Electronic Products

Queena Fan, Coordinator
(202) 205-3055
queena.fan@usitc.gov

Change in 2004 from 2003:

U.S. trade deficit: Increased $32.7 billion (33 percent) to $130.7 billion
U.S. exports: Increased $8.6 billion (6 percent) to $149.5 billion
U.S. imports: Increased $41.3 billion (17 percent) to $280.1 billion

The U.S. trade deficit in electronic products increased significantly in 2004, marking the third consecutive year of growth. Factors such as the increased growth of electronics production abroad and strong demand for many sector products contributed to imports increasing at a faster rate than exports, resulting in a larger trade deficit in 2004 (table EL-1).[1] Strong sales in electronic products were driven by factors such as product innovations and consumers upgrading their electronic products.[2] For example, consumers are shifting to the latest technologies, such as digital cameras and MP3 players, and to portable personal computer products such as laptops. Many U.S.-headquartered companies continued to shift production to other parts of the world, particularly to Asian countries such as China, to take advantage of lower production costs and to serve growing Asian markets.[3]

Leading the growth in U.S. exports were telephone and telegraph apparatus; measuring, testing, and controlling instruments; and medical goods (table EL-2). U.S. exports decreased in computers, peripherals, and parts as well as in semiconductors and integrated circuits. The major markets for U.S. exports of electronics in 2004 were Canada, Mexico, and Japan, which together accounted for $46.2 billion (31 percent) of total sector exports. Exports to Singapore and the United Kingdom increased substantially, to $6.0 billion (20 percent) and $8.1 billion (15 percent) respectively, but only accounted for a combined 9 percent of total exports. These increases were due in part to shifts in production sharing, personal and government efforts to upgrade their electronic products, and the general state of the economy.

The increase in the U.S. electronic products trade deficit was primarily attributable to the rise in U.S. imports of computers, peripherals, and parts; telephone and telegraph apparatus; and television receivers and video monitors (see table EL-2). These three sectors accounted for $25.5 billion (62 percent) of the total increase in sector imports.

In 2004 the three largest suppliers of electronic products to the United States were China, Mexico, and Japan, which together accounted for $140.1 billion (50 percent) of total U.S. sector imports (see table EL-1). Compared to China (47 percent), imports from Mexico (13 percent) and Japan (10 percent) did not increase as rapidly. Imports from other countries, such as Korea and Taiwan, decreased as a share of total U.S. imports during 2000–2004 as imports from China have taken U.S. market share. In

[1] The Consumer Electronics Association (CEA) estimates that U.S. sales in consumer electronics increased 11 percent in 2004, to more than $100 billion. CEA, "CEA Reports Consumer Electronics Sales Jump 11 Percent in 2004; 2005 Sales Projected to Grow 11 Percent and Hit $125.7 Billion," Jan. 5, 2005, found at *http://www.ce.org/press_room/press_release_detail.asp?id=10650*, retrieved Apr. 4, 2005.

[2] Ibid.

[3] "Asia: A Rising Power of World Manufacturing," Xinhua News Agency, Apr. 26, 2004, found at *http://www.china.org.cn/english/features/93992.htm*, retrieved Apr. 7, 2005.

Table EL-1
Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000–2004[1]

Item	2000	2001	2002	2003	2004	Change, 2004 from 2003	
						Absolute	*Percent*
			Million dollars				
U.S. exports of domestic merchandise:							
China	3,926	4,892	4,855	5,934	6,902	968	16.3
Mexico	24,644	20,798	18,965	16,414	17,383	970	5.9
Japan	17,795	15,393	11,810	11,348	11,231	-117	-1.0
Malaysia	6,846	5,145	5,997	7,290	6,546	-744	-10.2
Canada	25,007	20,108	17,025	16,637	17,559	922	5.5
Korea	10,562	6,479	6,380	7,085	7,388	303	4.3
Taiwan	7,205	5,661	5,961	5,555	5,624	69	1.2
Germany	8,653	8,787	7,639	7,633	7,526	-107	-1.4
Singapore	7,316	5,193	4,600	4,992	6,004	1,012	20.3
United Kingdom	11,978	9,748	7,432	7,065	8,112	1,047	14.8
All other	65,056	58,406	49,764	50,887	55,175	4,289	8.4
Total	188,989	160,610	140,428	140,838	149,450	8,611	6.1
EU-15	46,431	41,819	34,805	34,703	36,641	1,937	5.6
OPEC	2,207	2,462	1,981	1,888	2,957	1,070	56.7
Latin America	37,182	31,759	27,705	24,648	26,798	2,149	8.7
CBERA	2,404	2,505	2,883	3,098	3,101	3	0.1
Asia	69,210	56,809	51,835	55,638	57,832	2,193	3.9
Sub-Saharan Africa	703	700	637	778	878	101	12.9
Central and Eastern Europe	866	872	823	942	996	53	5.7
U.S. imports of merchandise for consumption:							
China	27,588	27,231	36,270	47,150	69,153	22,003	46.7
Mexico	37,207	37,221	35,029	34,560	38,945	4,386	12.7
Japan	49,888	35,676	30,745	29,177	32,020	2,843	9.7
Malaysia	20,550	17,751	19,501	20,695	22,273	1,578	7.6
Canada	21,200	13,868	10,605	9,768	10,960	1,191	12.2
Korea	21,400	15,409	15,411	15,955	19,699	3,744	23.5
Taiwan	22,429	17,391	16,594	15,654	16,418	764	4.9
Germany	7,399	7,242	7,295	7,983	9,039	1,056	13.2
Singapore	15,362	11,462	10,669	10,066	10,477	411	4.1
United Kingdom	7,097	5,805	4,597	4,795	5,317	522	10.9
All other	47,734	40,515	42,530	43,030	45,846	2,815	6.5
Total	277,854	229,571	229,245	238,833	280,146	41,313	17.3
EU-15	28,630	26,545	27,220	28,986	31,986	3,000	10.3
OPEC	2,386	2,300	2,093	1,761	2,067	306	17.4
Latin America	40,277	40,186	38,299	38,105	41,742	3,637	9.5
CBERA	2,091	1,510	1,732	2,164	2,068	-96	-4.4
Asia	178,245	141,280	145,645	153,491	185,897	32,406	21.1
Sub-Saharan Africa	58	53	50	66	71	5	7.3
Central and Eastern Europe	1,816	1,327	1,207	1,425	1,783	359	25.2

See footnote(s) at end of table.

Table EL-1—*Continued*
Electronic products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2000–2004[1]

Item	2000	2001	2002	2003	2004	Change, 2004 from 2003	
						Absolute	*Percent*
			Million dollars				
U.S. merchandise trade balance:							
China	-23,662	-22,340	-31,414	-41,216	-62,251	-21,035	-51.0
Mexico	-12,563	-16,423	-16,064	-18,146	-21,562	-3,416	-18.8
Japan	-32,093	-20,283	-18,935	-17,829	-20,789	-2,960	-16.6
Malaysia	-13,704	-12,606	-13,504	-13,406	-15,728	-2,322	-17.3
Canada	3,807	6,241	6,420	6,869	6,600	-269	-3.9
Korea	-10,838	-8,930	-9,031	-8,869	-12,311	-3,441	-38.8
Taiwan	-15,225	-11,729	-10,633	-10,099	-10,794	-695	-6.9
Germany	1,254	1,544	345	-350	-1,513	-1,163	-332.0
Singapore	-8,046	-6,269	-6,069	-5,075	-4,473	601	11.8
United Kingdom	4,881	3,942	2,835	2,270	2,795	525	23.1
All other	17,323	17,891	7,235	7,856	9,330	1,473	18.8
Total	-88,865	-68,962	-88,817	-97,994	-130,696	-32,702	-33.4
EU-15	17,801	15,274	7,585	5,718	4,655	-1,063	-18.6
OPEC	-179	161	-111	127	891	764	603.8
Latin America	-3,095	-8,427	-10,594	-13,457	-14,945	-1,488	-11.1
CBERA	313	995	1,151	934	1,033	99	10.6
Asia	-109,035	-84,471	-93,811	-97,852	-128,065	-30,213	-30.9
Sub-Saharan Africa	645	648	587	711	807	96	13.5
Central and Eastern Europe	-950	-455	-383	-483	-788	-305	-63.3

[1]Import 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 2004.

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

Table EL-2
Leading changes in U.S. exports and imports of electronic products, 2000–2004[1]

Industry/commodity group	2000	2001	2002	2003	2004	Change, 2004 from 2003	
						Absolute	*Percent*
	Million dollars						
U.S. EXPORTS:							
Increases:							
Telephone and telegraph apparatus (ET017)	20,147	16,506	12,952	10,946	13,958	3,013	27.5
Measuring, testing, and controlling instruments (ET043)	16,629	15,605	14,346	14,683	16,603	1,920	13.1
Medical goods (ET040)	13,411	14,987	15,059	16,827	18,433	1,606	9.5
Decreases:							
Computers, peripherals, and parts (ET035)	45,392	38,125	29,534	28,038	27,350	-688	-2.5
Semiconductors and integrated circuits (ET033)	44,828	33,455	31,738	35,712	35,130	-582	-1.6
All other	48,581	41,931	36,799	34,633	37,974	3,342	9.6
TOTAL	188,989	160,610	140,428	140,838	149,450	8,611	6.1
U.S. IMPORTS:							
Increases:							
Computers, peripherals, and parts (ET035)	90,384	74,547	75,817	76,940	89,264	12,324	16.0
Telephone and telegraph apparatus (ET017)	32,130	27,174	27,948	30,982	39,341	8,359	27.0
Television receivers and video monitors (ET022)	7,713	8,615	10,586	12,654	17,509	4,856	38.4
Decreases:							
Photographic cameras and equipment (ET039)	5,299	3,560	3,029	2,715	2,382	-333	-12.3
All other	142,329	115,675	111,865	115,542	131,649	16,107	13.9
TOTAL	277,854	229,571	229,245	238,833	280,146	41,313	17.3

[1]Import 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.

