent)	62	60	66	56	57
	U.S. shipments (million dollars)	682,181	698,165	751,930	764,630	777,545
	U.S. exports (million dollars)	154	147	145	163	175
	U.S. imports (million dollars)	228	223	265	294	279
	Apparent U.S. consumption (million dollars)	682,255	698,241	752,051	764,761	777,649
	Trade balance (million dollars)	-74	-76	-121	-131	-104
	Ratio of imports to consumption (percent)	(²)				
	Ratio of exports to shipments (percent)	(²)				
MM077	Mineral processing machinery:					
	Number of establishments	90	90	90	90	90
	Employees (thousands)	7	7	7	7	7
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	2,745	1,528	1,563	1,542	1,542
	U.S. exports (million dollars)	915	764	590	582	582
	U.S. imports (million dollars)	508	574	667	723	576
	Apparent U.S. consumption (million dollars)	2,338	1,339	1,641	1,684	1,536
	Trade balance (million dollars)	407	189	-78	-142	6
	Ratio of imports to consumption (percent)	21.7	42.9	40.7	43.0	37.5
	Ratio of exports to shipments (percent)	33.3	50.0	37.7	37.7	37.7

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM078	Farm and garden machinery and equipment:					
	Number of establishments	1,800	1,890	1,870	1,800	1,700
	Employees (thousands)	105	105	99	103	99
	Capacity utilization (percent)	76	70	63	67	67
	U.S. shipments (million dollars)	20,868	22,085	18,013	19,676	18,693
	U.S. exports (million dollars)	5,877	5,581	4,536	4,697	4,353
	U.S. imports (million dollars)	3,891	4,171	3,294	3,627	3,454
	Apparent U.S. consumption (million dollars)	18,882	20,675	16,771	18,606	17,793
	Trade balance (million dollars)	1,986	1,410	1,242	1,070	900
	Ratio of imports to consumption (percent)	20.6	20.2	19.6	19.5	19.4
	Ratio of exports to shipments (percent)	28.2	25.3	25.2	23.9	23.3
MM079	Industrial food-processing and related machinery:					
	Number of establishments	587	573	582	591	600
	Employees (thousands)	19	19	19	18	18
	Capacity utilization (percent)	72	70	72	67	66
	U.S. shipments (million dollars)	2,858	2,907	2,900	2,782	2,718
	U.S. exports (million dollars)	697	688	611	627	576
	U.S. imports (million dollars)	549	619	621	543	537
	Apparent U.S. consumption (million dollars)	2,711	2,837	2,909	2,699	2,678
	Trade balance (million dollars)	147	70	-9	83	40
	Ratio of imports to consumption (percent)	20.3	21.8	21.3	20.1	20.0
	Ratio of exports to shipments (percent)	24.4	23.7	21.1	22.5	21.2
MM080	Pulp, paper, and paperboard machinery:					
	Number of establishments	365	358	351	330	308
	Employees (thousands)	18.3	17.4	16.4	15.8	15.8
	Capacity utilization (percent)	77	70	60	64	72
	U.S. shipments (million dollars)	3,386,920	3,185,119	2,941,101	2,761,247	2,581,393
	U.S. exports (million dollars)	990	813	743	779	678
	U.S. imports (million dollars)	1,105	1,037	1,003	1,127	1,091
	Apparent U.S. consumption (million dollars)	3,387,034	3,185,343	2,941,361	2,761,595	2,581,807
	Trade balance (million dollars)	-114	-224	-260	-348	-414
	Ratio of imports to consumption (percent)	(²)				
	Ratio of exports to shipments (percent)	(²)				
MM081	Printing and related machinery:					
	Number of establishments	546	554	523	579	592
	Employees (thousands)	22.4	21.1	19.6	20	16.5
	Capacity utilization (percent)	72	69	67	69	63
	U.S. shipments (million dollars)	3,786,716	3,962,536	3,605,495	3,826,841	4,048,187
	U.S. exports (million dollars)	1,223	1,167	1,023	1,206	961
	U.S. imports (million dollars)	1,908	2,055	2,104	1,923	1,744
	Apparent U.S. consumption (million dollars)	3,787,401	3,963,424	3,606,576	3,827,558	4,048,970
	Trade balance (million dollars)	-685	-888	-1,081	-717	-783
	Ratio of imports to consumption (percent)	0.1	0.1	0.1	0.1	(²)
	Ratio of exports to shipments (percent)	(²)				
MM082	Textile machinery:					
	Number of establishments	500	500	500	500	500
	Employees (thousands)	17	14	13	13	12
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	1,642	1,724	1,546	1,648	1,417
	U.S. exports (million dollars)	1,432	1,369	1,298	1,355	1,168
	U.S. imports (million dollars)	2,466	2,784	2,273	2,106	1,597
	Apparent U.S. consumption (million dollars)	2,676	3,139	2,522	2,399	1,846
	Trade balance (million dollars)	-1,034	-1,415	-976	-751	-429
	Ratio of imports to consumption (percent)	92.2	88.7	90.2	87.8	86.5
	Ratio of exports to shipments (percent)	87.2	79.4	83.9	82.2	82.4

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM083	Metal rolling mills:					
	Number of establishments	15	15	15	15	15
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	762	840	511	545	699
	U.S. exports (million dollars)	262	252	153	164	210
	U.S. imports (million dollars)	394	514	321	261	180
	Apparent U.S. consumption (million dollars) . .	894	1,102	679	642	669
	Trade balance (million dollars)	-132	-262	-168	-97	30
	Ratio of imports to consumption (percent)	44.1	46.6	47.3	40.7	26.9
	Ratio of exports to shipments (percent)	34.4	30.0	30.0	30.0	30.1
MM084	Metal cutting machine tools and machine tool accessories:					
	Number of establishments	750	720	700	650	600
	Employees (thousands)	88	87	84	81	74
	Capacity utilization (percent)	73	70	70	68	63
	U.S. shipments (million dollars)	7,748	7,685	6,825	6,976	5,901
	U.S. exports (million dollars)	2,035	1,985	1,773	2,264	1,809
	U.S. imports (million dollars)	4,267	4,590	3,921	4,240	3,407
	Apparent U.S. consumption (million dollars) . .	9,980	10,290	8,973	8,953	7,499
	Trade balance (million dollars)	-2,232	-2,605	-2,148	-1,977	-1,598
	Ratio of imports to consumption (percent)	42.8	44.6	43.7	47.4	45.4
	Ratio of exports to shipments (percent)	26.3	25.8	26.0	32.4	30.7
MM085	Metal forming machine tools:					
	Number of establishments	310	300	250	250	220
	Employees (thousands)	32	30	28	27	20
	Capacity utilization (percent)	86	80	75	66	62
	U.S. shipments (million dollars)	3,404	3,234	2,980	2,890	2,111
	U.S. exports (million dollars)	991	996	947	890	758
	U.S. imports (million dollars)	1,317	1,409	1,312	1,474	1,331
	Apparent U.S. consumption (million dollars) . .	3,730	3,647	3,345	3,474	2,684
	Trade balance (million dollars)	-326	-413	-365	-584	-573
	Ratio of imports to consumption (percent)	35.3	38.6	39.2	42.4	49.6
	Ratio of exports to shipments (percent)	29.1	30.8	31.8	30.8	35.9
MM086	Non-metalworking machine tools:					
	Number of establishments	300	290	280	260	240
	Employees (thousands)	41	41	42	40	39
	Capacity utilization (percent)	80	80	80	77	75
	U.S. shipments (million dollars)	6,030	6,104	6,170	6,293	6,042
	U.S. exports (million dollars)	586	617	792	1,112	831
	U.S. imports (million dollars)	1,082	1,229	1,318	1,524	1,276
	Apparent U.S. consumption (million dollars) . .	6,525	6,716	6,696	6,705	6,486
	Trade balance (million dollars)	-495	-612	-526	-412	-444
	Ratio of imports to consumption (percent)	16.6	18.3	19.7	22.7	19.7
	Ratio of exports to shipments (percent)	9.7	10.1	12.8	17.7	13.8
MM087A	Semiconductor manufacturing machinery:					
	Number of establishments	415	380	390	410	405
	Employees (thousands)	40	44	37	48	36
	Capacity utilization (percent)	98	70	75	90	65
	U.S. shipments (million dollars)	10,072	9,246	11,231	16,846	11,850
	U.S. exports (million dollars)	8,209	7,816	7,913	13,892	8,041
	U.S. imports (million dollars)	3,714	2,727	2,919	4,892	4,180
	Apparent U.S. consumption (million dollars) . .	5,577	4,157	6,236	7,846	7,988
	Trade balance (million dollars)	4,495	5,089	4,995	9,000	3,862
	Ratio of imports to consumption (percent)	66.6	65.6	46.8	62.4	52.3
	Ratio of exports to shipments (percent)	81.5	84.5	70.5	82.5	67.9

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM088	Taps, cocks, valves, and similar devices:					
	Number of establishments	935	825	797	785	725
	Employees (thousands)	74	72	70	70	67
	Capacity utilization (percent)	78	75	75	74	70
	U.S. shipments (million dollars)	11,144	11,033	11,687	11,804	11,450
	U.S. exports (million dollars)	2,745	2,836	2,959	3,284	3,351
	U.S. imports (million dollars)	3,566	3,974	4,335	5,021	4,809
	Apparent U.S. consumption (million dollars)	11,965	12,171	13,063	13,541	12,908
	Trade balance (million dollars)	-821	-1,138	-1,376	-1,737	-1,458
	Ratio of imports to consumption (percent)	29.8	32.7	33.2	37.1	37.3
	Ratio of exports to shipments (percent)	24.6	25.7	25.3	27.8	29.3
MM089	Mechanical power transmission equipment:					
	Number of establishments	210	210	200	170	140
	Employees (thousands)	39	40	37	36	32
	Capacity utilization (percent)	77	69	65	62	62
	U.S. shipments (million dollars)	5,036	5,145	4,942	5,051	4,799
	U.S. exports (million dollars)	1,027	1,011	942	1,029	939
	U.S. imports (million dollars)	1,650	1,843	2,008	2,134	2,004
	Apparent U.S. consumption (million dollars)	5,659	5,977	6,008	6,156	5,865
	Trade balance (million dollars)	-623	-832	-1,066	-1,105	-1,066
	Ratio of imports to consumption (percent)	29.2	30.8	33.4	34.7	34.2
	Ratio of exports to shipments (percent)	20.4	19.7	19.1	20.4	19.6
MM090	Boilers, turbines, and related machinery:					
	Number of establishments	30	28	28	28	28
	Employees (thousands)	9	8	8	8	8
	Capacity utilization (percent)	73	70	65	65	65
	U.S. shipments (million dollars)	2,074	1,604	1,465	1,493	2,030
	U.S. exports (million dollars)	1,864	1,495	1,290	1,117	1,106
	U.S. imports (million dollars)	345	370	484	833	1,204
	Apparent U.S. consumption (million dollars)	555	479	659	1,209	2,128
	Trade balance (million dollars)	1,519	1,125	806	284	-98
	Ratio of imports to consumption (percent)	62.1	77.3	73.5	68.9	56.6
	Ratio of exports to shipments (percent)	89.9	93.2	88.1	74.8	54.5
MM091	Electric motors, generators, and related equipment:					
	Number of establishments	515	515	510	505	505
	Employees (thousands)	94	95	95	93	95
	Capacity utilization (percent)	74	76	75	73	76
	U.S. shipments (million dollars)	18,250	19,100	19,150	19,020	21,000
	U.S. exports (million dollars)	3,843	3,955	3,728	3,748	4,691
	U.S. imports (million dollars)	4,178	4,748	6,089	6,494	7,646
	Apparent U.S. consumption (million dollars)	18,585	19,893	21,512	21,766	23,954
	Trade balance (million dollars)	-335	-793	-2,362	-2,746	-2,954
	Ratio of imports to consumption (percent)	22.5	23.9	28.3	29.8	31.9
	Ratio of exports to shipments (percent)	21.1	20.7	19.5	19.7	22.3
MM092	Electrical transformers, static converters, and inductors:					
	Number of establishments	415	415	420	415	410
	Employees (thousands)	59	58	57	55	53
	Capacity utilization (percent)	76	74	76	73	71
	U.S. shipments (million dollars)	8,350	8,570	8,600	8,470	7,625
	U.S. exports (million dollars)	2,485	2,304	2,379	2,752	2,436
	U.S. imports (million dollars)	4,294	4,485	4,950	6,156	5,134
	Apparent U.S. consumption (million dollars)	10,159	10,751	11,171	11,874	10,323
	Trade balance (million dollars)	-1,809	-2,181	-2,571	-3,404	-2,698
	Ratio of imports to consumption (percent)	42.3	41.7	44.3	51.8	49.7
	Ratio of exports to shipments (percent)	29.8	26.9	27.7	32.5	31.9

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM093	Portable electric handtools:					
	Number of establishments	29	30	28	27	25
	Employees (thousands)	10	9	9	9	8
	Capacity utilization (percent)	80	82	81	83	80
	U.S. shipments (million dollars)	2,020	2,150	2,280	2,390	2,080
	U.S. exports (million dollars)	443	383	392	359	291
	U.S. imports (million dollars)	765	834	992	1,166	1,185
	Apparent U.S. consumption (million dollars)	2,342	2,601	2,880	3,198	2,974
	Trade balance (million dollars)	-322	-451	-600	-808	-894
	Ratio of imports to consumption (percent)	32.7	32.1	34.5	36.5	39.8
	Ratio of exports to shipments (percent)	21.9	17.8	17.2	15.0	14.0
MM094	Nonelectrically powered handtools and parts thereof:					
	Number of establishments	42	38	38	35	30
	Employees (thousands)	12	11	12	13	13
	Capacity utilization (percent)	80	77	78	77	75
	U.S. shipments (million dollars)	1,754	1,709	1,878	1,903	1,827
	U.S. exports (million dollars)	579	553	537	563	563
	U.S. imports (million dollars)	735	782	890	933	901
	Apparent U.S. consumption (million dollars)	1,910	1,939	2,231	2,273	2,165
	Trade balance (million dollars)	-156	-230	-353	-370	-338
	Ratio of imports to consumption (percent)	38.5	40.4	39.9	41.0	41.6
	Ratio of exports to shipments (percent)	33.0	32.3	28.6	29.6	30.8
MM095	Electric lamps (bulbs) and portable electric lights:					
	Number of establishments	125	120	120	115	110
	Employees (thousands)	23	24	22	21	20
	Capacity utilization (percent)	70	73	70	68	65
	U.S. shipments (million dollars)	3,500	3,650	3,400	3,500	3,300
	U.S. exports (million dollars)	955	896	894	897	799
	U.S. imports (million dollars)	1,215	1,287	1,454	1,579	1,785
	Apparent U.S. consumption (million dollars)	3,760	4,041	3,961	4,182	4,286
	Trade balance (million dollars)	-260	-391	-561	-682	-986
	Ratio of imports to consumption (percent)	32.3	31.8	36.7	37.8	41.7
	Ratio of exports to shipments (percent)	27.3	24.5	26.3	25.6	24.2
MM096	Welding and soldering equipment:					
	Number of establishments	245	245	250	250	240
	Employees (thousands)	17	17	18	18	17
	Capacity utilization (percent)	78	78	78	78	77
	U.S. shipments (million dollars)	4,062	4,300	4,500	4,770	4,250
	U.S. exports (million dollars)	888	810	989	1,050	703
	U.S. imports (million dollars)	861	781	702	803	803
	Apparent U.S. consumption (million dollars)	4,035	4,271	4,213	4,523	4,351
	Trade balance (million dollars)	27	29	287	247	-101
	Ratio of imports to consumption (percent)	21.3	18.3	16.7	17.7	18.5
	Ratio of exports to shipments (percent)	21.9	18.8	22.0	22.0	16.5
MM097	Nonautomotive insulated electrical wire and related products:					
	Number of establishments	530	530	525	520	500
	Employees (thousands)	91	92	91	90	85
	Capacity utilization (percent)	83	85	80	78	73
	U.S. shipments (million dollars)	15,450	16,000	16,750	17,500	15,500
	U.S. exports (million dollars)	3,045	2,950	3,102	4,040	3,286
	U.S. imports (million dollars)	2,540	2,814	3,078	3,566	3,203
	Apparent U.S. consumption (million dollars)	14,945	15,865	16,726	17,026	15,417
	Trade balance (million dollars)	505	135	24	474	83
	Ratio of imports to consumption (percent)	17.0	17.7	18.4	20.9	20.8
	Ratio of exports to shipments (percent)	19.7	18.4	18.5	23.1	21.2

See footnote(s) at end of table.

Table C-7--Continued

Machinery sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM099	Molds and molding machinery:					
	Number of establishments	120	120	120	120	120
	Employees (thousands)	8	8	8	8	8
	Capacity utilization (percent)	(¹)				
	U.S. shipments (million dollars)	5,478	5,750	5,233	5,929	5,001
	U.S. exports (million dollars)	1,512	1,896	1,879	2,129	1,791
	U.S. imports (million dollars)	3,387	3,512	3,723	3,613	2,803
	Apparent U.S. consumption (million dollars) . .	7,353	7,367	7,077	7,413	6,013
	Trade balance (million dollars)	-1,875	-1,617	-1,844	-1,484	-1,012
	Ratio of imports to consumption (percent)	46.1	47.7	52.6	48.7	46.6
	Ratio of exports to shipments (percent)	27.6	33.0	35.9	35.9	35.8

¹Not available.

²Less than 0.05 percent.

Note.—Calculations based on unrounded data.

