

Chemicals and Related Products

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Change in 2006 from 2005:

U.S. trade deficit: Decreased by \$0.8 billion (3 percent) to \$29.6 billion

U.S. exports: Increased by \$17.1 billion (13 percent) to \$149.8 billion

U.S. imports: Increased by \$16.4 billion (10 percent) to \$179.4 billion

In 2006, the U.S. trade deficit in chemicals and related products declined slightly after increasing in 2005 (table CH-1). This trade deficit decrease resulted from expanding demand, driven primarily by the continuing growth in the U.S. and other major global economies; the decline of the U.S. dollar relative to the currencies of a number of trading partners; a decline in payrolls along with increased worker productivity; domestic outsourcing; and inventory growth. Natural gas feedstock price increases moderated somewhat in 2006, but the price of crude oil continued to rise, peaking in July, resulting in higher production costs. Prices and demand for chemicals continued to increase, especially during the summer months, creating growth in sales and profits during this period. Medicinal chemicals, miscellaneous plastic products, certain organic chemicals, and miscellaneous inorganic chemicals together accounted for over 52 percent of the total increase in U.S. exports of chemicals and related products in 2006 (table CH-2). Medicinal chemicals, miscellaneous plastic products, pneumatic tires and tubes, and miscellaneous inorganic chemicals together accounted for nearly 76 percent of the total increase in U.S. imports of chemicals and related products in 2006 (table CH-2).

U.S. Exports

U.S. exports increased by \$17.1 billion (13 percent) to \$149.8 billion in 2006. The rise in exports of these products was driven by a number of factors, including the relatively weak U.S. dollar, particularly with respect to the Euro; price increases on goods included in the product mix that led to an increase in the average unit price; changes in U.S. environmental regulations which freed some products for export that had been used domestically; the expansion of joint ventures between U.S. and foreign firms; and some inventory rationalization. Canada and Mexico continued to be the most important U.S. trading partners in 2006 as a result of their proximity to the United States. These two markets together consumed about one-third of sector exports in 2006, owing to the relatively weak U.S. dollar.

U.S. Imports

U.S. imports increased by \$16.4 billion (10 percent) to \$179.4 billion during 2006. Canada was the largest individual supplier of chemicals and related products to the U.S. market, with sales of \$28 billion. Major country groups supplying the U.S. market in 2006 included the EU-25 (principally Ireland, Germany, and the United Kingdom) and Asia (principally China). These groups together accounted for about 64 percent of U.S. imports in 2006.

TABLE CH-1 Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. exports of domestic merchandise:							
Canada	20,115	21,516	23,495	26,412	28,475	2,063	7.8
Mexico	12,444	13,300	15,797	18,122	20,573	2,451	13.5
Ireland	1,270	1,391	1,591	1,656	1,475	-181	-10.9
China	3,069	3,816	5,061	5,831	6,863	1,033	17.7
Germany	2,886	3,769	4,922	5,235	6,601	1,367	26.1
United Kingdom	5,179	5,089	5,413	6,183	7,492	1,309	21.2
Japan	5,762	6,176	7,153	7,797	8,383	586	7.5
France	3,185	3,488	4,142	4,311	4,418	107	2.5
Belgium	5,240	6,856	7,295	7,457	8,793	1,337	17.9
Netherlands	4,127	5,219	7,294	7,659	8,956	1,297	16.9
All other	28,425	31,710	39,220	42,071	47,819	5,747	13.7
Total	91,702	102,330	121,383	132,734	149,848	17,114	12.9
EU-15	25,058	29,275	34,954	37,047	42,357	5,310	14.3
EU-25	25,349	29,633	35,368	37,517	42,988	5,471	14.6
OPEC	1,761	1,621	2,195	2,664	3,447	783	29.4
Latin America	20,713	21,913	26,557	29,910	35,134	5,224	17.5
CBERA	2,188	2,225	2,467	2,833	3,334	501	17.7
Asia	19,754	22,490	27,513	29,618	32,443	2,825	9.5
Sub-Saharan Africa	699	717	867	958	1,235	276	28.8
Central and Eastern Europe	278	333	365	438	493	55	12.6
U.S. imports of merchandise for consumption:							
Canada	16,673	18,440	21,996	25,535	28,036	2,502	9.8
Mexico	3,637	3,779	4,790	5,429	6,347	918	16.9
Ireland	16,282	19,117	19,488	20,409	20,884	474	2.3
China	6,262	7,438	9,287	12,240	14,389	2,149	17.6
Germany	8,892	9,497	11,064	12,116	13,370	1,254	10.4
United Kingdom	8,195	9,450	9,843	9,772	12,207	2,435	24.9
Japan	9,099	10,121	10,684	11,100	10,739	-361	-3.3
France	5,119	6,338	7,333	8,171	8,262	91	1.1
Belgium	2,054	1,895	2,569	2,376	3,444	1,068	44.9
Netherlands	1,523	1,681	1,867	1,969	2,280	311	15.8
All other	29,188	36,165	42,762	53,933	59,452	5,518	10.2
Total	106,924	123,922	141,683	163,050	179,410	16,359	10.0
EU-15	48,700	56,408	62,016	66,942	72,866	5,924	8.8
EU-25	49,828	57,696	63,049	67,858	73,836	5,978	8.8
OPEC	5,024	6,944	9,741	12,237	12,385	148	1.2
Latin America	7,904	8,917	11,315	13,950	14,453	502	3.6
CBERA	1,109	1,724	2,049	2,747	3,053	307	11.2
Asia	22,768	26,810	30,487	36,805	41,739	4,934	13.4
Sub-Saharan Africa	448	598	716	875	778	-97	-11.1
Central and Eastern Europe	1,199	1,385	1,198	1,228	1,228	(^b)	(^c)

See footnote(s) at end of table.

TABLE CH-1 Chemicals and related products: U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a—Continued

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005		
						Absolute	Percent	
	<i>Million dollars</i>							
U.S. merchandise trade balance:								
Canada	3,442	3,076	1,499	878	439	-439	-50.0	
Mexico	8,807	9,521	11,007	12,694	14,226	1,532	12.1	
Ireland	-15,012	-17,727	-17,897	-18,754	-19,409	-655	-3.5	
China	-3,193	-3,622	-4,225	-6,409	-7,526	-1,117	-17.4	
Germany	-6,007	-5,728	-6,142	-6,881	-6,769	112	1.6	
United Kingdom	-3,016	-4,361	-4,429	-3,588	-4,714	-1,126	-31.4	
Japan	-3,337	-3,945	-3,531	-3,304	-2,356	947	28.7	
France	-1,934	-2,850	-3,191	-3,860	-3,844	16	0.4	
Belgium	3,186	4,961	4,726	5,081	5,349	269	5.3	
Netherlands	2,605	3,537	5,427	5,689	6,676	986	17.3	
All other	-763	-4,455	-3,541	-11,862	-11,633	229	1.9	
Total	-15,222	-21,592	-20,299	-30,317	-29,562	755	2.5	
EU-15	-23,642	-27,133	-27,062	-29,895	-30,509	-614	-2.1	
EU-25	-24,479	-28,063	-27,680	-30,341	-30,849	-508	-1.7	
OPEC	-3,263	-5,322	-7,546	-9,574	-8,938	635	6.6	
Latin America	12,809	12,996	15,242	15,960	20,681	4,721	29.6	
CBERA	1,079	501	418	86	280	194	225.4	
Asia	-3,015	-4,320	-2,973	-7,187	-9,295	-2,108	-29.3	
Sub-Saharan Africa	251	118	151	83	457	374	449.7	
Central and Eastern Europe	-921	-1,052	-832	-790	-735	55	7.0	

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

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 2006.

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

^bLess than \$500,000.

^cLess than 0.05 percent.

TABLE CH-2 Leading changes in U.S. exports and imports of chemicals and related products, 2002–06^a

Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. EXPORTS:							
Increases:							
Medicinal chemicals (CH025)	18,742	22,527	27,098	29,296	32,460	3,164	10.8
Certain organic chemicals (CH012)	7,668	8,857	11,283	11,991	14,263	2,271	18.9
Miscellaneous plastic products (CH041)	12,567	13,041	14,307	15,826	17,570	1,744	11.0
Miscellaneous inorganic chemicals (CH013)	4,820	4,903	5,608	7,003	8,737	1,734	24.8
All other	47,904	53,002	63,087	68,617	76,819	8,202	12.0
TOTAL	91,702	102,330	121,383	132,734	149,848	17,114	12.9
U.S. IMPORTS:							
Increases:							
Medicinal chemicals (CH025)	40,699	49,284	52,677	56,104	65,218	9,115	16.2
Miscellaneous plastic products (CH041)	13,459	14,979	17,342	19,994	21,738	1,744	8.7
Miscellaneous inorganic chemicals (CH013)	4,948	5,038	5,714	6,626	7,310	684	10.3
All other	47,818	54,621	65,950	80,327	85,143	4,817	6.0
TOTAL	106,924	123,922	141,683	163,050	179,410	16,359	10.0

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

Note.—Calculations based on unrounded data.