2000, imports of electronic products from China accounted for $27.6 billion (almost 10 percent) of U.S. sector imports and represented more than one-quarter of the U.S. sector trade deficit that year. In 2004, that figure rose to $69.2 billion (nearly 25 percent) of U.S. sector imports, or almost one-half of the U.S. sector trade deficit. International firms that have Chinese production facilities reportedly accounted for more than two-thirds of China's total export volume in 2004.[4]

[4] Michael Pecht and Y.C. Chan, "The Development of China's Electronics Industry," in *China's Electronics Industry* (College Park, MD: CALCE EPSC Press, 2004), p. 66.

Telephone and Telegraph Apparatus

Change in 2004 from 2003:

U.S. trade deficit: Increased $5.3 billion (27 percent) to $25.4 billion
U.S. exports: Increased $3.0 billion (28 percent) to $14.0 billion
U.S. imports: Increased $8.4 billion (27 percent) to $39.3 billion

The U.S. trade deficit in telephone and telegraph apparatus[5] increased significantly for the third year in a row. U.S. imports rose as U.S. telecommunications providers, the principal customers for this equipment, began to invest again in telecommunications infrastructure after several years of slow growth following substantial overinvestment in the late 1990s and during 2000. Increased demand in all major foreign markets boosted U.S. export revenues in 2004, reversing a decline that began in 2001.

U.S. exports

U.S. exports of telephone and telegraph apparatus increased $3.0 billion (27 percent) to $14.0 billion in 2004 (see table EL-2). Leading U.S. exports of this equipment in 2004 included various high-end apparatus and parts used for digital communications, communications satellites, modems, and parts. The most significant increases occurred in exports to the Netherlands, Mexico, Japan, and the United Kingdom, which as a group grew from $3.5 billion in 2003 to $4.8 billion in 2004 (40 percent). Increased demand for these products from the United States has been largely driven by improving economic conditions in the major markets for these products, greater investment in infrastructure equipment, increased demand for mobile devices, the growing popularity of wireless data applications, and the continuing depreciation of the dollar relative to the euro.[6]

During 2004, the gross domestic product increased by 2.2 percent, 4.0 percent, and 4.2 percent in the European Union (EU), Japan, and Mexico,[7] respectively, after years of sluggish or negative growth in each of these markets, providing telecommunication service providers the reassurance they needed to increase their investment in equipment. High growth rates had a similar effect in other markets, causing demand for telecommunications equipment outside the United States to increase by 6 percent in 2004, after increasing only 3 percent in 2003 and declining the 2 previous years.[8] U.S. exports received a further boost from the depreciation of the dollar, which declined by one-third with respect to the euro during 2001–2004.[9]

U.S. imports

The largest sources of increased U.S. imports of telephone and telegraph apparatus were China, Korea, Mexico, and Malaysia. Cellular telephones accounted for nearly $6 billion of the $8.4 billion

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[5] This industry/commodity group includes both wireless and wired telecommunications equipment such as cellular telephones, facsimile machines, switches, and modems.

[6] Telecommunications Industry Association (TIA), *2005 Telecommunications Market Review and Forecast* (Washington, DC: TIA, 2003), p. 179; and International Monetary Fund (IMF), International Financial Statistics.

[7] Organization for Economic Co-operation and Development (OECD), "Main Economic Indicators 2005," Apr. 2005, p. 259, found at *http://lysander.sourceoecd.org/vl=7640236/cl=65/nw=1/rpsv/ij/oecdjournals/04745523/v2005n4/s1/p1l*, retrieved Apr. 20, 2005. For additional estimates, see "Europe: 5-Year Forecast Table," *EIU ViewsWire*, p. 2, Mar. 24, 2005; "Japan Economy: EIU's March Assumptions," p. 2, Mar. 23, 2005; and Federal Reserve Bank of Dallas, "Trade Manufacturing Put Mexico Back on Track in 2004," p. 1, March 2005, found at *http://www.dallasfed.org/research/houston/2005/hb0502.html*, retrieved Mar. 25, 2005.

[8] TIA, *2005 Telecommunications Market Review and Forecast*, p. 5.

[9] IMF, International Financial Statistics.

increase. Imports of cellular telephones increased in response to a growing U.S. demand, evidenced by a 10 percent increase in the number of U.S. subscribers for cellular telephone service in 2004 and an increase in upgrades to cellular telephones with features such as cameras, improved gaming capabilities, and e-mail access.[10] The increase in other equipment imports was also driven by strong economic growth in the United States that spurred demand; the continued migration of telecommunications equipment production to lower-cost countries in Asia as well as to Mexico; and increased investment by telecommunications service providers, businesses, and consumers. U.S. consumption of telecommunications products increased by approximately 5 percent in 2004 after 3 years of steady decline.[11]

U.S. imports of these products from countries with lower-cost labor have displaced imports from traditional suppliers. In 2000, Canada and Japan combined to supply approximately 40 percent of U.S. apparatus imports while the collective share of China, Korea, and Malaysia was 25 percent. By 2004, Canada and Japan's share had dropped to 11 percent while U.S. imports of this equipment from China, Korea, and Malaysia accounted for 56 percent of the total. Much of this change can be attributed to increased production by the major telecommunications equipment firms in rapidly expanding Asian markets, especially China, and increased use of contract manufacturers such as Solectron Corp. and Flextronics International Ltd., which have major production facilities in Mexico and China, Malaysia, and elsewhere in Asia.[12]

John Davitt
(202) 205-3407
john.davitt@usitc.gov

[10] TIA, *2005 Telecommunications Market Review and Forecast*, pp. 150–151.
[11] Ibid., p. 5.
[12] Flextronics International Ltd., Securities and Exchange Commission (SEC) 10-K filing, June 14, 2004; Solectron Corp., SEC 10-K filing, Nov. 5, 2004, and Motorola, Inc., SEC 10-K filing, Mar. 4, 2005.

Television Receivers and Video Monitors

Change in 2004 from 2003:

U.S. trade deficit: Increased $4.8 billion (40 percent) to $16.6 billion
U.S. exports: Increased $0.07 billion (8 percent) to $0.9 billion
U.S. imports: Increased $4.9 billion (38 percent) to $17.5 billion

Imports of television receivers and video monitors[13] grew significantly as a result of increasing demand for flat-panel television receivers and for interactive set-top boxes. As few of these products are produced in the United States, imports supplied an increasing share of U.S. consumption. For the first time, imports of television receivers and video monitors with flat-panel displays exceeded imports of those with cathode-ray (picture) tubes.

Mexico, Japan, and China continued to be the largest suppliers to the United States of commodity group imports, accounting for $13.2 billion (75 percent) of imports in 2004 versus $9.3 billion (73 percent) in 2003. Color television reception apparatus without a picture tube (e.g., set-top boxes) and parts of color television reception apparatus accounted for the majority of the increase in U.S. exports during 2004.

U.S. exports

Increased exports of television reception apparatus without a picture tube (set-top boxes) to Korea and of parts of television apparatus to Mexico drove the total increase in exports of television receivers and video monitors in 2004. Exports of set-top boxes to Korea increased as a result of the introduction of satellite TV services in 2003 and the planned introduction of digital cable services.[14] Exports of parts of television apparatus to Mexico increased in line with the continuing transformation of the North American color television receiver industry, as the United States has changed from the assembler of color television receivers to a provider of parts, components, and subassemblies to suppliers located in Mexico.

U.S. imports

The increase in U.S. imports of television receivers and video monitors in 2004 was due principally to an increase in imports of two products: flat-panel color television receivers with a display diagonal greater than 34.29 cm (14 inches), not incorporating a VCR or player, and color television reception set-top boxes with a communication function. These two products combined accounted for $5.7 billion (33 percent) of commodity group imports in 2004 and for $3.6 billion (74 percent) of the increase in imports. In 2003, these two products accounted for $2.2 billion (17 percent) of imports in this group.

According to the Consumer Electronics Association, U.S. sales of flat-panel television receivers and monitors, including imports, reached an inflation-adjusted peak of more than $12 billion in 2004 and are expected to reach nearly $15 billion in 2005, as a result of the unexpected increased demand for flat-panel displays. These flat-panel devices accounted for almost one-third of U.S. sales of television receivers and monitors in 2004 and are predicted to rise almost to 40 percent in 2005, raising average prices. However, the price of receivers and monitors with liquid-crystal displays (LCDs) (one of several flat-panel display technologies) decreased as a result of oversupply.[15]

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[13] This industry/commodity group includes television receivers and video monitors (not computer monitors), set top boxes, and parts of the foregoing.

[14] U.S. Department of Commerce (Commerce), "Television Programming Services - Satellite TV and Cable TV," Aug. 6, 2003, found at *http://strategis.ic.gc.ca/epic/internet/inimr-ri.nsf/en/gr119020e.html*, Apr. 8, 2005.

[15] CEA, "U.S. Consumer Electronics Sales & Forecasts: 2000–2005," Jan. 2005.

The unit value of imports of flat-panel receivers with screen size greater than 34.29 cm (14 inches) fluctuated from a high of $1,620 in 2000 to $445 in 2001, but leveled off in 2004 to just more than $1,100. Unit imports almost tripled in 2004, rising to 3.1 million (184 percent). Mexico overtook Japan as the major supplier to the United States of these products, accounting for 55 percent of imports in 2004 versus 25 percent in 2003, even as imports from the four top suppliers—Mexico, Japan, Korea, and China—continued to increase. These four suppliers accounted for 91 percent of 2004 imports.

Demand for color television reception set-top boxes is increasing as consumers switch to direct-broadcast satellite television service or to interactive cable television service. The new services include pay-per-view, video-on-demand, and interactive program guides, and it is anticipated that other services will become available as the population of interactive boxes grows.[16] Although the unit value of these receivers rose from $117 to $123 (5 percent) in 2004, the quantity of imports more than doubled, increasing by more than 11 million units (128 percent) to more than 20 million units. Imports from Mexico accounted for most of the increase, more than doubling in 2004 and accounting for $1.8 billion (72 percent) of U.S. imports.

