

# China

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## *Change in 2006 from 2005:*

**U.S. trade deficit: Increased by \$31.6 billion (16 percent) to \$235.4 billion**

**U.S. exports: Increased by \$12.8 billion (33 percent) to \$51.6 billion**

**U.S. imports: Increased by \$44.4 billion (18 percent) to \$287.1 billion**

The U.S. merchandise trade deficit with China, the second largest trading partner of the U.S., increased from 2005-06, reflecting the continued U.S. demand for goods produced in China (table CHINA-1). China accounted for 26 percent of the entire U.S. merchandise trade deficit in 2006 (table US-3) and 55 percent of the increase in the trade deficit. China was the fourth-largest export market for the United States and the second-leading import source.

Continuing the trend in preceding years, U.S. exports to China rose in 2006 by 33 percent to \$51.6 billion. Every major sector, with the exception of miscellaneous manufactures, experienced double-digit percent increases. Sectors that experienced the greatest percent increases in exports were minerals and metals (48 percent), electronic products (40 percent), and transportation equipment (39 percent).

U.S. imports from China increased by \$44.4 billion (18 percent) in 2006. The largest growth was in electronic products (\$16.4 billion, or 19 percent), minerals and metals (\$5.9 billion, or 34 percent), and miscellaneous manufactures (\$5.0 billion, or 11 percent). The three leading U.S. import sectors, in terms of absolute value, continued to be electronic products (\$103.1 billion), miscellaneous manufactures (\$51.4 billion), and textiles and apparel (\$31.3 billion).

## ***U.S. Exports***

U.S. exports to China rose at a greater rate than the preceding years, by \$12.8 billion, or 33 percent. The most significant increases in U.S. exports were in electronic products (\$3.2 billion, or 40 percent), transportation equipment (\$2.5 billion, or 39 percent), and minerals and metals (\$2.5 billion, or 48 percent) (table CHINA-2). Together these sectors accounted for 64 percent of the total increase, in terms of absolute value, in 2006.

In the electronic products sector, U.S. exports of semiconductors and integrated circuits increased by \$2 billion (73 percent) over 2005. Record growth of global semiconductor sales in 2006 contributed to the growth in U.S. exports, as global semiconductor sales increased by 9 percent to a high of \$247.7 billion.<sup>1</sup> Sales were mainly driven by increased demand for consumer products such as cell phones, MP3 players, high-definition television sets, and personal computers. China continues to grow as the world's leading semiconductor market, because a large portion of the world's electronic goods is manufactured there. Therefore, strong and broad worldwide electronic product demand resulted in the large increase in U.S. semiconductor exports in 2006.

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<sup>1</sup> McClean, Matas, and Yancey, *The McClean Report*; and SIA, "Global Chip Sales Hit Record \$247.7 Billion in 2006."

**TABLE CHINA-1** China: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by major industry/commodity sectors, 2002–06<sup>a</sup>