Table C-8

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET001	Aircraft engines and gas turbines:					
	Number of establishments	30	30	28	28	27
	Employees (thousands)	118	113	110	103	109
	Capacity utilization (percent)	90	95	(¹)	(¹)	80
	U.S. shipments (million dollars)	22,657	23,536	26,642	29,226	35,051
	U.S. exports (million dollars)	11,594	13,115	14,218	15,011	16,524
	U.S. imports (million dollars)	8,380	10,404	10,328	10,939	13,548
	Apparent U.S. consumption (million dollars) . .	19,444	20,825	22,753	25,154	32,075
	Trade balance (million dollars)	3,213	2,711	3,889	4,072	2,976
	Ratio of imports to consumption (percent)	43.1	50.0	45.4	43.5	42.2
	Ratio of exports to shipments (percent)	51.2	55.7	53.4	51.4	47.1
ET002	Internal combustion piston engines, other than for aircraft:					
	Number of establishments	1,500	1,500	1,500	1,500	1,450
	Employees (thousands)	155	155	157	157	156
	Capacity utilization (percent)	75	75	83	75	75
	U.S. shipments (million dollars)	47,500	50,000	54,000	54,000	48,000
	U.S. exports (million dollars)	10,625	11,015	12,522	13,808	12,408
	U.S. imports (million dollars)	9,987	11,478	14,052	15,532	13,657
	Apparent U.S. consumption (million dollars) . .	46,862	50,463	55,530	55,724	49,249
	Trade balance (million dollars)	638	-463	-1,530	-1,724	-1,249
	Ratio of imports to consumption (percent)	21.3	22.7	25.3	27.9	27.7
	Ratio of exports to shipments (percent)	22.4	22.0	23.2	25.6	25.9
ET003	Forklift trucks and similar industrial vehicles:					
	Number of establishments	460	455	453	451	451
	Employees (thousands)	26	27	27	26	26
	Capacity utilization (percent)	71	78	67	64	60
	U.S. shipments (million dollars)	5,199	5,819	5,155	5,493	4,395
	U.S. exports (million dollars)	1,161	1,188	1,243	1,332	1,341
	U.S. imports (million dollars)	1,164	1,456	1,527	1,668	1,423
	Apparent U.S. consumption (million dollars) . .	5,202	6,087	5,439	5,830	4,477
	Trade balance (million dollars)	-3	-268	-284	-337	-82
	Ratio of imports to consumption (percent)	22.4	23.9	28.1	28.6	31.8
	Ratio of exports to shipments (percent)	22.3	20.4	24.1	24.2	30.5
ET004	Construction and mining equipment:					
	Number of establishments	1,663	1,661	1,664	1,667	1,655
	Employees (thousands)	145	147	140	137	130
	Capacity utilization (percent)	85	87	63	61	59
	U.S. shipments (million dollars)	26,479	28,001	25,783	26,112	22,195
	U.S. exports (million dollars)	10,512	10,944	8,646	9,507	9,903
	U.S. imports (million dollars)	4,988	6,299	5,919	5,643	5,260
	Apparent U.S. consumption (million dollars) . .	20,955	23,356	23,056	22,248	17,552
	Trade balance (million dollars)	5,524	4,645	2,727	3,864	4,643
	Ratio of imports to consumption (percent)	23.8	27.0	25.7	25.4	30.0
	Ratio of exports to shipments (percent)	39.7	39.1	33.5	36.4	44.6
ET005	Ball and rollers bearings:					
	Number of establishments	184	183	183	183	183
	Employees (thousands)	37	37	37	36	36
	Capacity utilization (percent)	83	82	80	73	74
	U.S. shipments (million dollars)	6,356	6,468	6,331	6,500	6,175
	U.S. exports (million dollars)	1,140	1,141	1,098	1,242	1,197
	U.S. imports (million dollars)	1,615	1,719	1,622	1,804	1,579
	Apparent U.S. consumption (million dollars) . .	6,831	7,046	6,855	7,062	6,556
	Trade balance (million dollars)	-475	-578	-524	-562	-381
	Ratio of imports to consumption (percent)	23.6	24.4	23.7	25.5	24.1
	Ratio of exports to shipments (percent)	17.9	17.6	17.3	19.1	19.4

See footnote(s) at end of table.

Table C-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET006	Primary cells and batteries and electric storage batteries:					
	Number of establishments	180	180	180	180	170
	Employees (thousands)	33	31	32	32	32
	Capacity utilization (percent)	81	80	81	71	71
	U.S. shipments (million dollars)	6,800	6,900	7,600	7,800	7,000
	U.S. exports (million dollars)	2,527	2,309	2,307	2,655	2,270
	U.S. imports (million dollars)	2,017	2,056	2,392	2,656	2,342
	Apparent U.S. consumption (million dollars) . .	6,289	6,647	7,684	7,801	7,072
	Trade balance (million dollars)	511	253	-84	-1	-72
	Ratio of imports to consumption (percent)	32.1	30.9	31.1	34.0	33.1
	Ratio of exports to shipments (percent)	37.2	33.5	30.4	34.0	32.4
ET007	Ignition, starting, lighting, and other electrical equipment:					
	Number of establishments	700	700	700	700	670
	Employees (thousands)	77	77	77	80	80
	Capacity utilization (percent)	81	78	79	73	73
	U.S. shipments (million dollars)	14,500	15,300	17,600	17,500	15,600
	U.S. exports (million dollars)	1,579	1,725	1,947	1,986	1,824
	U.S. imports (million dollars)	2,170	2,363	2,817	3,076	3,052
	Apparent U.S. consumption (million dollars) . .	15,091	15,937	18,470	18,590	16,828
	Trade balance (million dollars)	-591	-637	-870	-1,090	-1,228
	Ratio of imports to consumption (percent)	14.4	14.8	15.3	16.5	18.1
	Ratio of exports to shipments (percent)	10.9	11.3	11.1	11.3	11.7
ET008	Rail locomotive and rolling stock:					
	Number of establishments	190	190	190	190	180
	Employees (thousands)	28	31	32	30	26
	Capacity utilization (percent)	84	87	76	69	65
	U.S. shipments (million dollars)	6,300	7,100	7,600	7,400	4,500
	U.S. exports (million dollars)	1,229	1,694	1,558	1,336	1,422
	U.S. imports (million dollars)	1,372	2,156	2,307	1,828	1,357
	Apparent U.S. consumption (million dollars) . .	6,443	7,562	8,349	7,892	4,435
	Trade balance (million dollars)	-143	-462	-749	-492	65
	Ratio of imports to consumption (percent)	21.3	28.5	27.6	23.2	30.6
	Ratio of exports to shipments (percent)	19.5	23.9	20.5	18.0	31.6
ET009	Motor vehicles:					
	Number of establishments	1,284	1,288	1,290	1,295	1,300
	Employees (thousands)	389	388	400	395	377
	Capacity utilization (percent)	82	83	86	79	81
	U.S. shipments (million dollars)	229,065	240,135	279,018	250,916	225,825
	U.S. exports (million dollars)	24,372	22,522	22,049	22,827	22,625
	U.S. imports (million dollars)	92,984	99,826	119,663	129,553	127,244
	Apparent U.S. consumption (million dollars) . .	297,677	317,440	376,632	357,643	330,444
	Trade balance (million dollars)	-68,612	-77,305	-97,614	-106,727	-104,619
	Ratio of imports to consumption (percent)	31.2	31.4	31.8	36.2	38.5
	Ratio of exports to shipments (percent)	10.6	9.4	7.9	9.1	10.0

See footnote(s) at end of table.

Table C-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET010	Certain motor-vehicle parts:					
	Number of establishments	3,300	3,300	3,300	3,300	3,150
	Employees (thousands)	540	550	550	550	545
	Capacity utilization (percent)	79	76	81	75	75
	U.S. shipments (million dollars)	120,000	124,000	135,000	137,000	122,000
	U.S. exports (million dollars)	26,324	25,988	27,281	29,199	26,750
	U.S. imports (million dollars)	17,804	18,767	22,725	25,135	24,135
	Apparent U.S. consumption (million dollars) . .	111,480	116,779	130,443	132,935	119,385
	Trade balance (million dollars)	8,520	7,221	4,557	4,065	2,615
	Ratio of imports to consumption (percent)	16.0	16.1	17.4	18.9	20.2
	Ratio of exports to shipments (percent)	21.9	21.0	20.2	21.3	21.9
ET011	Motorcycles, mopeds, and parts:					
	Number of establishments	48	48	50	55	60
	Employees (thousands)	7	8	9	10	11
	Capacity utilization (percent)	86	90	90	85	85
	U.S. shipments (million dollars)	2,200	2,500	3,000	3,500	4,100
	U.S. exports (million dollars)	666	626	468	563	742
	U.S. imports (million dollars)	1,104	1,293	1,755	2,519	2,870
	Apparent U.S. consumption (million dollars) . .	2,638	3,167	4,287	5,456	6,228
	Trade balance (million dollars)	-438	-667	-1,287	-1,956	-2,128
	Ratio of imports to consumption (percent)	41.9	40.8	40.9	46.2	46.1
	Ratio of exports to shipments (percent)	30.3	25.0	15.6	16.1	18.1
ET012	Miscellaneous vehicles and transportation-related equipment:					
	Number of establishments	1,200	1,202	1,203	1,203	1,210
	Employees (thousands)	55	57	61	61	62
	Capacity utilization (percent)	63	63	67	58	60
	U.S. shipments (million dollars)	11,424	12,975	13,830	14,092	14,797
	U.S. exports (million dollars)	3,166	2,962	2,762	2,944	2,666
	U.S. imports (million dollars)	1,522	1,666	2,060	2,986	2,367
	Apparent U.S. consumption (million dollars) . .	9,779	11,679	13,128	14,135	14,498
	Trade balance (million dollars)	1,645	1,296	702	-43	299
	Ratio of imports to consumption (percent)	15.6	14.3	15.7	21.1	16.3
	Ratio of exports to shipments (percent)	27.7	22.8	20.0	20.9	18.0
ET013	Aircraft, spacecraft, and related equipment:					
	Number of establishments	260	250	230	230	200
	Employees (thousands)	432	454	425	394	390
	Capacity utilization (percent)	90	95	95	(¹)	75
	U.S. shipments (million dollars)	61,891	71,350	69,472	60,337	69,466
	U.S. exports (million dollars)	38,698	50,248	47,762	39,696	42,535
	U.S. imports (million dollars)	9,459	12,748	14,592	18,019	21,027
	Apparent U.S. consumption (million dollars) . .	32,652	33,850	36,301	38,660	47,958
	Trade balance (million dollars)	29,239	37,500	33,171	21,677	21,508
	Ratio of imports to consumption (percent)	29.0	37.7	40.2	46.6	43.8
	Ratio of exports to shipments (percent)	62.5	70.4	68.8	65.8	61.2
ET014	Ships, tugs, pleasure boats, and similar vessels:					
	Number of establishments	1,600	1,600	1,600	1,600	1,600
	Employees (thousands)	109	113	113	119	112
	Capacity utilization (percent)	67	62	55	56	56
	U.S. shipments (million dollars)	12,400	13,600	14,200	15,200	14,000
	U.S. exports (million dollars)	1,408	1,765	1,682	1,083	1,820
	U.S. imports (million dollars)	924	1,090	1,246	1,223	1,411
	Apparent U.S. consumption (million dollars) . .	11,915	12,925	13,763	15,340	13,590
	Trade balance (million dollars)	485	675	437	-140	410
	Ratio of imports to consumption (percent)	7.8	8.4	9.1	8.0	10.4
	Ratio of exports to shipments (percent)	11.4	13.0	11.8	7.1	13.0

See footnote(s) at end of table.

Table C-8--Continued

Transportation equipment sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET015	Motors and engines, except internal combustion, aircraft, or electric:					
	Number of establishments	350	350	350	350	335
	Employees (thousands)	39	42	40	40	40
	Capacity utilization (percent)	77	72	72	68	68
	U.S. shipments (million dollars)	6,400	6,700	6,500	7,000	6,300
	U.S. exports (million dollars)	402	397	394	453	508
	U.S. imports (million dollars)	567	621	658	772	784
	Apparent U.S. consumption (million dollars) . .	6,566	6,923	6,764	7,319	6,576
	Trade balance (million dollars)	-166	-223	-264	-319	-276
	Ratio of imports to consumption (percent)	8.6	9.0	9.7	10.6	11.9
	Ratio of exports to shipments (percent)	6.3	5.9	6.1	6.5	8.1

¹Capacity utilization could not be meaningfully calculated for this industry.

Note.--Calculations based on unrounded data.

Table C-9

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET016	Office machines:					
	Number of establishments	137	137	137	137	137
	Employees (thousands)	15	13	13	11	11
	Capacity utilization (percent)	69	60	65	70	70
	U.S. shipments (million dollars)	3,163	3,065	2,993	2,874	2,790
	U.S. exports (million dollars)	1,102	1,061	1,002	1,080	1,094
	U.S. imports (million dollars)	1,839	1,856	1,784	1,892	1,817
	Apparent U.S. consumption (million dollars) . .	3,900	3,860	3,775	3,686	3,513
	Trade balance (million dollars)	-737	-795	-782	-812	-723
	Ratio of imports to consumption (percent)	47.1	48.1	47.3	51.3	51.7
	Ratio of exports to shipments (percent)	34.8	34.6	33.5	37.6	39.2
ET017	Telephone and telegraph apparatus:					
	Number of establishments	1,000	1,028	1,056	1,030	1,000
	Employees (thousands)	240	248	238	248	228
	Capacity utilization (percent)	71	73	77	75	73
	U.S. shipments (million dollars)	63,740	72,826	79,544	93,614	92,675
	U.S. exports (million dollars)	17,441	17,167	17,717	20,147	16,506
	U.S. imports (million dollars)	12,465	14,385	20,147	32,130	27,174
	Apparent U.S. consumption (million dollars) . .	58,765	70,044	81,974	105,596	103,343
	Trade balance (million dollars)	4,975	2,782	-2,430	-11,982	-10,668
	Ratio of imports to consumption (percent)	21.2	20.5	24.6	30.4	26.3
	Ratio of exports to shipments (percent)	27.4	23.6	22.3	21.5	17.8
ET018	Consumer electronics (except televisions):					
	Number of establishments	194	200	210	215	225
	Employees (thousands)	19	20	20	21	21
	Capacity utilization (percent)	88	64	58	58	58
	U.S. shipments (million dollars)	3,810	3,895	3,880	4,600	5,000
	U.S. exports (million dollars)	3,011	2,579	2,678	2,969	2,791
	U.S. imports (million dollars)	15,160	16,444	18,282	21,974	19,525
	Apparent U.S. consumption (million dollars) . .	15,959	17,760	19,484	23,605	21,734
	Trade balance (million dollars)	-12,149	-13,865	-15,604	-19,005	-16,734
	Ratio of imports to consumption (percent)	95.0	92.6	93.8	93.1	89.8
	Ratio of exports to shipments (percent)	79.0	66.2	69.0	64.5	55.8
ET019	Blank media:					
	Number of establishments	258	312	377	456	464
	Employees (thousands)	21	24	26	29	28
	Capacity utilization (percent)	78	82	73	69	60
	U.S. shipments (million dollars)	5,739	4,736	3,850	3,157	2,439
	U.S. exports (million dollars)	2,603	2,042	1,692	1,420	1,017
	U.S. imports (million dollars)	2,090	2,103	2,225	2,415	2,423
	Apparent U.S. consumption (million dollars) . .	5,226	4,798	4,383	4,152	3,845
	Trade balance (million dollars)	513	-62	-533	-995	-1,406
	Ratio of imports to consumption (percent)	40.0	43.8	50.8	58.2	63.0
	Ratio of exports to shipments (percent)	45.4	43.1	44.0	45.0	41.7
ET020	Prerecorded media:					
	Number of establishments	13,028	13,289	13,555	13,826	13,941
	Employees (thousands)	291	317	349	392	378
	Capacity utilization (percent)	74	85	78	75	66
	U.S. shipments (million dollars)	58,000	64,000	73,000	83,000	81,000
	U.S. exports (million dollars)	3,785	3,619	3,707	3,636	3,195
	U.S. imports (million dollars)	981	1,135	1,252	1,389	1,259
	Apparent U.S. consumption (million dollars) . .	55,196	61,515	70,545	80,753	79,065
	Trade balance (million dollars)	2,804	2,485	2,455	2,247	1,935
	Ratio of imports to consumption (percent)	1.8	1.8	1.8	1.7	1.6
	Ratio of exports to shipments (percent)	6.5	5.7	5.1	4.4	3.9

See footnote(s) at end of table.

Table C-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET021	Navigational instruments and remote control apparatus:					
	Number of establishments	105	105	105	107	107
	Employees (thousands)	115	115	115	116	120
	Capacity utilization (percent)	75	75	75	80	80
	U.S. shipments (million dollars)	15,000	15,100	15,500	18,500	21,275
	U.S. exports (million dollars)	2,493	2,585	2,530	2,626	3,102
	U.S. imports (million dollars)	1,169	1,230	1,361	1,702	1,796
	Apparent U.S. consumption (million dollars) . .	13,676	13,746	14,331	17,576	19,969
	Trade balance (million dollars)	1,324	1,354	1,169	924	1,306
	Ratio of imports to consumption (percent)	8.5	9.0	9.5	9.7	9.0
	Ratio of exports to shipments (percent)	16.6	17.1	16.3	14.2	14.6
ET022	Television receivers and video monitors:					
	Number of establishments	13	14	14	12	10
	Employees (thousands)	9	8	8	8	7
	Capacity utilization (percent)	58	64	58	58	58
	U.S. shipments (million dollars)	4,365	3,940	3,950	4,000	3,500
	U.S. exports (million dollars)	1,398	2,142	1,104	1,164	1,237
	U.S. imports (million dollars)	4,895	5,878	6,652	7,713	8,615
	Apparent U.S. consumption (million dollars) . .	7,862	7,676	9,498	10,549	10,878
	Trade balance (million dollars)	-3,497	-3,736	-5,548	-6,549	-7,378
	Ratio of imports to consumption (percent)	62.3	76.6	70.0	73.1	79.2
	Ratio of exports to shipments (percent)	32.0	54.4	28.0	29.1	35.3
ET023	Radio and television broadcasting equipment:					
	Number of establishments	147	150	155	160	165
	Employees (thousands)	14	15	15	15	15
	Capacity utilization (percent)	72	69	71	73	73
	U.S. shipments (million dollars)	3,350	3,600	4,000	4,050	4,100
	U.S. exports (million dollars)	1,697	1,379	2,323	2,602	2,321
	U.S. imports (million dollars)	2,594	3,211	4,948	7,178	6,066
	Apparent U.S. consumption (million dollars) . .	4,246	5,432	6,624	8,626	7,845
	Trade balance (million dollars)	-896	-1,832	-2,624	-4,576	-3,745
	Ratio of imports to consumption (percent)	61.1	59.1	74.7	83.2	77.3
	Ratio of exports to shipments (percent)	50.7	38.3	58.1	64.3	56.6
ET024	Electric sound and visual signaling apparatus:					
	Number of establishments	499	499	499	499	499
	Employees (thousands)	24	24	24	23	23
	Capacity utilization (percent)	69	66	78	71	71
	U.S. shipments (million dollars)	4,104	4,189	4,539	4,905	4,065
	U.S. exports (million dollars)	730	783	858	851	949
	U.S. imports (million dollars)	1,979	2,064	2,053	2,334	1,968
	Apparent U.S. consumption (million dollars) . .	5,353	5,470	5,734	6,388	5,085
	Trade balance (million dollars)	-1,249	-1,281	-1,195	-1,483	-1,020
	Ratio of imports to consumption (percent)	37.0	37.7	35.8	36.5	38.7
	Ratio of exports to shipments (percent)	17.8	18.7	18.9	17.3	23.3
ET025	Electrical capacitors and resistors:					
	Number of establishments	248	303	286	276	267
	Employees (thousands)	31	29	26	27	24
	Capacity utilization (percent)	75	70	75	80	60
	U.S. shipments (million dollars)	3,092	2,892	3,006	3,689	2,751
	U.S. exports (million dollars)	2,212	2,037	2,393	3,410	2,002
	U.S. imports (million dollars)	1,971	2,015	2,435	4,177	2,333
	Apparent U.S. consumption (million dollars) . .	2,851	2,870	3,048	4,456	3,082
	Trade balance (million dollars)	241	22	-42	-767	-331
	Ratio of imports to consumption (percent)	69.1	70.2	79.9	93.7	75.7
	Ratio of exports to shipments (percent)	71.5	70.4	79.6	92.4	72.8

See footnote(s) at end of table.