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

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Certain Organic Chemicals¹

Change in 2006 from 2005:

U.S. trade surplus: Increased by \$2.4 billion (52 percent) to \$7.2 billion

U.S. exports: Increased by \$2.3 billion (19 percent) to \$14.3 billion

U.S. imports: Decreased by \$159 million (2 percent) to \$7.1 billion

The 2006 increase in the certain organic chemicals trade surplus was attributable to the rise in exports, slightly augmented by a decrease in imports of certain organic chemicals. U.S. exports increased by \$2.3 billion (19 percent) to \$14.3 billion, largely as a result of the increased exports by U.S. producers of methyl tertiary-butyl ether (MTBE), since domestic use of MTBE was being phased out after May 2006. U.S. sector imports decreased by \$159 million (2 percent) to \$7.1 billion

U.S. Exports

The largest identifiable sector exports were organic acids, esters, and salts, which increased by \$2.5 billion (20 percent) in 2006, and ether functionality chemicals, which increased by \$2.1 billion (75 percent). The principal export destinations for certain organic chemicals in 2006 were Latin America, accounting for \$4.7 billion in U.S. exports, up 26 percent; Asia, \$3.8 billion, up 5 percent; and the EU-25, \$3.3 billion, up 61 percent (table CH-3). These increases were mostly attributable to exports of MTBE for which domestic demand had disappeared. MTBE was being used as a gasoline additive to satisfy a mandate to replace lead in gasoline. This mandate was rescinded by the Energy Policy Act of 2005 because MTBE was found to be ineffective in reducing air pollution and posed a health risk, and the use of MTBE was banned in several states. Consequently, MTBE manufacturers, mostly petrochemical subsidiaries of major oil companies, started aggressively exporting MTBE to make use of their production capacity.²

U.S. Imports

The most important sector chemical imports in 2006 were alcohols and polyols, valued at \$2.4 billion (up 9 percent over 2005), and organic acids, esters, and salts, valued at \$0.9 billion (down 2 percent). The principal import sources of these products in 2006 included the EU-25, with U.S. imports valued at \$2.1 billion, down 4 percent; Asia, \$1.9 billion, up 24 percent; and Latin America, \$1.8 billion, up 8 percent. The small decrease in U.S. imports of certain organic chemicals is associated with reduced imports of

¹ This large commodity group includes a broad miscellany of intermediate noncommodity organic chemicals unrelated to each other by production process or manufacturer, end-uses or markets, or channels of distribution or sales.

² MTBE was originally mandated by Congress in the Clean Air Act Amendments of 1990 as an oxygenate to reduce ground level ozone pollution in reformulated gasoline. It did not prove effective in that use, according to a National Academy of Sciences/National Research Council report. In addition, MTBE was spreading through underground aquifers in some parts of the country because underground petroleum storage tanks were leaking. MTBE is toxic and a carcinogen and imparts a taste to drinking water some people find objectionable. The mandate to use MTBE was rescinded by Congress in the Energy Policy Act of 2005, and several States banned its use within their borders.

TABLE CH-3 Certain organic chemicals (CH012): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. exports of domestic merchandise:							
Mexico	996	1,262	1,848	2,160	2,378	218	10.1
Canada	1,233	1,315	1,533	1,980	1,779	-201	-10.2
Netherlands	499	549	662	582	1,145	564	96.8
China	276	469	717	724	716	-8	-1.1
Japan	493	648	836	828	717	-111	-13.4
Trin & Tobago	9	7	8	11	12	2	15.3
Venezuela	140	58	71	313	732	419	134.0
Belgium	400	582	613	649	868	219	33.7
Korea	565	758	1,004	819	867	48	5.9
Germany	123	155	156	189	226	37	19.8
All other	2,935	3,055	3,835	3,737	4,821	1,085	29.0
Total	7,668	8,857	11,283	11,991	14,263	2,271	18.9
EU-15	1,602	1,810	2,089	2,005	3,160	1,155	57.6
EU-25	1,608	1,820	2,102	2,015	3,238	1,223	60.7
OPEC	233	173	181	506	880	374	74.0
Latin America	2,027	2,241	3,096	3,747	4,714	967	25.8
CBERA	112	97	115	124	219	95	76.4
Asia	2,304	2,926	3,884	3,569	3,761	192	5.4
Sub-Saharan Africa	78	76	78	96	120	24	24.6
Central and Eastern Europe	6	5	5	8	10	2	28.4
U.S. imports of merchandise for consumption:							
Mexico	137	167	160	230	274	44	19.2
Canada	786	524	637	744	698	-46	-6.2
Netherlands	167	161	216	275	216	-59	-21.6
China	176	251	370	564	596	32	5.7
Japan	397	458	495	529	533	4	0.8
Trin & Tobago	221	341	468	715	1,041	326	45.6
Venezuela	294	293	455	388	289	-100	-25.7
Belgium	89	69	76	102	83	-19	-18.6
Korea	67	50	53	81	64	-16	-20.4
Germany	400	439	457	560	661	102	18.2
All other	1,965	2,127	2,424	3,075	2,648	-426	-13.9
Total	4,699	4,878	5,811	7,263	7,103	-159	-2.2
EU-15	1,326	1,358	1,730	2,042	1,958	-84	-4.1
EU-25	1,338	1,367	1,743	2,054	1,968	-86	-4.2
OPEC	826	809	991	1,166	651	-515	-44.1
Latin America	954	1,121	1,364	1,673	1,806	133	8.0
CBERA	223	344	472	719	1,046	327	45.5
Asia	864	1,000	1,126	1,529	1,890	361	23.6
Sub-Saharan Africa	74	129	143	232	153	-80	-34.3
Central and Eastern Europe	13	6	15	17	12	-5	-29.0

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See footnote(s) at end of table.

TABLE CH-3 Certain organic chemicals (CH012): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a—Continued

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. merchandise trade balance:							
Mexico	859	1,095	1,688	1,930	2,104	174	9.0
Canada	447	791	896	1,236	1,081	-155	-12.5
Netherlands	331	389	445	307	930	623	203.1
China	101	218	347	160	120	-40	-24.9
Japan	95	190	341	300	184	-115	-38.5
Trin & Tobago	-212	-334	-460	-704	-1,029	-324	-46.1
Venezuela	-153	-235	-384	-75	444	519	^(b)
Belgium	311	513	537	547	785	238	43.4
Korea	498	708	951	738	803	65	8.8
Germany	-277	-285	-301	-371	-435	-64	-17.3
All other	970	929	1,411	662	2,173	1,511	228.4
Total	2,969	3,979	5,472	4,729	7,159	2,430	51.4
EU-15	276	451	359	-37	1,202	1,239	^(b)
EU-25	270	453	359	-39	1,270	1,309	^(b)
OPEC	-593	-636	-810	-660	229	889	^(b)
Latin America	1,073	1,121	1,732	2,073	2,907	834	40.2
CBERA	-111	-247	-357	-594	-826	-232	-39.0
Asia	1,440	1,926	2,758	2,040	1,871	-169	-8.3
Sub-Saharan Africa	5	-52	-65	-136	-33	103	75.9
Central and Eastern Europe	-6	-1	-10	-10	-2	7	75.8

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

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 2006.

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

^bNot meaningful for purposes of comparison.

MTBE,³ regulation-induced reductions in ozone depleting substances under the Montreal Protocol, and EPA regulations regarding volatile organic chemicals.⁴

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³ *Chemical Week*, "Gasoline Demand Drives MTBE Exports."

⁴ *Air Pollution Consultant*, "ODS Essential Use Allowances for 2006 Finalized."

Miscellaneous Inorganic Chemicals

Change in 2006 from 2005:

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

U.S. exports: Increased by \$1.7 billion (25 percent) to \$8.7 billion

U.S. imports: Increased by \$684 million (10 percent) to \$7.3 billion

The U.S. trade surplus in miscellaneous inorganic chemicals rose from \$377 million in 2005 to \$1.4 billion in 2006. Factors that accounted for the rise in the U.S. trade surplus include a relatively weak U.S. dollar and stronger demand for some U.S.-made inorganic chemicals, which resulted in higher domestic and export prices. In addition, higher prices for many metals were reflected in higher domestic and export prices for many inorganic chemicals containing a metal component.

U.S. Exports

In 2006, U.S. exports of certain catalytic preparations (up by \$510 million), semiconductor grade silicon metal (up by \$407 million), precious metal compounds (up by \$210 million), and aluminum oxide (up by \$183 million) accounted for the dominant portion (\$1.3 billion) of the \$1.7 billion rise in U.S. exports of this product grouping. U.S. exports of certain catalytic preparations were spurred by the activity of U.S.-owned companies that assisted in the construction and maintenance of overseas chemical and related plants, particularly in the petroleum and petrochemical areas. These plants make heavy use of catalyst-related technology. In addition, according to an industry source, U.S. catalyst exports rose in value because many catalysts contain metals that experienced commodity price increases in 2006.⁵ Increased shipments to China, Germany, Mexico, Taiwan, Belgium, and India accounted for most of the increased value of U.S. exports for these catalytic preparations in 2006 (table CH-4).

In 2006, U.S. exports of semiconductor grade silicon rose in value by 49 percent to \$1.2 billion, but only 13 percent by volume to 16,571 metric tons. Thus, an increase in the average unit value was responsible for most of the rise in the value of these exports in 2006. According to an industry source, semiconductor grade silicon registered sharp price increases in 2006 largely because of increased demand for electronic-grade silicon used in solar panels (and for the starting material for this silicon, polysilicon), supplies of which were inadequate.⁶ Increased shipments to Japan, China, Germany, Norway, and Korea accounted for most of the increased value of U.S. exports of semiconductor grade silicon.

⁵ USGS, *Mineral Commodity Summaries*, 2007.

⁶ E-mail from a Representative of the U.S. trade association Semiconductor Equipment and Materials International (SEMI), Washington, DC, March 21, 2007.