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005		
						Absolute	Percent	
	<i>Million dollars</i>							
U.S. exports of domestic merchandise:								
Agricultural products	2,128	5,129	5,879	5,648	7,264	1,616	28.6	
Forest products	1,058	1,314	1,651	1,995	2,572	577	28.9	
Chemicals and related products	3,069	3,816	5,061	5,831	6,863	1,033	17.7	
Energy-related products	142	180	289	221	307	86	38.9	
Textiles and apparel	339	405	501	629	731	102	16.2	
Footwear	35	36	31	41	57	16	39.2	
Minerals and metals	1,539	2,636	3,197	5,215	7,736	2,521	48.3	
Machinery	2,730	3,091	4,729	4,275	5,296	1,021	23.9	
Transportation equipment	4,293	3,757	3,835	6,440	8,973	2,533	39.3	
Electronic products	4,855	5,934	6,902	7,951	11,111	3,160	39.7	
Miscellaneous manufactures	137	143	185	222	230	9	4.0	
Special provisions	228	266	346	389	483	95	24.4	
Total	20,553	26,707	32,606	38,857	51,624	12,767	32.9	
U.S. imports of merchandise for consumption:								
Agricultural products	1,896	2,470	2,925	3,365	4,303	938	27.9	
Forest products	2,749	3,362	4,398	5,463	6,630	1,167	21.4	
Chemicals and related products	6,262	7,438	9,287	12,240	14,389	2,149	17.6	
Energy-related products	457	561	1,063	1,023	1,139	116	11.4	
Textiles and apparel	12,602	15,426	18,902	26,937	31,284	4,347	16.1	
Footwear	10,242	10,546	11,348	12,654	13,795	1,141	9.0	
Minerals and metals	8,656	10,054	13,890	17,553	23,462	5,909	33.7	
Machinery	10,467	13,922	17,585	21,314	25,916	4,602	21.6	
Transportation equipment	2,302	3,072	4,548	6,072	8,133	2,062	34.0	
Electronic products	36,270	47,150	69,153	86,716	103,117	16,401	18.9	
Miscellaneous manufactures	31,490	35,812	40,712	46,411	51,416	5,005	10.8	
Special provisions	1,401	1,808	2,348	2,891	3,467	576	19.9	
Total	124,796	151,620	196,160	242,638	287,052	44,414	18.3	
U.S. merchandise trade balance:								
Agricultural products	232	2,659	2,954	2,283	2,961	678	29.7	
Forest products	-1,691	-2,048	-2,747	-3,468	-4,058	-590	-17.0	
Chemicals and related products	-3,193	-3,622	-4,225	-6,409	-7,526	-1,117	-17.4	
Energy-related products	-315	-381	-774	-802	-832	-30	-3.8	
Textiles and apparel	-12,263	-15,021	-18,401	-26,308	-30,553	-4,245	-16.1	
Footwear	-10,207	-10,510	-11,317	-12,613	-13,738	-1,125	-8.9	
Minerals and metals	-7,117	-7,418	-10,692	-12,339	-15,726	-3,388	-27.5	
Machinery	-7,737	-10,831	-12,856	-17,039	-20,620	-3,581	-21.0	
Transportation equipment	1,990	686	-713	369	840	471	127.6	
Electronic products	-31,414	-41,216	-62,251	-78,764	-92,006	-13,242	-16.8	
Miscellaneous manufactures	-31,353	-35,669	-40,527	-46,189	-51,186	-4,996	-10.8	
Special provisions	-1,173	-1,542	-2,002	-2,502	-2,984	-481	-19.2	
Total	-104,243	-124,913	-163,553	-203,781	-235,428	-31,647	-15.5	

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

Note.—Calculations based on unrounded data.

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

Exports of aircraft, spacecraft, and related equipment led the increase in U.S. exports of transportation equipment, increasing by over \$1.7 billion (39 percent) in 2006 to \$6.0 billion. Most U.S. exports to China were large civil aircraft (LCA), which rose to meet market demand in China. Orders of LCA that were placed 18 to 24 months beforehand were delivered during 2006.

Copper and related articles led export increases in the minerals and metals sector,<sup>2</sup> increasing by \$813 million (96 percent) to \$1.7 billion, as did unwrought aluminum, increasing by \$810 million (111 percent) to \$1.5 billion in 2006. Various forms of unalloyed and alloyed copper waste and scrap accounted for 86 percent of all copper and related articles exported to China in 2006. China has emerged in recent years as the largest foreign market for U.S. copper waste and scrap, as supplies of both ferrous and nonferrous scrap were increasingly sought from abroad to meet the growing demand of its rapidly expanding metals sector.<sup>3</sup> The value of U.S. exports more than doubled in 2006 in response to an 85 percent increase in copper prices,<sup>4</sup> as mine and refinery production failed to keep pace with rising demand worldwide.<sup>5</sup> Similar to copper, U.S. exports of aluminum waste and scrap were fueled by market demand in China, leading to increased demand for sector products such as unwrought aluminum, including waste and scrap. China is a significant market for aluminum scrap due to rapid industrialization in the country and the lack of domestically available aluminum scrap. The largest consumers of aluminum scrap in China are aluminum diecasters that manufacture products such as ingots.<sup>6</sup>