Table C-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC						
code	Industry/commodity group	1997	1998	1999	2000	2001
ET026	Printed circuits:					
	Number of establishments	715	768	730	694	641
	Employees (thousands)	77	82	83	86	75
	Capacity utilization (percent)	74	73	78	77	56
	U.S. shipments (million dollars)	8,702	8,473	9,150	11,129	8,401
	U.S. exports (million dollars)	2,007	2,178	2,386	2,865	2,089
	U.S. imports (million dollars)	2,071	2,045	2,236	2,988	2,141
	Apparent U.S. consumption (million dollars) . .	8,766	8,340	9,000	11,252	8,454
	Trade balance (million dollars)	-64	133	150	-123	-53
	Ratio of imports to consumption (percent)	23.6	24.5	24.8	26.6	25.3
	Ratio of exports to shipments (percent)	23.1	25.7	26.1	25.7	24.9
ET027	Circuit apparatus exceeding 1000V:					
	Number of establishments	200	200	200	210	200
	Employees (thousands)	15	15	15	17	16
	Capacity utilization (percent)	78	75	75	80	60
	U.S. shipments (million dollars)	4,300	4,700	5,000	5,500	4,150
	U.S. exports (million dollars)	602	584	590	701	612
	U.S. imports (million dollars)	223	244	287	386	357
	Apparent U.S. consumption (million dollars) . .	3,921	4,360	4,698	5,185	3,895
	Trade balance (million dollars)	379	340	302	315	255
	Ratio of imports to consumption (percent)	5.7	5.6	6.1	7.4	9.2
	Ratio of exports to shipments (percent)	14.0	12.4	11.8	12.7	14.7
ET028	Circuit apparatus not exceeding 1000V:					
	Number of establishments	600	600	600	620	600
	Employees (thousands)	50	50	50	55	52
	Capacity utilization (percent)	78	75	75	80	60
	U.S. shipments (million dollars)	13,000	14,000	15,000	17,000	13,000
	U.S. exports (million dollars)	4,119	4,258	4,991	6,101	5,098
	U.S. imports (million dollars)	5,135	5,103	5,606	6,872	5,280
	Apparent U.S. consumption (million dollars) . .	14,016	14,845	15,615	17,771	13,182
	Trade balance (million dollars)	-1,016	-845	-615	-771	-182
	Ratio of imports to consumption (percent)	36.6	34.4	35.9	38.7	40.1
	Ratio of exports to shipments (percent)	31.7	30.4	33.3	35.9	39.2
ET031	Cathode-ray tubes:					
	Number of establishments	20	20	18	16	15
	Employees (thousands)	15	14	14	13	12
	Capacity utilization (percent)	79	76	77	80	80
	U.S. shipments (million dollars)	3,400	3,400	3,600	3,500	3,400
	U.S. exports (million dollars)	2,058	2,288	2,174	2,435	2,056
	U.S. imports (million dollars)	856	774	732	634	612
	Apparent U.S. consumption (million dollars) . .	2,198	1,886	2,158	1,699	1,956
	Trade balance (million dollars)	1,202	1,514	1,442	1,801	1,444
	Ratio of imports to consumption (percent)	38.9	41.0	33.9	37.3	31.3
	Ratio of exports to shipments (percent)	60.5	67.3	60.4	69.6	60.5
ET032	Electron tubes other than CRTs:					
	Number of establishments	45	50	43	40	38
	Employees (thousands)	5	4	4	4	4
	Capacity utilization (percent)	79	76	77	80	60
	U.S. shipments (million dollars)	683	654	696	730	661
	U.S. exports (million dollars)	200	183	215	209	178
	U.S. imports (million dollars)	267	225	190	213	271
	Apparent U.S. consumption (million dollars) . .	750	696	671	734	754
	Trade balance (million dollars)	-67	-42	25	-4	-93
	Ratio of imports to consumption (percent)	35.6	32.3	28.4	29.1	36.0
	Ratio of exports to shipments (percent)	29.3	28.0	30.9	28.7	27.0

See footnote(s) at end of table.

Table C-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET033	Semiconductors and integrated circuits:					
	Number of establishments	1,099	1,331	1,271	1,241	1,194
	Employees (thousands)	277	284	272	294	300
	Capacity utilization (percent)	84	73	86	87	66
	U.S. shipments (million dollars)	69,972	70,494	76,646	90,383	59,770
	U.S. exports (million dollars)	28,861	29,055	36,615	44,828	33,455
	U.S. imports (million dollars)	36,266	33,157	37,158	47,448	30,016
	Apparent U.S. consumption (million dollars)	77,377	74,596	77,188	93,002	56,331
	Trade balance (million dollars)	-7,405	-4,102	-542	-2,619	3,439
	Ratio of imports to consumption (percent)	46.9	44.4	48.1	51.0	53.3
	Ratio of exports to shipments (percent)	41.2	41.2	47.8	49.6	56.0
ET035	Computers, peripherals, and parts:					
	Number of establishments	795	760	750	750	730
	Employees (thousands)	240	240	208	190	187
	Capacity utilization (percent)	82	84	83	76	66
	U.S. shipments (million dollars)	110,055	114,482	113,161	110,028	88,243
	U.S. exports (million dollars)	42,071	38,999	39,265	45,346	38,092
	U.S. imports (million dollars)	70,424	72,635	81,662	90,384	74,547
	Apparent U.S. consumption (million dollars)	138,409	148,118	155,558	155,066	124,698
	Trade balance (million dollars)	-28,354	-33,636	-42,397	-45,038	-36,455
	Ratio of imports to consumption (percent)	50.9	49.0	52.5	58.3	59.8
	Ratio of exports to shipments (percent)	38.2	34.1	34.7	41.2	43.2
ET036	Photographic film and paper:					
	Number of establishments	310	310	310	310	310
	Employees (thousands)	39	36	34	31	31
	Capacity utilization (percent)	88	81	85	80	80
	U.S. shipments (million dollars)	12,919	10,839	13,080	12,266	11,650
	U.S. exports (million dollars)	2,401	2,108	2,154	2,755	1,953
	U.S. imports (million dollars)	1,914	1,861	2,009	2,205	1,856
	Apparent U.S. consumption (million dollars)	12,431	10,592	12,934	11,716	11,554
	Trade balance (million dollars)	488	247	146	550	96
	Ratio of imports to consumption (percent)	15.4	17.6	15.5	18.8	16.1
	Ratio of exports to shipments (percent)	18.6	19.4	16.5	22.5	16.8
ET037	Optical fibers, optical fiber bundles and cables:					
	Number of establishments	63	64	68	72	60
	Employees (thousands)	11	12	14	15	13
	Capacity utilization (percent)	93	95	95	95	88
	U.S. shipments (million dollars)	3,228	3,712	4,800	5,800	5,300
	U.S. exports (million dollars)	806	807	1,081	1,888	1,689
	U.S. imports (million dollars)	272	398	729	1,399	1,244
	Apparent U.S. consumption (million dollars)	2,694	3,303	4,448	5,312	4,854
	Trade balance (million dollars)	534	409	352	488	446
	Ratio of imports to consumption (percent)	10.1	12.1	16.4	26.3	25.6
	Ratio of exports to shipments (percent)	25.0	21.7	22.5	32.5	31.9
ET038	Optical goods, including ophthalmic goods:					
	Number of establishments	904	905	950	1,000	900
	Employees (thousands)	60	60	63	70	60
	Capacity utilization (percent)	83	85	87	92	82
	U.S. shipments (million dollars)	5,700	5,900	6,550	8,515	7,960
	U.S. exports (million dollars)	2,380	2,438	2,682	3,995	3,727
	U.S. imports (million dollars)	3,397	3,683	4,225	5,881	4,957
	Apparent U.S. consumption (million dollars)	6,717	7,144	8,093	10,402	9,190
	Trade balance (million dollars)	-1,017	-1,244	-1,543	-1,887	-1,230
	Ratio of imports to consumption (percent)	50.6	51.5	52.2	56.5	53.9
	Ratio of exports to shipments (percent)	41.8	41.3	40.9	46.9	46.8

See footnote(s) at end of table.

Table C-9--Continued

Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
ET039	Photographic cameras and equipment:					
	Number of establishments	428	428	428	428	428
	Employees (thousands)	24	24	20	20	20
	Capacity utilization (percent)	74	76	62	53	53
	U.S. shipments (million dollars)	8,291	8,809	8,397	9,601	8,645
	U.S. exports (million dollars)	1,910	2,030	1,825	1,800	1,694
	U.S. imports (million dollars)	6,726	6,447	5,843	5,299	3,560
	Apparent U.S. consumption (million dollars) . .	13,107	13,226	12,415	13,100	10,511
	Trade balance (million dollars)	-4,816	-4,417	-4,018	-3,499	-1,866
	Ratio of imports to consumption (percent)	51.3	48.7	47.1	40.5	33.9
	Ratio of exports to shipments (percent)	23.0	23.0	21.7	18.7	19.6
ET040	Medical goods:					
	Number of establishments	2,340	2,338	2,340	2,345	2,350
	Employees (thousands)	182	182	183	185	188
	Capacity utilization (percent)	90	89	91	92	94
	U.S. shipments (million dollars)	30,200	30,800	31,500	33,075	37,000
	U.S. exports (million dollars)	11,226	11,582	12,455	13,411	14,987
	U.S. imports (million dollars)	5,895	6,934	7,932	9,178	10,869
	Apparent U.S. consumption (million dollars) . .	24,869	26,152	26,978	28,843	32,881
	Trade balance (million dollars)	5,331	4,648	4,522	4,232	4,119
	Ratio of imports to consumption (percent)	23.7	26.5	29.4	31.8	33.1
	Ratio of exports to shipments (percent)	37.2	37.6	39.5	40.5	40.5
ET041	Watches and clocks:					
	Number of establishments	145	145	145	145	145
	Employees (thousands)	6	7	7	7	7
	Capacity utilization (percent)	59	46	62	61	61
	U.S. shipments (million dollars)	921	1,021	1,168	1,176	1,000
	U.S. exports (million dollars)	309	311	335	348	279
	U.S. imports (million dollars)	2,758	3,100	3,136	3,354	2,957
	Apparent U.S. consumption (million dollars) . .	3,370	3,810	3,969	4,182	3,678
	Trade balance (million dollars)	-2,449	-2,789	-2,801	-3,006	-2,678
	Ratio of imports to consumption (percent)	81.8	81.4	79.0	80.2	80.4
	Ratio of exports to shipments (percent)	33.6	30.5	28.7	29.6	27.9
ET042	Drawing, drafting, and calculating instruments:					
	Number of establishments	175	175	175	175	180
	Employees (thousands)	7	8	10	11	13
	Capacity utilization (percent)	70	75	75	80	80
	U.S. shipments (million dollars)	578	595	605	720	825
	U.S. exports (million dollars)	400	425	415	366	395
	U.S. imports (million dollars)	428	427	431	234	207
	Apparent U.S. consumption (million dollars) . .	606	597	620	588	637
	Trade balance (million dollars)	-28	-2	-15	132	188
	Ratio of imports to consumption (percent)	70.7	71.5	69.4	39.8	32.6
	Ratio of exports to shipments (percent)	69.2	71.4	68.7	50.8	47.9
ET043	Measuring, testing, and controlling instruments:					
	Number of establishments	3,235	3,235	3,235	3,235	3,235
	Employees (thousands)	245	245	245	245	245
	Capacity utilization (percent)	75	75	75	75	75
	U.S. shipments (million dollars)	36,100	38,400	39,200	44,790	55,000
	U.S. exports (million dollars)	14,083	13,825	14,575	16,749	15,712
	U.S. imports (million dollars)	7,992	8,681	9,656	11,743	11,806
	Apparent U.S. consumption (million dollars) . .	30,010	33,257	34,281	39,784	51,094
	Trade balance (million dollars)	6,090	5,143	4,919	5,006	3,906
	Ratio of imports to consumption (percent)	26.6	26.1	28.2	29.5	23.1
	Ratio of exports to shipments (percent)	39.0	36.0	37.2	37.4	28.6

Note.—Calculations based on unrounded data.

Table C-10

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM046A	Luggage:					
	Number of establishments	282	252	223	209	189
	Employees (thousands)	10	10	8	7	6
	Capacity utilization (percent)	65	69	67	67	68
	U.S. shipments (million dollars)	1,102	990	883	821	744
	U.S. exports (million dollars)	255	231	250	253	223
	U.S. imports (million dollars)	2,321	2,466	2,619	2,741	2,667
	Apparent U.S. consumption (million dollars) . .	3,168	3,225	3,252	3,310	3,188
	Trade balance (million dollars)	-2,066	-2,235	-2,369	-2,489	-2,444
	Ratio of imports to consumption (percent)	73.3	76.5	80.5	82.8	83.7
	Ratio of exports to shipments (percent)	23.1	23.3	28.3	30.8	29.9
MM046B	Handbags:					
	Number of establishments	137	122	107	102	93
	Employees (thousands)	4	3	3	3	3
	Capacity utilization (percent)	63	61	60	60	59
	U.S. shipments (million dollars)	312	280	250	232	210
	U.S. exports (million dollars)	45	41	42	63	58
	U.S. imports (million dollars)	1,040	1,007	1,004	1,179	1,203
	Apparent U.S. consumption (million dollars) . .	1,307	1,246	1,213	1,348	1,356
	Trade balance (million dollars)	-995	-966	-963	-1,116	-1,146
	Ratio of imports to consumption (percent)	79.6	80.8	82.8	87.4	88.8
	Ratio of exports to shipments (percent)	14.5	14.6	16.7	26.9	27.4
MM046C	Flat goods:					
	Number of establishments	174	155	138	129	117
	Employees (thousands)	4	4	3	3	3
	Capacity utilization (percent)	73	68	66	66	64
	U.S. shipments (million dollars)	450	404	360	355	320
	U.S. exports (million dollars)	28	28	32	30	22
	U.S. imports (million dollars)	401	424	428	435	417
	Apparent U.S. consumption (million dollars) . .	823	800	756	759	716
	Trade balance (million dollars)	-373	-396	-396	-404	-396
	Ratio of imports to consumption (percent)	48.7	53.0	56.6	57.3	58.3
	Ratio of exports to shipments (percent)	6.2	6.9	8.9	8.6	6.7
MM047	Certain other leather goods:					
	Number of establishments	434	450	450	450	450
	Employees (thousands)	9	9	9	9	9
	Capacity utilization (percent)	67	56	60	60	58
	U.S. shipments (million dollars)	655	690	730	745	700
	U.S. exports (million dollars)	103	106	123	173	100
	U.S. imports (million dollars)	198	195	209	242	256
	Apparent U.S. consumption (million dollars) . .	750	779	816	814	856
	Trade balance (million dollars)	-95	-89	-86	-69	-156
	Ratio of imports to consumption (percent)	26.4	25.1	25.6	29.7	29.9
	Ratio of exports to shipments (percent)	15.7	15.4	16.8	23.2	14.3
MM048	Musical instruments and accessories:					
	Number of establishments	571	580	600	600	600
	Employees (thousands)	13	13	13	13	12
	Capacity utilization (percent)	73	75	75	75	68
	U.S. shipments (million dollars)	1,263	1,283	1,336	1,386	1,110
	U.S. exports (million dollars)	425	392	360	371	398
	U.S. imports (million dollars)	1,063	1,188	1,256	1,413	1,300
	Apparent U.S. consumption (million dollars) . .	1,901	2,079	2,232	2,428	2,012
	Trade balance (million dollars)	-638	-796	-896	-1,042	-902
	Ratio of imports to consumption (percent)	55.9	57.1	56.3	58.2	64.6
	Ratio of exports to shipments (percent)	33.7	30.6	26.9	26.8	35.8

See footnote(s) at end of table.

Table C-10—Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM049	Umbrellas, whips, riding crops, and canes:					
	Number of establishments	17	16	16	16	15
	Employees (thousands)	0.5	0.5	0.5	0.5	0.5
	Capacity utilization (percent)	74	72	72	72	70
	U.S. shipments (million dollars)	70	74	74	77	75
	U.S. exports (million dollars)	11	11	11	11	11
	U.S. imports (million dollars)	233	250	248	284	293
	Apparent U.S. consumption (million dollars) . .	291	314	311	350	356
	Trade balance (million dollars)	-221	-240	-237	-273	-281
	Ratio of imports to consumption (percent)	79.9	79.8	79.8	81.1	82.2
	Ratio of exports to shipments (percent)	16.2	14.5	15.0	14.4	15.2
MM050	Silverware and related articles of precious metal:					
	Number of establishments	42	41	41	41	41
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	85	88	90	90	85
	U.S. shipments (million dollars)	215	220	235	270	255
	U.S. exports (million dollars)	109	114	123	165	180
	U.S. imports (million dollars)	78	158	57	68	57
	Apparent U.S. consumption (million dollars) . .	184	264	169	172	131
	Trade balance (million dollars)	31	-44	66	98	124
	Ratio of imports to consumption (percent)	42.3	59.9	33.7	39.3	43.1
	Ratio of exports to shipments (percent)	50.5	51.8	52.2	61.2	70.7
MM051	Precious jewelry and related articles:					
	Number of establishments	2,290	2,290	2,290	2,270	2,270
	Employees (thousands)	35	34	33	32	30
	Capacity utilization (percent)	78	75	74	73	70
	U.S. shipments (million dollars)	4,720	4,606	4,550	4,500	4,275
	U.S. exports (million dollars)	486	518	822	1,272	1,659
	U.S. imports (million dollars)	4,021	4,592	5,063	5,737	5,533
	Apparent U.S. consumption (million dollars) . .	8,256	8,679	8,791	8,964	8,149
	Trade balance (million dollars)	-3,536	-4,073	-4,241	-4,464	-3,874
	Ratio of imports to consumption (percent)	48.7	52.9	57.6	64.0	67.9
	Ratio of exports to shipments (percent)	10.3	11.3	18.1	28.3	38.8
MM052	Costume jewelry and related articles:					
	Number of establishments	840	810	780	770	770
	Employees (thousands)	13	12	12	11	10
	Capacity utilization (percent)	72	64	64	64	64
	U.S. shipments (million dollars)	1,230	1,185	1,180	1,160	1,135
	U.S. exports (million dollars)	136	128	133	127	113
	U.S. imports (million dollars)	464	493	546	619	655
	Apparent U.S. consumption (million dollars) . .	1,558	1,549	1,593	1,652	1,677
	Trade balance (million dollars)	-328	-364	-413	-492	-542
	Ratio of imports to consumption (percent)	29.8	31.8	34.3	37.5	39.1
	Ratio of exports to shipments (percent)	11.1	10.8	11.3	10.9	10.0
MM053	Bicycles and certain parts:					
	Number of establishments	225	200	160	160	143
	Employees (thousands)	8	6	5	5	4
	Capacity utilization (percent)	70	65	60	60	57
	U.S. shipments (million dollars)	1,280	1,130	920	804	690
	U.S. exports (million dollars)	310	292	271	235	226
	U.S. imports (million dollars)	979	1,115	1,199	1,348	1,025
	Apparent U.S. consumption (million dollars) . .	1,949	1,953	1,848	1,917	1,489
	Trade balance (million dollars)	-669	-823	-928	-1,113	-799
	Ratio of imports to consumption (percent)	50.2	57.1	64.9	70.3	68.8
	Ratio of exports to shipments (percent)	24.2	25.9	29.4	29.3	32.8

See footnote(s) at end of table.