Imports from China of color television receivers with screen size greater than 35.56 cm (14 inches) declined $325 million (60 percent) to $219 million in 2004. Some of the receivers in that group, with screen size greater than 52 cm (20.47 inches), were subject to an antidumping duty order issued by the U.S. Department of Commerce in June 2004 on certain color television receivers imported from China. Despite the decrease in imports of this one product, total imports from China increased 63 percent to $2.4 billion, and China remained the third-largest supplier of television receivers and video monitors.

Although imports of high-definition television (HDTV) receivers and video monitors increased by 8 percent, they constituted only 8 percent of imports of receivers and monitors. Cable companies and satellite broadcasters are moving rapidly toward providing HDTV service. The question remains whether HDTV services will draw consumers into buying HDTV equipment or whether consumers with HDTV receivers will push service providers into providing more HDTV services.

John Kitzmiller
(202) 205-3387
john.kitzmiller@usitc.gov

Table EL-3
Changes in U.S. imports of television receivers and video monitors, 2000–2004

Item	2000	2001	2002	2003	2004	Change, 2004 from 2003: Absolute	Change, 2004 from 2003: *Percent*
				Million dollars			
Certain flat-panel TV receivers	13	95	310	1,109	3,233	2,124	192
Certain color TV set top boxes	121	175	279	1,042	2,498	1,456	140
Other	7,579	8,344	9,997	10,503	11,778	1,275	12
Total	7,713	8,615	10,586	12,654	17,509	4,856	38

Note.—Calculations based on unrounded data.
Source: Compiled from official statistics of the U.S. Department of Commerce.

[16] Steve Hill, Satellite Broadcasting and Communications Association, telephone interview with USITC staff, March 31, 2005; and Paul Rodriguez, National Cable Television Association, telephone interview with USITC staff, Apr. 1, 2005.

Semiconductors and Integrated Circuits

Change in 2004 from 2003:

U.S. trade surplus: Decreased $2.6 billion (23 percent) to $8.9 billion
U.S. exports: Decreased $0.6 billion (2 percent) to $35.1 billion
U.S. imports: Increased $2.1 billion (9 percent) to $26.3 billion

The worldwide semiconductor industry experienced record sales of $213 billion in 2004, up 28 percent from $166.4 billion in 2003.[17] Strong demand from a wide range of end markets, particularly personal computers and wireless handsets, drove the growth.[18] Despite these record sales, however, U.S. semiconductor exports declined $582 million (2 percent) in 2004. This decline, coupled with an increase in U.S. imports of $2.1 billion (9 percent), led to a decrease in the U.S. trade surplus for semiconductors, marking the first time in the last 5 years that the surplus in semiconductors has decreased. These trade shifts occurred principally because of the growth of semiconductor production in Asia. With the exception of Europe, the U.S. trade surplus with all major regions decreased. The U.S. trade surplus with Asia experienced the largest decrease in absolute ($2.9 billion) and percentage (35 percent) changes. Overall, 2004 was the fourth consecutive year that the United States has maintained a trade surplus in semiconductors.

U.S. exports

In 2004, despite strong global growth in semiconductor sales, U.S. exports of semiconductors decreased, especially to China and other Asian countries that serve both as major end-consumer markets of semiconductors and key production-sharing partners.[19] This decrease suggests that a long-term manufacturing trend is beginning to have a negative effect on the U.S. trade balance, specifically the growth of foreign semiconductor production[20] and, in particular, the growth and popularity of foreign semiconductor foundries.[21] This trend has resulted in a substantial increase in non-U.S. chip production, especially in Asia.[22] For example, in 2004 nine of the top 10 leaders in semiconductor capital equipment

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[17] Semiconductor Industry Association (SIA), "Global Semiconductor Sales Hit Record $213 Billion in 2004," Jan. 31, 2005, found at *http://www.sia-online.org/pre_release.cfm?ID=353*, retrieved Mar. 14, 2005 (press release). Aided by robust personal computer (PC) sales, DRAMs (dynamic random-access memory) were by far the fastest growing product line in the semiconductor industry, with total DRAM sales increasing by 61 percent. PC sales also helped microprocessor sales increase by more than 11 percent. DSP (digital signal processing) chips grew by more than 27 percent due to strong wireless handset growth, and optoelectronic chips experienced almost 44 percent growth due to strong digital camera sales.

[18] For example, PC sales increased by almost 15 percent while wireless handsets grew by more than 32 percent.

[19] U.S. semiconductor manufacturers traditionally have engaged in production-sharing arrangements wherein unfinished semiconductors, usually in wafer form, are exported to East Asia for completion of the more labor-intensive back-end production, which typically consists of testing, assembly, and packaging of the semiconductors.

[20] Eight of the top 10 fastest-growing semiconductor companies in 2004 were non-U.S. based firms. Bill McClean, Brian Matas, and Trevor Yancey, *March Update to the McClean Report: 2005 Edition*, 2005 ed. (Arizona: IC Insights, Inc., 2005), p. 4. Besides foreign firm growth, the increase in offshoring by U.S.-based firms has also increased foreign semiconductor production. According to the SIA, there is a $1 billion, 10-year cost difference between constructing and operating a fab in Asia compared to the United States, due to taxes and incentives. "SIA Backgrounders: Fab America - Keeping Manufacturing in the U.S.," found at *http://www.sia-online.org/backgrounders_fab_america.cfm*, retrieved Mar. 22, 2005; and SIA news conference, National Press Club, Washington, D.C., Mar. 16, 2005.

[21] A foundry is a semiconductor company exclusively devoted to semiconductor manufacturing, i.e., not involved in semiconductor design. Typically, foundries will only produce semiconductors for other firms; the name on the finished chips will be the partnering firm's, not the foundry's. U.S. industry representatives, telephone interview with USITC staff, Mar. 17, 2005.

[22] Ibid.

spending—an important indicator of firm growth—were non-U.S. based firms (seven were Asian-based firms).[23] Another sign of increased foreign production has been the growth of foundries, which are almost exclusively located in Taiwan, Singapore, and China.[24] Finally, as a sign of future semiconductor manufacturing leadership, two-thirds of all cutting-edge 300 mm semiconductor production facilities are scheduled to be located in Asia.[25] Increased Asian production coupled with Asia's dominant position in semiconductor consumption equates to increased intra-Asian semiconductor trade at the expense of U.S. exports.

U.S. semiconductor exports to all major global regions decreased in 2004. Asia received the most U.S. exports by far ($25.9 billion, or 74 percent). U.S. exports to Malaysia and the Philippines, traditionally two of the largest markets for U.S. exports due to strong production-sharing arrangements, declined $938 million (16 percent) and $1.2 billion (22 percent), respectively. Because the vast majority of exports to these two countries are of unfinished wafers designed for production sharing, this decrease likely indicates a decline in production sharing between U.S. and Philippine and Malaysian facilities in 2004. Although overall U.S. exports to Asia decreased, exports to Singapore, Hong Kong, and China increased by $701 million (45 percent), $563 million (37 percent), and $279 million (14 percent), respectively.

U.S. imports

The short-term surge in semiconductor demand across all markets, including the United States,[26] combined with long-term industry trends of increased semiconductor production in Asia and the popularity of foundries based in Taiwan, Singapore, and China, helped spur growth in U.S. imports, for the first increase in imports since 2000. This import increase is unusual given the continuing decline in U.S. apparent consumption of semiconductors resulting from the steady exodus of semiconductor-consuming industries from the United States, mainly to Asia. Moreover, when compared to the 28 percent increase in global semiconductor consumption in 2004, the relatively small increase of 9 percent in U.S. imports lends credence to the notion of a long-term decline in the relative importance of the United States as a semiconductor market.

Asia contributed 78 percent of all U.S. imports in 2004 and was one of only two major world regions from which U.S. imports rose.[27] Whereas U.S. imports from leading production-sharing partners Malaysia and the Philippines continued to stagnate as these countries continue to shift exports of finished

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[23] Bill McClean, Brian Matas, and Trevor Yancey, *The McClean Report: A Complete Analysis and Forecast of the Integrated Circuit Industry*, 2005 ed. (Arizona: IC Insights, Inc., 2005), p. 4-6.

[24] Four foundries, all of which are located in Asia (TSMC and UMC in Taiwan, Chartered in Singapore, and SMIC in China), accounted for 81 percent of all foundry sales in 2004. Ibid., p. 3-15.

[25] "SIA Backgrounders: Fab America." Firms that use 300mm equipment in their facilities are able to produce semiconductors more efficiently than those that use more dated equipment, therefore allowing them to be more competitive. An increase in the construction of 300mm facilities in Asia indicates that growing Asian firms have the resources to purchase this very expensive type of equipment and that foreign firms are choosing Asia as the region for their most cutting edge production facilities.

[26] McClean, Matas, and Yancey, *McClean Report*, p. 2-53, fig. 2-50. The Americas market, which includes the United States, increased by 25 percent in 2004. From 2004–2009, however, the Americas market is predicted to have the lowest compound annual growth rate of any world region.

[27] OPEC also increased its share of U.S. imports in 2004, accounting for 0.6 percent of total U.S. imports.

semiconductors to growing consumer markets in China,[28] imports from all other major Asian sources grew by 15 percent or more, reflecting the general trend of increased semiconductor production in the region. U.S. import growth was most pronounced from China ($476 million, up 58 percent), Taiwan ($722 million, up 24 percent), Japan ($454 million, up 18 percent), and Korea ($524 million, up 16 percent).

Falan Yinug
(202) 205-2160
falan.yinug@usitc.gov

[28] U.S. imports from the Philippines and Malaysia have decreased steadily over the past 5 years. Imports from Malaysia in 2004 increased only slightly (1.5 percent), while imports from the Philippines decreased by 16 percent. The Philippines was the only Asian country from which U.S. imports decreased in 2004.

Chinese imports of semiconductors from Malaysia and the Philippines increased by 11 percent and 9 percent, respectively, in 2004, which continues the trend of increased exports to China from these two countries. Data from Global Trade Information Services, Inc., World Trade Atlas, found at *http://www.gtis.com*, retrieved June 29, 2005.