TABLE CH-4 Miscellaneous inorganic chemicals (CH013): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. exports of domestic merchandise:							
Japan	629	716	812	1,042	1,280	238	22.8
Canada	921	930	843	1,181	1,343	162	13.7
China	179	196	393	449	846	396	88.2
Germany	243	315	313	374	497	123	33.0
Mexico	487	361	420	534	625	91	17.0
Korea	248	266	304	393	497	103	26.2
Australia	57	68	52	77	110	33	43.2
Taiwan	226	218	287	264	396	132	50.0
United Kingdom	227	223	182	274	287	13	4.8
Netherlands	201	188	196	345	289	-56	-16.2
All other	1,402	1,422	1,805	2,069	2,567	498	24.1
Total	4,820	4,903	5,608	7,003	8,737	1,734	24.8
EU-15	1,072	1,177	1,240	1,675	1,921	247	14.7
EU-25	1,084	1,189	1,264	1,721	1,967	246	14.3
OPEC	171	144	223	215	263	48	22.5
Latin America	755	638	774	896	1,070	174	19.4
CBERA	54	58	70	76	86	9	11.9
Asia	1,715	1,805	2,238	2,633	3,634	1,001	38.0
Sub-Saharan Africa	53	35	54	73	69	-4	-5.2
Central and Eastern Europe	11	16	23	46	32	-14	-29.8
U.S. imports of merchandise for consumption:							
Japan	953	984	1,124	1,254	1,329	75	6.0
Canada	806	875	972	996	1,002	7	0.7
China	387	422	533	683	888	205	30.0
Germany	701	677	705	781	897	116	14.8
Mexico	158	181	211	258	293	34	13.3
Korea	109	105	127	144	167	23	15.8
Australia	313	218	208	286	350	64	22.3
Taiwan	47	45	61	59	62	2	4.1
United Kingdom	146	110	159	148	147	-1	-0.9
Netherlands	79	77	96	121	130	9	7.1
All other	1,250	1,346	1,517	1,896	2,046	151	7.9
Total	4,948	5,038	5,714	6,626	7,310	684	10.3
EU-15	1,397	1,360	1,547	1,715	1,921	206	12.0
EU-25	1,421	1,385	1,571	1,748	1,959	211	12.0
OPEC	15	25	28	42	35	-7	-16.1
Latin America	579	664	689	865	928	63	7.2
CBERA	62	93	36	59	78	19	32.9
Asia	1,594	1,639	1,952	2,274	2,605	331	14.5
Sub-Saharan Africa	69	93	111	169	140	-30	-17.6
Central and Eastern Europe	20	21	27	36	38	2	5.8

See footnote(s) at end of table.

TABLE CH-4 Miscellaneous inorganic chemicals (CH013): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a—*Continued*

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. merchandise trade balance:							
Japan	-324	-268	-312	-212	-49	162	76.7
Canada	115	56	-129	185	340	155	83.8
China	-208	-225	-139	-233	-42	192	82.1
Germany	-458	-363	-392	-407	-400	7	1.8
Mexico	329	181	208	276	332	56	20.4
Korea	139	161	177	250	330	80	32.2
Australia	-255	-150	-156	-209	-240	-31	-14.6
Taiwan	179	173	226	205	334	130	63.3
United Kingdom	81	113	24	126	140	15	11.7
Netherlands	123	111	100	224	159	-65	-28.9
All other	153	77	288	173	521	348	200.9
Total	-128	-135	-106	377	1,426	1,049	278.5
EU-15	-324	-183	-307	-40	^(b)	40	^(c)
EU-25	-337	-196	-308	-28	8	35	^(c)
OPEC	156	118	195	172	228	55	32.0
Latin America	176	-26	86	31	142	111	358.9
CBERA	-8	-35	34	17	7	-10	-59.0
Asia	121	166	286	359	1,029	670	186.4
Sub-Saharan Africa	-16	-58	-56	-96	-70	26	27.0
Central and Eastern Europe	-9	-4	-4	10	-6	-16	^(c)

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

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 2006.

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

^bLess than \$500,000.

^cNot meaningful for purposes of comparison.

U.S. Imports

In 2006, U.S. imports of certain chemicals doped for use in electronics (up by \$165 million), zinc oxides (up by \$116 million), aluminum oxide (up by \$111 million), and ammonium tungstate (up by \$48 million) accounted for \$440 million (64 percent) of the \$684 million rise in U.S. imports of this product grouping. One factor accounting for the rise, particularly for inorganic chemicals containing metals, was the aforementioned sharp increase in commodity metal prices in 2006. According to price estimates compiled by the U.S. Geological Survey, the average prices of zinc, aluminum, and tungsten rose by an estimated 116 percent, 32 percent, and 40 percent, respectively, during 2005–06.⁷

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⁷ USGS, *Mineral Commodity Summaries*, 2007.

Medicinal Chemicals⁸

Change in 2006 from 2005:

U.S. trade deficit: Increased by \$6.0 billion (22 percent) to \$32.8 billion

U.S. exports: Increased by \$3.2 billion (11 percent) to \$32.5 billion

U.S. imports: Increased by \$9.1 billion (16 percent) to \$65.2 billion

In 2006, the U.S. trade deficit in medicinal chemicals continued to rise as U.S. imports increased by 16 percent, outstripping the 11 percent rise in U.S. medicinal exports. Continued strong domestic demand, despite rising raw material costs and the declining dollar, contributed to the increase in the deficit.

The increased U.S. demand for medicinal chemicals in 2006 was the result of the start of the Medicare Part D prescription drug program in January 2006, which increased the number of patients covered by this program. Since its implementation, the volume of retail prescriptions has grown each quarter,⁹ and this increased volume contributed to the rise in U.S. medicinal imports by 16 percent to \$65.2 billion. The importation of new generic products was a factor in the widening deficit, as six drugs with sales of more than \$1 billion lost U.S. patent exclusivity in 2006.

U.S. Exports

U.S. medicinal exports increased by 11 percent to \$32.5 billion in 2006. This increase resulted from the strengthened global economy, which fueled the continuing demand in major U.S. export markets (e.g., the United Kingdom, Switzerland, Germany, and Belgium) for medicinals; the declining value of the U.S. dollar relative to other currencies, especially the Euro; and increasing demand for generic products (table CH-5).¹⁰ In 2006, the EU-25 accounted for \$19.7 billion, or 61 percent, of total U.S. exports of medicinal chemicals, an increase of 10 percent over the 2005 level.

U.S. Imports

U.S. imports of medicinal chemicals increased by \$9.1 billion (16 percent) to \$65.2 billion in 2006. The major suppliers to the U.S. market by value were the same as in 2005, namely Ireland (\$17.1 billion), the United Kingdom (\$8.6 billion), and Germany (\$6.5 billion), accounting for approximately 49 percent of total U.S. medicinal imports in 2006, slightly less than the 51 percent share registered in 2005. The EU-25 as a whole accounted for 74 percent of U.S. imports, again slightly less than its 76 percent share in 2005.

⁸ This industry/commodity group includes pharmaceutical active ingredients and formulated products containing pharmaceutical active ingredients.

⁹ Grimley, *Pharma Challenged*, 22.

¹⁰ *Ibid.*

TABLE CH-5 Medicinal chemicals (CH025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
<i>Million dollars</i>							
U.S. exports of domestic merchandise:							
Ireland	541	604	683	841	703	-138	-16.4
United Kingdom	2,646	2,342	2,574	3,138	4,027	889	28.3
Germany	966	1,656	2,608	2,599	3,196	597	23.0
France	1,775	2,017	2,495	2,580	2,377	-203	-7.9
Canada	2,349	2,706	2,825	2,937	3,200	263	9.0
Netherlands	1,542	2,459	4,071	4,185	4,716	531	12.7
Belgium	1,756	2,190	2,182	2,084	2,574	491	23.5
Switzerland	592	1,057	1,309	1,496	1,874	378	25.3
Japan	1,448	1,492	1,679	1,892	2,077	186	9.8
Singapore	113	116	137	344	210	-134	-39.0
All other	5,014	5,887	6,536	7,200	7,505	305	4.2
Total	18,742	22,527	27,098	29,296	32,460	3,164	10.8
EU-15	10,765	13,078	16,883	17,768	19,611	1,843	10.4
EU-25	10,856	13,189	17,032	17,914	19,745	1,831	10.2
OPEC	197	210	233	251	307	56	22.4
Latin America	1,359	1,491	1,622	1,955	2,314	359	18.4
CBERA	218	240	260	338	310	-28	-8.4
Asia	2,611	2,928	2,905	3,446	3,663	217	6.3
Sub-Saharan Africa	66	113	117	162	201	39	23.8
Central and Eastern Europe	98	114	140	132	107	-25	-19.1
U.S. imports of merchandise for consumption:							
Ireland	14,235	16,199	16,091	16,536	17,088	552	3.3
United Kingdom	5,445	6,426	6,793	6,240	8,627	2,386	38.2
Germany	4,260	4,344	5,267	5,712	6,532	820	14.4
France	2,491	3,405	3,982	4,664	4,600	-64	-1.4
Canada	1,326	1,946	2,228	2,500	3,618	1,118	44.7
Netherlands	578	701	548	502	616	113	22.6
Belgium	1,319	1,167	1,739	1,302	2,318	1,017	78.1
Switzerland	1,658	1,900	1,968	2,325	2,871	546	23.5
Japan	2,536	3,166	3,007	2,816	2,327	-489	-17.3
Singapore	856	1,632	1,512	1,632	2,922	1,290	79.0
All other	5,995	8,399	9,542	11,874	13,698	1,825	15.4
Total	40,699	49,284	52,677	56,104	65,218	9,115	16.2
EU-15	31,761	37,214	40,362	42,605	47,614	5,009	11.8
EU-25	32,287	38,058	40,893	42,900	48,029	5,129	12.0
OPEC	3	3	3	3	5	2	66.9
Latin America	297	319	544	421	441	20	4.7
CBERA	10	11	12	12	8	-4	-31.5
Asia	4,138	5,819	5,549	5,756	6,917	1,161	20.2
Sub-Saharan Africa	6	10	12	11	9	-1	-13.3
Central and Eastern Europe	591	903	619	408	526	118	28.8

See footnote(s) at end of table.