Table C-10—Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM054	Furniture:					
	Number of establishments	18,700	18,800	18,800	18,000	17,500
	Employees (thousands)	500	530	535	535	500
	Capacity utilization (percent)	77	74	75	75	73
	U.S. shipments (million dollars)	56,690	61,800	66,500	69,800	64,200
	U.S. exports (million dollars)	2,513	2,632	2,597	3,026	2,689
	U.S. imports (million dollars)	8,666	10,417	12,775	15,159	14,839
	Apparent U.S. consumption (million dollars) . .	62,843	69,585	76,678	81,932	76,350
	Trade balance (million dollars)	-6,153	-7,785	-10,178	-12,132	-12,150
	Ratio of imports to consumption (percent)	13.8	15.0	16.7	18.5	19.4
	Ratio of exports to shipments (percent)	4.4	4.3	3.9	4.3	4.2
MM055	Writing instruments and related articles:					
	Number of establishments	190	190	190	190	190
	Employees (thousands)	16	16	16	16	16
	Capacity utilization (percent)	74	76	75	76	77
	U.S. shipments (million dollars)	2,684	2,818	2,759	2,863	2,920
	U.S. exports (million dollars)	400	373	333	288	263
	U.S. imports (million dollars)	800	842	965	1,146	1,027
	Apparent U.S. consumption (million dollars) . .	3,084	3,286	3,391	3,720	3,684
	Trade balance (million dollars)	-400	-468	-632	-857	-764
	Ratio of imports to consumption (percent)	26.0	25.6	28.5	30.8	27.9
	Ratio of exports to shipments (percent)	14.9	13.3	12.1	10.1	9.0
MM056	Lamps and lighting fittings:					
	Number of establishments	1,550	1,550	1,550	1,550	1,500
	Employees (thousands)	62	62	62	62	61
	Capacity utilization (percent)	85	88	87	85	84
	U.S. shipments (million dollars)	9,515	9,990	10,090	9,500	9,400
	U.S. exports (million dollars)	655	619	585	678	648
	U.S. imports (million dollars)	2,729	3,167	3,858	4,496	4,148
	Apparent U.S. consumption (million dollars) . .	11,589	12,538	13,362	13,318	12,900
	Trade balance (million dollars)	-2,074	-2,548	-3,272	-3,818	-3,500
	Ratio of imports to consumption (percent)	23.6	25.3	28.9	33.8	32.2
	Ratio of exports to shipments (percent)	6.9	6.2	5.8	7.1	6.9
MM057	Prefabricated buildings:					
	Number of establishments	1,631	1,700	1,700	1,725	1,725
	Employees (thousands)	92	95	101	104	104
	Capacity utilization (percent)	77	73	73	74	74
	U.S. shipments (million dollars)	17,678	18,883	21,700	23,000	23,000
	U.S. exports (million dollars)	463	385	327	331	291
	U.S. imports (million dollars)	129	160	221	281	308
	Apparent U.S. consumption (million dollars) . .	17,344	18,659	21,593	22,950	23,017
	Trade balance (million dollars)	334	224	107	50	-17
	Ratio of imports to consumption (percent)	0.7	0.9	1.0	1.2	1.3
	Ratio of exports to shipments (percent)	2.6	2.0	1.5	1.4	1.3
MM058	Dolls:					
	Number of establishments	158	150	150	150	150
	Employees (thousands)	2	2	2	2	2
	Capacity utilization (percent)	58	47	47	47	47
	U.S. shipments (million dollars)	124	124	120	120	120
	U.S. exports (million dollars)	30	28	25	30	33
	U.S. imports (million dollars)	1,516	1,484	1,374	1,475	1,218
	Apparent U.S. consumption (million dollars) . .	1,610	1,579	1,469	1,565	1,306
	Trade balance (million dollars)	-1,486	-1,455	-1,349	-1,445	-1,186
	Ratio of imports to consumption (percent)	94.2	93.9	93.5	94.2	93.3
	Ratio of exports to shipments (percent)	24.4	22.9	20.6	24.7	27.1

See footnote(s) at end of table.

Table C-10—Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM059	Toys:					
	Number of establishments	333	333	330	330	330
	Employees (thousands)	19	16	14	14	14
	Capacity utilization (percent)	71	62	62	62	60
	U.S. shipments (million dollars)	2,800	2,280	2,074	2,050	1,990
	U.S. exports (million dollars)	617	540	497	532	489
	U.S. imports (million dollars)	6,814	7,588	7,978	8,462	7,905
	Apparent U.S. consumption (million dollars)	8,998	9,328	9,555	9,980	9,406
	Trade balance (million dollars)	-6,198	-7,048	-7,481	-7,930	-7,416
	Ratio of imports to consumption (percent)	75.7	81.3	83.5	84.8	84.0
	Ratio of exports to shipments (percent)	22.0	23.7	24.0	26.0	24.6
MM060	Games:					
	Number of establishments	310	300	300	300	300
	Employees (thousands)	20	19	18	18	18
	Capacity utilization (percent)	82	79	78	78	80
	U.S. shipments (million dollars)	2,456	2,282	2,178	2,150	2,215
	U.S. exports (million dollars)	1,057	913	936	944	788
	U.S. imports (million dollars)	3,936	4,182	4,086	3,879	5,537
	Apparent U.S. consumption (million dollars)	5,334	5,551	5,328	5,085	6,963
	Trade balance (million dollars)	-2,878	-3,269	-3,150	-2,935	-4,748
	Ratio of imports to consumption (percent)	73.8	75.3	76.7	76.3	79.5
	Ratio of exports to shipments (percent)	43.1	40.0	43.0	43.9	35.6
MM061	Sporting goods:					
	Number of establishments	2,142	2,144	2,140	2,140	2,140
	Employees (thousands)	63	68	65	67	67
	Capacity utilization (percent)	70	70	68	68	68
	U.S. shipments (million dollars)	8,644	9,341	8,970	9,300	8,880
	U.S. exports (million dollars)	1,934	1,688	1,621	1,679	1,672
	U.S. imports (million dollars)	3,070	3,041	3,027	3,565	3,632
	Apparent U.S. consumption (million dollars)	9,781	10,694	10,377	11,186	10,840
	Trade balance (million dollars)	-1,137	-1,353	-1,407	-1,886	-1,960
	Ratio of imports to consumption (percent)	31.4	28.4	29.2	31.9	33.5
	Ratio of exports to shipments (percent)	22.4	18.1	18.1	18.0	18.8
MM062	Smokers' articles:					
	Number of establishments	10	11	11	10	10
	Employees (thousands)	1	1	1	1	1
	Capacity utilization (percent)	70	75	80	80	80
	U.S. shipments (million dollars)	190	200	210	222	230
	U.S. exports (million dollars)	88	71	71	77	77
	U.S. imports (million dollars)	139	145	134	140	163
	Apparent U.S. consumption (million dollars)	241	274	273	285	316
	Trade balance (million dollars)	-51	-74	-63	-63	-86
	Ratio of imports to consumption (percent)	57.6	53.0	49.0	49.3	51.6
	Ratio of exports to shipments (percent)	46.3	35.6	33.8	34.9	33.5
MM063A	Brooms and brushes:					
	Number of establishments	180	180	175	175	175
	Employees (thousands)	6	6	6	6	6
	Capacity utilization (percent)	75	75	75	75	73
	U.S. shipments (million dollars)	1,300	1,500	1,600	1,875	1,851
	U.S. exports (million dollars)	154	160	179	214	187
	U.S. imports (million dollars)	470	478	614	625	697
	Apparent U.S. consumption (million dollars)	1,617	1,819	2,035	2,285	2,361
	Trade balance (million dollars)	-317	-319	-435	-410	-510
	Ratio of imports to consumption (percent)	29.1	26.3	30.2	27.3	29.5
	Ratio of exports to shipments (percent)	11.8	10.7	11.2	11.4	10.1

See footnote(s) at end of table.

Table C-10—Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM063B	Hair grooming articles, non-electric (except brushes):					
	Number of establishments	95	95	90	90	88
	Employees (thousands)	3	3	3	3	3
	Capacity utilization (percent)	80	80	80	85	84
	U.S. shipments (million dollars)	575	575	580	585	572
	U.S. exports (million dollars)	23	24	27	28	25
	U.S. imports (million dollars)	185	219	341	234	197
	Apparent U.S. consumption (million dollars)	737	770	895	790	744
	Trade balance (million dollars)	-162	-195	-315	-205	-172
	Ratio of imports to consumption (percent)	25.1	28.5	38.1	29.6	26.5
	Ratio of exports to shipments (percent)	4.0	4.2	4.6	4.8	4.4
MM064	Works of art and miscellaneous manufactured goods:					
	Number of establishments	2,950	2,950	3,000	3,050	3,100
	Employees (thousands)	110	110	115	119	121
	Capacity utilization (percent)	72	73	73	73	72
	U.S. shipments (million dollars)	34,430	35,270	37,000	38,340	39,100
	U.S. exports (million dollars)	1,655	1,685	1,731	2,142	2,177
	U.S. imports (million dollars)	6,390	7,230	8,463	9,641	9,312
	Apparent U.S. consumption (million dollars)	39,164	40,815	43,732	45,839	46,236
	Trade balance (million dollars)	-4,734	-5,545	-6,732	-7,499	-7,136
	Ratio of imports to consumption (percent)	16.3	17.7	19.4	21.0	20.1
	Ratio of exports to shipments (percent)	4.8	4.8	4.7	5.6	5.6
MM065	Apparel fasteners:					
	Number of establishments	90	90	90	90	90
	Employees (thousands)	5	5	5	4.5	4.3
	Capacity utilization (percent)	90	90	90	85	83
	U.S. shipments (million dollars)	541	550	570	576	553
	U.S. exports (million dollars)	119	136	140	183	154
	U.S. imports (million dollars)	126	103	89	85	73
	Apparent U.S. consumption (million dollars)	548	517	519	478	472
	Trade balance (million dollars)	-7	33	51	98	81
	Ratio of imports to consumption (percent)	22.9	19.9	17.1	17.8	15.5
	Ratio of exports to shipments (percent)	21.9	24.7	24.5	31.7	27.8
MM066A	Small arms and ammunition:					
	Number of establishments	311	300	290	280	280
	Employees (thousands)	17	17	16	16	16
	Capacity utilization (percent)	70	70	70	70	75
	U.S. shipments (million dollars)	2,637	2,800	2,550	2,500	2,650
	U.S. exports (million dollars)	538	571	464	535	558
	U.S. imports (million dollars)	467	520	608	637	679
	Apparent U.S. consumption (million dollars)	2,566	2,749	2,694	2,602	2,770
	Trade balance (million dollars)	71	51	-144	-102	-120
	Ratio of imports to consumption (percent)	18.2	18.9	22.6	24.5	24.5
	Ratio of exports to shipments (percent)	20.4	20.4	18.2	21.4	21.1

See footnote(s) at end of table.

Table C-10—Continued

Miscellaneous manufactures sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 1997-2001

USITC		1997	1998	1999	2000	2001
code	Industry/commodity group					
MM067	Seats for motor vehicles and aircraft:					
	Number of establishments	195	200	200	200	190
	Employees (thousands)	21	23	25	25	23
	Capacity utilization (percent)	77	76	76	75	75
	U.S. shipments (million dollars)	5,862	6,540	7,520	7,725	7,030
	U.S. exports (million dollars)	1,551	1,881	1,878	1,861	1,808
	U.S. imports (million dollars)	2,264	2,610	3,024	3,209	3,239
	Apparent U.S. consumption (million dollars) . .	6,575	7,268	8,666	9,073	8,461
	Trade balance (million dollars)	-713	-728	-1,146	-1,348	-1,431
	Ratio of imports to consumption (percent)	34.4	35.9	34.9	35.4	38.3
	Ratio of exports to shipments (percent)	26.5	28.8	25.0	24.1	25.7

Note.—Calculations based on unrounded data.

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APPENDIX D

**Industry/Commodity Groups with Most
Significant Shifts, 2000 and 2001,
and Additional Statistical Tables**

Table D-1

Domestic export increases: Ranking of top 20 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. exports		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value growth:					
ET013	Aircraft, spacecraft, and related equipment	39,696	42,535	2,839	7.2
CH025	Medicinal chemicals	15,772	18,169	2,396	15.2
ET040	Medical goods	13,411	14,987	1,577	11.8
ET001	Aircraft engines and gas turbines	15,011	16,524	1,513	10.1
MM091	Electric motors, generators, and related equipment	3,748	4,691	944	25.2
CH001	Electrical energy	398	1,258	861	216.5
ET014	Ships, tugs, pleasure boats, and similar vessels	1,083	1,820	737	68.1
ET021	Navigational instruments and remote control apparatus	2,626	3,102	476	18.1
AG013	Animal feeds	4,061	4,508	447	11.0
ET004	Construction and mining equipment	9,507	9,903	396	4.2
MM051	Precious jewelry and related articles	1,272	1,659	387	30.4
MM019	Natural and synthetic gemstones	1,466	1,840	374	25.5
CH027	Perfumes, cosmetics, and toiletries	2,851	3,187	336	11.8
AG036	Infant formulas, malt extracts, and other edible preparations	2,401	2,729	328	13.7
AG005	Poultry	2,055	2,376	321	15.6
AG046	Hides, skins, and leather	2,330	2,650	320	13.7
AG006	Fresh or frozen fish	1,705	2,016	311	18.2
CH033	Polyvinyl chloride resins in primary forms	716	1,004	288	40.1
AG049	Cotton, not carded or combed	1,883	2,164	282	15.0
AG032	Oilseeds	5,419	5,642	223	4.1
Rank order based on change in percentage growth:					
CH001	Electrical energy	398	1,258	861	216.5
MM008	Precious metal ores and concentrates	34	85	51	148.3
ET014	Ships, tugs, pleasure boats, and similar vessels	1,083	1,820	737	68.1
MM005	Lead ores, concentrates, and residues	73	108	36	49.3
CH033	Polyvinyl chloride resins in primary forms	716	1,004	288	40.1
AG050	Ethyl alcohol for nonbeverage purposes	91	125	33	36.3
ET011	Motorcycles, mopeds, and parts	563	742	179	31.7
MM051	Precious jewelry and related articles	1,272	1,659	387	30.4
MM083	Metal rolling mills	164	210	46	28.3
CH035	Saturated polyester resins	629	798	169	26.9
MM018	Fiberglass insulation products	59	74	15	26.3
MM019	Natural and synthetic gemstones	1,466	1,840	374	25.5
MM091	Electric motors, generators, and related equipment	3,748	4,691	944	25.2
CH015	Chlor-alkali chemicals	862	1,054	192	22.3
MM015	Glass containers	174	211	37	21.4
AG007	Canned fish	170	202	32	18.8
AG006	Fresh or frozen fish	1,705	2,016	311	18.2
ET021	Navigational instruments and remote control apparatus	2,626	3,102	476	18.1
CH008	Other olefins	264	311	47	17.7
AG037	Cocoa, chocolate, and confectionery	851	997	147	17.2

Note.—Calculations based on unrounded data.

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

Table D-2

Domestic export declines: Ranking of top 20 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. exports		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value decline:					
ET033	Semiconductors and integrated circuits	44,828	33,455	-11,374	-25.4
ET035	Computers, peripherals, and parts	45,346	38,092	-7,254	-16.0
MM087	Semiconductor manufacturing equipment and robotics	14,420	8,407	-6,013	-41.7
ET017	Telephone and telegraph apparatus	20,147	16,506	-3,641	-18.1
ET010	Certain motor-vehicle parts	29,199	26,750	-2,450	-8.4
CH049	Apparel	8,177	6,537	-1,640	-20.1
ET025	Electrical capacitors and resistors	3,410	2,002	-1,408	-41.3
ET002	Internal combustion piston engines, other than for aircraft	13,808	12,408	-1,400	-10.1
MM036	Copper and related articles	3,109	1,852	-1,257	-40.4
AG045	Cigarettes	3,308	2,118	-1,189	-36.0
ET043	Measuring, testing, and controlling instruments	16,749	15,712	-1,037	-6.2
ET028	Circuit apparatus not exceeding 1000V	6,101	5,098	-1,003	-16.4
AG059	Wood pulp and wastepaper	4,619	3,711	-908	-19.7
CH041	Miscellaneous plastic products	13,904	13,034	-870	-6.3
MM020	Precious metals and non-numismatic coins	7,685	6,826	-859	-11.2
ET036	Photographic film and paper	2,755	1,953	-802	-29.1
ET026	Printed circuits	2,865	2,089	-776	-27.1
MM097	Nonautomotive insulated electrical wire and related products	4,040	3,286	-754	-18.7
CH010	Organic commodity chemicals	2,146	1,494	-652	-30.4
CH005	Petroleum products	9,562	8,936	-627	-6.6
Rank order based on change in percentage decline:					
CH004	Crude petroleum	444	177	-266	-60.1
CH007	Major primary olefins	299	120	-179	-59.9
MM039	Lead and related articles	170	78	-92	-53.9
MM004	Copper ores and concentrates	173	84	-89	-51.2
MM021	Primary iron products	13	7	-6	-44.3
MM047	Certain other leather goods	173	100	-73	-42.0
MM087	Semiconductor manufacturing equipment and robotics	14,420	8,407	-6,013	-41.7
AG048	Wool and other animal hair	19	11	-8	-41.4
ET025	Electrical capacitors and resistors	3,410	2,002	-1,408	-41.3
MM036	Copper and related articles	3,109	1,852	-1,257	-40.4
AG058	Cork and rattan	86	53	-32	-37.8
AG045	Cigarettes	3,308	2,118	-1,189	-36.0
MM096	Welding and soldering equipment	1,050	703	-347	-33.1
AG056	Tools and tool handles of wood	53	37	-16	-30.8
CH010	Organic commodity chemicals	2,146	1,494	-652	-30.4
ET036	Photographic film and paper	2,755	1,953	-802	-29.1
MM002	Fluorspar and miscellaneous mineral substances	71	51	-20	-28.6
ET019	Blank media	1,420	1,017	-404	-28.4
ET026	Printed circuits	2,865	2,089	-776	-27.1
ET033	Semiconductors and integrated circuits	44,828	33,455	-11,374	-25.4

Note.—Calculations based on unrounded data.