Two sectors that experienced large decreases in U.S. exports to China in 2006, in terms of absolute value, were organic commodity chemicals and fertilizers. Organic commodity chemicals decreased by \$160 million (49 percent) to \$167 million. China increased its domestic production and its imports from closer, lower cost producers in Asia and the Middle East, thereby reducing its imports of U.S. organic commodity chemicals.<sup>7</sup> Increased Chinese domestic production of fertilizers also contributed to a decrease in U.S. exports of \$128 million (36 percent) to \$226 million in 2006.<sup>8</sup>

Another sector that saw a large decline in U.S. exports to China was molybdenum ore and concentrates; such exports were valued at \$20 million in 2006, declining by \$144 million (88 percent) over the 2005 level. Average annual prices for molybdenum decreased by 25 percent over this period, and a declining volume (from 4,388 metric tons in 2005 to 3,983 metric tons in 2006) was shipped to China, which led to the drop in U.S. exports.<sup>9</sup> Additionally, a greater share of domestically produced molybdenum concentrates were

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<sup>2</sup> See “Copper and Related Articles” in the Minerals and Metals chapter.

<sup>3</sup> Barry, “What’s Behind the Waning of China’s Insatiable Appetite for Copper?”

<sup>4</sup> Prices for copper products, including waste and scrap, are based on prices for refined copper cathodes, which nearly quadrupled over the 2002-06 period, and escalated from second quarter 2005 through third quarter 2006. Average annual domestic producer prices for cathodes were \$3.20 per pound in 2006 compared to \$1.73 per pound in 2005. Barry, “Copper Scrap Prices Pushed Higher”; U.S. government official, telephone interview by Commission staff, January 31, 2006; and Edelstein, “Copper.”

<sup>5</sup> World Bureau of Metal Statistics, *World Metal Statistics*.

<sup>6</sup> See “Unwrought Aluminum” in the Minerals and Metals chapter.

<sup>7</sup> U.S. industry officials, interviews by Commission staff, November 3, 2006.

<sup>8</sup> U.S. industry official, e-mail communication with Commission staff, March 8, 2007.

<sup>9</sup> Average annual prices of molybdenum contained in technical-grade molybdenic oxide fell to \$53.10 per kilogram in 2006 from \$70.68 per kilogram in 2005. Platts, *Metals Week*.

**TABLE CHINA-2** Leading changes in U.S. exports to and U.S. imports from China, 2002–06<sup>a</sup>

Sector/commodity	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
<b>U.S. EXPORTS:</b>							
<b>Increases:</b>							
Semiconductors and integrated circuits (ET033) . . . . .	1,238	2,025	2,303	2,676	4,633	1,957	73.1
Aircraft, spacecraft, and related equipment (ET013) . .	3,367	2,447	1,948	4,338	6,047	1,709	39.4
Minerals and metals:							
Copper and related articles (MM036) . . . . .	274	596	608	852	1,665	813	95.5
Unwrought aluminum (MM037) . . . . .	170	240	356	730	1,540	810	111.0
<b>Decreases:</b>							
Chemicals and related products:							
Organic commodity chemicals (CH010) . . . . .	90	287	430	327	167	-160	-49.0
Fertilizers (CH016) . . . . .	671	475	321	354	226	-128	-36.2
Minerals and metals:							
Plates, sheets, and strips of stainless steels (MM025G) . . . . .	12	97	68	178	59	-119	-67.0
Certain ores, concentrates, ash, and residues (MM007) . . . . .	3	9	24	182	66	-115	-63.6
<b>All other</b> . . . . .	14,729	20,532	26,549	29,220	37,222	8,002	27.4
<b>TOTAL</b> . . . . .	20,553	26,707	32,606	38,857	51,624	12,767	32.9
<b>U.S. IMPORTS:</b>							
<b>Increases:</b>							
Electronic products:							
Computers, peripherals, and parts (ET035) . . . . .	14,928	22,141	33,985	40,298	46,583	6,284	15.6
Telephone and telegraph apparatus (ET017) . . . . .	4,659	5,932	9,556	14,410	18,083	3,673	25.5
Television receivers and video monitors (ET022) . . .	849	1,490	2,438	5,130	7,836	2,706	52.8
Apparel (CH049) . . . . .	9,602	11,408	13,640	19,962	23,191	3,229	16.2
Steel mill products (MM025) . . . . .	264	269	1,104	1,687	3,605	1,918	113.7
<b>Decreases:</b>							
Electronic products:							
Photographic cameras and equipment (ET039) . . . .	766	843	760	622	471	-152	-24.4
Photographic film and paper (ET036) . . . . .	5	40	175	159	58	-101	-63.6