TABLE CH-5 Medicinal chemicals (CH025): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a—*continued*

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005		
						Absolute	Percent	
	<i>Million dollars</i>							
U.S. merchandise trade balance:								
Ireland	-13,694	-15,595	-15,408	-15,408	-15,695	-16,385	-691	-4.4
United Kingdom	-2,798	-4,084	-4,220	-4,220	-3,103	-4,600	-1,497	-48.3
Germany	-3,294	-2,687	-2,658	-2,658	-3,114	-3,336	-223	-7.2
France	-716	-1,388	-1,486	-1,486	-2,084	-2,223	-139	-6.7
Canada	1,023	761	597	597	437	-418	-854	^(b)
Netherlands	963	1,758	3,523	3,523	3,683	4,100	418	11.3
Belgium	436	1,023	443	443	782	256	-526	-67.3
Switzerland	-1,066	-843	-659	-659	-829	-997	-168	-20.3
Japan	-1,087	-1,674	-1,328	-1,328	-924	-250	674	73.0
Singapore	-743	-1,516	-1,376	-1,376	-1,288	-2,712	-1,424	-110.5
All other	-980	-2,512	-3,006	-3,006	-4,674	-6,193	-1,520	-32.5
Total	-21,957	-26,757	-25,578	-25,578	-26,808	-32,758	-5,951	-22.2
EU-15	-20,996	-24,136	-23,479	-23,479	-24,838	-28,004	-3,166	-12.7
EU-25	-21,431	-24,869	-23,860	-23,860	-24,986	-28,283	-3,298	-13.2
OPEC	194	207	231	231	248	302	54	21.9
Latin America	1,063	1,172	1,078	1,078	1,533	1,873	339	22.1
CBERA	208	229	248	248	326	302	-25	-7.5
Asia	-1,527	-2,891	-2,645	-2,645	-2,311	-3,254	-944	-40.9
Sub-Saharan Africa	61	104	105	105	152	192	40	26.5
Central and Eastern Europe	-494	-789	-479	-479	-276	-419	-143	-51.7

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

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 2006.

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

^bNot meaningful for purposes of comparison.

Ireland remained the dominant supplier of medicinal chemicals to the United States in 2006 because of its well-established manufacturing base, highly skilled workers, and favorable tax policy. U.S. imports from Ireland increased by more than 3 percent in 2006, while medicinal imports from the United Kingdom and Germany rose by 38 and 14 percent, respectively. These increases were due, in part, to the implementation of Medicare Part D,¹¹ and demand for certain branded drugs covered in Part D, as well as for generic products.

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¹¹ Medicare Part D is that portion of the Medicare program relating to prescription drugs.

Miscellaneous Plastic Products¹²

Change in 2006 from 2005:

U.S. trade deficit: No change, \$4.2 billion

U.S. exports: Increased by \$1.7 billion (11 percent) to \$17.6 billion

U.S. imports: Increased by \$1.7 billion (9 percent) to \$21.7 billion

After several consecutive years of rises in the U.S. trade deficit for miscellaneous plastic products (MPP), there was virtually no change in the deficit in 2006.¹³ The U.S. deficit with China continued to expand, reaching a record \$5.7 billion, 38 percent above the total U.S. trade deficit in this sector (table CH-6).^{14, 15} On the other hand, the U.S. dollar, which was relatively weak compared to the currencies of most major trading partners, together with the stronger economic performance of these countries, were largely responsible for a significant decline in the U.S. trade deficit with Canada and rising U.S. trade surpluses with Mexico, other Latin American countries, and Hong Kong.¹⁶ In 2006, world demand continued to strengthen for a myriad of plastic consumer items and construction products purchased through mass merchandising discount outlets and retail chains. U.S.-owned firms continued to invest abroad, especially in new primary plastics and MPP projects in Asia. Many of these U.S.-owned production facilities will reportedly export to the U.S. market in the future.^{17, 18}

U.S. Exports

U.S. MPP exports rose by 11 percent to a record \$17.6 billion in 2006, principally because of the improving U.S. and trading partner economies,^{19, 20} growing trade with Canada and Mexico, and the generally lower value of the U.S. dollar relative to foreign currencies.²¹ Exports were also spurred by U.S. and multinational participation in joint venture projects,

¹² This industry/commodity group includes fabricated and semifabricated MPPs used for a wide variety of consumer and industrial products classified in Chapter 39 of the Harmonized Tariff Schedule of the United States (HTS). Selected examples of MPPs include food/commodity packaging films and containers; grocery and shopping bags; miscellaneous household and tableware items; buckets, pails, tarpaulins and other coverings; sporting goods components; Naugahyde® upholstery and flexible case materials; scrap plastics and scrap foam for carpet and other padding; floor and wall coverings; medical goods and gloves; polyester tire cord and strapping; plumbing supplies and fixtures; container closures; belts and hoses; electrical, packaging, and sealing tapes; and vinyl siding, flooring, window frames, doors, and decking products and components.

¹³ The change was less than 0.05 percent.

¹⁴ Some of the reasons cited for the rise in the trade deficit with China include the slow progress of China to adopt more market-oriented foreign exchange policies, outsourcing, and the movement of U.S. manufacturing to low-wage locations in China. Esposito, *Paradigm Shift*, 1, 20.

¹⁵ Frank Esposito, (Plastics News), telephone interview by Commission staff, March 30, 2006.

¹⁶ Council of Economic Advisers, *Economic Report of the President*, 284 (Table B-3).

¹⁷ The United States is typically a net importer of certain MPPs from labor-intensive industries compared to the large net export plastic resins sector, which is generally more automated and relatively less labor intensive.

¹⁸ Blaige, "How to Survive Consolidation," 6–7.

¹⁹ OMB, *Overview of the President's 2008 Budget*.

²⁰ Storck, et al., "World Chemical Outlook," 13–27.

²¹ Federal Reserve, *Foreign Exchange Rates*.

TABLE CH-6 Miscellaneous plastic products (CH041): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005	
						Absolute	Percent
	<i>Million dollars</i>						
U.S. exports of domestic merchandise:							
Canada	3,568	3,766	3,983	4,523	4,894	371	8.2
China	291	354	514	547	714	167	30.5
Mexico	3,752	3,773	4,105	4,544	4,930	387	8.5
Germany	374	368	409	439	497	58	13.2
Japan	420	481	522	538	546	8	1.6
Taiwan	197	177	271	235	252	17	7.2
United Kingdom	449	472	497	557	620	64	11.5
Korea	204	202	216	226	269	43	18.8
Hong Kong	275	318	368	429	570	141	32.9
Belgium	202	243	301	357	378	21	6.0
All other	2,835	2,887	3,121	3,433	3,899	467	13.6
Total	12,567	13,041	14,307	15,826	17,570	1,744	11.0
EU-15	1,829	1,889	2,150	2,314	2,573	259	11.2
EU-25	1,869	1,922	2,197	2,377	2,648	271	11.4
OPEC	153	136	166	210	242	32	15.3
Latin America	4,692	4,710	5,036	5,628	6,195	567	10.1
CBERA	483	535	489	557	645	87	15.7
Asia	1,901	2,060	2,453	2,580	3,003	423	16.4
Central and Eastern Europe	39	39	45	59	70	11	19.2
U.S. imports of merchandise for consumption:							
Canada	4,122	4,465	5,037	5,645	5,869	224	4.0
China	3,273	3,742	4,480	5,600	6,456	856	15.3
Mexico	1,021	1,105	1,387	1,633	1,783	150	9.2
Germany	661	769	822	883	989	106	12.0
Japan	701	768	887	936	894	-41	-4.4
Taiwan	836	872	940	982	1,032	50	5.1
United Kingdom	380	386	437	471	477	6	1.2
Korea	363	440	551	601	666	65	10.8
Hong Kong	153	178	205	214	173	-41	-19.2
Belgium	82	80	106	126	172	47	37.3
All other	1,867	2,176	2,491	2,904	3,227	323	11.1
Total	13,459	14,979	17,342	19,994	21,738	1,744	8.7
EU-15	1,933	2,136	2,364	2,554	2,783	230	9.0
EU-25	1,968	2,175	2,422	2,599	2,839	240	9.2
OPEC	89	98	117	151	191	40	26.5
Latin America	1,265	1,434	1,765	2,069	2,293	223	10.8
CBERA	124	170	178	197	234	37	18.6
Asia	5,730	6,501	7,672	9,178	10,200	1,023	11.1
Sub-Saharan Africa	18	26	28	34	34	1	2.0
Central and Eastern Europe	34	41	58	48	59	12	24.1

TABLE CH-6 Miscellaneous plastic products (CH041): U.S. exports of domestic merchandise, imports for consumption, and merchandise trade balance, by selected countries and country groups, 2002–06^a—*continued*

Item	2002	2003	2004	2005	2006	Change, 2006 from 2005		
						Absolute	Percent	
<i>Million dollars</i>								
U.S. merchandise trade balance:								
Canada	-555		-699	-1,054	-1,122	-975	147	13.1
China	-2,982		-3,388	-3,966	-5,053	-5,742	-689	-13.6
Mexico	2,731		2,668	2,718	2,911	3,147	237	8.1
Germany	-286		-401	-413	-444	-492	-48	-10.8
Japan	-281		-287	-365	-398	-348	50	12.5
Taiwan	-639		-695	-668	-747	-780	-33	-4.5
United Kingdom	69		87	60	86	144	58	68.0
Korea	-159		-238	-335	-375	-397	-22	-6.0
Hong Kong	123		141	163	215	397	182	84.9
Belgium	120		162	196	231	206	-25	-11.0
All other	968		712	630	529	673	144	27.2
Total	-892		-1,938	-3,035	-4,167	-4,168	^(b)	^(c)
EU-15	-103		-247	-214	-239	-210	29	12.2
EU-25	-99		-252	-224	-221	-191	30	13.7
OPEC	63		38	49	59	50	-8	-13.8
Latin America	3,426		3,275	3,271	3,559	3,902	344	9.7
CBERA	359		365	311	360	411	51	14.1
Asia	-3,829		-4,441	-5,218	-6,598	-7,197	-600	-9.1
Sub-Saharan Africa	56		43	46	47	71	24	52.1
Central and Eastern Europe	4		-2	-13	11	11	⁽²⁾	-2.1

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

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 2006.

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

^bLess than \$500,000.