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

Table D-3

Domestic import increases: Ranking of top 20 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. imports		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value growth:					
CH025	Medicinal chemicals	29,112	33,956	4,844	16.6
CH006	Natural gas and components	19,157	23,054	3,897	20.3
ET013	Aircraft, spacecraft, and related equipment	18,019	21,027	3,008	16.7
ET001	Aircraft engines and gas turbines	10,939	13,548	2,609	23.8
ET040	Medical goods	9,178	10,869	1,690	18.4
MM060	Games	3,879	5,537	1,657	42.7
MM091	Electric motors, generators, and related equipment	6,494	7,646	1,152	17.7
ET022	Television receivers and video monitors	7,713	8,615	902	11.7
MM073	Household appliances, including commercial applications	7,689	8,356	667	8.7
AG002	Cattle and beef	3,357	3,970	613	18.3
CH051	Footwear	14,856	15,249	394	2.7
MM090	Boilers, turbines, and related machinery	833	1,204	370	44.5
CH011	Organic specialty chemicals	6,610	6,962	352	5.3
ET011	Motorcycles, mopeds, and parts	2,519	2,870	350	13.9
AG018	Fresh, chilled, or frozen vegetables	2,350	2,643	294	12.5
MM074	Centrifuges and filtering and purifying equipment	2,010	2,275	265	13.2
CH016	Fertilizers	3,224	3,478	254	7.9
CH027	Perfumes, cosmetics, and toiletries	2,192	2,443	251	11.5
MM095	Electric lamps (bulbs) and portable electric lights	1,579	1,785	206	13.1
CH023	Pesticide products and formulations	1,118	1,318	200	17.9

Rank order based on change in percentage growth:

MM004	Copper ores and concentrates	(¹)	58	58	557,058.9
MM090	Boilers, turbines, and related machinery	833	1,204	370	44.5
MM008	Precious metal ores and concentrates	10	14	4	44.1
MM060	Games	3,879	5,537	1,657	42.7
AG005	Poultry	71	97	26	37.4
CH015	Chlor-alkali chemicals	162	219	57	35.5
ET032	Electron tubes other than CRTs	213	271	58	27.2
ET001	Aircraft engines and gas turbines	10,939	13,548	2,609	23.8
CH006	Natural gas and components	19,157	23,054	3,897	20.3
MM027	Fabricated structurals	534	638	104	19.6
AG036	Infant formulas, malt extracts, and other edible preparations	556	659	103	18.4
ET040	Medical goods	9,178	10,869	1,690	18.4
AG002	Cattle and beef	3,357	3,970	613	18.3
CH023	Pesticide products and formulations	1,118	1,318	200	17.9
MM091	Electric motors, generators, and related equipment	6,494	7,646	1,152	17.7
ET013	Aircraft, spacecraft, and related equipment	18,019	21,027	3,008	16.7
CH025	Medicinal chemicals	29,112	33,956	4,844	16.6
MM062	Smokers' articles	140	163	23	16.2
AG004	Sheep and meat of sheep	206	238	32	15.4
AG030	Cereals	660	761	101	15.3

¹Less than \$500,000.

Note.—Calculations based on unrounded data.

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

Table D-4

Domestic import declines: Ranking of top 20 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. imports		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
Rank order based on change in absolute value decline:					
ET033	Semiconductors and integrated circuits	47,448	30,016	-17,432	-36.7
ET035	Computers, peripherals, and parts	90,384	74,547	-15,836	-17.5
CH004	Crude petroleum	56,546	49,673	-6,873	-12.2
CH005	Petroleum products	39,787	34,372	-5,415	-13.6
ET017	Telephone and telegraph apparatus	32,130	27,174	-4,955	-15.4
MM025	Steel mill products	15,026	11,630	-3,396	-22.6
ET018	Consumer electronics (except televisions)	21,974	19,525	-2,449	-11.1
ET009	Motor vehicles	129,553	127,244	-2,310	-1.8
MM020	Precious metals and non-numismatic coins	10,082	8,193	-1,889	-18.7
ET002	Internal combustion piston engines, other than for aircraft	15,532	13,657	-1,875	-12.1
ET025	Electrical capacitors and resistors	4,177	2,333	-1,845	-44.2
ET039	Photographic cameras and equipment	5,299	3,560	-1,739	-32.8
MM019	Natural and synthetic gemstones	13,234	11,577	-1,657	-12.5
ET028	Circuit apparatus not exceeding 1000V	6,872	5,280	-1,592	-23.2
ET023	Radio and television broadcasting equipment	7,178	6,066	-1,112	-15.5
MM092	Electrical transformers, static converters, and inductors	6,156	5,134	-1,023	-16.6
AG028	Coffee and tea	2,921	1,915	-1,006	-34.5
ET010	Certain motor-vehicle parts	25,135	24,135	-1,000	-4.0
ET038	Optical goods, including ophthalmic goods	5,881	4,957	-924	-15.7
ET026	Printed circuits	2,988	2,141	-846	-28.3

Rank order based on change in percentage decline:

MM005	Lead ores, concentrates, and residues	8	1	-7	-93.0
AG049	Cotton, not carded or combed	21	4	-17	-80.1
ET025	Electrical capacitors and resistors	4,177	2,333	-1,845	-44.2
MM022	Ferroalloys	1,104	660	-444	-40.2
ET033	Semiconductors and integrated circuits	47,448	30,016	-17,432	-36.7
AG028	Coffee and tea	2,921	1,915	-1,006	-34.5
ET039	Photographic cameras and equipment	5,299	3,560	-1,739	-32.8
MM083	Metal rolling mills	261	180	-82	-31.2
MM003	Iron ores and concentrates	420	293	-127	-30.3
CH020	Synthetic tanning agents	7	5	-2	-28.8
ET026	Printed circuits	2,988	2,141	-846	-28.3
CH009	Primary aromatics	1,563	1,122	-441	-28.2
MM023	Iron and steel waste and scrap	393	284	-110	-27.9
CH044	Natural rubber	842	613	-229	-27.2
ET008	Rail locomotive and rolling stock	1,828	1,357	-471	-25.8
MM040	Zinc and related articles	1,298	968	-330	-25.4
MM082	Textile machinery	2,106	1,597	-509	-24.2
MM053	Bicycles and certain parts	1,348	1,025	-324	-24.0
ET028	Circuit apparatus not exceeding 1000V	6,872	5,280	-1,592	-23.2
MM010	Industrial ceramics	827	640	-187	-22.7

Note.—Calculations based on unrounded data.

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

Table D-5

U.S. trade position increases: Ranking of top 30 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. balance		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
ET035	Computers, peripherals, and parts	-45,038	-36,455	8,583	19.1
CH004	Crude petroleum	-56,103	-49,496	6,606	11.8
ET033	Semiconductors and integrated circuits	-2,619	3,439	6,058	(¹)
CH005	Petroleum products	-30,224	-25,436	4,788	15.8
MM025	Steel mill products	-10,114	-6,874	3,240	32.0
ET018	Consumer electronics (except televisions)	-19,005	-16,734	2,271	12.0
ET009	Motor vehicles	-106,727	-104,619	2,108	2.0
MM019	Natural and synthetic gemstones	-11,768	-9,737	2,030	17.3
ET039	Photographic cameras and equipment	-3,499	-1,866	1,633	46.7
ET017	Telephone and telegraph apparatus	-11,982	-10,668	1,314	11.0
MM020	Precious metals and non-numismatic coins	-2,397	-1,366	1,030	43.0
AG028	Coffee and tea	-2,623	-1,601	1,022	39.0
CH001	Electrical energy	-2,313	-1,423	890	38.5
ET023	Radio and television broadcasting equipment	-4,576	-3,745	831	18.2
ET004	Construction and mining equipment	3,864	4,643	779	20.2
MM092	Electrical transformers, static converters, and inductors	-3,404	-2,698	706	20.7
CH046	Fabrics	15	696	681	4,500.9
ET038	Optical goods, including ophthalmic goods	-1,887	-1,230	657	34.8
MM041	Certain base metals and chemical elements	-1,371	-765	606	44.2
MM051	Precious jewelry and related articles	-4,464	-3,874	590	13.2
ET028	Circuit apparatus not exceeding 1000V	-771	-182	589	76.4
ET008	Rail locomotive and rolling stock	-492	65	557	(¹)
ET014	Ships, tugs, pleasure boats, and similar vessels	-140	410	550	(¹)
MM059	Toys	-7,930	-7,416	513	6.5
ET002	Internal combustion piston engines, other than for aircraft	-1,724	-1,249	475	27.6
MM099	Molds and molding machinery	-1,484	-1,012	472	31.8
ET024	Electric sound and visual signaling apparatus	-1,483	-1,020	463	31.2
AG013	Animal feeds	3,419	3,881	462	13.5
CH007	Major primary olefins	-3,253	-2,793	460	14.1
CH009	Primary aromatics	-1,459	-1,000	458	31.4

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 D-6

U.S. trade position declines: Ranking of top 30 industry/commodity groups, 2000 and 2001

USITC code	Industry/commodity group	U.S. balance		Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
MM087	Semiconductor manufacturing equipment and robotics	9,253	4,019	-5,235	-56.6
CH006	Natural gas and components	-17,870	-21,944	-4,074	-22.8
CH025	Medicinal chemicals	-13,340	-15,788	-2,448	-18.4
MM060	Games	-2,935	-4,748	-1,813	-61.8
ET010	Certain motor-vehicle parts	4,065	2,615	-1,450	-35.7
CH049	Apparel	-56,225	-57,458	-1,233	-2.2
AG045	Cigarettes	3,096	1,930	-1,166	-37.7
AG002	Cattle and beef	-70	-1,174	-1,104	-1,573.6
ET043	Measuring, testing, and controlling instruments	5,006	3,906	-1,100	-22.0
ET001	Aircraft engines and gas turbines	4,072	2,976	-1,096	-26.9
MM073	Household appliances, including commercial applications	-2,126	-3,130	-1,004	-47.2
CH041	Miscellaneous plastic products	1,547	615	-933	-60.3
ET022	Television receivers and video monitors	-6,549	-7,378	-829	-12.7
MM036	Copper and related articles	-1,772	-2,444	-672	-37.9
CH011	Organic specialty chemicals	-630	-1,285	-654	-103.9
CH012	Certain organic chemicals	3,207	2,626	-581	-18.1
CH010	Organic commodity chemicals	946	474	-472	-49.9
CH016	Fertilizers	-843	-1,299	-457	-54.2
ET036	Photographic film and paper	550	96	-453	-82.5
CH051	Footwear	-14,192	-14,611	-419	-3.0
ET019	Blank media	-995	-1,406	-411	-41.3
AG061	Industrial papers and paperboards	2,563	2,154	-408	-15.9
CH036	Other plastics in primary forms	4,519	4,117	-402	-8.9
MM097	Nonautomotive insulated electrical wire and related products	474	83	-392	-82.5
MM090	Boilers, turbines, and related machinery	284	-98	-381	(¹)
ET031	Cathode-ray tubes	1,801	1,444	-357	-19.8
CH031	Polyethylene resins in primary forms	1,038	681	-357	-34.4
MM096	Welding and soldering equipment	247	-101	-348	(¹)
AG018	Fresh, chilled, or frozen vegetables	-999	-1,333	-334	-33.4
MM031	Miscellaneous products of base metal	-1,510	-1,843	-333	-22.0

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 D-7

U.S. trade balance deficit: Top 30 industry/commodity groups, ordered by 2001 deficit

USITC code	Industry/commodity group			Change, 2001 from 2000	
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
ET009	Motor vehicles	-106,727	-104,619	2,108	2.0
CH049	Apparel	-56,225	-57,458	-1,233	-2.2
CH004	Crude petroleum	-56,103	-49,496	6,606	11.8
ET035	Computers, peripherals, and parts	-45,038	-36,455	8,583	19.1
CH005	Petroleum products	-30,224	-25,436	4,788	15.8
CH006	Natural gas and components	-17,870	-21,944	-4,074	-22.8
ET018	Consumer electronics (except televisions)	-19,005	-16,734	2,271	12.0
CH025	Medicinal chemicals	-13,340	-15,788	-2,448	-18.4
CH051	Footwear	-14,192	-14,611	-419	-3.0
MM054	Furniture	-12,132	-12,150	-18	-0.1
ET017	Telephone and telegraph apparatus	-11,982	-10,668	1,314	11.0
MM019	Natural and synthetic gemstones	-11,768	-9,737	2,030	17.3
MM059	Toys	-7,930	-7,416	513	6.5
ET022	Television receivers and video monitors	-6,549	-7,378	-829	-12.7
MM064	Works of art and miscellaneous manufactured goods	-7,499	-7,136	363	4.8
MM025	Steel mill products	-10,114	-6,874	3,240	32.0
AG009	Shellfish	-5,208	-5,200	8	0.2
AG052	Lumber	-4,860	-5,073	-213	-4.4
MM060	Games	-2,935	-4,748	-1,813	-61.8
MM046	Luggage, handbags, and flat goods	-4,029	-4,001	28	0.7
MM051	Precious jewelry and related articles	-4,464	-3,874	590	13.2
MM037	Unwrought aluminum	-3,955	-3,825	131	3.3
MM068	Wiring harnesses for motor vehicles	-4,194	-3,818	376	9.0
ET023	Radio and television broadcasting equipment	-4,576	-3,745	831	18.2
MM056	Lamps and lighting fittings	-3,818	-3,500	318	8.3
AG063	Printing and writing papers	-3,516	-3,480	36	1.0
AG062	Newsprint	-3,297	-3,188	109	3.3
MM073	Household appliances, including commercial applications	-2,126	-3,130	-1,004	-47.2
MM009	Cement, stone, and related products	-3,101	-3,085	15	0.5
MM091	Electric motors, generators, and related equipment	-2,746	-2,954	-209	-7.6

Note.—Calculations based on unrounded data.

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

Table D-8

U.S. trade balance surplus: Top 30 industry/commodity groups, ordered by 2001 surplus

USITC code	Industry/commodity group	Change, 2001 from 2000			
		2000	2001	Absolute	Percent
<i>Million Dollars</i>					
ET013	Aircraft, spacecraft, and related equipment	21,677	21,508	-169	-0.8
AG030	Cereals	8,808	8,636	-171	-1.9
AG032	Oilseeds	5,188	5,439	251	4.8
ET004	Construction and mining equipment	3,864	4,643	779	20.2
ET040	Medical goods	4,232	4,119	-114	-2.7
CH036	Other plastics in primary forms	4,519	4,117	-402	-8.9
MM087	Semiconductor manufacturing equipment and robotics	9,253	4,019	-5,235	-56.6
ET043	Measuring, testing, and controlling instruments	5,006	3,906	-1,100	-22.0
AG013	Animal feeds	3,419	3,881	462	13.5
ET033	Semiconductors and integrated circuits	-2,619	3,439	6,058	(¹)
ET001	Aircraft engines and gas turbines	4,072	2,976	-1,096	-26.9
CH012	Certain organic chemicals	3,207	2,626	-581	-18.1
ET010	Certain motor-vehicle parts	4,065	2,615	-1,450	-35.7
AG005	Poultry	1,984	2,279	294	14.8
AG049	Cotton, not carded or combed	1,862	2,160	298	16.0
AG061	Industrial papers and paperboards	2,563	2,154	-408	-15.9
AG036	Infant formulas, malt extracts, and other edible preparations	1,845	2,070	226	12.2
ET020	Prerecorded media	2,247	1,935	-311	-13.9
AG045	Cigarettes	3,096	1,930	-1,166	-37.7
AG046	Hides, skins, and leather	1,163	1,617	454	39.0
CH017	Paints, inks, and related items, and certain components thereof	1,683	1,455	-227	-13.5
ET031	Cathode-ray tubes	1,801	1,444	-357	-19.8
ET021	Navigational instruments and remote control apparatus	924	1,306	382	41.3
MM066	Arms and ammunition	1,314	1,280	-34	-2.6
CH028	Soaps, detergents, and surface-active agents	1,280	1,107	-173	-13.5
AG059	Wood pulp and wastepaper	1,231	1,061	-170	-13.8
AG051	Logs and rough wood products	1,365	1,039	-326	-23.9
CH029	Miscellaneous chemicals and specialties	721	992	270	37.5
MM074	Centrifuges and filtering and purifying equipment	1,021	933	-87	-8.5
MM098	Miscellaneous machinery	682	911	230	33.7

¹Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

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APPENDIX E
Definitions of Selected
Country Groups

ASEAN (ASSOCIATION OF SOUTHEAST ASIAN NATIONS)

Brunei	Malaysia
Burma (Myanmar)	Philippines
Cambodia	Singapore
Indonesia	Thailand
Laos	Vietnam

ASIA

Afghanistan	Macao
Bangladesh	Malaysia
Bhutan	Maldiv Islands
Brunei	Mongolia
Burma (Myanmar)	Nepal
Cambodia	North Korea
China	Pakistan
Hong Kong	Philippines
India	Singapore
Indonesia	Sri Lanka
Japan	Taiwan
Korea	Thailand
Laos	Vietnam