Computers, Peripherals, and Parts

Change in 2004 from 2003:

U.S. trade deficit: Increased $13.0 billion (27 percent) to $61.9 billion
U.S. exports: Decreased $0.7 billion (3 percent) to $27.4 billion
U.S. imports: Increased $12.3 billion (16 percent) to $89.3 billion

The global computer market experienced strong growth in 2004, with worldwide consumption of personal computers (PCs)[29] increasing by nearly 11 percent during the year.[30] In 2004 the United States and Europe, the two largest markets for computer equipment, showed increases in product purchases,[31] largely driven by a continued demand for portable computer products such as laptops[32] and the adoption of newer technologies. In western Europe, market growth was also stimulated by the favorable exchange rate for the euro and aggressive pricing strategies.[33] On a worldwide basis, one industry source estimates that laptop sales grew by more than 30 percent in western Europe in 2004, the business computer segment in Japan grew by 12 percent, and sales overall in Asia grew by more than 16 percent.[34]

The growth in U.S. PC consumption was driven largely by growing consumer preference for laptop computers.[35] In addition, the availability of new applications such as digital photography, multimedia functions, and wireless capabilities resulted in more consumers upgrading their PCs during the year.[36] Businesses also continued to engage in PC replacement and purchase new equipment.[37]

The U.S. trade deficit in computer hardware continued to increase in 2004, driven by a strong increase in U.S. imports and a slight decrease in U.S. exports, despite the increase in global PC consumption.

U.S. exports

Worldwide PC shipments reportedly grew from 155 million units in 2003 to 178 million units in 2004. U.S. exports of computer hardware declined slightly, however, primarily in categories such as laptop computers and computer parts and accessories.[38] This decline was due in part to the continued shift of production to overseas facilities by U.S.-headquartered companies. U.S. exports showed the greatest increases to Canada (4.9 percent, or $179 million) and the United Kingdom (7.4 percent, or $166 million), while exports to Japan and Singapore accounted for the largest declines, combining for a decrease of

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[29] Personal computers account for a majority of the computer hardware and peripheral market.

[30] PC estimates are from the IDC Corporation. IDC, "IDC Revises PC Shipments Forecast Down," *TechWeb News*, Mar. 23, 2005, found at *http://www.techweb.com/wire/159904710*, retrieved Mar. 24, 2005.

[31] One industry source estimates PC consumption increased by more than 8 percent in the United States and nearly 12 percent in Europe. "Global PC Sales Jump 12pc," *Silicon Republic*, Jan. 19, 2005, found at *http://www.siliconrepublic.com/news/news.nv?storyid=single4315*, retrieved Mar. 24, 2005.

[32] CEA, "CEA Reports Consumer Electronics Sales Jump 11 Percent in 2004."

[33] "Global PC Sales Remain Strong," *Computing*, Oct. 20, 2004, found at *http://www.computing.co.uk/news/1158852*, retrieved Apr. 4, 2005.

[34] IDC, "Short-Term PC Outlook Weakens Slightly While Long-Term Growth Looks Solid, According to IDC," Mar. 23, 2005, found at *http://www.idc.com/getdoc.jsp?containerID=prUS00100905*, retrieved Mar. 31, 2005 (press release).

[35] John G. Spooner, "PC Shipments to Rise in 2004, Says Gartner," *CNET News.com*, Feb. 12, 2004, found at *http://news.com.com/PC+shipments+to+rise+in+2004,+says+Gartner/2100-1003_3-5158374.html*, retrieved Mar. 24, 2005.

[36] Ibid.

[37] Tom Krazit, "PC Sales Strong in 2004," *PC World*, Jan. 19, 2005, found at *http://pcworld.about.com/news/Jan192005id119347.htm*, retrieved Mar. 24, 2005.

[38] See IDC, "IDC Revises PC Shipments Forecast Down."

nearly $354 million, to $3.4 billion, during the period, likely attributable to the ongoing shift of production overseas.

U.S. imports

U.S. imports of computer hardware and peripherals rose in 2004, approaching levels that existed prior to the major information-technology industry downturn in 2001, largely the result of increased shipments from China and, to a lesser degree, Malaysia. China's share of U.S. imports increased to 38 percent of total U.S. imports in 2004, from 12 percent in 2000, and accounted for $11.8 billion (96 percent) of the total increase in U.S. imports of computer hardware equipment in 2004. Imports of portable digital automatic processing machines (predominantly laptop computers) accounted for about 30 percent of this increase, and LCD computer monitors accounted for $2 billion (17 percent); other noticeable increases included parts and accessories for computers. The share of U.S. imports of several traditional suppliers of computer hardware products, such as Japan, Singapore, and Taiwan, has declined over the past few years.

Many major global computer hardware manufacturers have shifted production to China, contributing to an increase in production in that country. For example, many Taiwanese companies moved production facilities to take advantage of lower production costs.[39] Also, several monitor manufacturers headquartered in South Korea and Taiwan suggested that their suppliers locate facilities in China to benefit from low labor costs and efficient electronic equipment supply chains.[40] China has become one of the largest producers and exporters of monitors,[41] producing an estimated 44 million LCD monitors in 2004, an increase of 42 percent from 2003.[42] Also, some computer hardware companies, such as Maxtor Corp., the second-largest U.S. manufacturer of hard-disk drives, have chosen to shift production from Singapore to China to take advantage of lower costs.[43]

U.S. imports of computer hardware from Malaysia increased by approximately $1.2 billion (9 percent), largely the result of a 34 percent increase in imports of laptop computers. One of the world's leading manufacturers of laptop computers, Dell, has two production facilities in Malaysia,[44] contributing to laptop production in that country.

Queena Fan
(202) 205-3055
queena.fan@usitc.gov

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[39] "Taiwan Firms Top Computer Makers," *South China Morning Post*, found at *http://www.scmp.com*, retrieved Mar. 7, 2005.

[40] "Mainland China LCD Monitor Output to Exceed That of CRT; Samsung Retains Top Spot in CRT and LCD Segments," *Global Sources*, Dec. 7, 2004, found at *http://www.computerproducts.globalsources.com*, retrieved Mar. 23, 2005.

[41] Michael Kanellos, "LCD Production in China to Eclipse CRTs," Nov. 24, 2004, found at *http://asia.cnet.com/news/personaltech/0,39037091,39202438,00.htm*, retrieved Mar. 23, 2005.

[42] "Mainland China LCD Monitor Output to Exceed That of CRT." Many major companies such as Dell and Hewlett-Packard purchase monitors from manufacturers and designers in China. Kanellos, "LCD Production in China to Eclipse CRTs."

[43] Nerys Avery, "China's Industrial Production Gain Exceeds Forecasts," *Bloomberg.com*, Mar. 15, 2005, found at *http://www.bloomberg.com/apps/news?pid=7000001&refer=asia&sid=afw715XkmW7w*, retrieved Mar. 31, 2005.

[44] According to Dell's 10-K fiscal year 2005 report, it states that it is ranked number one in the United States and worldwide for notebook computer shipments. Dell Inc., SEC 10-K filing, 2005, found at *http://www.dell.com/downloads/global/corporate/sec/10k-fy05.pdf*, retrieved Apr. 4, 2005.

Medical Goods

Change in 2004 from 2003

U.S. trade deficit: Decreased from a surplus by $1.3 billion to $0.6 billion
U.S. exports: Increased $1.6 billion (10 percent) to $18.4 billion
U.S. imports: Increased $2.9 billion (18 percent) to $19.0 billion

The United States continues to be the global leader in medical goods manufacturing, producing a broad range of such goods, from commodity hospital supplies to advanced medical imaging equipment. Because of its long-standing reputation for quality and innovation in this industry, the United States traditionally has maintained a trade surplus. This surplus has declined in recent years, however, as U.S.-based firms have increased production in overseas markets while the U.S. market for medical goods continues to grow at a faster rate than overseas markets. In 2004, for the first time in decades, the United States experienced a trade deficit in medical goods of $573 million. Notwithstanding vigorous growth in U.S. exports, strong demand for medical goods in the United States, the largest and most dynamic health care market in the world, led to an even greater increase in imports.

The traditional rivals for the United States in medical goods have been Japan and Germany and other larger European countries. However, in recent years there has been an increase in advanced medical goods manufacturing and assembly activities in Ireland and Switzerland, as well as production of commodity hospital supplies in less-developed countries such as the Dominican Republic, Costa Rica, Malaysia, and China. In addition, increased manufacturing partnerships in China over the past decade by major U.S., European, and Japanese producers has led to higher levels of technology transfer to China[45] and increased Chinese production of more advanced electromedical equipment.[46]

U.S. exports

U.S. exports of medical goods increased $1.6 billion (10 percent) to $18.4 billion in 2004. Japan remained the largest market for U.S. exports of such goods, accounting for $2.4 billion, but the most significant growth occurred in exports to the Netherlands, the United Kingdom, and Canada.

U.S. exports to Japan, the world's second-largest individual country market for medical goods,[47] consisted of a broad range of medical equipment and devices required by a population with an increasingly high proportion of elderly persons.[48] Japan is particularly dependent on U.S.-manufactured cardiology products, including cardiac pacemakers, defibrillators, and stents, because it produces very few of these products itself.[49] A significant portion of U.S. exports to Japan also included shipments of components and subassemblies of medical imaging equipment for final assembly in Japan.[50] Although Japan remains an important market for U.S. exports of medical goods, the rate of growth in such exports

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[45] "Philips Sets Up Medical Equipment Venture in China," *Appliance Magazine*, Feb. 10, 2004, pp. 1–2, found at *http://www.appliance magazine.com*, retrieved Mar. 22, 2004; "Growth [in China]," *GE Medical Systems–Asia*, found at *http://www.savelives.gecareers.com*, retrieved Oct, 13, 2004; and Frost and Sullivan, "Chinese X-Ray Equipment Markets," *Market Research Report*, Feb. 1999.

[46] Kathryn Kranhold, "GE Pins Hopes on Emerging Markets: Strategy Is Major Shift From Reliance on the West," *Wall Street Journal*, Mar. 3, 2005, pp. A-3–A-4.