**TABLE CHINA-2** Leading changes in U.S. exports to and U.S. imports from China, 2002–06<sup>a</sup>—*Continued*

Sector/commodity	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
	<i>Million dollars</i>						
Other plastics in primary forms (CH036) . . . . .	133	131	197	246	160	-85	-34.8
Ferroalloys (MM022) . . . . .	49	88	269	351	280	-71	-20.2
<b>All other</b> . . . . .	93,539	109,279	134,036	159,773	186,786	27,013	16.9
<b>TOTAL</b> . . . . .	124,796	151,620	196,160	242,638	287,052	44,414	18.3

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

Note.—Calculations based on unrounded data.

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

roasted (i.e., processed into intermediate molybdc oxide) in the United States, rather than being sent abroad for processing. Domestic roasters returned to full production by late 2005, as an additional roasting facility came onstream in 2006.<sup>10</sup>

### ***U.S. Imports***

Growing demand for products from China contributed to a \$44.4 billion (18 percent) increase in U.S. imports in 2006. In terms of absolute value, electronic products, minerals and metals, and miscellaneous manufactures accounted for the largest increases in U.S. imports, collectively accounting for 62 percent of the total increase.

The two electronics sectors that experienced the largest increases in U.S. imports in 2006, in terms of absolute value, were computers, peripherals, and parts,<sup>11</sup> and telephone and telegraph apparatus.<sup>12</sup> Increased demand for computer and telecommunications products by U.S. consumers contributed to continued growth in U.S. imports from China, increasing by \$6.3 billion (16 percent) and \$3.7 billion (26 percent), respectively. In 2006, the U.S. telecommunications market grew by the largest percentage since 2000, with demand for services such as broadband leading to increased demand for telecommunications and network equipment.<sup>13</sup> In the computer sector, decreasing prices and the demand for portability caused U.S. imports of notebook computers from China to increase to \$12.8 billion in 2006.

Apparel products were another sector that registered substantial increases in U.S. imports in 2006, by \$3.2 billion (16 percent) to \$23.2 billion. Imports of apparel in 2005, the year after the expiration of the Multilateral Agreement on Textiles and Clothing (ATC), were limited by certain bilateral safeguards (quotas) that were to expire at the end of 2005. However, the United States and China reached agreement on a memorandum of understanding (MOU) to limit certain apparel imports from China in 2006. Under the MOU, fewer products were subject to quotas compared to the earlier safeguards, and quotas were established at higher levels than in 2005, factors that contributed to the 2006 increase in U.S. imports in this sector.

U.S. imports of photographic cameras and equipment along with film and paper decreased by \$253 million in 2006. The decline in these categories was led by decreases in imports of photographic plates and film, 35mm cameras, and analog camera parts and accessories. Notwithstanding this decline, China continues to be the leading supplier of photographic cameras and equipment to the United States, surpassing Japan in 2005. The overall decline appears to be attributable to the ongoing shift in consumer demand from analog cameras and film to digital camera equipment.

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<sup>10</sup> Magyar, "Molybdenum."

<sup>11</sup> See "Computers, Peripherals, and Parts" in the Electronic Products chapter.

<sup>12</sup> See "Telephone and Telegraph Apparatus" in the Electronic Products chapter.

<sup>13</sup> TIA, "TIA Report: Broadband Demand Drives Highest Telecom Industry Growth Since 2000."

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