CBERA (CARIBBEAN BASIN ECONOMIC RECOVERY ACT) BENEFICIARIES

Antigua and Barbuda	Guyana
Aruba	Haiti
The Bahamas	Honduras
Barbados	Jamaica
Belize	Montserrat
British Virgin Islands	Netherlands Antilles
Costa Rica	Nicaragua
Dominica	Panama
Dominican Republic	St. Kitts and Nevis
El Salvador	St. Lucia
Grenada	St. Vincent and the Grenadines
Guatemala	Trinidad and Tobago

CENTRAL AND EASTERN EUROPE

Albania	Macedonia
Bosnia-Herzegovina	Poland
Bulgaria	Romania
Croatia	Slovakia
Czech Republic	Slovenia
Hungary	Yugoslavia (Serbia and Montenegro)

EU/EU-15 (EUROPEAN UNION)

Austria	Italy
Belgium	Luxembourg
Denmark	Netherlands
Finland	Portugal
France	Spain
Germany	Sweden
Greece	United Kingdom
Ireland	

LATIN AMERICA

Anguilla	Dominican Republic
Antigua and Barbuda	Ecuador
Argentina	El Salvador
Aruba	Falkland Islands
The Bahamas	French Guiana
Barbados	Grenada
Belize	Guadeloupe
Bermuda	Guatemala
Bolivia	Guyana
Brazil	Haiti
British Virgin Islands	Honduras
Cayman Islands	Jamaica
Chile	Martinique
Colombia	Mexico
Costa Rica	Montserrat
Cuba	Netherlands Antilles
Dominica Island	Nicaragua

LATIN AMERICA—Continued

Panama	St. Vincent and the Grenadines
Paraguay	Suriname
Peru	Trinidad and Tobago
St. Kitts and Nevis	Turks and Caicos Islands
St. Lucia	Uruguay
St. Pierre and Miquelon	Venezuela

NAFTA (NORTH AMERICAN FREE TRADE AGREEMENT) PARTNERS

Canada	Mexico
United States	

OPEC (ORGANIZATION OF PETROLEUM EXPORTING COUNTRIES)

Algeria	Nigeria
Indonesia	Qatar
Iran	Saudi Arabia
Iraq	United Arab Emirates
Kuwait	Venezuela
Libya	

SUB-SAHARAN AFRICA

Angola	Republic of the Congo (Congo-Brazzaville)
Benin	Côte d'Ivoire
Botswana	Djibouti
Burkina Faso	Equatorial Guinea
Burundi	Eritrea
Cameroon	Ethiopia
Cape Verde	Gabon
Central African Republic	The Gambia
Chad	Ghana
Comoros	Guinea
Democratic Republic of the Congo (Congo-Kinshasa)	Guinea-Bissau
	Kenya

SUB-SAHARAN AFRICA—Continued

Lesotho	Senegal
Liberia	Seychelles
Madagascar	Sierra Leone
Malawi	Somalia
Mali	South Africa
Mauritania	Sudan
Mauritius	Swaziland
Mozambique	Tanzania
Namibia	Togo
Niger	Uganda
Nigeria	Zambia
Rwanda	Zimbabwe
São Tomé and Príncipe	

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APPENDIX F
Background on Exchange
Rate Shifts

Introduction

This appendix provides a general background on exchange rates and is divided into three sections. The first section provides a brief overview of exchange rate determinants and the relationship between exchange rates and merchandise (goods) trade flows. In the second section, exchange rate stability and convertibility are discussed, as are the monetary policy options of dollarization and currency boards. The third section presents nominal exchange rates against the dollar on an annual basis during 1997-2001 for selected individual countries and indexes of nominal and real exchange rates for the dollar versus the currencies of selected country groups. Exchange rate movements and policy actions by monetary authorities in 2001 are also discussed in the section, with an emphasis on the depreciation of the Japanese yen and the continued depreciation of the euro.

Exchange Rate Determinants and Trade

An exchange rate is the number of units of a country's currency exchangeable for 1 unit of another country's currency. A country's currency appreciates when its value increases relative to a foreign currency; i.e., 1 unit of its currency purchases more units of the foreign currency. Likewise, a country's currency depreciates when its value decreases relative to a foreign currency; i.e., 1 unit of its currency purchases fewer units of the foreign currency.¹ For example, if 1 U.S. dollar is worth (can purchase) 100 Japanese yen at the beginning of a period, but can purchase 150 yen at the end of the period, the dollar has risen in value (has appreciated) because it can purchase more yen. Alternatively, in dollar terms, the yen is said to have depreciated from \$0.0100 to \$0.0067.

Under a system of flexible or floating exchange rates, market or nominal exchange rates² (reported in the financial pages of major newspapers) of freely convertible currencies are determined by the supply of and demand for those currencies in the foreign exchange market. The supply of and demand for foreign currencies depends upon the demand for international transactions of goods, services, and assets. Foreign demand for U.S. dollars is based on foreigners' purchases of U.S. goods and services, investments in the United States, and holdings of dollar balances. Likewise, the supply of U.S. dollars outside the United States is based on U.S. citizens' purchases of foreign goods and services, investments abroad, and holdings of balances in foreign currencies.

Exchange rate shifts can significantly affect trade flows because they alter the relative prices of goods and services. For example, if demand for U.S. products rises, then U.S. exports will increase. This would cause the dollar to appreciate. This U.S. dollar appreciation (foreign currency depreciation) would raise the relative price of U.S. goods in foreign markets, thus discouraging U.S. exports, and likewise lower the relative price of foreign goods in the U.S. market, thus encouraging U.S. imports. The converse is true when the dollar depreciates.³ If the value of the U.S. dollar falls (depreciates), the price competitiveness of U.S. goods in foreign markets is enhanced and the price competitiveness of foreign goods in the U.S. market is diminished.

¹ The terms "revaluation" and "devaluation" often are, but should not be, used interchangeably with "appreciation" and "depreciation," respectively; economists apply the terms "revaluation" and "devaluation" to fixed exchange-rate regimes and "appreciation" and "depreciation" to flexible exchange-rate regimes.

² Nominal exchange rates, unlike real exchange rates (discussed later), are not adjusted for inflation.

³ Although this discussion has focused on merchandise trade, exchange rate changes also affect international capital flows by altering the present value of cash flows from capital investments and from purchases and sales of foreign intangible assets.

A significant source of uncertainty in conducting international transactions arises from exchange rate fluctuations as the relative value between the buyer's and the seller's currencies may change between the time a transaction is concluded and the time payment is received, posing a gain to one party and a loss to the other (absent hedging⁴ by either party). There are several ways to reduce or transfer the risk of an adverse price change. One of the simplest is for an exporter/importer to quote prices and establish payment terms in one's own currency, thus placing the burden and risk on the other party. This is a practical approach when one's own currency is freely convertible and stable. Hence, U.S. companies derive a number of benefits from the fact that the U.S. dollar is the preferred international currency for both international trade and financial transactions. Benefits include the convenience factor enabling U.S. exporters, importers, borrowers, and lenders to deal in their own currency; increased business for U.S. banks and other financial institutions; and the ability to borrow in international capital markets in their home currency.⁵

Exchange Rate Stability and Convertibility

Exchange rates are dependent on basic macroeconomic factors, domestic monetary and fiscal policies, independence of the country's central bank, exchange controls and openness of its capital market,⁶ and the country's exchange rate arrangements (the mechanisms by which the exchange rate is established), which range from market-determined exchange rates (freely floating exchange rates or "clean" float) to fixed-rate systems.⁷ The U.S. dollar is a freely floating currency.

Many governments intervene in foreign exchange markets, and for a variety of reasons.⁸ U.S. authorities purchase dollars from time to time to resist downward pressure on the dollar exchange rate and occasionally sell dollars to resist upward pressure. The United States undertook no dollar intervention operations from January 1996 until mid-1998. During 1998, U.S. monetary authorities intervened in the foreign-exchange markets on one occasion to prop up the Japanese yen, on June 17, selling a total of \$833 million and buying Japanese yen.⁹ The U.S. monetary authorities did not intervene in the foreign exchange markets during 1999.¹⁰ On September 22, 2000, in coordination with the European Central Bank (ECB) and the monetary authorities of Canada, Japan, and the United Kingdom, the United States purchased 1.5 billion euros. Following the terrorist attacks on September 11, 2001, the Federal Reserve established 30-day reciprocal swap arrangements with the ECB, the Bank of England, and the Bank of

⁴ Hedging is another way to reduce or transfer currency risk.

⁵ Council of Economic Advisors (CEA), *Economic Report of the President*, together with the *Annual Report of the Council of Economic Advisors*, Feb. 1999, pp. 299-300.

⁶ For a definition of exchange convertibility and restrictions on convertibility, by country, see International Monetary Fund (IMF), *Exchange Arrangements and Exchange Restrictions, Annual Report 1999* (Washington, DC: IMF, Aug. 27, 2000).

⁷ For a description of the types of exchange-rate arrangements that exist, each of which represents efforts by the central bank to stabilize the country's exchange rate against those of its trade partners, see IMF, *Exchange Arrangements and Exchange Restrictions, Annual Report 1999*, Appendix 1. Also, for a chart of exchange rate arrangements, see IMF, *International Financial Statistics*, monthly series, p. 8.

⁸ Foreign-exchange market intervention consists of the official purchases and sales of foreign exchange that nations undertake through their central banks to influence the values of their currencies. For motives behind why countries intervene in the foreign exchange market, see IMF, *Exchange Arrangements and Exchange Restrictions, Annual Report 1999*.

⁹ The mark, the yen, and the euro have been the only three currencies in which the United States has conducted its intervention operations.

¹⁰ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Apr.-June 1999, p. 1.

Canada to facilitate the functioning of financial markets and provide liquidity in U.S. dollars. The ECB drew on this swap facility three times.¹¹

Most of the leading U.S. trade partners also maintain floating exchange rates, and their central banks intervene selectively or not at all.¹² Several others prefer to maintain an organized floating exchange rate, or a managed float. For example, the People's Bank of China announces a daily reference rate against the U.S. dollar, the Hong Kong dollar, and the Japanese yen based on the weighted-average price of foreign-exchange transactions of the previous day. This reference rate establishes the current day's maximum trading limits in the interbank foreign-exchange market. The central banks of several other countries have announced their intentions to intervene should they consider market conditions disorderly¹³ or if their currency's foreign-exchange value fluctuates beyond a stated range of parity against other currencies or a basket of currencies. Other countries have chosen to maintain the value of their currency through such arrangements as dollarization and currency boards.

Dollarization

Dollarization is a process in which a country officially or unofficially uses a foreign currency (such as the U.S. dollar) as its domestic currency or as a unit of account alongside its domestic currency.¹⁴ When the term is used to refer to the dollar's total replacement of the domestic currency, it is referred to as full dollarization. The primary attraction of dollarization is one of confidence. Under full dollarization, all values, including the entire monetary accounting system, are converted to a dollar basis. As the preferred international monetary asset, the dollar is perceived to ensure currency stability, at least more so than other national currencies. Adoption of the dollar fixes the exchange rate, hence reducing transactions costs and risks that discourage trade and investment.¹⁵ Moreover, risk premiums¹⁶ and historical tendencies toward inflation are reduced or eliminated and fiscal-policy discipline is encouraged as the central bank can no longer print money.

However, the loss of monetary autonomy is one of the principal drawbacks of dollarization because it also means a loss of an independent monetary policy. If the U.S. dollar is the adopted foreign currency, then the monetary policy of the United States is the monetary policy of that country.¹⁷ There is also the loss of the central bank's function as a lender of last resort. In a monetary crisis, the central bank

¹¹ Drawing on a swap facility refers to borrowing money that was previously set aside for that purpose. The ECB repaid this money by the end of 2001. *Ibid.*, Jul.-Sep. 2001, p. 1.

¹² Those allowing their currency's exchange value to float freely include the European Monetary Union, Canada, Japan, Korea, Mexico, Singapore, and Taiwan.

¹³ Economic actors, such as central bankers and government officials, within a country that do not believe the market has full information about the country's economic situation or that do not believe the market prices the currency at its true value may consider the foreign exchange market to be disorderly. Disorderly markets also refer to markets with excessive fluctuations.

¹⁴ However, dollarization does not occur when a currency is simply pegged to a foreign currency such as the U.S. dollar. In recent publications by the Federal Reserve and the Joint Economic Committee, the term "dollarization" has been increasingly used to refer to all instances in which the domestic currency was replaced by or co-exists with a foreign currency and not only those in which the U.S. dollar was adopted to replace or co-exist with the domestic currency.

¹⁵ Jeffrey A. Frankel, "Dollarization: Fad or Future for Latin America," *IMF Economic Forum*, Jun. 24, 1999, p. 3.

¹⁶ Risk premiums are extra returns on investments that investors expect to receive due to high uncertainty. For example, an investor would expect to receive a higher return from common stocks than from bonds. In the United States, a risk premium is usually measured by subtracting the interest rate on short-term Treasury bills (the risk-free asset) from the rate of return on another, riskier investment.

¹⁷ David D. Hale, "Should Argentina Dollarize? No Way," *The International Economy*, May/June 1999, p. 58.

can not as easily obtain sufficient funds to rescue domestic commercial banks.¹⁸ Profits from seigniorage, the difference between the cost of printing money and its face value, would be lost; any such profits would be gained by the United States, although seigniorage is generally a very small amount in the United States. When a country is first undertaking dollarization, the price competitiveness of the newly dollarized country's goods in foreign markets may decrease and exports may be discouraged, as the U.S. dollar (as currently) and most other foreign currencies that may be adopted are worth more than most other currencies.

More than one-half of all U.S. Federal Reserve notes, mainly \$100 bills, are believed to be held abroad by foreigners.¹⁹ These are not necessarily all held due to dollarization, but may be in foreign reserves or other holdings. A list of officially dollarized countries can be found in table F-1.

Table F-1
Countries and territories that officially adopted another currency, as of March 2002

Currency adopted	Country or territory
U.S. dollar	East Timor, Ecuador, Guam, Marshall Islands, Micronesia, Northern Mariana Islands, Palau, Panama, Pitcairn Island, Puerto Rico, American Samoa, Turks and Caicos Islands, Virgin Islands (U.S. and British)
Australian dollar.	Cocos Islands, Kiribati, Nauru, Norfolk Island, Tuvalu
New Zealand dollar	Cook Islands, Niue, Pitcairn Island, Tokelau
Euro	Andorra, Monaco, San Marino, Vatican City
Turkish lira	Northern Cyprus
Danish krone	Greenland
Swiss franc	Liechtenstein
British pound	Saint Helena

Source: Kurt Schuler, Table 2, "Basics of Dollarization," *Joint Economic Committee Staff Report*, U.S. Congress, Jan. 2000, p. 5; and other public sources.

Prior to 1973, currency speculation made the "old system of fixed exchange rates" problematic. Even after the fall of the gold standard, currency speculation continued to cause problems, especially for countries with smaller markets. Even a country with a large market, such as Brazil in early 1999, was forced to devalue its currency in the face of financial crisis. Moreover, Brazil's devaluation had a significant adverse effect on neighboring Argentina.²⁰ Argentina's response was to consider dollarization, which would have imposed an even more rigid exchange-rate system than its existing currency board with a fixed exchange rate to the dollar. Argentina had not made a decision as of year-end 2001. Like Argentina, Ecuador was also adversely affected by the devaluation of the Brazilian real. Ecuador

¹⁸ The central bank can arrange for lines of credit from foreign sources, or branches of foreign banks can provide this liquidity. Studies have suggested that this loss may even be a benefit as dollarized countries have had systemwide problems that were weathered at less taxpayer expense than countries with central banks. Kurt Schuler, "Basics of Dollarization," *Joint Economic Committee Staff Report*, U.S. Congress, Jan. 2000, p. 15.

¹⁹ *Ibid.*, p. 3.

²⁰ Sidney Weintraub, "The Dollarization Debate," *Issues in International Political Economy*, Center for Strategic and International Studies, No. 2, Feb. 2000, p.1.

responded by devaluing the sucre on March 2, 1999.²¹ The sucre was further devalued throughout the rest of 1999, pulling the Ecuadorean economy into recession. In response, the country adopted the dollar as its official currency on January 9, 2000.²²

Currency Boards

Under a currency-board arrangement, monetary authorities commit to trade foreign exchange for domestic currency on demand at a fixed rate.²³ The domestic currency is backed by corresponding reserves of foreign exchange, usually at 100 percent or more.²⁴ Trading foreign exchange for domestic currency is the only way the central bank can increase money supply, as it may not print money without having an equal amount of foreign-exchange reserves. There is also a long-term commitment to the currency-board system, often set into the central-bank law.

Currency boards have certain advantages, including the assurance of convertibility, a macroeconomic discipline that limits budget deficits and inflation, and enhanced confidence in the country's monetary system as each unit of domestic currency is backed by foreign currency.²⁵ Low inflation and lower interest rates are also often advantages of currency board arrangements.²⁶ A currency board also generates seigniorage from the difference between the interest earned on its reserve assets less the expense of maintaining its notes and coins in circulation. These seigniorage profits amount to about 1 percent of gross domestic product (GDP) per year in the United States.²⁷

However, there are also disadvantages associated with currency boards. Setting up a currency board may be costly, as it may prove difficult to gather enough foreign reserves to back the monetary base 100 percent. There is also a seigniorage cost associated with gathering foreign currency. A currency board does not allow a country to pursue monetary policy to stabilize the domestic economy; governments can only finance their spending through borrowing and taxation. It also may not act as a lender of last resort to troubled banks, so the banking system within the country must be strong and stable.²⁸

Since 1991, Argentina, Estonia, Lithuania, and Bulgaria have established currency-board systems. However, unlike pure currency-board systems, the domestic currency of these countries is not backed 100 percent by foreign reserves of the selected currency. For example, Argentina's official foreign reserve ratio was only 66 percent. As the actual foreign reserve ratio of that country was about 90 percent, 24 percent above that required by law, the central bank had freedom to conduct discretionary monetary policy. This aspect of Argentina's currency-board system left it open to speculative attacks on its

²¹ *Ecuador Update: A Note of Ecuador's Dollarization Plan*, United States Senate Joint Economic Committee, U.S. Congress, Feb. 2000, found at <http://members.dencity.com/sgrimsle/numisphily/dollarization/jec/ecsum.htm>, retrieved Mar. 5, 2002.

²² Andrew Berg and Eduardo Borensztein. "The Dollarization Debate," *Finance & Development*, Vol. 37, No. 1, Mar. 2000, p. 5.

²³ *Ibid.*, p. 1.

²⁴ Having more than 100 percent of a country's money supply backed by reserves permits a "safety margin" and allows for limited intervention in the case of unexpected economic or banking system difficulties without violating currency board rules. Charles Enoch and Anne-Marie Gulde, "Are Currency Boards a Cure for All Monetary Problems?" *Finance & Development*, Vol. 35, No. 4, Dec. 1998, p. 5.