^cLess than 0.05 percent.

especially in Asia.²² About \$14 billion (90 percent) of U.S. MPP exports were attributable to three major product areas: consumer goods sold at the retail level in department stores, pharmacies, and hardware stores; packaging articles, particularly plastic bags and sacks of many varieties; and sheet and film used for the packaging of products and other purposes.²³ In 2006, Mexico and Canada were the main markets for MPP, accounting for \$9.8 billion (56 percent) of U.S. MPP exports.²⁴ Asian countries, in the aggregate, accounted for \$3 billion (17 percent) of U.S. exports, followed by the EU-25 with \$2.6 billion (15 percent).²⁵

U.S. Imports

In 2006, U.S. imports of MPP increased by \$1.7 billion (9 percent) to a record \$21.7 billion, continuing the upward movement that has prevailed for several years. China and Canada were the principal sources of U.S. imports of MPP in 2006, together accounting for \$12.3 billion, or 57 percent. China accounted for 49 percent of the increase. Industry sources cite a number of reasons for the large increases in imports in 2006, including relatively strong consumer demand, the continued movement of U.S.-owned firms offshore,²⁶ high U.S. energy prices, outsourcing to low wage areas, and China's undervalued currency.^{27, 28} More than 70 percent of U.S. imports of MPP in 2006 consisted of a variety of consumer goods sold at retail and discount establishments, including packaging articles, particularly plastic bags and sacks of many varieties; sheet and film used for the packaging of products and other applications; various containers, boxes and crates; and tableware, kitchenware, and other household articles.²⁹

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²² Blaige, "How to Survive Consolidation," 6-7.

²³ USITC, *Dataweb*.

²⁴ Mexico is the only country with which the United States enjoys a significant trade surplus in MPP.

²⁵ Ying Sun, "U.S. Plastics Scrap Feeds Processors in China."

²⁶ Toloken, "*Eastek Plans to Add Design at China Plant*."

²⁷ Esposito, "*Paradigm Shift*," 1, 20.

²⁸ Frank Esposito, (Plastics News), telephone interview by Commission staff, March 30, 2006.

²⁹ USITC, *Dataweb*.

TABLE CH-7 Chemicals and related products : U.S. trade for industry/commodity groups and subgroups, 2002–06^a

USITC code ^b	Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
							Absolute	Percent
<i>Million dollars</i>								
CH007	Major primary olefins:							
	Exports	245	217	474	451	611	160	35.5
	Imports	3,397	4,144	5,908	7,774	8,062	288	3.7
	Trade balance	-3,152	-3,927	-5,434	-7,324	-7,451	-128	-1.7
CH008	Other olefins:							
	Exports	260	343	430	420	556	135	32.2
	Imports	113	127	158	261	442	181	69.4
	Trade balance	147	217	272	159	114	-46	-28.7
CH009	Primary aromatics:							
	Exports	148	368	782	548	375	-173	-31.6
	Imports	1,159	1,450	2,202	2,802	3,101	299	10.7
	Trade balance	-1,011	-1,082	-1,420	-2,254	-2,726	-472	-20.9
CH010	Organic commodity chemicals:							
	Exports	2,010	2,692	4,631	4,295	4,360	66	1.5
	Imports	1,111	1,319	1,997	2,398	2,736	338	14.1
	Trade balance	898	1,373	2,635	1,897	1,625	-272	-14.4
CH011	Organic specialty chemicals:							
	Exports	5,050	6,004	6,731	6,999	8,089	1,090	15.6
	Imports	6,781	6,675	6,852	7,744	7,981	237	3.1
	Trade balance	-1,731	-671	-121	-744	108	852	(°)
CH012	Certain organic chemicals:							
	Exports	7,668	8,857	11,283	11,991	14,263	2,271	18.9
	Imports	4,699	4,878	5,811	7,263	7,103	-159	-2.2
	Trade balance	2,969	3,979	5,472	4,729	7,159	2,430	51.4
CH013	Miscellaneous inorganic chemicals:							
	Exports	4,820	4,903	5,608	7,003	8,737	1,734	24.8
	Imports	4,948	5,038	5,714	6,626	7,310	684	10.3
	Trade balance	-128	-135	-106	377	1,426	1,049	278.5
CH014	Inorganic acids:							
	Exports	214	219	267	296	323	27	9.2
	Imports	246	229	337	362	415	53	14.7
	Trade balance	-32	-10	-70	-66	-91	-26	-39.5
CH015	Chlor-alkali chemicals:							
	Exports	851	897	953	1,269	1,479	211	16.6
	Imports	166	206	252	452	460	8	1.8
	Trade balance	685	691	701	817	1,020	203	24.8

See footnote(s) at end of table.

TABLE CH-7 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2002–06^a—*Continued*

USITC code ^b	Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
							Absolute	Percent
<i>Million dollars</i>								
CH016	Fertilizers:							
	Exports	2,184	2,429	2,718	3,005	3,014	9	0.3
	Imports	3,043	4,395	5,510	7,439	7,525	86	1.2
	Trade balance	-859	-1,966	-2,792	-4,434	-4,512	-77	-1.7
CH017	Paints, inks, and related items, and certain components thereof:							
	Exports	3,614	3,918	4,200	4,509	4,988	479	10.6
	Imports	1,996	2,078	2,241	2,598	2,825	226	8.7
	Trade balance	1,618	1,840	1,959	1,911	2,164	253	13.2
CH018	Synthetic organic pigments:							
	Exports	331	332	376	400	405	5	1.2
	Imports	319	333	368	396	411	15	3.9
	Trade balance	12	-1	8	5	-6	-10	(^c)
CH019	Synthetic dyes and azoic couplers:							
	Exports	249	226	287	283	304	21	7.5
	Imports	393	395	415	407	389	-18	-4.5
	Trade balance	-143	-169	-128	-125	-85	39	31.5
CH020	Synthetic tanning agents:							
	Exports	18	32	35	28	29	1	2.5
	Imports	7	8	8	8	7	(^d)	-3.5
	Trade balance	12	24	27	21	22	1	4.6
CH021	Natural tanning and dyeing materials:							
	Exports	27	26	44	77	67	-11	-13.6
	Imports	54	63	70	74	76	2	2.4
	Trade balance	-27	-36	-26	3	-9	-12	(^c)
CH022	Photographic chemicals and preparations:							
	Exports	522	475	435	460	512	52	11.3
	Imports	435	382	409	446	476	31	6.8
	Trade balance	87	93	26	14	36	22	154.8
CH023	Pesticide products and formulations:							
	Exports	2,028	2,316	2,674	2,708	3,105	396	14.6
	Imports	1,185	1,419	1,589	1,898	1,882	-16	-0.8
	Trade balance	842	897	1,085	811	1,223	412	50.9

See footnote(s) at end of table.

TABLE CH-7 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2002–06^a—*Continued*

USITC code ^b	Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
							Absolute	Percent
<i>Million dollars</i>								
CH024	Adhesives and glues:							
	Exports	588	600	702	807	911	104	12.9
	Imports	206	251	305	333	338	4	1.3
	Trade balance	382	349	397	473	573	100	21.0
CH025	Medicinal chemicals:							
	Exports	18,742	22,527	27,098	29,296	32,460	3,164	10.8
	Imports	40,699	49,284	52,677	56,104	65,218	9,115	16.2
	Trade balance	-21,957	-26,757	-25,578	-26,808	-32,758	-5,951	-22.2
CH026	Essential oils and other flavoring materials:							
	Exports	1,211	1,389	1,462	1,420	1,525	104	7.3
	Imports	786	1,754	2,540	3,019	3,089	70	2.3
	Trade balance	425	-365	-1,078	-1,598	-1,564	34	2.2
CH027	Perfumes, cosmetics, and toiletries:							
	Exports	3,160	3,435	3,900	4,418	5,018	600	13.6
	Imports	2,716	3,111	3,652	4,099	4,374	275	6.7
	Trade balance	444	324	248	319	643	324	101.6
CH028	Soaps, detergents, and surface-active agents:							
	Exports	2,282	2,524	2,929	3,192	3,608	416	13.0
	Imports	1,273	1,369	1,568	1,680	1,835	154	9.2
	Trade balance	1,009	1,156	1,361	1,511	1,773	262	17.3
CH029	Miscellaneous chemicals and specialties:							
	Exports	2,901	3,149	3,444	3,708	4,249	541	14.6
	Imports	1,957	2,150	2,497	2,907	3,249	342	11.8
	Trade balance	944	999	947	801	1,000	198	24.7
CH030	Explosives, propellant powders, and related items:							
	Exports	286	385	472	476	542	67	14.0
	Imports	302	353	402	459	534	75	16.3
	Trade balance	-17	33	70	16	8	-8	-50.5
CH031	Polyethylene resins in primary forms:							
	Exports	2,590	2,817	3,698	4,448	5,103	655	14.7
	Imports	1,651	2,158	2,505	3,227	3,712	486	15.0
	Trade balance	938	658	1,192	1,221	1,391	170	13.9

See footnote(s) at end of table.