[47] Japan External Trade Organization (JETRO), "Medical Equipment," *JETRO Japanese Market Report*, No. 69, Mar. 2004, p. 1, found at *http://www.jetro.go.jp/en/market/reports/jmr/069.pdf*, retrieved Mar. 17, 2005.

[48] U.S. Central Intelligence Agency (CIA), "Japan," *CIA World Factbook 2005*, found at *http://www.cia.gov/cia/publications/factbook/geos/ja.html*, retrieved May 27, 2005.

[49] Japan continues to import almost 100 percent of its pacemakers. JETRO, "Medical Equipment," p. 8.

[50] A large portion of such exports consisted of intrafirm shipments from General Electric Medical System's Milwaukee headquarters, to a major manufacturing facility it operates in Tokyo. U.S. industry representatives, telephone interviews with USITC staff, Mar. 16, 2005.

has slowed in recent years, increasing by less than 5 percent in 2004. Some U.S. industry representatives attribute the decline in growth, at least in part, to Japan's slow medical device approval process that hinders the introduction of innovative medical technology in the Japanese market.[51]

With a major port in Rotterdam, the Netherlands serves as a leading transhipment and distribution point for imported medical equipment destined for other European countries.[52] U.S. exports to the Netherlands increased $321 million (20 percent) to nearly $2 billion in 2004. Such exports consisted primarily of a large range of cardiology, electromedical, and surgical equipment. They also included electronic components and subassemblies for advanced medical imaging equipment produced in the Netherlands by Philips Medical Systems.[53]

U.S. exports of medical equipment to the United Kingdom increased $140 million (17 percent) to $979 million in 2004, led by orthopedic and prosthetic appliances, such as knee and hip implants, and electromedical equipment. U.S. exporters benefited from the United Kingdom's efforts to upgrade its National Healthcare System by building new hospitals and modernizing its health care technology.[54] They also took advantage of rapid growth in the private health care sector in the United Kingdom.[55]

U.S. exports to Canada increased 13 percent in 2004 to $1.5 billion. After 5 years of declining expenditures for medical equipment by Canada's national health care system, increased demands by the public led to an announcement by the Canadian government in 2003 that it would significantly increase expenditures for hospital equipment of all types over the next several years, which benefited U.S. suppliers in 2004.[56] U.S. exports to Canada included diagnostic and patient monitoring equipment, magnetic resonance imaging instruments, surgical equipment, breathing machines, and X-ray and computed tomography scanning equipment.[57] All major U.S. manufacturers sell in Canada, and U.S. suppliers already supply almost one-half of the hospital market.[58]

U.S. imports

U.S. imports of medical goods grew by $2.9 billion (18 percent) to $19.0 billion in 2004. The EU and China were responsible for much of that growth. Led by Ireland for the second year in a row, EU manufacturers increased their exports to the United States by $2.1 billion (28 percent) to $9.6 billion, accounting for more than one-half of total U.S. imports of medical goods in 2004. U.S. imports from Ireland alone increased $1.2 billion (42 percent) to $4.1 billion in 2004, which was more than five times the level that country supplied to the United States in 2000. In 2004, large U.S.-based companies such as Medtronic, Boston Scientific, and DePuy continued to increase their Irish manufacturing capacity in

[51] The recently created Japanese Pharmaceuticals and Medical Device Agency reportedly has a two-year backlog of accumulated medical goods approval applications. Advanced Medical Technology Association (AdvaMed), comments submitted to Commerce, Dec. 21, 2004, pp. 3–5; and U.S. industry representative, telephone interview with USITC staff, Mar. 30, 2005.

[52] U.S. industry representatives, telephone interviews with USITC staff, Mar. 15–17, 2005.

[53] U.S. industry representative, telephone interview with USITC staff, Mar. 28, 2005.

[54] Tatiana Russo, U.S. & Foreign Commercial Service (US&FCS), "Medical Equipment [UK]," *Market Research Reports*, Mar. 18, 2003, p. 1.

[55] Ibid.

[56] Pierre Richard, US&FCS, "Hospital Medical Equipment [Canada]," *Market Research Reports*, Sept. 4, 2003, p. 1; and U.S. industry representatives, telephone interviews with USITC staff, Mar. 15–17, 2005.

[57] Richard, "Hospital Medical Equipment [Canada]," p. 1; and U.S. industry representatives, telephone interviews with USITC staff, Mar. 15–17, 2005.

[58] Richard, "Hospital Medical Equipment [Canada]," p. 1; and U.S. industry representatives, telephone interviews with USITC staff, Mar. 15–17, 2005.

pacemakers, implantable defibrillators, drug eluting stents,[59] and orthopedic implants.[60] Such products were primarily exported to other European countries and the United States. Ireland's emergence as a global player in the medical goods industry has been influenced by a series of national economic programs designed, among other things, to increase labor force skills and attract foreign investment in advanced technology manufacture.[61]

Meanwhile, U.S. imports from China grew by $116 million (20 percent) to $710 million, led by personal massage apparatus imported directly by major U.S. retail companies.[62] Blood pressure and oxygen therapy apparatus for use in the home and in doctors' offices were the second-largest category of medical goods imported from China. China is increasing its manufacture and assembly of more advanced medical goods, including patient monitoring systems, medical X-ray equipment, ultrasound scanners,[63] and medical imaging equipment. General Electric Medical Systems (GEMS), which first established assembly facilities in China in 1979, recently announced that China will replace Japan as its principal research and development, manufacturing, and distribution headquarters for Asia.[64] China is now GEMS's third-largest producer of computed tomography (CT) scanners, after the United States and France. About 70 percent of GEMS's Chinese production is exported to the United States and Japan.[65]

Christopher Johnson
(202) 205-3488
christopher.johnson@usitc.gov

[59] Stents are cylindrical metal, mesh-type devices used to maintain the opening of arteries after angioplasty (balloon) catheterization procedures. The newest drug eluting stents have been shown in recent clinical trials to maintain the opening for longer periods than bare metal stents.

[60] Guidant, SEC 10-K filing, 2004; Medtronic Inc., SEC 10-K filing, 2004; and Boston Scientific, SEC 10-K filing, 2004.

[61] CIA, "Ireland," *CIA World Factbook 2005*, found at *http://www.cia.gov/cia/publications/factbook/geos/ei.html*, retrieved May 27, 2005.

[62] U.S. industry representatives, telephone interviews with USITC staff, Mar. 8–17, 2005.

[63] General Electric Medical Systems, "GE Medical Systems Introduces First China-Developed Hand-Carried Ultrasound System," May 24, 2002, found at *http://www.ge.com.cn*, retrieved Mar. 8, 2005 (press release).

[64] "General Electric Medical to Double Business," *Www.YEworld.net*, 2004, p. 1, found at *http://www.yeworld.net*; retrieved Mar. 8, 2004; "GE Sees China Global Production Center," *People's Daily Online*, Oct. 24, 2003, p. 1, found at *http://english.people.com.cn*, retrieved Mar. 17, 2004; and "GE Medical Systems Unveils Industrial Park," *People's Daily Online*, Oct. 23, 2003, p. 1, found at *http://english.people.com.cn*, retrieved Mar. 17, 2004.

[65] Other U.S.-based companies with production and assembly operations in China include Johnson & Johnson, Agilent, Becton Dickinson, Baxter International, and Medrad. German-based Siemens and Netherlands-based Philips have also invested in medical imaging manufacturing facilities in China. Interliance, LLC, "Medical Device Market in China," *Intelligence ViewPoint*, 2003, pp. 1–2, found at *http:www.interliance.com*, retrieved Mar. 8, 2005.

Table EL-4
Electronic products: U.S. trade for industry/commodity groups and subgroups, 2000–2004[1]

USITC code[2]	Industry/commodity group	2000	2001	2002	2003	2004	Change, 2004 from 2003 Absolute	Change, 2004 from 2003 *Percent*
		Million dollars						
ET016	Office machines:							
	Exports	1,033	1,061	816	725	682	-43	-5.9
	Imports	1,892	1,817	1,491	1,544	1,732	188	12.2
	Trade balance	-859	-757	-675	-819	-1,050	-231	-28.2
ET017	Telephone and telegraph apparatus:							
	Exports	20,147	16,506	12,952	10,946	13,958	3,013	27.5
	Imports	32,130	27,174	27,948	30,982	39,341	8,359	27.0
	Trade balance	-11,982	-10,668	-14,996	-20,037	-25,382	-5,346	-26.7
ET018	Consumer electronics (except televisions):							
	Exports	2,969	2,791	2,631	2,392	2,518	126	5.3
	Imports	21,974	19,525	21,455	21,471	24,428	2,957	13.8
	Trade balance	-19,005	-16,734	-18,825	-19,079	-21,911	-2,832	-14.8
ET019	Blank media:							
	Exports	1,420	1,017	970	1,082	1,159	77	7.1
	Imports	2,415	2,423	2,746	3,127	3,831	704	22.5
	Trade balance	-995	-1,406	-1,776	-2,045	-2,672	-627	-30.7
ET020	Prerecorded media:							
	Exports	3,636	3,195	3,069	3,010	3,124	113	3.8
	Imports	1,389	1,259	1,308	1,436	1,503	67	4.6
	Trade balance	2,247	1,935	1,761	1,574	1,621	47	3.0
ET021	Navigational instruments and remote control apparatus:							
	Exports	2,626	3,102	2,921	2,866	3,082	216	7.5
	Imports	1,702	1,796	1,858	2,286	2,761	475	20.8
	Trade balance	924	1,306	1,063	580	321	-259	-44.7
ET022	Television receivers and video monitors:							
	Exports	1,164	1,237	1,257	809	874	65	8.1
	Imports	7,713	8,615	10,586	12,654	17,509	4,856	38.4
	Trade balance	-6,549	-7,378	-9,329	-11,845	-16,636	-4,791	-40.4
ET023	Radio and television broadcasting equipment:							
	Exports	2,602	2,321	1,364	1,241	1,335	93	7.5
	Imports	7,178	6,066	4,977	4,120	4,309	189	4.6
	Trade balance	-4,576	-3,745	-3,613	-2,879	-2,974	-96	-3.3

See footnote(s) at end of table.