²⁵ John Williamson, *Currency Boards Are Not The Answer*, Institute for International Economics, News Release, found at <http://www.iie.com/press/cboard.htm>, retrieved Feb. 19, 2002.

²⁶ Enoch and Gulde, "Are Currency Boards a Cure for All Monetary Problems?" p. 2.

²⁷ Kurt Schuler, *Introduction to Currency Boards*, p. 2, found at <http://users.erols.com/kurrency/intro.htm>, retrieved Feb. 19, 2002.

²⁸ Williamson, *Currency Boards Are Not The Answer*.

currency in the past²⁹ and may have played a part in its economic crisis in 2000-01.³⁰ A currency board-like system is a central bank that retains many of its old powers, but is constrained by rules regarding the exchange rate and reserves like currency boards. A potential problem with this type of currency board system is that loopholes allow the central banks discretionary power.

Dollarization and currency boards are similar monetary systems. The main advantage of dollarization over a currency board is that dollarization is likely to have greater credibility since it is harder to reverse. The main advantage, on the other hand, of a currency board over dollarization is the retention of seigniorage.

Changes in the Nominal and Real Value of the Dollar

Annual averages of nominal exchange rates for selected foreign currencies against the U.S. dollar during 1997-2001 are shown in table F-2. Over this period, currencies of selected trade partners, except the Mexican peso, depreciated against the dollar and, thus, made U.S. goods more expensive in certain foreign markets. The Mexican peso appreciated by 1.3 percent due to its “safe haven” status in Latin America.³¹ The Brazilian real devalued 28.6 percent, with an average 2001 exchange rate of 2.3527 reais per U.S. dollar. The Korean won, Japanese yen, and Thai baht all depreciated significantly against the dollar, with changes of 14.3 percent, 12.8 percent, and 10.7 percent, respectively. The euro slowed its depreciation rate against the dollar, losing 2.5 percent of its value in 2001 compared with 15.5 percent in 2000.

The annual real (inflation-adjusted) value of the dollar increased by more than 7 percent against other major currencies³² in 2001 (table F-3) due primarily to global investors’ preferences for U.S. assets and investors’ expectations that the United States would emerge from the economic downturn sooner than the euro-area and Japan.³³ The average annual foreign-exchange value of the U.S. dollar against a broad group of 26 trade partners’ currencies was up in 2001, as the dollar appreciated by 5.4 percent in nominal terms and by 6.6 percent in real terms.

²⁹ Schuler, *Introduction to Currency Boards*, p. 5. As the currency board system had a 24-percent window and Argentina could still conduct discretionary monetary policy, the currency board failed to establish credibility in the eyes of investors, leading to speculative attacks.

³⁰ Argentina’s economic crisis began in November 2000, when investor confidence fell, causing bond rates to rise. The IMF provided an aid package to the country at this time. The late-November 2001 refusal of the IMF to extend further funding to Argentina further plagued the country, contributing to the early-December 2001 sovereign debt default and the break of the currency peg. *Argentina’s Economy*, Economist, May 30, 2002, found at <http://www.economist.com>, retrieved May 31, 2002.

³¹ Mexico has a more stable economy and higher credit ratings than the other large Latin American economies. Argentina has been in an economic and financial crisis since November 2000 and Brazil suffers low commodity prices and a national energy shortage. Tom Vogel, “Mexico’s Economy Can Take Punches, Keep Standing,” Bloomberg.com, Nov. 20, 2001, found at http://quote.bloomberg.com/fgcgi.cgi?ptitle=Thomas%20T.%20Vogel%20Jr.&touch=1&s1=vogel&tp=ad_topright_bbco&T=markets_fgcgi_content99.ht&s2=ad_right1_bbco&bt=ad_bottom_bbco&s=AO.njtxSWTWV4aWNv, retrieved Feb. 27, 2002.

³² Major currencies are those that circulate widely outside the issuing economy; see footnote 2 of table F-3.

³³ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, (various months) 2001.

Table F-2
Nominal exchange rates for selected trade partners, annual averages, 1997-2001

Country (currency)	1997	1998	1999	2000	2001
	Exchange rate (foreign currency per U.S. dollar)¹				
Brazil (real)	1.0779	1.1605	1.8207	1.8301	2.3527
Canada (dollar)	1.3849	1.4836	1.4858	1.4855	1.5487
China (yuan)	8.3193	8.3008	8.2781	8.2784	8.2770
European Monetary Union (euro)	(²)	(²)	0.9392	1.0850	1.1117
Germany (deutsche mark)	1.7348	1.7597	1.8369	2.1221	2.1847
Japan (yen)	121.06	130.99	113.73	107.80	121.57
Korea (won)	947.65	1,400.40	1,189.84	1,130.90	1,292.01
Malaysia (ringgit)	2.8173	3.9254	3.8000	3.8000	3.8000
Mexico (peso)	7.918	9.152	9.553	9.459	9.337
Thailand (baht)	31.072	41.262	37.887	40.210	44.532
United Kingdom (pound)	0.6106	0.6037	0.6185	0.6609	0.6943
	Change over the preceding period (percent)				
Brazil (real)	7.2	7.7	56.9	0.5	28.6
Canada (dollar)	1.5	7.1	0.1	(³)	4.3
China (yuan)	-0.2	-0.2	-0.3	(³)	(³)
European Monetary Union (euro)	(²)	(²)	(²)	15.5	2.5
Germany (deutsche mark)	15.3	1.4	4.4	15.5	2.9
Japan (yen)	11.3	8.2	-13.2	-5.2	12.8
Korea (won)	17.7	47.8	-15.0	-5.0	14.3
Malaysia (ringgit)	12.0	39.3	-3.2	0	0
Mexico (peso)	4.2	15.6	4.4	-1.0	-1.3
Thailand (baht)	22.5	32.8	-8.2	6.1	10.7
United Kingdom (pound)	-4.8	-1.1	2.5	6.9	5.1

¹ Each country's currency is displayed to the number of decimal places as reported in the reference source, rather than being rounded to a common decimal place, to avoid any loss of significant digits for particular currencies.

² Not available.

³ Less than 0.05 percent.

Source: Calculated from official statistics of the Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, (various months) 2000-01; and OANDA Corporation, found at <http://www.oanda.com>, retrieved Mar. 5, 2002.

Table F-3**Nominal and real weighted average indexes of foreign-exchange value of the U.S. dollar versus currencies of groups of trade partners, annual averages, 1997-2001**

Index (base period = 100)	1997	1998	1999	2000	2001
Nominal					
Broad ¹ (Jan. 1997=100)	104.44	116.48	116.87	119.93	126.44
Major currencies ² (Mar. 1973=100)	91.24	95.79	94.07	98.34	104.26
Other important trading partners ³ (Jan. 1997=100)	104.67	126.03	129.94	130.26	136.42
Nominal change over the preceding period (percent)					
Broad ¹ (Jan. 1997=100)	7.2	11.5	0.3	2.6	5.4
Major currencies ² (Mar. 1973=100)	7.8	5.0	-1.8	4.5	6.0
Other important trading partners ³ (Jan. 1997=100)	6.5	20.4	3.1	0.2	4.7
Real					
Broad ¹ (Mar. 1973=100)	91.33	99.21	98.53	102.19	108.90
Major currencies ² (Mar. 1973=100)	92.25	97.24	96.68	102.86	110.68
Other important trading partners ³ (Mar. 1973=100)	95.87	108.10	107.22	107.67	114.58
Real change over the preceding period (percent)					
Broad ¹ (Mar. 1973=100)	5.3	8.6	-0.7	3.7	6.6
Major currencies ² (Mar. 1973=100)	8.6	5.4	-0.6	6.4	7.6
Other important trading partners ³ (Mar. 1973=100)	1.2	12.8	-0.8	0.4	6.4

¹ Trade-weighted average of the foreign-exchange value of the U.S. dollar against the currencies of a broad group of U.S. trade partners. The weight for each currency is computed as an average of U.S. bilateral import shares from and export shares to the issuing partner and of a measure of the importance to U.S. exporters of that partner's trade in third-party markets. The broad index consists of 26 currencies (35 before the introduction of euro on Jan. 1, 1999) of both the major currencies index and other important trading partners index.

² Trade-weighted average of the foreign-exchange value of the U.S. dollar against a subset of broad index currencies that circulate widely outside the issuing partner's economy. The weight for each currency is its broad index weight scaled so that the weights of the subset of currencies in the index sum to one. The major currencies index consists of 7 currencies (16 before the introduction of the euro on Jan. 1, 1999): euro-area countries (Austria, Belgium-Luxembourg (treated as a single currency), Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, and Spain) and Australia, Canada, Japan, Sweden, Switzerland, and the United Kingdom.

³ Trade-weighted average of the foreign-exchange value of the U.S. dollar against a subset of broad index currencies that do not circulate widely outside the issuing partner's economy. The weight for each currency is its broad index weight scaled so that the weights of the subset of currencies in the index sum to one. The other important trading partners index consists of 19 currencies Argentina, Brazil, Chile, China, Colombia, Hong Kong, India, Indonesia, Israel, Korea, Malaysia, Mexico, the Philippines, Singapore, Taiwan, Thailand, Russia, Saudi Arabia, and Venezuela.

Source: Calculated from official statistics of the Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, (various months) 2000-01.

Yen depreciation

In contrast to the 13.2 percent appreciation of the yen on an annual average basis against the dollar in 1999 and a 5.2 percent appreciation in 2000, the Japanese currency depreciated by 14.2 percent in 2001 (Table F-2) due to weaknesses in the Japanese economy.³⁴ The following tabulation highlights the yen-dollar exchange rate during 2001:³⁵

Time frame	Exchange rate (yen per dollar)
Beginning of year	114.73
End of year	131.04
Low (December 27)	131.47
High (January 3)	114.26
First quarter (average)	118.25
Second quarter (average)	122.62
Third quarter (average)	121.63
Fourth quarter (average)	123.74

During the first quarter of 2001, the yen depreciated by 3.1 percent against the dollar, as economic and political prospects in Japan became more uncertain over the quarter.³⁶ Reported comments by Japanese officials that were interpreted by investors as suggesting tolerance toward yen depreciation contributed to the yen weakness at the end of the quarter.

The exchange rate averaged 122.62 yen per dollar in the second quarter, a 3.7-percent drop from the first quarter average rate. Investor sentiment toward Japan improved after the April 2001 election of Koizumi as Prime Minister, who called for structural reform and fiscal restraint. However, signs of further economic weakness, delays in implementing anticipated reforms, and market perceptions of both U.S. and Japanese tolerance for yen depreciation contributed to the yen's decline against the dollar towards the end of the quarter.

The exchange rate averaged 121.63 yen per dollar in the third quarter, an appreciation of 0.8 percent between the second and third quarters, due to shifting expectations about the pace of U.S. economic recovery and the repercussions of the September 11 attacks. Investors bought yen to cover short positions³⁷ amid expectations that funds from Japanese accounts would be repatriated from overseas investments.³⁸ Japanese monetary officials intervened late in the quarter in an attempt to weaken the yen.

³⁴ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Jan.-Mar. 2001, p. 2.

³⁵ Federal Reserve Board, *Federal Reserve Bulletin*, (various months) 2000-2001; and compiled from official statistics of the Federal Reserve found at http://www.federalreserve.gov/releases/H10/hist/dat96_ja.txt.

³⁶ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Jan.-Mar. 2001, p. 2.

³⁷ An investor may profit from short selling a security that the seller does not own if the security's price is anticipated to fall. The seller usually sells a borrowed security and then replaces it with a security purchased when the price declines. In this case, foreign exchange was used in the place of the security.

³⁸ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Jul. - Sept. 2001, p. 1.

Sales of yen against dollars took place on September 17 and on six other occasions before the end of the quarter.³⁹

The yen depreciated by 1.7 percent against the dollar, on average, between the third and fourth quarter as Japan's economic and financial outlook appeared to worsen and as investors continued to interpret comments made by Japanese officials as suggesting tolerance for a weaker yen. Japanese data released in the fourth quarter indicated the worst contraction in industrial production since 1975, the highest post-World War II level of unemployment, and another decline in consumer prices. Subsequently, three sovereign credit-ratings agencies downgraded the yen based upon this information. The yen decline may also have been due, in part, to reactions from other Asian monetary officials, who publicly voiced concern about the regional impact of yen depreciation.⁴⁰

Euro depreciation

The euro has continually depreciated from its inception at the beginning of 1999,⁴¹ although at a slower rate in 2001. On an average annual basis, the euro depreciated by 15.5 percent against the dollar in 2000 and by 2.5 percent in 2001 (Table F-2). The following tabulation highlights the euro-dollar exchange rate in 2001:⁴²

Time frame	Exchange rate (euros per dollar)
Beginning of year	1.0620
End of year	1.1289
Low (July 6)	1.1943
High (January 8)	1.0449
First quarter (average)	1.0826
Second quarter (average)	1.1444
Third quarter (average)	1.1236
Fourth quarter (average)	1.1168

The value of the euro at its creation was just under \$1.1668 or 0.8570 euros per dollar.⁴³ However, it soon began to weaken against the dollar amidst indications of slower economic growth in the euro-area.⁴⁴ Weakening of the euro in 2000 was broad based as investors diversified away from the euro area.⁴⁵ This trend continued into 2001.

³⁹ Ibid., p. 4.

⁴⁰ Ibid., Oct.-Dec. 2001, p. 6.

⁴¹ For information about the performance of the euro in 1999, see Robert Hughes, "Background on Exchange Rate Shifts," *Shifts in Merchandise Trade in 1999*, Investigation No. 332-345, USITC publication 3353, Sept. 2000, pp. G-1 through G-13.

⁴² Federal Reserve Board, *Federal Reserve Bulletin*, (various months) 2000-2001; and compiled from official statistics of the Federal Reserve found at http://www.federalreserve.gov/releases/H10/hist/dat96_eu.txt.

⁴³ European Commission, "Official ECU Exchange Rates Calculated and Published by the European Commission," found at http://www.europa.eu.int/comm/economy_finance/xecud.htm, retrieved Aug. 4, 2000.

⁴⁴ Institute for International Economics, Hot Topics in International Economics, *The Weak Euro*, found at <http://www.iie.com/topics/euro/hoteuro.htm>

⁴⁵ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Jan.-Mar. 2000, p. 3.

In the first quarter of 2001, the euro depreciated by almost 2.0 percent, on average, despite aggressive monetary policy easing in the United States. A sharp decline in German business confidence for February and steep European equity-market losses contributed to expectations of slower growth in the euro area.⁴⁶ In the month of March, the euro depreciated by 4.9 percent against the dollar. The dollar's gains were supported by investor's perceptions of the relatively greater resilience of the U.S. economy and a preference for U.S. fixed-income assets.⁴⁷

The exchange rate fell from an average of 1.0826 euros per dollar in the first quarter to an average of 1.1444 euros per dollar in the second quarter, a depreciation of 5.7 percent against the dollar, partly based on economic data indicating both slowing growth in the euro-area and rising inflation. Debate among market participants regarding the goals of the ECB also played a part in declining investor sentiment towards the euro. Data releases for the euro area also showed continued deceleration in economic activity, particularly in Germany.⁴⁸

Between the second and third quarter, the euro appreciated by 1.4 percent against the dollar, on average. The euro had appreciated against the dollar early in the quarter, as shifting expectations for relative growth differentials between the United States and the euro area prompted investors to expand their long-term euro positions.⁴⁹ However, after data showed that Germany's GDP did not grow in the second quarter and factory orders declined, the euro depreciated.⁵⁰ The dollar was little changed against the euro after the September 11 attacks.

The euro depreciated by less than 1.0 percent against the dollar between the third and fourth quarter amid perceptions that U.S. economic activity would outpace that of the euro area. Although the U.S. economy was weak throughout the period, data released in November indicated that the worst of the U.S. downturn had passed. A rise in October retail sales, consumer confidence, and business activity pointed to a rapid recovery in U.S. growth.⁵¹ Data from the euro-area countries, especially Germany, pointed to deteriorating economic conditions, including a continued decline in manufacturing and low consumer confidence.⁵²

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⁴⁶ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Jan.-Mar. 2000, p. 4.

⁴⁷ Ibid.

⁴⁸ Ibid., Apr.-Jun. 2001, p. 3.

⁴⁹ Ibid., Jul.-Sep. 2001, p. 1.

⁵⁰ Ibid., p. 2.

⁵¹ Federal Reserve Bank of New York, *Treasury and Federal Reserve Foreign Exchange Operations*, Oct.-Dec. 2001, pp. 2-5.

⁵² Ibid.