TABLE CH-7 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2002–06^a—Continued

USITC code ^b	Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
							Absolute	Percent
<i>Million dollars</i>								
CH032	Polypropylene resins in primary forms:							
	Exports	1,188	1,416	1,767	2,202	2,648	446	20.2
	Imports	259	298	359	415	395	-20	-4.8
	Trade balance	929	1,118	1,408	1,787	2,253	466	26.1
CH033	Polyvinyl chloride resins in primary forms:							
	Exports	781	837	1,044	1,112	1,323	211	19.0
	Imports	247	287	383	593	546	-47	-7.9
	Trade balance	534	550	661	519	777	259	49.9
CH034	Styrene polymers in primary forms:							
	Exports	752	783	929	1,039	1,322	283	27.2
	Imports	580	628	833	1,153	1,102	-52	-4.5
	Trade balance	172	155	96	-114	220	334	(^c)
CH035	Saturated polyester resins:							
	Exports	712	814	1,014	1,059	1,159	101	9.5
	Imports	537	656	728	1,199	1,329	130	10.8
	Trade balance	175	158	285	-141	-170	-29	-20.6
CH036	Other plastics in primary forms:							
	Exports	7,189	7,694	9,106	10,531	11,746	1,215	11.5
	Imports	2,823	3,022	3,488	4,050	4,244	194	4.8
	Trade balance	4,366	4,673	5,618	6,481	7,502	1,021	15.8
CH037	Styrene-butadiene rubber in primary forms:							
	Exports	273	324	374	505	596	91	18.1
	Imports	232	231	235	415	380	-34	-8.3
	Trade balance	41	93	139	90	215	126	140.0
CH038	Other synthetic rubber:							
	Exports	1,361	1,478	1,801	2,160	2,524	364	16.9
	Imports	725	741	858	1,117	1,140	23	2.0
	Trade balance	636	737	943	1,043	1,384	342	32.8
CH039	Pneumatic tires and tubes (new):							
	Exports	2,233	2,212	2,550	2,810	3,011	201	7.2
	Imports	4,694	5,170	6,163	7,583	8,522	939	12.4
	Trade balance	-2,460	-2,957	-3,613	-4,773	-5,511	-738	-15.5
CH040	Other tires:							
	Exports	94	98	108	116	152	36	31.2
	Imports	123	137	158	203	220	17	8.4
	Trade balance	-29	-39	-50	-87	-68	19	21.9

See footnote(s) at end of table.

TABLE CH-7 Chemicals and related products: U.S. trade for industry/commodity groups and subgroups, 2002–06^a—Continued

USITC code ^b	Industry/commodity group	2002	2003	2004	2005	2006	Change, 2006 from 2005	
							Absolute	Percent
<i>Million dollars</i>								
CH041	Miscellaneous plastic products:							
	Exports	12,567	13,041	14,307	15,826	17,570	1,744	11.0
	Imports	13,459	14,979	17,342	19,994	21,738	1,744	8.7
	Trade balance	-892	-1,938	-3,035	-4,167	-4,168	(^d)	(^e)
CH042	Miscellaneous rubber products:							
	Exports	2,437	2,400	2,623	2,743	3,055	312	11.4
	Imports	2,752	3,040	3,568	3,884	4,074	190	4.9
	Trade balance	-315	-641	-945	-1,141	-1,019	122	10.7
CH043	Gelatin:							
	Exports	75	92	89	88	76	-12	-13.3
	Imports	96	115	113	116	138	22	18.8
	Trade balance	-21	-23	-24	-28	-62	-34	-118.2
CH044	Natural rubber:							
	Exports	40	59	37	34	33	-1	-3.1
	Imports	751	1,047	1,466	1,552	2,029	478	30.8
	Trade balance	-712	-988	-1,429	-1,517	-1,996	-479	-31.6

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

Note.—Calculations based on unrounded data.

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

^bThis 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

^cNot meaningful for purposes of comparison.

^dLess than \$500,000.

^eLess than 0.05 percent.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH007	Major primary olefins:						
	Number of establishments	37	37	37	35	33	-5.7
	Employees (thousands)	5.0	5.0	5.0	5.0	4.0	-20.0
	Capacity utilization (percent)	95	95	97	91	95	4.4
	U.S. shipments (million dollars)	19,000	19,500	21,800	20,500	22,500	9.8
	U.S. exports (million dollars)	245	217	474	451	611	35.5
	U.S. imports (million dollars)	3,397	4,144	5,908	7,774	8,062	3.7
	Apparent U.S. consumption (million dollars)	22,152	23,427	27,234	27,824	29,951	7.6
	Trade balance (million dollars)	-3,152	-3,927	-5,434	-7,324	-7,451	-1.7
	Ratio of imports to consumption (percent)	15.3	17.7	21.7	27.9	26.9	-3.7
	Ratio of exports to shipments (percent)	1.3	1.1	2.2	2.2	2.7	23.4
CH008	Other olefins:						
	Number of establishments	23	23	23	21	19	-9.5
	Employees (thousands)	1.0	1.0	1.0	1.0	1.0	0.0
	Capacity utilization (percent)	97	97	98	90	95	5.6
	U.S. shipments (million dollars)	1,650	1,800	2,000	1,850	2,100	13.5
	U.S. exports (million dollars)	260	343	430	420	556	32.2
	U.S. imports (million dollars)	113	127	158	261	442	69.4
	Apparent U.S. consumption (million dollars)	1,503	1,583	1,728	1,691	1,986	17.5
	Trade balance (million dollars)	147	217	272	159	114	-28.7
	Ratio of imports to consumption (percent)	7.5	8.0	9.1	15.4	22.3	44.2
	Ratio of exports to shipments (percent)	15.7	19.1	21.5	22.7	26.5	16.5
CH009	Primary aromatics:						
	Number of establishments	31	31	31	29	27	-6.9
	Employees (thousands)	2.0	2.0	2.0	2.0	2.0	0.0
	Capacity utilization (percent)	85	85	85	75	80	6.7
	U.S. shipments (million dollars)	5,000	5,300	6,890	5,900	6,100	3.4
	U.S. exports (million dollars)	148	368	782	548	375	-31.6
	U.S. imports (million dollars)	1,159	1,450	2,202	2,802	3,101	10.7
	Apparent U.S. consumption (million dollars)	6,011	6,382	8,310	8,154	8,826	8.2
	Trade balance (million dollars)	-1,011	-1,082	-1,420	-2,254	-2,726	-20.9
	Ratio of imports to consumption (percent)	19.3	22.7	26.5	34.4	35.1	2.2
	Ratio of exports to shipments (percent)	3.0	6.9	11.3	9.3	6.1	-33.8
CH014	Inorganic acids:						
	Number of establishments	(a)	(a)	(a)	(a)	(a)	(a)
	Employees (thousands)	(a)	(a)	(a)	(a)	(a)	(a)
	Capacity utilization (percent)	(a)	(a)	(a)	(a)	(a)	(a)
	U.S. shipments (million dollars)	2,201	2,557	(a)	(a)	(a)	(a)
	U.S. exports (million dollars)	214	219	267	296	323	9.2
	U.S. imports (million dollars)	246	229	337	362	415	14.7
	Apparent U.S. consumption (million dollars)	2,233	2,567	(a)	(a)	(a)	(a)
	Trade balance (million dollars)	-32	-10	-70	-66	-91	-39.5
	Ratio of imports to consumption (percent)	11.0	8.9	(a)	(a)	(a)	(a)
	Ratio of exports to shipments (percent)	9.7	8.6	(a)	(a)	(a)	(a)

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH015	Chlor-alkali chemicals:						
	Number of establishments	(a)	(a)	(a)	(a)	(a)	(a)
	Employees (thousands)	(a)	(a)	(a)	(a)	(a)	(a)
	Capacity utilization (percent)	(a)	(a)	(a)	(a)	(a)	(a)
	U.S. shipments (million dollars)	(a)	(a)	(a)	(a)	(a)	(a)
	U.S. exports (million dollars)	851	897	953	1,269	1,479	16.6
	U.S. imports (million dollars)	166	206	252	452	460	1.8
	Apparent U.S. consumption (million dollars)	(a)	(a)	(a)	(a)	(a)	(a)
	Trade balance (million dollars)	685	691	701	817	1,020	24.8
	Ratio of imports to consumption (percent)	(a)	(a)	(a)	(a)	(a)	(a)
	Ratio of exports to shipments (percent)	(a)	(a)	(a)	(a)	(a)	(a)
CH016	Fertilizers:						
	Number of establishments	350	350	348	345	345	0.0
	Employees (thousands)	20.0	20.0	20.0	19.0	18.0	-5.3
	Capacity utilization (percent)	90	81	89	89	86	-3.4
	U.S. shipments (million dollars)	10,200	11,300	12,900	13,800	14,500	5.1
	U.S. exports (million dollars)	2,184	2,429	2,718	3,005	3,014	0.3
	U.S. imports (million dollars)	3,043	4,395	5,510	7,439	7,525	1.2
	Apparent U.S. consumption (million dollars)	11,059	13,266	15,692	18,234	19,012	4.3
	Trade balance (million dollars)	-859	-1,966	-2,792	-4,434	-4,512	-1.7
	Ratio of imports to consumption (percent)	27.5	33.1	35.1	40.8	39.6	-3.0
	Ratio of exports to shipments (percent)	21.4	21.5	21.1	21.8	20.8	-4.5
CH017	Paints, inks, and related items, and certain components thereof:						
	Number of establishments	1,450	1,445	1,450	1,437	1,443	0.4
	Employees (thousands)	15.0	16.0	16.0	16.0	16.0	0.0
	Capacity utilization (percent)	85	86	85	87	86	-1.1
	U.S. shipments (million dollars)	26,000	26,600	28,000	29,400	31,100	5.8
	U.S. exports (million dollars)	3,614	3,918	4,200	4,509	4,988	10.6
	U.S. imports (million dollars)	1,996	2,078	2,241	2,598	2,825	8.7
	Apparent U.S. consumption (million dollars)	24,382	24,760	26,041	27,489	28,936	5.3
	Trade balance (million dollars)	1,618	1,840	1,959	1,911	2,164	13.2
	Ratio of imports to consumption (percent)	8.2	8.4	8.6	9.5	9.8	3.3
	Ratio of exports to shipments (percent)	13.9	14.7	15.0	15.3	16.0	4.6
CH018	Synthetic organic pigments:						
	Number of establishments	32	32	32	8	8	0.0
	Employees (thousands)	6.0	6.0	6.0	6.0	6.0	0.0
	Capacity utilization (percent)	80	75	80	85	85	0.0
	U.S. shipments (million dollars)	1,110	1,100	1,210	1,250	1,225	-2.0
	U.S. exports (million dollars)	331	332	376	400	405	1.2
	U.S. imports (million dollars)	319	333	368	396	411	3.9
	Apparent U.S. consumption (million dollars)	1,098	1,101	1,202	1,245	1,231	-1.2
	Trade balance (million dollars)	12	-1	8	5	-6	(b)
	Ratio of imports to consumption (percent)	29.0	30.3	30.6	31.8	33.4	5.1
	Ratio of exports to shipments (percent)	29.8	30.2	31.1	32.0	33.1	3.3