Table EL-4—*Continued*
Electronic products: U.S. trade for industry/commodity groups and subgroups, 2000–2004[1]

USITC code[2]	Industry/commodity group	2000	2001	2002	2003	2004	Change, 2004 from 2003	
							Absolute	*Percent*
				Million dollars				
ET024	Electric sound and visual signaling apparatus:							
	Exports	851	949	1,042	937	1,098	161	17.2
	Imports	2,334	1,968	1,797	1,845	2,145	301	16.3
	Trade balance	-1,483	-1,020	-755	-908	-1,047	-140	-15.4
ET025	Electrical capacitors and resistors:							
	Exports	3,410	2,002	1,706	1,623	1,664	41	2.5
	Imports	4,177	2,333	2,093	1,964	2,035	71	3.6
	Trade balance	-767	-331	-386	-341	-371	-30	-8.8
ET026	Printed circuits:							
	Exports	2,865	2,089	1,853	1,742	1,836	95	5.4
	Imports	2,988	2,141	1,896	1,785	2,113	328	18.4
	Trade balance	-123	-53	-44	-44	-277	-233	-533.7
ET027	Circuit apparatus exceeding 1000V:							
	Exports	701	612	549	487	507	19	4.0
	Imports	386	357	338	272	309	37	13.7
	Trade balance	315	255	211	215	197	-18	-8.4
ET028	Circuit apparatus not exceeding 1000V:							
	Exports	6,101	5,098	4,478	4,431	5,138	707	16.0
	Imports	6,872	5,280	4,933	5,127	6,259	1,131	22.1
	Trade balance	-771	-182	-455	-696	-1,120	-424	-61.0
ET029	Circuit apparatus assemblies:							
	Exports	1,340	1,179	1,108	1,150	1,193	43	3.8
	Imports	2,593	2,528	2,577	2,920	3,341	421	14.4
	Trade balance	-1,253	-1,350	-1,469	-1,771	-2,148	-377	-21.3
ET030	Parts of circuit apparatus:							
	Exports	1,914	1,503	1,592	1,807	2,201	394	21.8
	Imports	1,202	1,108	1,087	1,206	1,526	320	26.5
	Trade balance	712	396	506	601	675	74	12.3
ET031	Cathode-ray tubes:							
	Exports	2,435	2,056	1,762	1,202	998	-204	-16.9
	Imports	634	612	607	577	673	96	16.7
	Trade balance	1,801	1,444	1,155	625	325	-300	-48.0
ET032	Electron tubes other than CRTs:							
	Exports	209	178	180	165	175	10	6.2
	Imports	213	271	247	203	195	-8	-3.7
	Trade balance	-4	-93	-66	-38	-21	18	46.4

See footnote(s) at end of table.

Table EL-4—*Continued*
Electronic products: U.S. trade for industry/commodity groups and subgroups, 2000–2004[1]

USITC code[2]	Industry/commodity group	2000	2001	2002	2003	2004	Change, 2004 from 2003 Absolute	Change, 2004 from 2003 *Percent*
		Million dollars						
ET033	Semiconductors and integrated circuits:							
	Exports	44,828	33,455	31,738	35,712	35,130	-582	-1.6
	Imports	47,448	30,016	25,651	24,190	26,256	2,066	8.5
	Trade balance	-2,619	3,439	6,087	11,522	8,874	-2,648	-23.0
ET034	Miscellaneous electrical equipment:							
	Exports	2,153	1,805	1,564	1,426	1,968	542	38.0
	Imports	2,937	2,277	2,428	2,649	3,313	664	25.1
	Trade balance	-784	-473	-865	-1,223	-1,345	-122	-10.0
ET035	Computers, peripherals, and parts:							
	Exports	45,392	38,125	29,534	28,038	27,350	-688	-2.5
	Imports	90,384	74,547	75,817	76,940	89,264	12,324	16.0
	Trade balance	-44,991	-36,422	-46,283	-48,902	-61,914	-13,012	-26.6
ET036	Photographic film and paper:							
	Exports	2,755	1,953	2,127	2,233	2,182	-51	-2.3
	Imports	2,205	1,856	1,865	1,820	1,951	131	7.2
	Trade balance	550	96	262	413	231	-182	-44.0
ET037	Optical fibers, optical fiber bundles and cables:							
	Exports	1,888	1,689	474	437	383	-53	-12.2
	Imports	1,399	1,244	252	210	310	100	47.8
	Trade balance	488	446	222	227	74	-153	-67.5
ET038	Optical goods, including ophthalmic goods:							
	Exports	3,995	3,727	3,548	3,309	3,992	683	20.6
	Imports	5,881	4,957	4,142	4,495	5,386	891	19.8
	Trade balance	-1,887	-1,230	-594	-1,186	-1,395	-208	-17.5
ET039	Photographic cameras and equipment:							
	Exports	1,800	1,694	1,187	954	1,197	243	25.5
	Imports	5,299	3,560	3,029	2,715	2,382	-333	-12.3
	Trade balance	-3,499	-1,866	-1,842	-1,761	-1,185	576	32.7
ET040	Medical goods:							
	Exports	13,411	14,987	15,059	16,827	18,433	1,606	9.5
	Imports	9,178	10,869	13,232	16,143	19,006	2,863	17.7
	Trade balance	4,232	4,119	1,826	683	-573	-1,257	([3])
ET041	Watches and clocks:							
	Exports	348	279	235	242	271	29	11.8
	Imports	3,354	2,957	3,098	3,291	3,634	343	10.4
	Trade balance	-3,006	-2,678	-2,864	-3,049	-3,363	-314	-10.3

See footnote(s) at end of table.

Table EL-4—*Continued*
Electronic products: U.S. trade for industry/commodity groups and subgroups, 2000–2004[1]

USITC code[2]	Industry/commodity group	2000	2001	2002	2003	2004	Change, 2004 from 2003	
							Absolute	*Percent*
		Million dollars						
ET042	Drawing, drafting, and calculating instruments:							
	Exports	366	395	368	364	397	33	9.0
	Imports	234	207	192	223	264	41	18.4
	Trade balance	132	188	176	141	133	-8	-5.7
ET043	Measuring, testing, and controlling instruments:							
	Exports	16,629	15,605	14,346	14,683	16,603	1,920	13.1
	Imports	11,743	11,806	11,595	12,638	14,367	1,729	13.7
	Trade balance	4,886	3,799	2,751	2,046	2,237	191	9.3

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

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

[3]Not meaningful for purposes of comparison.

Note.—Calculations based on unrounded data.

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

Table EL-5
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET016	Office machines:						
	Number of establishments	137	137	137	137	137	0.0
	Employees (thousands)	11.0	10.0	10.0	9.0	9.0	0.0
	Capacity utilization (percent)	70	51	56	43	43	0.0
	U.S. shipments (million dollars)	2,535	2,827	2,520	1,840	1,340	-27.2
	U.S. exports (million dollars)	1,033	1,061	816	725	682	-5.9
	U.S. imports (million dollars)	1,892	1,817	1,491	1,544	1,732	12.2
	Apparent U.S. consumption (million dollars)	3,394	3,584	3,195	2,659	2,390	-10.1
	Trade balance (million dollars)	-859	-757	-675	-819	-1,050	-28.2
	Ratio of imports to consumption (percent)	55.8	50.7	46.7	58.1	72.5	24.8
	Ratio of exports to shipments (percent)	40.8	37.5	32.4	39.4	50.9	29.2
ET017	Telephone and telegraph apparatus:						
	Number of establishments	1,009	960	890	830	830	0.0
	Employees (thousands)	248.0	191.0	178.0	176.0	178.0	1.1
	Capacity utilization (percent)	75	52	35	32	36	12.5
	U.S. shipments (million dollars)	93,614	80,151	55,212	52,754	55,392	5.0
	U.S. exports (million dollars)	20,147	16,506	12,952	10,946	13,958	27.5
	U.S. imports (million dollars)	32,130	27,174	27,948	30,982	39,341	27.0
	Apparent U.S. consumption (million dollars)	105,596	90,819	70,208	72,791	80,774	11.0
	Trade balance (million dollars)	-11,982	-10,668	-14,996	-20,037	-25,382	-26.7
	Ratio of imports to consumption (percent)	30.4	29.9	39.8	42.6	48.7	14.3
	Ratio of exports to shipments (percent)	21.5	20.6	23.5	20.7	25.2	21.7
ET018	Consumer electronics (except televisions):						
	Number of establishments	215	225	215	205	205	0.0
	Employees (thousands)	21.0	21.0	20.0	19.0	19.0	0.0
	Capacity utilization (percent)	58	58	54	57	57	0.0
	U.S. shipments (million dollars)	4,260	4,200	5,270	5,240	5,210	-0.6
	U.S. exports (million dollars)	2,969	2,791	2,631	2,392	2,518	5.3
	U.S. imports (million dollars)	21,974	19,525	21,455	21,471	24,428	13.8
	Apparent U.S. consumption (million dollars)	23,265	20,934	24,095	24,319	27,121	11.5
	Trade balance (million dollars)	-19,005	-16,734	-18,825	-19,079	-21,911	-14.8
	Ratio of imports to consumption (percent)	94.5	93.3	89.0	88.3	90.1	2.0
	Ratio of exports to shipments (percent)	69.7	66.5	49.9	45.6	48.3	5.9