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APPENDIX G
Status of WTO Dispute Settlement Cases
Involving the United States

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**Table G-1
Status of World Trade Organization (WTO) dispute settlement cases involving the United States**

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status ¹
WT/DS2	Standards for Reformulated and Conventional Gasoline	January 1995	Venezuela	United States	Completed-Compliance Notified
WT/DS3	Measures Affecting the Testing and Inspection of Agricultural Products	April 1995	United States	Korea	Inactive
WT/DS4	Standards for Reformulated and Conventional Gasoline	January 1995	Brazil	United States	Completed-Compliance Notified
WT/DS5	Measures Concerning the Shelf-Life of Products	May 1995	United States	Korea	Settled
WT/DS6	Imposition of Import Duties on Automobiles from Japan under Sections 301 and 304 of the Trade Act of 1974	July 1995	Japan	United States	Settled
WT/DS11	Taxes on Alcoholic Beverages	September 1995	United States	Japan	Completed-Compliance Notified
WT/DS13	Duties on Imports of Grains	July 1995	United States	European Union	Settled
WT/DS16	Regime for the Importation, Sale, and Distribution of Bananas	September 1995	Guatemala, Honduras, Mexico, United States	European Union	Inactive
WT/DS21	Measures Affecting the Importation of Salmonids	November 1995	United States	Australia	Settled
WT/DS24	Restrictions on Imports of Cotton and Man-Made Fibre Underwear	November 1996	Costa Rica	United States	Completed-Compliance Notified
WT/DS26	Measures Affecting Meat and Meat Products (Hormones)	April 1996	United States	European Union	Completed-Retaliatio n Authorized

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS27	Regime for the Importation, Sale, and Distribution of Bananas	February 1996	Ecuador, Guatemala, Honduras, Mexico, United States	European Union	Completed-Compliance Pending
WT/DS28	Measures Concerning Sound Recordings	February 1996	United States	Japan	Settled
WT/DS31	Certain Measures Concerning Periodicals	March 1996	United States	Canada	Completed-Compliance Pending
WT/DS32	Measures Affecting Imports of Women's and Girls' Wool Coats	March 1996	India	United States	Settled
WT/DS33	Measure Affecting Imports of Woven Wool Shirts and Blouses	March 1996	India	United States	Completed-No Compliance Needed
WT/DS35	Export Subsidies in Respect of Agricultural Products	March 1996	Argentina, Australia, Canada, New Zealand, Thailand, United States	Hungary	Settled
WT/DS36	Patent Protection for Pharmaceutical and Agricultural and Chemical Products	April 1996	United States	Pakistan	Settled
WT/DS37	Patent Protection Under the Industrial Property Act	April 1996	United States	Portugal	Settled
WT/DS38	The Cuban Liberty and Democratic Solidarity Act	May 1996	European Union	United States	Inactive
WT/DS39	Tariff Increases on Products from the European Communities	April 1996	European Union	United States	Inactive

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS41	Measures Affecting the Testing and Inspection of Agricultural Products	May 1996	United States	Korea	Inactive
WT/DS43	Taxation of Foreign Film Revenues	June 1996	United States	Turkey	Settled
WT/DS44	Measures Affecting Consumer Photographic Film and Paper	June 1996	United States	Japan	Completed-No Compliance Needed
WT/DS45	Measures Affecting Distribution Services	June 1996	United States	Japan	Inactive
WT/DS49	Anti-Dumping Investigation Regarding Imports of Fresh or Chilled Tomatoes from Mexico	July 1996	Mexico	United States	Settled
WT/DS50	Patent Protection for Pharmaceutical and Agricultural Chemical Products	July 1996	United States	India	Completed-Compliance Notified
WT/DS52	Certain Measures Affecting Trade and Investment in the Automotive Sector	August 1996	United States	Brazil	Settled
WT/DS56	Certain Measures Affecting Imports of Footwear, Textiles, Apparel, and Other Items	October 1996	United States	Argentina	Completed-Compliance Notified
WT/DS57	Textiles, Clothing, and Footwear Import Credit Scheme	October 1996	United States	Australia	Settled
WT/DS58	Import Prohibition of Certain Shrimp and Shrimp Products	October 1996	India, Malaysia, Pakistan, Thailand	United States	Completed-Compliance Notified
WT/DS59	Certain Measures Affecting the Automobile Industry	October 1996	United States	Indonesia	Completed-Compliance Notified
WT/DS61	Import Prohibition of Certain Shrimp and Shrimp Products	October 1996	Philippines	United States	Inactive
WT/DS62	Customs Classification of Certain Computer Equipment	November 1996	United States	European Union	Completed-No Compliance Needed

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS63	Antidumping Measures on Imports of Solid Urea from the Former German Democratic Republic	December 1996	European Union	United States	Inactive
WT/DS65	Certain Measures Affecting Trade and Investment in the Automotive Sector	January 1997	United States	Brazil	Settled
WT/DS67	Customs Classification of Certain Computer Equipment	February 1997	United States	United Kingdom	Completed-No Compliance Needed
WT/DS68	Customs Classification of Certain Computer Equipment	February 1997	United States	Ireland	Completed-No Compliance Needed
WT/DS74	Measures Affecting Pork and Poultry	April 1997	United States	Philippines	Settled
WT/DS76	Measures Affecting Agricultural Products	April 1997	United States	Japan	Completed-Compliance Pending
WT/DS78	Safeguard Measures Against Imports of Broom Corn Brooms	April 1997	Colombia	United States	Inactive
WT/DS80	Measures Affecting Commercial Telephone Directory Services	May 1997	United States	Belgium	Inactive
WT/DS82	Measures Affecting the Grant of Copyright and Neighboring Rights	May 1997	United States	Ireland	Settled
WT/DS83	Measures Affecting the Enforcement of Intellectual Property Rights	May 1997	United States	Denmark	Settled
WT/DS84	Taxes on Alcoholic Beverages	May 1997	United States	Korea	Completed-Compliance Notified
WT/DS85	Measures Affecting Textiles and Apparel Products	May 1997	European Union	United States	Settled

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS86	Measures Affecting the Enforcement of Intellectual Property Rights	May 1997	United States	Sweden	Settled
WT/DS88	Measures Affecting Government Procurement	June 1997	European Union	United States	Inactive
WT/DS89	Antidumping Duties on Imports of Color Television Receivers from Korea	July 1997	Korea	United States	Inactive
WT/DS90	Quantitative Restrictions on Imports of Agricultural, Textile, and Industrial Products	July 1997	United States	India	Completed-Compliance Notified
WT/DS95	Measures Affecting Government Procurement	July 1997	Japan	United States	Inactive
WT/DS97	Countervailing Duty Investigation of Imports of Salmon from Chile	August 1997	Chile	United States	Inactive
WT/DS99	Anti-Dumping Duty on Dynamic Random Access Memory Semiconductors (DRAMs) of One Megabit or Above from Korea	August 1997	Korea	United States	Completed-Compliance Notified
WT/DS100	Measures Affecting Imports of Poultry Products	August 1997	European Union	United States	Inactive
WT/DS101	Antidumping Investigation of High Fructose Corn Syrup (HFCS) from the United States	September 1997	United States	Mexico	Inactive
WT/DS102	Measures Affecting Pork and Poultry	October 1997	United States	Philippines	Settled
WT/DS103	Measures Affecting the Importation of Milk and the Exportation of Dairy Products	October 1997	United States	Canada	Completed-Compliance Pending
WT/DS104	Measures Affecting the Exportation of Processed Cheese	October 1997	United States	European Union	Inactive
WT/DS106	Subsidies Provided to Producers and Exporters of Automotive Leather	November 1997	United States	Australia	Inactive

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS108	Tax Treatment for "Foreign Sales Corporations"	November 1997	European Union	United States	Completed-Compliance Pending
WT/DS109	Taxes on Alcoholic Beverages	December 1997	United States	Chile	Inactive
WT/DS111	Tariff Rate Quota for Imports of Groundnuts	December 1997	Argentina	United States	Inactive
WT/DS115	Measures Affecting the Grant of Copyright and Neighboring Rights	January 1998	United States	European Union	Settled
WT/DS118	Harbour Maintenance Tax	February 1998	European Union	United States	Inactive
WT/DS124	Enforcement of Intellectual Property Rights for Motion Pictures and Television Programs	April 1998	United States	European Union	Settled
WT/DS125	Enforcement of Intellectual Property Rights for Motion Pictures and Television Programs	April 1998	United States	Greece	Settled
WT/DS126	Subsidies Provided to Producers and Exporters of Automotive Leather	May 1998	United States	Australia	Completed-Compliance Notified
WT/DS127	Certain Income Tax Measures Constituting Subsidies	May 1998	United States	Belgium	Inactive
WT/DS128	Certain Income Tax Measures Constituting Subsidies	May 1998	United States	Netherlands	Inactive
WT/DS129	Certain Income Tax Measures Constituting Subsidies	May 1998	United States	Greece	Inactive
WT/DS130	Certain Income Tax Measures Constituting Subsidies	May 1998	United States	Ireland	Inactive
WT/DS131	Certain Income Tax Measures Constituting Subsidies	May 1998	United States	France	Inactive
WT/DS132	Antidumping Investigation of High Fructose Corn Syrup (HFCS) from the United States	May 1998	United States	Mexico	Completed-Compliance Notified

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS136	Anti-Dumping Act of 1916	June 1998	European Union	United States	Completed-Compliance Pending
WT/DS138	Imposition of Countervailing Duties on Certain Hot-Rolled Lead and Bismuth Carbon Steel Products Originating in the United Kingdom	June 1998	European Union	United States	Completed-No Compliance Needed
WT/DS144	Certain Measures Affecting the Import of Cattle, Swine, and Grain from Canada	September 1998	Canada	United States	Settled
WT/DS151	Measures Affecting Textiles and Apparel Products	November 1998	European Union	United States	Settled
WT/DS152	Sections 301-310 of the Trade Act of 1974	November 1998	European Union	United States	Completed-No Compliance Needed
WT/DS158	Regime for the Importation, Sale, and Distribution of Bananas II	January 1999	Guatemala, Honduras, Mexico, Panama, United States	European Union	Completed-Compliance Pending
WT/DS160	Section 110(5) of the U.S. Copyright Act	January 1999	European Union	United States	Completed-Retaliatio Pending
WT/DS161	Measures Affecting Imports of Fresh, Chilled, and Frozen Beef	February 1999	United States	Korea	Completed-Compliance Notified
WT/DS162	Anti-Dumping Act of 1916	February 1999	Japan	United States	Completed-Compliance Pending
WT/DS163	Measures Affecting Government Procurement	February 1999	United States	Korea	Completed-No Compliance Needed
WT/DS164	Measures Affecting Imports of Footwear	March 1999	United States	Argentina	Inactive

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS165	Import Measures on Certain Products from the European Communities	March 1999	European Union	United States	Completed-No Compliance Needed
WT/DS166	Definitive Safeguard Measures on Imports of Wheat Gluten from the European Communities	March 1999	European Union	United States	Completed-Compliance Notified
WT/DS167	Countervailing Duty Investigation with Respect to Live Cattle from Canada	March 1999	Canada	United States	Inactive
WT/DS170	Patent Protection Term	May 1999	United States	Canada	Completed-Compliance Notified
WT/DS171	Patent Protection for Pharmaceuticals and Test Data Protection for Agricultural Chemicals	May 1999	United States	Argentina	Settled
WT/DS172	Measures Relating to the Development of a Flight Management System	May 1999	United States	European Union	Inactive
WT/DS173	Measures Relating to the Development of a Flight Management System	May 1999	United States	France	Inactive
WT/DS174	Protection of Trademarks and Geographical Indications for Agricultural Products and Foodstuffs	June 1999	United States	European Union	Inactive
WT/DS175	Measures Relating to Trade and Investment in the Motor Vehicle Sector	May 1999	United States	India	Completed-Compliance Pending
WT/DS176	Section 211 of the Omnibus Appropriations Act	July 1999	European Union	United States	Completed-Compliance Pending
WT/DS177	Safeguard Measure on Imports of Fresh, Chilled, or Frozen Lamb from New Zealand	July 1999	New Zealand	United States	Completed-Compliance Notified
WT/DS178	Safeguard Measure on Imports of Fresh, Chilled, or Frozen Lamb from Australia	July 1999	Australia	United States	Completed-Compliance Notified

See footnote at end of table.

Table G-1--Continued**Status of World Trade Organization (WTO) dispute settlement cases involving the United States**

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS179	Anti-Dumping Measure on Stainless Steel in Coils and Stainless Steel Sheet and Strip from Korea	July 1999	Korea	United States	Completed-Compliance Notified
WT/DS180	Reclassification of Certain Sugar Syrup	September 1999	Canada	United States	Inactive
WT/DS184	Anti-Dumping Measures on Certain Hot-Rolled Steel Products from Japan	November 1999	Japan	United States	Completed-Compliance Pending
WT/DS186	Section 337 of the Tariff Act of 1930 and Amendments Thereto	January 2000	European Union	United States	Inactive
WT/DS192	Transitional Safeguard Measure on Combed Cotton Yarn from Pakistan	April 2000	Pakistan	United States	Completed-Compliance Notified
WT/DS194	Measures Treating Export Restraints as Subsidies	May 2000	Canada	United States	Completed-No Compliance Needed
WT/DS195	Measures Affecting Trade and Investment in the Motor Vehicle Sector	May 2000	United States	Philippines	Settled
WT/DS196	Certain Measures on the Protection of Patents and Test Data	May 2000	United States	Argentina	Settled
WT/DS197	Measures on Minimum Import Prices	May 2000	United States	Brazil	Inactive
WT/DS198	Measures on Minimum Import Prices	May 2000	United States	Romania	Settled
WT/DS199	Measures Affecting Patent Protection	May 2000	United States	Brazil	Settled
WT/DS200	Section 306 of the Trade Act of 1974 and Amendments Thereto	June 2000	European Union	United States	Inactive
WT/DS202	Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea	June 2000	Korea	United States	Completed-Compliance Pending

See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS203	Measures Affecting Trade in Live Swine	July 2000	United States	Mexico	Pending Consultations
WT/DS204	Measures Affecting Telecommunications Services	August 2000	United States	Mexico	Panel Proceeding
WT/DS206	Anti-Dumping and Countervailing Measures on Steel Plate from India	October 2000	India	United States	Panel Proceeding
WT/DS210	Administration of Measures Establishing Customs Duties for Rice	October 2000	United States	Belgium	Settled
WT/DS212	Countervailing Measures Concerning Certain Products from the European Communities	November 2000	European Union	United States	Panel Proceeding
WT/DS213	Countervailing Duties on Certain Corrosion-Resistant Carbon Steel Flat Products from Germany	November 2000	European Union	United States	Panel Proceeding
WT/DS214	Definitive Safeguard Measures on Imports of Steel Wire Rod and Circular Welded Carbon Quality Line Pipe	November 2000	European Union	United States	Panel Proceeding
WT/DS217	Continued Dumping and Subsidy Offset Act of 2000	December 2000	Australia, Brazil, Chile, European Union, India, Indonesia, Japan, Korea, Thailand	United States	Panel Proceeding
WT/DS218	Countervailing Duties on Certain Carbon Steel Products from Brazil	December 2000	Brazil	United States	Pending Consultations
WT/DS221	Section 129(c)(1) of the Uruguay Round Agreements Act	January 2001	Canada	United States	Panel Proceeding
WT/DS223	Tariff-Rate Quota on Corn Gluten Feed from the United States	January 2001	United States	European Union	Settled
WT/DS224	U.S. Patents Code	January 2001	Brazil	United States	Inactive

See footnote at end of table.

Table G-1--Continued**Status of World Trade Organization (WTO) dispute settlement cases involving the United States**

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS225	Anti-Dumping Duties on Seamless Pipe from Italy	February 2001	European Union	United States	Pending Consultations
WT/DS234	Continued Dumping and Subsidy Offset Act of 2000	May 2001	Canada, Mexico	United States	Panel Proceeding
WT/DS236	Preliminary Determinations With Respect to Softwood Lumber from Canada	August 2001	Canada	United States	Panel Proceeding
WT/DS239	Certain Measures Regarding Anti-Dumping Methodology	September 2001	Brazil	United States	Pending Consultations
WT/DS243	Rules of Origin for Textiles and Apparel Products	January 2002	India	United States	Panel Proceeding
WT/DS244	Sunset Review of Anti-Dumping Duties on Corrosion-Resistant Carbon Steel-Flat Products from Japan	January 2002	Japan	United States	Panel Proceeding
WT/DS245	Measures Affecting the Importation of Apples	March 2002	United States	Japan	Panel Proceeding
WT/DS247	Provisional Anti-Dumping Measure on Imports of Certain Softwood Lumber from Canada	March 2002	Canada	United States	Pending Consultations
WT/DS248	Definitive Safeguard Measures on Imports of Certain Steel Products	March 2002	European Union	United States	Panel Proceeding
WT/DS249	Definitive Safeguard Measures on Imports of Certain Steel Products	March 2002	Japan	United States	Panel Proceeding
WT/DS250	Equalizing Excise Tax Imposed by Florida on Processed Orange and Grapefruit Products	March 2002	Brazil	United States	Pending Consultations
WT/DS251	Definitive Safeguard Measures on Imports of Certain Steel Products	March 2002	Korea	United States	Panel Proceeding
WT/DS252	Definitive Safeguard Measures on Imports of Certain Steel Products	March 2002	China	United States	Panel Proceeding

See footnote at end of table.

Table G-1--Continued**Status of World Trade Organization (WTO) dispute settlement cases involving the United States**

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status¹
WT/DS253	Definitive Safeguard Measures on Imports of Certain Steel Products	April 2002	Switzerland	United States	Panel Proceeding
WT/DS254	Definitive Safeguard Measures on Imports of Certain Steel Products	April 2002	Norway	United States	Panel Proceeding
WT/DS257	Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada	May 2002	Canada	United States	Pending Consultations
WT/DS258	Definitive Safeguard Measures on Imports of Certain Steel Products	May 2002	New Zealand	United States	Pending Consultations
WT/DS259	Definitive Safeguard Measures on Imports of Certain Steel Products	May 2002	Brazil	United States	Pending Consultations

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See footnote at end of table.

Table G-1--Continued

Status of World Trade Organization (WTO) dispute settlement cases involving the United States

Case No.	Case Title	Month & Year of Initiation	Complainant(s)	Respondent(s)	Status ¹
WT/DS260	Provisional Safeguard Measures on Imports of Certain Steel Products	June 2002	United States	European Union	Pending Consultations

¹ Status of WTO dispute settlement cases involving the United States:

- Pending Consultations The complainant country files its request for consultations with the WTO.
- Panel Proceeding The complainant country submits its first request for the formation of a panel.
- Panel Report Issued The panel publicly issues its final report.
- Panel Report Adopted The report is adopted by the Dispute Settlement Body.
- Panel Report Appealed The appealing party files its notice of appeal of the panel report.
- AB Report Issued The Appellate Body publicly issues its report.
- Completed (No Compliance Needed) The Dispute Settlement Body adopts the panel report and no announced appeal is forthcoming and the respondent has no obligation to take any compliance action; or adopts the Appellate Body report and the respondent has no obligation to take any compliance action.
- Completed (Compliance Pending) The Dispute Settlement Body adopts the panel report and no announced appeal is forthcoming and the respondent has an obligation to comply; or adopts the Appellate Body report and the respondent has an obligation to comply.
- Completed (Compliance Notified) The parties agree that the respondent has complied, the respondent states it has complied and the complainant does not dispute the compliance, or the complainant has no further recourse to appeal compliance.
- Completed (Retaliation Pending) The complainant requests authorization from the WTO for retaliation.
- Completed (Retaliation Authorized) Retaliation is authorized by the WTO.
- Settled At least one party publicly indicates that the dispute has been settled and any opposing party does not dispute that assertion, occurring before the completion of any formal panel reporting procedure.
- Inactive The Pending Consultations status has continued for more than 2 years without the convening of a panel.

Sources: World Trade Organization (WTO) Secretariat, *Overview of the State-of-Play of WTO Disputes* (Geneva: WTO Secretariat, June 2002), located at www.wto.org. Status of disputes compiled by Commission staff from *Overview of the State-of-Play of WTO Disputes*; individual dispute notices at the WTO Web site, located at www.wto.org; various reporting services; various notices posted on the Office of the United State Trade Representative (USTR) Web site, located at www.ustr.gov; and USTR's Dispute Settlement Update, located at <http://www.ustr.gov/enforcement/update.html> (various periodic updates).