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH019	Synthetic dyes and azoic couplers:						
	Number of establishments	32	32	32	13	13	0.0
	Employees (thousands)	8.0	8.0	8.0	8.0	8.0	0.0
	Capacity utilization (percent)	80	75	80	80	80	0.0
	U.S. shipments (million dollars)	1,320	1,320	1,450	1,500	1,450	-3.3
	U.S. exports (million dollars)	249	226	287	283	304	7.5
	U.S. imports (million dollars)	393	395	415	407	389	-4.5
	Apparent U.S. consumption (million dollars)	1,463	1,489	1,578	1,625	1,535	-5.5
	Trade balance (million dollars)	-143	-169	-128	-125	-85	31.5
	Ratio of imports to consumption (percent)	26.8	26.5	26.3	25.1	25.3	1.1
	Ratio of exports to shipments (percent)	18.9	17.1	19.8	18.8	21.0	11.2
CH020	Synthetic tanning agents:						
	Number of establishments	5	5	5	5	5	0.0
	Employees (thousands)	1.0	1.0	1.0	1.0	1.0	0.0
	Capacity utilization (percent)	80	75	80	80	85	6.3
	U.S. shipments (million dollars)	24	42	46	46	46	0.0
	U.S. exports (million dollars)	18	32	35	28	29	2.5
	U.S. imports (million dollars)	7	8	8	8	7	-3.5
	Apparent U.S. consumption (million dollars)	12	18	19	25	24	-3.9
	Trade balance (million dollars)	12	24	27	21	22	4.6
	Ratio of imports to consumption (percent)	53.6	46.6	42.2	30.0	30.1	0.3
	Ratio of exports to shipments (percent)	76.5	77.1	76.4	61.7	63.3	2.5
CH021	Natural tanning and dyeing materials:						
	Number of establishments	10	10	10	10	10	0.0
	Employees (thousands)	1.0	1.0	1.0	1.0	1.0	0.0
	Capacity utilization (percent)	80	75	80	80	85	6.3
	U.S. shipments (million dollars)	30	35	45	45	45	0.0
	U.S. exports (million dollars)	27	26	44	77	67	-13.6
	U.S. imports (million dollars)	54	63	70	74	76	2.4
	Apparent U.S. consumption (million dollars)	57	71	71	42	54	29.6
	Trade balance (million dollars)	-27	-36	-26	3	-9	^(b)
	Ratio of imports to consumption (percent)	95.4	87.9	98.7	^c 177.7	^c 140.4	-21.0
	Ratio of exports to shipments (percent)	91.3	75.4	97.9	^c 172.1	^c 148.7	-13.6
CH022	Photographic chemicals and preparations:						
	Number of establishments	5	5	5	5	5	0.0
	Employees (thousands)	1.0	1.0	1.0	1.0	1.0	0.0
	Capacity utilization (percent)	80	75	75	75	75	0.0
	U.S. shipments (million dollars)	^(a)	^(a)	^(a)	^(a)	^(a)	^(a)
	U.S. exports (million dollars)	522	475	435	460	512	11.3
	U.S. imports (million dollars)	435	382	409	446	476	6.8
	Apparent U.S. consumption (million dollars)	^(a)	^(a)	^(a)	^(a)	^(a)	^(a)
	Trade balance (million dollars)	87	93	26	14	36	154.8
	Ratio of imports to consumption (percent)	^(a)	^(a)	^(a)	^(a)	^(a)	^(a)
	Ratio of exports to shipments (percent)	^(a)	^(a)	^(a)	^(a)	^(a)	^(a)

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH023	Pesticide products and formulations:						
	Number of establishments	55	43	43	20	20	0.0
	Employees (thousands)	14.0	14.0	14.0	14.0	14.0	0.0
	Capacity utilization (percent)	85	80	85	85	85	0.0
	U.S. shipments (million dollars)	9,350	9,100	9,550	9,550	9,550	0.0
	U.S. exports (million dollars)	2,028	2,316	2,674	2,708	3,105	14.6
	U.S. imports (million dollars)	1,185	1,419	1,589	1,898	1,882	-0.8
	Apparent U.S. consumption (million dollars)	8,508	8,203	8,465	8,739	8,327	-4.7
	Trade balance (million dollars)	842	897	1,085	811	1,223	50.9
	Ratio of imports to consumption (percent)	13.9	17.3	18.8	21.7	22.6	4.1
	Ratio of exports to shipments (percent)	21.7	25.5	28.0	28.4	32.5	14.6
CH024	Adhesives and glues:						
	Number of establishments	585	564	543	522	520	-0.4
	Employees (thousands)	20.0	21.0	21.0	21.0	21.0	0.0
	Capacity utilization (percent)	80	80	80	80	80	0.0
	U.S. shipments (million dollars)	7,400	7,900	8,200	8,900	9,200	3.4
	U.S. exports (million dollars)	588	600	702	807	911	12.9
	U.S. imports (million dollars)	206	251	305	333	338	1.3
	Apparent U.S. consumption (million dollars)	7,018	7,551	7,803	8,427	8,627	2.4
	Trade balance (million dollars)	382	349	397	473	573	21.0
	Ratio of imports to consumption (percent)	2.9	3.3	3.9	4.0	3.9	-1.1
	Ratio of exports to shipments (percent)	7.9	7.6	8.6	9.1	9.9	9.2
CH025	Medicinal chemicals:						
	Number of establishments	715	715	715	715	710	-0.7
	Employees (thousands)	208.0	208.0	212.0	210.0	209.0	-0.5
	Capacity utilization (percent)	85	75	85	88	89	1.1
	U.S. shipments (million dollars)	107,000	107,010	113,500	113,850	119,550	5.0
	U.S. exports (million dollars)	18,742	22,527	27,098	29,296	32,460	10.8
	U.S. imports (million dollars)	40,699	49,284	52,677	56,104	65,218	16.2
	Apparent U.S. consumption (million dollars)	128,957	133,767	139,078	140,658	152,308	8.3
	Trade balance (million dollars)	-21,957	-26,757	-25,578	-26,808	-32,758	-22.2
	Ratio of imports to consumption (percent)	31.6	36.8	37.9	39.9	42.8	7.4
	Ratio of exports to shipments (percent)	17.5	21.1	23.9	25.7	27.2	5.5
CH026	Essential oils and other flavoring materials:						
	Number of establishments	53	53	53	53	53	0.0
	Employees (thousands)	50.0	50.0	50.0	48.0	51.0	6.3
	Capacity utilization (percent)	82	82	79	75	75	0.0
	U.S. shipments (million dollars)	3,700	3,900	4,100	4,200	4,600	9.5
	U.S. exports (million dollars)	1,211	1,389	1,462	1,420	1,525	7.3
	U.S. imports (million dollars)	786	1,754	2,540	3,019	3,089	2.3
	Apparent U.S. consumption (million dollars)	3,275	4,265	5,178	5,798	6,164	6.3
	Trade balance (million dollars)	425	-365	-1,078	-1,598	-1,564	2.2
	Ratio of imports to consumption (percent)	24.0	41.1	49.1	52.1	50.1	-3.8
	Ratio of exports to shipments (percent)	32.7	35.6	35.7	33.8	33.1	-2.0

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH027	Perfumes, cosmetics, and toiletries:						
	Number of establishments	725	720	710	700	700	0.0
	Employees (thousands)	46.0	48.0	46.0	45.0	45.0	0.0
	Capacity utilization (percent)	68	59	67	64	70	9.4
	U.S. shipments (million dollars)	30,850	30,300	34,000	37,800	40,000	5.8
	U.S. exports (million dollars)	3,160	3,435	3,900	4,418	5,018	13.6
	U.S. imports (million dollars)	2,716	3,111	3,652	4,099	4,374	6.7
	Apparent U.S. consumption (million dollars)	30,406	29,976	33,752	37,481	39,357	5.0
	Trade balance (million dollars)	444	324	248	319	643	101.6
	Ratio of imports to consumption (percent)	8.9	10.4	10.8	10.9	11.1	1.6
	Ratio of exports to shipments (percent)	10.2	11.3	11.5	11.7	12.5	7.3
CH028	Soaps, detergents, and surface-active agents:						
	Number of establishments	822	825	815	810	800	-1.2
	Employees (thousands)	67.0	62.0	54.0	54.0	53.0	-1.9
	Capacity utilization (percent)	87	85	88	87	89	2.3
	U.S. shipments (million dollars)	30,600	33,000	35,900	39,600	41,000	3.5
	U.S. exports (million dollars)	2,282	2,524	2,929	3,192	3,608	13.0
	U.S. imports (million dollars)	1,273	1,369	1,568	1,680	1,835	9.2
	Apparent U.S. consumption (million dollars)	29,591	31,844	34,539	38,089	39,227	3.0
	Trade balance (million dollars)	1,009	1,156	1,361	1,511	1,773	17.3
	Ratio of imports to consumption (percent)	4.3	4.3	4.5	4.4	4.7	6.0
	Ratio of exports to shipments (percent)	7.5	7.6	8.2	8.1	8.8	9.2
CH030	Explosives, propellant powders, and related items:						
	Number of establishments	118	115	115	112	113	0.9
	Employees (thousands)	13.0	13.0	13.0	13.0	13.0	0.0
	Capacity utilization (percent)	85	85	85	86	87	1.2
	U.S. shipments (million dollars)	2,200	2,285	2,400	2,590	2,605	0.6
	U.S. exports (million dollars)	286	385	472	476	542	14.0
	U.S. imports (million dollars)	302	353	402	459	534	16.3
	Apparent U.S. consumption (million dollars)	2,217	2,252	2,330	2,574	2,597	0.9
	Trade balance (million dollars)	-17	33	70	16	8	-50.5
	Ratio of imports to consumption (percent)	13.6	15.7	17.2	17.8	20.6	15.3
	Ratio of exports to shipments (percent)	13.0	16.9	19.7	18.4	20.8	13.4
CH031	Polyethylene resins in primary forms:						
	Number of establishments	46	46	46	46	46	0.0
	Employees (thousands)	22.0	22.0	22.0	22.0	22.0	0.0
	Capacity utilization (percent)	87	85	94	86	90	4.7
	U.S. shipments (million dollars)	9,000	10,500	13,600	15,600	17,900	14.7
	U.S. exports (million dollars)	2,590	2,817	3,698	4,448	5,103	14.7
	U.S. imports (million dollars)	1,651	2,158	2,505	3,227	3,712	15.0
	Apparent U.S. consumption (million dollars)	8,062	9,842	12,408	14,379	16,509	14.8
	Trade balance (million dollars)	938	658	1,192	1,221	1,391	13.9
	Ratio of imports to consumption (percent)	20.5	21.9	20.2	22.4	22.5	0.2
	Ratio of exports to shipments (percent)	28.8	26.8	27.2	28.5	28.5	-0.0