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET019	Blank media:						
	Number of establishments	230	220	212	210	210	0.0
	Employees (thousands)	15.0	13.0	11.0	9.0	9.0	0.0
	Capacity utilization (percent)	69	80	75	70	67	-4.3
	U.S. shipments (million dollars)	3,402	3,074	2,800	2,600	2,450	-5.8
	U.S. exports (million dollars)	1,420	1,017	970	1,082	1,159	7.1
	U.S. imports (million dollars)	2,415	2,423	2,746	3,127	3,831	22.5
	Apparent U.S. consumption (million dollars)	4,397	4,480	4,576	4,645	5,122	10.3
	Trade balance (million dollars)	-995	-1,406	-1,776	-2,045	-2,672	-30.7
	Ratio of imports to consumption (percent)	54.9	54.1	60.0	67.3	74.8	11.1
	Ratio of exports to shipments (percent)	41.8	33.1	34.6	41.6	47.3	13.7
ET020	Prerecorded media:						
	Number of establishments	680	690	700	708	710	(1)
	Employees (thousands)	29.0	29.0	28.0	27.0	28.0	3.7
	Capacity utilization (percent)	75	66	73	67	70	4.5
	U.S. shipments (million dollars)	5,298	5,728	6,200	6,700	6,750	0.7
	U.S. exports (million dollars)	3,636	3,195	3,069	3,010	3,124	3.8
	U.S. imports (million dollars)	1,389	1,259	1,308	1,436	1,503	4.6
	Apparent U.S. consumption (million dollars)	3,051	3,793	4,439	5,126	5,129	(1)
	Trade balance (million dollars)	2,247	1,935	1,761	1,574	1,621	3.0
	Ratio of imports to consumption (percent)	45.5	33.2	29.5	28.0	29.3	4.6
	Ratio of exports to shipments (percent)	68.6	55.8	49.5	44.9	46.3	3.1
ET021	Navigational instruments and remote control apparatus:						
	Number of establishments	107	107	107	107	107	0.0
	Employees (thousands)	116.0	120.0	119.0	118.0	120.0	1.7
	Capacity utilization (percent)	59	59	59	67	70	4.5
	U.S. shipments (million dollars)	18,500	21,275	22,125	22,000	23,100	5.0
	U.S. exports (million dollars)	2,626	3,102	2,921	2,866	3,082	7.5
	U.S. imports (million dollars)	1,702	1,796	1,858	2,286	2,761	20.8
	Apparent U.S. consumption (million dollars)	17,576	19,969	21,062	21,420	22,779	6.3
	Trade balance (million dollars)	924	1,306	1,063	580	321	-44.7
	Ratio of imports to consumption (percent)	9.7	9.0	8.8	10.7	12.1	13.1
	Ratio of exports to shipments (percent)	14.2	14.6	13.2	13.0	13.3	2.3

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET022	Television receivers and video monitors:						
	Number of establishments	12	10	9	8	8	0.0
	Employees (thousands)	8.0	7.0	6.0	6.0	6.0	0.0
	Capacity utilization (percent)	58	58	54	57	57	0.0
	U.S. shipments (million dollars)	3,410	3,040	3,285	3,830	4,465	16.6
	U.S. exports (million dollars)	1,164	1,237	1,257	809	874	8.1
	U.S. imports (million dollars)	7,713	8,615	10,586	12,654	17,509	38.4
	Apparent U.S. consumption (million dollars)	9,959	10,418	12,614	15,675	21,101	34.6
	Trade balance (million dollars)	-6,549	-7,378	-9,329	-11,845	-16,636	-40.4
	Ratio of imports to consumption (percent)	77.4	82.7	83.9	80.7	83.0	2.9
	Ratio of exports to shipments (percent)	34.1	40.7	38.3	21.1	19.6	-7.1
ET023	Radio and television broadcasting equipment:						
	Number of establishments	160	165	170	175	170	-2.9
	Employees (thousands)	15.0	13.0	12.0	11.0	10.0	-9.1
	Capacity utilization (percent)	73	65	56	52	52	0.0
	U.S. shipments (million dollars)	4,030	3,490	3,305	2,880	2,510	-12.8
	U.S. exports (million dollars)	2,602	2,321	1,364	1,241	1,335	7.5
	U.S. imports (million dollars)	7,178	6,066	4,977	4,120	4,309	4.6
	Apparent U.S. consumption (million dollars)	8,606	7,235	6,918	5,759	5,484	-4.8
	Trade balance (million dollars)	-4,576	-3,745	-3,613	-2,879	-2,974	-3.3
	Ratio of imports to consumption (percent)	83.4	83.8	71.9	71.5	78.6	9.9
	Ratio of exports to shipments (percent)	64.6	66.5	41.3	43.1	53.2	23.4
ET024	Electric sound and visual signaling apparatus:						
	Number of establishments	499	499	499	499	499	0.0
	Employees (thousands)	23.0	28.0	26.0	25.0	24.0	-4.0
	Capacity utilization (percent)	71	66	66	63	63	0.0
	U.S. shipments (million dollars)	3,998	4,636	4,886	4,580	4,293	-6.3
	U.S. exports (million dollars)	851	949	1,042	937	1,098	17.2
	U.S. imports (million dollars)	2,334	1,968	1,797	1,845	2,145	16.3
	Apparent U.S. consumption (million dollars)	5,481	5,656	5,641	5,488	5,340	-2.7
	Trade balance (million dollars)	-1,483	-1,020	-755	-908	-1,047	-15.4
	Ratio of imports to consumption (percent)	42.6	34.8	31.9	33.6	40.2	19.6
	Ratio of exports to shipments (percent)	21.3	20.5	21.3	20.5	25.6	24.9

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET025	Electrical capacitors and resistors:						
	Number of establishments	276	267	214	253	220	-13.0
	Employees (thousands)	27.0	24.0	19.0	22.0	20.0	-9.1
	Capacity utilization (percent)	80	45	50	54	60	11.1
	U.S. shipments (million dollars)	3,768	2,510	1,983	2,346	2,405	2.5
	U.S. exports (million dollars)	3,410	2,002	1,706	1,623	1,664	2.5
	U.S. imports (million dollars)	4,177	2,333	2,093	1,964	2,035	3.6
	Apparent U.S. consumption (million dollars)	4,535	2,841	2,369	2,687	2,776	3.3
	Trade balance (million dollars)	-767	-331	-386	-341	-371	-8.8
	Ratio of imports to consumption (percent)	92.1	82.1	88.3	73.1	73.3	([1])
	Ratio of exports to shipments (percent)	90.5	79.8	86.0	69.2	69.2	0.0
ET026	Printed circuits:						
	Number of establishments	694	641	435	515	498	-3.3
	Employees (thousands)	86.0	72.0	51.0	60.0	58.0	-3.3
	Capacity utilization (percent)	77	49	51	60	65	8.3
	U.S. shipments (million dollars)	12,532	9,414	6,129	7,250	7,642	5.4
	U.S. exports (million dollars)	2,865	2,089	1,853	1,742	1,836	5.4
	U.S. imports (million dollars)	2,988	2,141	1,896	1,785	2,113	18.4
	Apparent U.S. consumption (million dollars)	12,655	9,467	6,173	7,294	7,919	8.6
	Trade balance (million dollars)	-123	-53	-44	-44	-277	-533.7
	Ratio of imports to consumption (percent)	23.6	22.6	30.7	24.5	26.7	9.0
	Ratio of exports to shipments (percent)	22.9	22.2	30.2	24.0	24.0	0.0
ET027	Circuit apparatus exceeding 1000V:						
	Number of establishments	210	200	200	200	200	0.0
	Employees (thousands)	17.0	16.0	15.0	14.0	15.0	7.1
	Capacity utilization (percent)	80	60	60	60	60	0.0
	U.S. shipments (million dollars)	5,500	4,150	3,800	3,600	3,800	5.6
	U.S. exports (million dollars)	701	612	549	487	507	4.0
	U.S. imports (million dollars)	386	357	338	272	309	13.7
	Apparent U.S. consumption (million dollars)	5,185	3,895	3,589	3,385	3,603	6.4
	Trade balance (million dollars)	315	255	211	215	197	-8.4
	Ratio of imports to consumption (percent)	7.4	9.2	9.4	8.0	8.6	7.5
	Ratio of exports to shipments (percent)	12.7	14.7	14.4	13.5	13.3	-1.5

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET028	Circuit apparatus not exceeding 1000V:						
	Number of establishments	620	600	600	600	600	0.0
	Employees (thousands)	55.0	52.0	46.0	43.0	46.0	7.0
	Capacity utilization (percent)	80	60	60	60	60	0.0
	U.S. shipments (million dollars)	17,000	13,000	11,800	11,200	11,800	5.4
	U.S. exports (million dollars)	6,101	5,098	4,478	4,431	5,138	16.0
	U.S. imports (million dollars)	6,872	5,280	4,933	5,127	6,259	22.1
	Apparent U.S. consumption (million dollars)	17,771	13,182	12,255	11,896	12,920	8.6
	Trade balance (million dollars)	-771	-182	-455	-696	-1,120	-61.0
	Ratio of imports to consumption (percent)	38.7	40.1	40.2	43.1	48.4	12.3
	Ratio of exports to shipments (percent)	35.9	39.2	37.9	39.6	43.5	9.8
ET031	Cathode-ray tubes:						
	Number of establishments	16	15	14	13	12	-7.7
	Employees (thousands)	13.0	12.0	11.0	7.0	6.0	-14.3
	Capacity utilization (percent)	80	64	73	74	74	0.0
	U.S. shipments (million dollars)	3,458	2,847	2,486	1,460	860	-41.1
	U.S. exports (million dollars)	2,435	2,056	1,762	1,202	998	-16.9
	U.S. imports (million dollars)	634	612	607	577	673	16.7
	Apparent U.S. consumption (million dollars)	1,657	1,403	1,331	835	535	-35.9
	Trade balance (million dollars)	1,801	1,444	1,155	625	325	-48.0
	Ratio of imports to consumption (percent)	38.3	43.6	45.6	69.1	[2]125.8	82.1
	Ratio of exports to shipments (percent)	70.4	72.2	70.9	82.3	[2]116.1	41.1
ET032	Electron tubes other than CRTs:						
	Number of establishments	40	38	35	33	35	6.1
	Employees (thousands)	4.0	4.0	4.0	4.0	4.0	0.0
	Capacity utilization (percent)	80	64	64	60	65	8.3
	U.S. shipments (million dollars)	730	661	628	594	650	9.4
	U.S. exports (million dollars)	209	178	180	165	175	6.2
	U.S. imports (million dollars)	213	271	247	203	195	([1])
	Apparent U.S. consumption (million dollars)	734	754	694	632	671	6.0
	Trade balance (million dollars)	-4	-93	-66	-38	-21	46.4
	Ratio of imports to consumption (percent)	29.1	36.0	35.5	32.1	29.1	-9.3
	Ratio of exports to shipments (percent)	28.7	27.0	28.7	27.7	26.9	-2.9

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET033	Semiconductors and integrated circuits:						
	Number of establishments	1,241	1,194	1,190	1,291	1,274	-1.3
	Employees (thousands)	216.0	189.0	180.0	226.0	223.0	-1.3
	Capacity utilization (percent)	87	57	57	86	87	1.2
	U.S. shipments (million dollars)	90,880	63,109	63,659	73,140	77,229	5.6
	U.S. exports (million dollars)	44,828	33,455	31,738	35,712	35,130	-1.6
	U.S. imports (million dollars)	47,448	30,016	25,651	24,190	26,256	8.5
	Apparent U.S. consumption (million dollars)	93,499	59,670	57,572	61,618	68,355	10.9
	Trade balance (million dollars)	-2,619	3,439	6,087	11,522	8,874	-23.0
	Ratio of imports to consumption (percent)	50.7	50.3	44.6	39.3	38.4	-2.3
	Ratio of exports to shipments (percent)	49.3	53.0	49.9	48.8	45.5	-6.8
ET035	Computers, peripherals, and parts:						
	Number of establishments	750	730	715	715	720	0.7
	Employees (thousands)	205.0	193.0	177.0	175.0	177.0	1.1
	Capacity utilization (percent)	66	62	59	65	68	4.6
	U.S. shipments (million dollars)	110,028	89,528	82,100	84,000	84,500	0.6
	U.S. exports (million dollars)	45,392	38,125	29,534	28,038	27,350	-2.5
	U.S. imports (million dollars)	90,384	74,547	75,817	76,940	89,264	16.0
	Apparent U.S. consumption (million dollars)	155,019	125,950	128,383	132,902	146,414	10.2
	Trade balance (million dollars)	-44,991	-36,422	-46,283	-48,902	-61,914	-26.6
	Ratio of imports to consumption (percent)	58.3	59.2	59.1	57.9	61.0	5.4
	Ratio of exports to shipments (percent)	41.3	42.6	36.0	33.4	32.4	-3.0
ET036	Photographic film and paper:						
	Number of establishments	310	310	310	310	300	-3.2
	Employees (thousands)	34.0	33.0	34.0	30.0	30.0	0.0
	Capacity utilization (percent)	80	65	69	72	72	0.0
	U.S. shipments (million dollars)	11,866	9,766	9,210	7,390	5,900	-20.2
	U.S. exports (million dollars)	2,755	1,953	2,127	2,233	2,182	-2.3
	U.S. imports (million dollars)	2,205	1,856	1,865	1,820	1,951	7.2
	Apparent U.S. consumption (million dollars)	11,316	9,670	8,948	6,977	5,669	-18.7
	Trade balance (million dollars)	550	96	262	413	231	-44.0
	Ratio of imports to consumption (percent)	19.5	19.2	20.8	26.1	34.4	31.8
	Ratio of exports to shipments (percent)	23.2	20.0	23.1	30.2	37.0	22.5

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET037	Optical fibers, optical fiber bundles and cables:						
	Number of establishments	72	60	45	47	47	0.0
	Employees (thousands)	15.0	13.0	8.0	8.0	9.0	12.5
	Capacity utilization (percent)	88	88	52	54	58	7.4
	U.S. shipments (million dollars)	5,800	5,300	3,000	2,400	2,600	8.3
	U.S. exports (million dollars)	1,888	1,689	474	437	383	-12.2
	U.S. imports (million dollars)	1,399	1,244	252	210	310	47.8
	Apparent U.S. consumption (million dollars)	5,312	4,854	2,778	2,173	2,526	16.3
	Trade balance (million dollars)	488	446	222	227	74	-67.5
	Ratio of imports to consumption (percent)	26.3	25.6	9.1	9.6	12.3	28.1
	Ratio of exports to shipments (percent)	32.5	31.9	15.8	18.2	14.7	-19.2
ET038	Optical goods, including ophthalmic goods:						
	Number of establishments	1,000	900	850	855	850	-0.6
	Employees (thousands)	70.0	60.0	50.0	50.0	50.0	0.0
	Capacity utilization (percent)	68	68	54	52	53	1.9
	U.S. shipments (million dollars)	8,515	7,960	7,700	7,800	7,800	0.0
	U.S. exports (million dollars)	3,995	3,727	3,548	3,309	3,992	20.6
	U.S. imports (million dollars)	5,881	4,957	4,142	4,495	5,386	19.8
	Apparent U.S. consumption (million dollars)	10,402	9,190	8,294	8,986	9,195	2.3
	Trade balance (million dollars)	-1,887	-1,230	-594	-1,186	-1,395	-17.5
	Ratio of imports to consumption (percent)	56.5	53.9	49.9	50.0	58.6	17.2
	Ratio of exports to shipments (percent)	46.9	46.8	46.1	42.4	51.2	20.8
ET039	Photographic cameras and equipment:						
	Number of establishments	375	350	355	350	350	0.0
	Employees (thousands)	16.0	13.0	11.0	9.0	8.0	-11.1
	Capacity utilization (percent)	53	54	59	70	70	0.0
	U.S. shipments (million dollars)	4,003	2,906	2,130	2,440	2,785	14.1
	U.S. exports (million dollars)	1,800	1,694	1,187	954	1,197	25.5
	U.S. imports (million dollars)	5,299	3,560	3,029	2,715	2,382	([1])
	Apparent U.S. consumption (million dollars)	7,502	4,772	3,972	4,201	3,970	-5.5
	Trade balance (million dollars)	-3,499	-1,866	-1,842	-1,761	-1,185	32.7
	Ratio of imports to consumption (percent)	70.6	74.6	76.2	64.6	60.0	-7.1
	Ratio of exports to shipments (percent)	45.0	58.3	55.7	39.1	43.0	10.0

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET040	Medical goods:						
	Number of establishments	2,345	2,350	2,350	2,380	2,385	([1])
	Employees (thousands)	185.0	188.0	190.0	192.0	193.0	0.5
	Capacity utilization (percent)	68	65	63	68	68	0.0
	U.S. shipments (million dollars)	33,075	37,000	41,440	44,755	45,700	2.1
	U.S. exports (million dollars)	13,411	14,987	15,059	16,827	18,433	9.5
	U.S. imports (million dollars)	9,178	10,869	13,232	16,143	19,006	17.7
	Apparent U.S. consumption (million dollars)	28,843	32,881	39,614	44,072	46,273	5.0
	Trade balance (million dollars)	4,232	4,119	1,826	683	-573	([3])
	Ratio of imports to consumption (percent)	31.8	33.1	33.4	36.6	41.1	12.3
	Ratio of exports to shipments (percent)	40.5	40.5	36.3	37.6	40.3	7.2
ET041	Watches and clocks:						
	Number of establishments	145	145	140	140	140	0.0
	Employees (thousands)	7.0	6.0	6.0	6.0	6.0	0.0
	Capacity utilization (percent)	61	55	51	46	46	0.0
	U.S. shipments (million dollars)	784	723	638	573	515	-10.1
	U.S. exports (million dollars)	348	279	235	242	271	11.8
	U.S. imports (million dollars)	3,354	2,957	3,098	3,291	3,634	10.4
	Apparent U.S. consumption (million dollars)	3,790	3,401	3,502	3,622	3,878	7.1
	Trade balance (million dollars)	-3,006	-2,678	-2,864	-3,049	-3,363	-10.3
	Ratio of imports to consumption (percent)	88.5	86.9	88.5	90.9	93.7	3.1
	Ratio of exports to shipments (percent)	44.4	38.6	36.8	42.3	52.6	24.3
ET042	Drawing, drafting, and calculating instruments:						
	Number of establishments	175	175	175	175	175	0.0
	Employees (thousands)	7.0	7.0	7.0	7.0	7.0	0.0
	Capacity utilization (percent)	64	69	64	64	69	7.8
	U.S. shipments (million dollars)	528	570	530	525	572	9.0
	U.S. exports (million dollars)	366	395	368	364	397	9.0
	U.S. imports (million dollars)	234	207	192	223	264	18.4
	Apparent U.S. consumption (million dollars)	396	382	354	384	439	14.3
	Trade balance (million dollars)	132	188	176	141	133	-5.7
	Ratio of imports to consumption (percent)	59.1	54.3	54.1	58.1	60.2	3.6
	Ratio of exports to shipments (percent)	69.3	69.4	69.4	69.4	69.4	0.0

See footnote(s) at end of table.

Table EL-5—*Continued*
Electronic products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2000–2004

USITC code	Industry/commodity group	2000	2001	2002	2003	2004	Percent change, 2004 from 2003
ET043	Measuring, testing, and controlling instruments:						
	Number of establishments	3,235	3,235	3,235	3,235	3,235	0.0
	Employees (thousands)	245.0	245.0	245.0	245.0	245.0	0.0
	Capacity utilization (percent)	75	70	65	66	75	13.6
	U.S. shipments (million dollars)	42,719	40,156	36,944	37,830	42,745	13.0
	U.S. exports (million dollars)	16,629	15,605	14,346	14,683	16,603	13.1
	U.S. imports (million dollars)	11,743	11,806	11,595	12,638	14,367	13.7
	Apparent U.S. consumption (million dollars)	37,833	36,357	34,193	35,784	40,508	13.2
	Trade balance (million dollars)	4,886	3,799	2,751	2,046	2,237	9.3
	Ratio of imports to consumption (percent)	31.0	32.5	33.9	35.3	35.5	0.6
	Ratio of exports to shipments (percent)	38.9	38.9	38.8	38.8	38.8	0.0

[1] Less than 0.05 percent.
[2] Inventory changes, for which data are not available, likely account for ratios that exceed 100 percent.
[3] Not meaningful.

Note.—Calculations based on unrounded data.

Source: 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.