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH032	Polypropylene resins in primary forms:						
	Number of establishments	28	28	29	29	29	0.0
	Employees (thousands)	6.0	6.0	6.0	6.0	6.0	0.0
	Capacity utilization (percent)	93	93	95	89	90	1.1
	U.S. shipments (million dollars)	4,500	5,000	6,200	7,200	8,100	12.5
	U.S. exports (million dollars)	1,188	1,416	1,767	2,202	2,648	20.2
	U.S. imports (million dollars)	259	298	359	415	395	-4.8
	Apparent U.S. consumption (million dollars)	3,571	3,882	4,792	5,413	5,847	8.0
	Trade balance (million dollars)	929	1,118	1,408	1,787	2,253	26.1
	Ratio of imports to consumption (percent)	7.2	7.7	7.5	7.7	6.8	-11.9
	Ratio of exports to shipments (percent)	26.4	28.3	28.5	30.6	32.7	6.9
CH033	Polyvinyl chloride resins in primary forms:						
	Number of establishments	27	27	27	27	27	0.0
	Employees (thousands)	7.0	7.0	7.0	7.0	7.0	0.0
	Capacity utilization (percent)	91	88	95	90	88	-2.2
	U.S. shipments (million dollars)	4,000	4,500	6,200	6,300	6,200	-1.6
	U.S. exports (million dollars)	781	837	1,044	1,112	1,323	19.0
	U.S. imports (million dollars)	247	287	383	593	546	-7.9
	Apparent U.S. consumption (million dollars)	3,466	3,950	5,539	5,781	5,423	-6.2
	Trade balance (million dollars)	534	550	661	519	777	49.9
	Ratio of imports to consumption (percent)	7.1	7.3	6.9	10.3	10.1	-1.8
	Ratio of exports to shipments (percent)	19.5	18.6	16.8	17.7	21.3	20.9
CH034	Styrene polymers in primary forms:						
	Number of establishments	71	71	71	71	71	0.0
	Employees (thousands)	12.0	12.0	12.0	12.0	12.0	0.0
	Capacity utilization (percent)	82	82	86	84	84	0.0
	U.S. shipments (million dollars)	5,700	5,900	7,400	8,300	8,900	7.2
	U.S. exports (million dollars)	752	783	929	1,039	1,322	27.2
	U.S. imports (million dollars)	580	628	833	1,153	1,102	-4.5
	Apparent U.S. consumption (million dollars)	5,528	5,745	7,304	8,414	8,680	3.2
	Trade balance (million dollars)	172	155	96	-114	220	(^b)
	Ratio of imports to consumption (percent)	10.5	10.9	11.4	13.7	12.7	-7.4
	Ratio of exports to shipments (percent)	13.2	13.3	12.6	12.5	14.9	18.6
CH035	Saturated polyester resins:						
	Number of establishments	54	55	55	55	55	0.0
	Employees (thousands)	7.0	7.0	7.0	7.0	7.0	0.0
	Capacity utilization (percent)	85	85	90	90	90	0.0
	U.S. shipments (million dollars)	5,500	5,800	6,800	7,800	8,700	11.5
	U.S. exports (million dollars)	712	814	1,014	1,059	1,159	9.5
	U.S. imports (million dollars)	537	656	728	1,199	1,329	10.8
	Apparent U.S. consumption (million dollars)	5,325	5,642	6,515	7,941	8,870	11.7
	Trade balance (million dollars)	175	158	285	-141	-170	-20.6
	Ratio of imports to consumption (percent)	10.1	11.6	11.2	15.1	15.0	-0.8
	Ratio of exports to shipments (percent)	13.0	14.0	14.9	13.6	13.3	-1.8

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH037	Styrene-butadiene rubber in primary forms:						
	Number of establishments	11	11	11	11	11	0.0
	Employees (thousands)	5.0	5.0	5.0	5.0	5.0	0.0
	Capacity utilization (percent)	92	93	94	95	95	0.0
	U.S. shipments (million dollars)	1,490	1,600	1,700	1,900	2,000	5.3
	U.S. exports (million dollars)	273	324	374	505	596	18.1
	U.S. imports (million dollars)	232	231	235	415	380	-8.3
	Apparent U.S. consumption (million dollars)	1,449	1,507	1,561	1,810	1,785	-1.4
	Trade balance (million dollars)	41	93	139	90	215	140.0
	Ratio of imports to consumption (percent)	16.0	15.4	15.1	22.9	21.3	-7.0
	Ratio of exports to shipments (percent)	18.3	20.3	22.0	26.6	29.8	12.2
CH038	Other synthetic rubber:						
	Number of establishments	34	(^a)	34	34	34	0.0
	Employees (thousands)	11.0	(^a)	11.0	11.0	11.0	0.0
	Capacity utilization (percent)	83	(^a)	85	86	88	2.3
	U.S. shipments (million dollars)	4,300	(^a)	4,600	4,800	5,300	10.4
	U.S. exports (million dollars)	1,361	1,478	1,801	2,160	2,524	16.9
	U.S. imports (million dollars)	725	741	858	1,117	1,140	2.0
	Apparent U.S. consumption (million dollars)	3,664	(^a)	3,657	3,757	3,916	4.2
	Trade balance (million dollars)	636	737	943	1,043	1,384	32.8
	Ratio of imports to consumption (percent)	19.8	(^a)	23.5	29.7	29.1	-2.1
	Ratio of exports to shipments (percent)	31.7	(^a)	39.1	45.0	47.6	5.8
CH039	Pneumatic tires and tubes (new):						
	Number of establishments	42	42	42	42	42	0.0
	Employees (thousands)	64.0	64.0	64.0	64.0	64.0	0.0
	Capacity utilization (percent)	90	92	92	92	93	1.1
	U.S. shipments (million dollars)	13,500	14,000	14,500	14,700	15,000	2.0
	U.S. exports (million dollars)	2,233	2,212	2,550	2,810	3,011	7.2
	U.S. imports (million dollars)	4,694	5,170	6,163	7,583	8,522	12.4
	Apparent U.S. consumption (million dollars)	15,960	16,957	18,113	19,473	20,511	5.3
	Trade balance (million dollars)	-2,460	-2,957	-3,613	-4,773	-5,511	-15.5
	Ratio of imports to consumption (percent)	29.4	30.5	34.0	38.9	41.5	6.7
	Ratio of exports to shipments (percent)	16.5	15.8	17.6	19.1	20.1	5.0
CH040	Other tires:						
	Number of establishments	1,400	1,400	1,400	1,400	1,400	0.0
	Employees (thousands)	8.0	8.0	8.0	8.0	8.0	0.0
	Capacity utilization (percent)	90	90	90	90	85	-5.6
	U.S. shipments (million dollars)	1,100	1,100	1,100	1,100	1,000	-9.1
	U.S. exports (million dollars)	94	98	108	116	152	31.2
	U.S. imports (million dollars)	123	137	158	203	220	8.4
	Apparent U.S. consumption (million dollars)	1,129	1,139	1,150	1,187	1,068	-10.0
	Trade balance (million dollars)	-29	-39	-50	-87	-68	21.9
	Ratio of imports to consumption (percent)	10.9	12.0	13.7	17.1	20.6	20.5
	Ratio of exports to shipments (percent)	8.6	8.9	9.8	10.6	15.2	44.3

See footnote(s) at end of table.

TABLE CH-8 Chemicals and related products sector: Profile of U.S. industry and market, by industry/commodity groups and subgroups, 2002–06—*Continued*

USITC code	Industry/commodity group	2002	2003	2004	2005	2006	Percent change, 2006 from 2005
CH044	Natural rubber:						
	Number of establishments	(a)	(a)	(a)	(a)	(a)	(a)
	Employees (thousands)	(a)	(a)	(a)	(a)	(a)	(a)
	Capacity utilization (percent)	(a)	(a)	(a)	(a)	(a)	(a)
	U.S. shipments (million dollars)	(a)	(a)	(a)	(a)	(a)	(a)
	U.S. exports (million dollars)	40	59	37	34	33	-3.1
	U.S. imports (million dollars)	751	1,047	1,466	1,552	2,029	30.8
	Apparent U.S. consumption (million dollars)	(a)	(a)	(a)	(a)	(a)	(a)
	Trade balance (million dollars)	-712	-988	-1,429	-1,517	-1,996	-31.6
	Ratio of imports to consumption (percent)	(a)	(a)	(a)	(a)	(a)	(a)
	Ratio of exports to shipments (percent)	(a)	(a)	(a)	(a)	(a)	(a)

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.

Note.—Calculations based on unrounded data.

^aNot available.

^bNot meaningful.

^cInventory changes, for which data are not available, likely account for ratios that exceed 100 percent.